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From Gavel to Grid: Reimagining Civil Justice in the Digital Era



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FROM GAVEL TO GRID: REIMAGINING CIVIL JUSTICE IN THE DIGITAL ERA

Seyedeh Sajedeh Salehi
Postdoctoral Researcher, University of Ljubljana (EUTOPIA-SIF Fellowship)*

Gina Gioia
Professor of Civil Procedure Law, University of Tuscia

Jordi Nieva Fenoll
Professor of Procedural Law, University of Barcelona

1. BACKGROUND

Civil justice systems across the world stand at the threshold of an unprecedented and significant transformation in our time. The progressive integration of digital technologies into judicial institutions has accelerated into a structural shift of considerable proportions, reshaping not only the administrative architecture of courts but also the processes through which rights are adjudicated and disputes are resolved. What began as a transition from paper-based dockets to electronic filing portals, from manual administration to digital case management systems, and from in-person hearings to video-conferenced court sessions, has evolved into something far more consequential: the prospect of artificial intelligence (AI) assuming an active role within the judicial process itself[1].

* This research was supported by the EUTOPIA Science and Innovation Fellowship Programme and funded by the European Union Horizon 2020 programme under the Marie Skłodowska-Curie grant agreement No 945380. This contribution reflects only the author's view and the Research Executive Agency is not responsible for any use that may be made of the information it contains.

[1] For more information on the application of AI in civil courts see Salehi, S. S., & Gioia, G. Beyond Wooden Desks: The Impact of Artificial Intelligence on Reshaping the Role of Court Staff. In A. Uzelac,

The emergence of AI marks a significant qualitative shift in the ambitions to integrate technology within civil justice systems. Whereas previous digital advancements in civil justice functioned primarily as instruments of administrative facilitation, AI is positioned as a participant in the judicial process itself. This participatory role manifests through capabilities encompassing outcome prediction, automated drafting of procedural documents, evidence evaluation, and decision-support functions[2]. This transition from technology as a facilitative instrument to technology as a potential actor within adjudication raises questions of a fundamentally different nature, engaging the constitutional foundations of civil procedure, the institutional identity of courts, and the rights of individuals who seek judicial redress.

The integration of AI into civil justice is frequently presented as a structural remedy for a matrix of systemic pressures confronting contemporary judicial institutions[3]. These include court backlogs—caused in significant part by the proliferation of low-value claims arising from malpractices on digital market platforms—as well as escalating judiciary costs and legal representation fees that disproportionately burden self-represented litigants and growing public expectations for more expeditious legal proceedings[4]. In this framing, AI appears as a solution capable of delivering efficiency gains that conventional procedural reform has struggled to achieve.

Despite its promise, efficiency must be weighed against a series of serious legal and ethical concerns that cannot be dismissed[5]. The deployment of AI in civil justice systems carries inherent risks: the undermining of procedural safeguards, the perpetuation of algorithmic bias, and the absence of transparency in automated reasoning each challenge the principle of fairness that lies at the heart of any legitimate judicial process[6]. These are fundamental questions situated at the core of civil justice's institutional integrity, and ad-

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& S. Voet (Eds.), *The Heroes of the Judicial Periphery: Court Experts, Court Clerks, and Other Actors in the Shadows* (1st ed., pp. 358-376). Hart Publishing.

[2] See specially Barysė, D., & Sarel, R. (2023). Algorithms in the court: does it matter which part of the judicial decision-making is automated?. *Artificial Intelligence and Law*, 1 — 30. *https://doi.org/10.1007/s10506—022-09343-6* accessed 16 June 2026.

[3] Liu, H. Y. (2018). The power structure of artificial intelligence. *Law, Innovation and Technology*, *10*(2), 197-229, 14; See also Reiling, A., & McCarthy, J. (2020). Courts and Artificial Intelligence. *International Journal for Court Administration, 11*. *https://doi.org/10.36745/ijca.343* accessed 15 June 2026.

[4] See Giacalone, M., & Salehi, S. (2022). Small claims and the pursuit of (digital) justice: a tiered online dispute resolution perspective. *Revista Ítalo-española de Derecho procesal*, (1), 181-213.

[5] See specially Davies, B. (2025). Ethics in artificial intelligence and alternative dispute resolution: Generating AI/human reviewed ethical guidelines for ADR practitioners and the legal profession. *UMass Law Review*, *20*(2), 149-190; Donoghue, J. (2017). The rise of digital justice: Courtroom technology, public participation and access to justice. *The Modern Law Review*, *80*(6), 995-1025; De La Osa, D. S. U., & Remolina, N. (2024). Artificial intelligence at the bench: Legal and ethical challenges of informing—or misinforming—judicial decision-making through generative AI. *Data & Policy, 6*. *https://doi.org/10.1017/dap.2024.53* accessed 16 June 2026.

[6] Borgesano, F., De Maio, A., Laghi, P., & Musmanno, R. (2025). Artificial intelligence and justice: a systematic literature review and future research perspectives on Justice 5.0. *European Journal of Innovation Management*. *https://doi.org/10.1108/ejim-01-2025-0117* accessed 15 June 2026.

dressing them demands the kind of rigorous, cross-jurisdictional scholarly debate that this Special Issue seeks to provide.

2. THE STATE OF THE FIELD: SCHOLARSHIP AT THE CROSSROADS OF TECHNOLOGY AND CIVIL JUSTICE

Scholarly engagement with the digitalisation of civil justice has grown considerably in the past two decades, evolving from early discussions centred on modernising court infrastructure. Over time, technology-driven reforms shifted toward more complex analyses of the constitutional and institutional implications of digitalisation within civil justice systems[7]. The first generation of scholarship in this field was largely descriptive and comparative in orientation, mapping the adoption of electronic filing systems, digital case management platforms, and online dispute resolution mechanisms across jurisdictions. Although these contributions provided a significant empirical foundation by addressing technology as an accelerator of procedural modernisation, the deeper questions of legitimacy, authority, and rights that technological integration inevitably raises within adjudicative systems remained largely unexamined.

In response, a second wave of scholarship emerged, marked by a critical turn toward the efficiency narrative that had been the dominant driving force behind procedural reform discourse. This literature drew attention to the structural risks inherent in the adoption of digital instruments within civil justice systems: the deepening of digital divides rather than their mitigation, the undermining of procedural guarantees in the pursuit of speed and cost reduction, and the subordination of judicial discretion to algorithms whose reasoning remains opaque and incomprehensible not only to judiciary staff and litigants but also to human oversight bodies[8]. Most significantly, this line of scholarship insisted that questions concerning access to civil justice cannot be reduced to questions of technological access[9]. It emphasised that the digitalisation of civil proceedings must be evaluated against the full range of

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[7] For example see Kramer, X., Hoevenaars, J., & Themeli, E. (2022). Frontiers in civil justice-privatising, digitising and funding justice. In *Frontiers in Civil Justice* (pp. 1-20). Edward Elgar Publishing; Onțanu, E. A., & Tai, E. T. T. (2025). Digital Technology and Procedural Justice: Towards a Geography of Justice. *Tilburg Law Review*. *https://doi.org/10.5334/tilr.422accessed* 1 5 June 2026; Dias, J. P., Henriques, M., Fernando, P., Barros, D., & Teles, M. C. (2025). Digitalising Justice: A Fundamental Rights-based Approach; de la Rosa, F. E., Cortés, P., & Escalona, N. M. (2025). Digitalization and Artificial Intelligence in Courts: Opportunities and Challenges; Nylund, A. (2026). Innovation and Digitalisation. *European Civil Procedure*, 115; Engstrom, D. F. (Ed.). (2023). *Legal tech and the future of civil justice*. Cambridge University Press; Contini, F., & Cordella, A. (2016). Law and technology in civil judicial procedures. *The Oxford handbook of the law and regulation of technology*, 246-268.

[8] See Nieva Fenoll, J. (2022). Inteligencia artificial y proceso judicial: perspectivas tras un alto tecnológico en el camino. *Revista General de Derecho Procesal*, *57*, 1-21.

[9] See specially Sorabji, J. (2025). Principles of civil procedure. In *Comparative Civil Procedure* (pp. 63-90). Edward Elgar Publishing.

procedural values, not merely efficiency, but fairness, participation, equality of arms, and the right to an effective remedy[10].

The emergence of AI as a transformative force within civil justice systems—one with capabilities distinct from its predecessor digital tools—has generated a third, still-developing layer of scholarship, to which this Special Issue seeks to contribute. AI introduces capabilities that raise questions existing procedural frameworks were not designed to answer. The prospect of algorithm-based judicial decision-making—whether semi- or fully automated—challenges foundational doctrines of judicial independence and impartiality. The use of predictive tools and automated case management systems raises concerns about systemic bias. The existing plurality of institutional responses, shaped by divergent procedural frameworks rooted in distinct legal cultures, constitutional traditions, and disparities in governance capacity, confirms that there is no universal model for AI-driven civil justice[11].

Despite the rapid growth of scholarship in this third wave, significant gaps remain. Scholars have concentrated on individual jurisdictions or specific technologies, producing rich but fragmented accounts that have yet to be synthesised into a coherent comparative framework. The relationship between AI governance and core civil procedure principles—including due process, equality of arms, and the right to a fair trial—requires deeper and more sustained investigation. It is equally important to address the question of how professional actors within civil justice systems—including lawyers, notaries, and court administrators—are being repositioned by the deployment of AI. Moreover, perspectives from jurisdictions beyond Europe and North America, including those in Asia and Latin America, remain significantly underrepresented in the existing literature, even though some of the most ambitious digitalisation initiatives are being carried out in those regions. In response to these scholarly needs, the Editorial Committee—whose expertise spans the intersection of civil justice, fundamental rights, and technology—issued a call for papers with the aim of creating a dedicated platform for sustained and critical scholarly engagement, from comparative, doctrinal, and empirical perspectives, on the role of technology and, in particular, the evolving role of AI within civil justice systems.

The call sought original contributions examining legal and ethical perspectives on technology use in civil justice contexts and elicited a remarkable response from scholars and practitioners across Europe, Asia, and Latin America. This geographical breadth reflects the genuinely global dimensions of the challenges this issue addresses. Following a rigorous double-blind peer-review process, seventeen contributions were selected for publication, collectively constituting a substantial and cohesive body of scholarship ad-

[10] Jimenez-Gomez, C. E., Elena, S., & Vargas, P. S. (2025). Revisiting open justice in the digital age. In *Research Handbook on Open Government* (pp. 140-156). Edward Elgar Publishing.

[11] Gioia, G. (2025). Intelligenza artificile e indipendenza della magistratura: un equilibrio tra trasparenza e controllo. *Rivista di diritto processuale*, 1338-1363.

dressing the intersection of technology and civil justice with a depth and range that, to the editors' knowledge, has not previously been assembled within a single volume.

This Special Issue appears under the title *From Gavel to Grid: Reimagining Civil Justice in the Digital Era*, published in the Italian-Spanish Journal of Procedure Law (RIEDP), whose primary objective is to foster rigorous and stimulating discussion on contemporary issues in procedural law across Europe and beyond. The seventeen contributions gathered here represent, as a collective scholarly intervention, a significant step toward answering that question.

3. MAPPING THE CONTRIBUTIONS: A THEMATIC OVERVIEW

The contributions in this Special Issue have been organised into five thematic clusters, each illuminating a distinct dimension of the ongoing transformation of civil justice systems across jurisdictions. Together, they reflect both the promises and the perils of digitalisation and AI integration, offering comparative, doctrinal, empirical, and forward-looking perspectives that collectively advance scholarly understanding of this rapidly evolving field.

3.1. Digitalisation of Court Systems and Procedural Reforms

The contributions gathered under the first theme offer concrete accounts of national and regional reforms in the digitalisation of civil courts and procedural frameworks, grounding theoretical debates in the pragmatic realities of institutional change within civil justice systems.

The contribution by Van Doninck and Van Der Haegen examines Belgium's ambitious initiative to modernise the pronouncement and publication of judgments through the establishment of a Central Register for court decisions. The authors illuminate the Register's dual structure—comprising internal non-pseudonymized and publicly accessible pseudonymized sections—alongside mandatory digital judgment requirements, access rules, and restrictions on data reuse. The contribution critically assesses questions of pseudonymization, privacy protection, workload implications, and limitations on data mining and AI, and engages with the 2025 Constitutional Court ruling that largely upheld the system while reinforcing guarantees of effective publicity. The authors conclude that the Central Register constitutes a paradigm shift in access to case law with far-reaching consequences for legal practice and legal culture, and that the challenges of technological modernisation are not exclusive to any particular democratic tradition but arise wherever judicial institutions seek to harness digital tools.

The contribution by Tabatabai, Shahbazinia, and Parsapour turns to the legal infrastructure and systemic prerequisites for AI integration within Iran's judicial system, assessed from the perspectives of institutional readiness and

regulatory safeguards. The authors demonstrate that Iran has constructed a substantial enabling infrastructure through rule-based automation, with discretionary judicial steps increasingly mediated through interoperable registries and standardised workflows as evidenced in heirs' certification, financial enforcement under the Sayyad check system, and traffic bodily-injury compensation. Notwithstanding these advancements, the contribution highlights those protective mechanisms—particularly regarding transparency, data-subject rights, and effective contestability—lag behind. To address this imbalance, the authors propose the adoption of a Qualified Human-in-the-Loop (Q-HITL) framework, whereby AI outputs remain advisory and acquire legal effect only upon mandatory judicial validation.

The article by Bigi surveys the most recent civil procedure reforms in Italy that have accelerated the digitalisation of civil justice, building upon the digital tools tested during the COVID-19 pandemic. The author focuses on evaluating these technological advancements against the foundational principles of Italian civil procedure, scrutinising in particular whether a measured and sectorial deployment of online courts can enhance access to civil justice without compromising core procedural guarantees.

The contribution by Bratković investigates the reform of enforcement proceedings based on trustworthy documents through the lens of Slovenia's Central Department for Trustworthy Documents (COVL). The author contends that through full digitalisation and procedural redesign, Slovenia has transformed mass enforcement into a highly efficient automated system. The article further argues that this innovation constitutes a model from which other jurisdictions grappling with significant volumes of uncontested pecuniary claims may draw meaningful design principles to facilitate the enforcement of such procedures.

The paper by Nieva-Fenoll argues that modern supreme courts have failed to protect statute law because the creators of legal norms do not coincide with their judicial protectors. Tracing judicial review from the Roman *appellatio* to Caesar to the *ancien régime*, the contribution demonstrates that the current appellate model has exhausted its potential. The author contends that generative AI offers an unprecedented opportunity to overcome this crisis by enabling the legislature to reclaim its historical role as the guardian of its own laws. Ultimately, the paper concludes that this technological shift allows the legislative branch to resolve appeals with exceptional speed and directly supervise judicial compliance, aligning justice with contemporary technological realities.

3.2. AI and the Fundamental Principles of Civil Procedure

The second theme interrogates the constitutional and procedural law dimensions of AI deployment, questioning whether prevailing legal frameworks governing due process, equality of arms, and the right to a fair trial can be effectively adapted to technology-driven innovation, or whether a more

fundamental reconceptualisation of underlying principles is required to safeguard individual rights. The contributions also situate national experiences within broader comparative trends, underscoring the diversity of responses to shared challenges.

The contribution by Papachristou-Dimitras probes the impact of AI on the foundational principles of civil procedure, with particular attention to effective access to justice through the lens of judicial impartiality and due process. The author argues that the integration of AI into civil justice systems represents not merely a technological transition but a fundamentally institutional transformation, one that demands the establishment of robust legal safeguards in which transparency, human oversight, and procedural fairness are systematically guaranteed.

The paper by Scigliano investigates the limits of decision-making automation in civil justice, employing enforcement proceedings as an instructive pragmatic case. Contrary to the assumption that enforcement—by virtue of its formal and technical characteristics—is intrinsically amenable to automation, the author contends that it encompasses critical phases requiring judicial intervention in matters of procedural governance, legality review, and proportionality evaluation. The contribution underscores that while AI may support repetitive and organisational tasks, it encounters inherent limits when confronted with the attributable decision-making core of the judicial function in enforcement procedures.

The contribution by Bastianelli adopts a forward-looking analytical perspective in tracing the digital transformation of civil justice in Italy, from the Telematic Process to the most recent reforms introducing AI into civil courts. The author examines pilot projects deploying digital tools at various stages of civil proceedings and argues that AI currently occupies an experimental rather than a determinative role in judicial decision-making. The article emphasises that while adjudicative authority firmly remains with the judiciary, digitalisation has demonstrably enhanced procedural efficiency.

The contribution by Dal Maso situates the digitalisation of civil justice within a comparative transatlantic dialogue between Europe and Latin America, arguing that such exchange is essential to foster a systemic and cultural analysis capable of enhancing cooperation. The author identifies two distinct models: European systems favour an instrumental approach that digitally enhances existing procedural tools in the pursuit of efficiency, while South American countries such as Brazil, Chile, and Colombia pursue a more transformative model deploying technology to address structural access-to-justice deficits and broaden participatory engagement. Both models, the contribution observes, face digital divide challenges—manifesting as literacy gaps in Europe and infrastructural inequalities in South America—underscoring that poorly governed digitalisation risks reproducing existing inequalities. The article's central lesson is a call not for uniform strategies but for context-sensitive reforms that align technological innovation with procedural values, balancing efficiency with participation and ambition with institutional capacity.

3.3. AI-Driven Decision-Making: Efficiency, Explicability, and Equality

The third theme revolves around the application of AI systems in specific decisional contexts, critically assessing the claims attributed to AI tools and the risks they entail for the fairness, transparency, and accountability of civil justice.

The contribution by Sönmez interrogates the relationship between AI and the question of legitimacy in civil justice by drawing instructive parallels with the Investor-State Dispute Settlement (ISDS) framework. The author contends that current reforms in the digitalisation of civil justice risk reproducing patterns observed in international law, wherein critiques of legitimacy are absorbed into formal procedures and technological redesign rather than catalysing fundamental institutional reform. The paper critically questions the transition towards digital justice premised solely on design-led and neutrality-based approaches, and advocates instead for a human-centred approach to digital justice as a prerequisite for democratically accountable practice.

The contribution by Cavani addresses the tension between efficiency and explicability in the deployment of AI within civil justice systems. The author highlights that as instrumental efficiency is prioritised in AI systems, a corresponding and inevitable decrease in explicability ensues, yielding algorithmic processes and outputs that are opaque to human comprehension. Given that AI ethics demands a high degree of explicability in any judicial AI deployment, this requirement inevitably entails trade-offs with operational efficiency. The contribution navigates this tension by arguing that, within a human-centred AI framework, the use of opacity-driven systems may be justifiable depending on the specific function the system is designed to perform.

The contribution by Nguyen addresses the comparative governance of AI-enabled civil justice across three contrasting jurisdictions—the European Union, China, and Singapore—thereby filling a significant gap in scholarship that has tended to examine AI governance within individual jurisdictions in isolation. Through a qualitative comparative approach drawing on legislative texts, institutional reports, and empirical evaluations, the author identifies three distinct institutional logics: the EU prioritises human-centric procedural safeguards at the potential cost of adoption speed; China pursues an efficiency-first model of judicial modernisation that embeds AI deeply into court infrastructure while narrowing opportunities for procedural contestation; and Singapore occupies an intermediate position, pursuing pragmatic, governance-driven innovation grounded in professional responsibility and incremental adoption. The article concludes that there is no one-size-fits-all model, and that AI redistributes procedural risk across participation, accountability, and efficiency in institutionally path-dependent ways.

The contribution by Pailt and Giacalone examines whether digitalisation and AI can improve access to justice in labour law disputes without under-

mining fundamental rights and the rule of law. Combining EU legal analysis with qualitative interviews and focus groups conducted in six Member States, the authors demonstrate that such tools can reduce burdens and information gaps only where reliable infrastructure, coherent governance, specific training, and meaningful human oversight are in place. The contribution's central argument is that human oversight is fundamentally a question of institutional capacity in practice: oversight is rendered ineffective where legal professionals lack training, time, institutional support, and sufficient understanding of how AI systems operate. The authors conclude that AI implementation in justice must be accompanied by integrated infrastructure, role-specific training, transparent governance, and mechanisms ensuring that human professionals retain effective control over system outputs, and that the so-called fourth wave of access to justice cannot be realised through technology alone.

3.4. Online Dispute Resolution and the Future of Court-Based Justice

The fourth theme examines online dispute resolution and remote proceedings as alternatives to and extensions of traditional court-based adjudication that technology has rendered possible, raising foundational questions about evidentiary integrity, legitimacy, and the future architecture of justice.

The contribution by Kyriakides, Manolova, and Zacharopoulos critically examines decentralised justice—as exemplified by the Kleros platform—as a complementary model to judicial AI that combines partial automation with transparent, human-centred decision-making. While not presented as a substitute for courts, the authors argue that decentralised systems illuminate how transparency, proportionality, and visible human oversight can mitigate the risks of opacity, bias, and legitimacy loss inherent in digitally enabled justice. The contribution ultimately frames the central question not as whether justice should be digital, but as which model of digital justice ought to be constructed, urging policymakers to move beyond compliance-based regulation toward institutional design choices that embed transparency, human oversight, and proportionality from the outset.

The contribution by Jürgensen delves into a comparative analysis of how the common law tradition of the United States and the civil law system of Germany regulate and evaluate video-based witness examinations in civil proceedings, examining Rule 43(a) FRCP and Sections 284(2) and (3) ZPO respectively. The author identifies critical differences in legal prerequisites and judicial practice, while demonstrating that technical adoption in both systems remains constrained by a shared scepticism toward the evidentiary value of digital testimony. The contribution reveals that, notwithstanding Germany's 2024 legislative reform signalling a shift toward normalising video technology, judicial practice in both systems remains deeply rooted in their respective procedural philosophies, and that both legal cultures continue to grapple with

the "digital distance" that complicates a judge's ability to gauge sincerity and protect against external interference. The article concludes that the successful integration of video examinations depends less on technical logistics and more on overcoming deep-seated judicial and scholarly scepticism.

3.5. AI Tools for Legal Practitioners and the Transformation of Legal Work

The fifth and final theme shifts attention from courts to practitioners, examining how AI is transforming the work of lawyers, notaries, and other legal professionals who participate in civil justice systems, and raising broader questions about professional identity, drafting standards, and the structural prerequisites of effective legal representation in a digital age.

The contribution by Shengelia and Leonidze analyses the potential and challenges of integrating AI into the Latin-based notary system, surveying the innovative applications already adopted by several European notary chambers—including chatbots for client communication, automated drafting tools, data-verification systems, videoconferencing platforms, and electronic notarial acts—and assessing the position of Georgia, which remains in the early stages of technological adaptation. Through a doctrinal and comparative methodology, the authors examine legislative frameworks, professional guidelines, and existing technological infrastructures in European notary systems, complemented by practical assessments of institutional capacity and public trust. The contribution argues that the modernisation of the notarial profession is inseparable from technological development and is vital for maintaining the relevance, accessibility, and credibility of notarial services in the digital age, while firmly maintaining that notaries should guide AI rather than be supplanted by it.

The contribution by Vita reflects on how the advent of AI compels a fundamental reconsideration of the Italian principles of clarity and conciseness in legal drafting. The author argues that if algorithms can synthesise complex reasoning, the traditional linear structure of procedural documents may lose relevance, opening the way to thematic layouts, interconnected points, and dynamic formats. The spread of generative AI, the contribution contends, demands that lawyers write not merely less but better, structuring procedural documents as clear informational architectures that guide judicial decision-making. The author further argues that poorly drafted and repetitive filings not only burden judges but actively degrade AI processing of legal materials, meaning that clarity and conciseness have become structural prerequisites for effective justice in an algorithmic era rather than merely formal virtues.

The contribution by Donnarumma examines the principle of self-sufficiency in appeals to the Italian Court of Cassation—historically characterised by interpretative uncertainty and fluctuating case law that has fostered

increasingly lengthy and redundant pleadings—and investigates the potential of assisted drafting tools, interactive templates, and emerging AI-based systems to enhance the clarity and concision of cassation appeals. The author advances the central thesis that the crisis of self-sufficiency stems not from an interpretative deficit but from a structural one, and that only a guided drafting model, potentially supported by intelligent technological tools, can restore the principle to its functional limits and recover its original normative rationale—thereby reconciling the demands of procedural efficiency with the effective protection of individual legal positions.

4. CONCLUDING REMARKS BY EDITORIAL COMMITTEE

Taken together, the seventeen contributions assembled in this Special Issue—covering five thematic clusters and drawing on a wide range of national jurisdictions, methodological approaches, and disciplinary perspectives—offer a comprehensive portrait of civil justice at a pivotal moment of transformation by digitalisation in particular AI. They reveal a field in which the promise of efficiency, accessibility, and modernisation coexists with profound and unresolved tensions concerning transparency, legitimacy, human oversight, and the preservation of fundamental procedural rights. Whether examining the architecture of national digital court registers, the constitutional implications of algorithmic decision-making, the governance of AI across distinct legal cultures, the future of online dispute resolution, or the transformation of legal professional practice, each contribution in this Special Issue affirms that the digitalisation of civil justice is neither a purely technical enterprise nor an inevitable trajectory, but a fundamentally normative and institutional undertaking. The editors of the present Special Issue trust that the scholarship gathered here will serve not only to advance and stimulate academic debates in the field but also to inform the policy choices and institutional reforms that will shape the future of civil justice in an increasingly digital world. The conversation opened by these contributions is far from concluded; it is, in many respects, only just the beginning.

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THE BELGIAN CENTRAL REGISTER FOR JUDICIAL DECISIONS: THE LONG AND WINDING ROAD TO OPEN JUSTICE?

Jachin Van Doninck*
Vrije Universiteit Brussel

Matthias Van Der Haegen**

ABSTRACT: The article examines the Belgian Central Register for judicial decisions, introduced to modernize the pronouncement and publication of judgments. It explains the Central Register's dual structure (internal non-pseudonymized and public pseudonymized sections), mandatory digital judgments, access rules, and restrictions on data reuse. We critically assess pseudonymization, privacy protection, workload implications, limits on data mining and AI, and delayed implementation. We then analyze the 2025 Constitutional Court ruling, which largely upheld the system while strengthening guarantees of effective publicity. The article concludes that the Central Register marks a paradigm shift in access to case law with far-reaching consequences for legal practice and legal culture.

KEYWORDS: administration of justice; access to justice; open justice; pronouncement of judgments; publication of judgments; digitalization; digital judgments; pseudonymization; case law; access to case law; data mining; profiling; legal tech; scraping; bulk downloading.

SUMMARY: I. INTRODUCTION.— II. THE CENTRAL REGISTER: 1. Structure and management of the Central Register; 2. Digital judgments; 3. Consultation of the data in the Central Register; 4. Public data, but no free use; 5. Entry into force.— III. THE RULING OF THE CONSTITUTIONAL COURT.— IV. STATE OF AFFAIRS V. A PREVIEW OF THE IMPACT

* Prof. dr. Jachin Van Doninck is associate professor at the Vrije Universiteit Brussel, co-director of the research group on digitalization and access to justice (Dikè) and member of the Brussels Research Institute on Development, Governance and Empowerment, through law (Bridge). *https://orcid.org/0000-0002-1383-4886*

** Dr. Matthias Van Der Haegen is Deputy Public Prosecutor at the Public Prosecutor's Office of East Flanders and, on behalf of the College of the Public Prosecutor's Office, member of the Management Committee of the Central Register for Judicial Decisions. *https://orcid.org/0000-0002-4002-5195*

ON LEGAL PRACTICE: 1. Pseudonymization, an additional workload; 2. A new contentious issue; 3. A new way of dealing with case law.— VI. CONCLUSION

I. INTRODUCTION

The digitalization of the Belgian justice system is a story of good intentions and ambitious plans. With the Act of 16 October 2022 on the Central Register for judicial decisions (hereinafter: the Act on the Central Register or the Act[1], the legislator aimed to bring the pronouncement of judicial decisions and their publication into the 21st century. The Central Register would thus play a crucial role in the daily administration of justice. First we explain how the Central Register was conceived and also consider the objections that were raised to its conceptual design (II). We then discuss the ruling of the Constitutional Court, which ruled on those objections in the context of several appeals for annulment (III), before turning to the current state of affairs (IV) and looking ahead to the future of this attempt to digitalize a crucial part of the Belgian administration of justice and its impact on open justice (V).

II. THE CENTRAL REGISTER

1. Structure and management of the Central Register

The Central Register has a private or internal section and a public or external section. The internal section contains all judicial decisions in their original form. The external section, on the other hand, contains these judicial decisions in a pseudonymized form. Both sections have different purposes. The purpose of the external section of the Central Register is to make pseudonymized judgments[2] available to the public. The latter constitutes their public disclosure within the meaning of Article 149 of the Constitution and is intended to guarantee transparency and enable the functioning of the judicial system to be monitored (Art. 782, §4, second paragraph, 9° Judicial Code). The external section must also enable public authorities[3] to statistically analyze the pseudonymized judgments and the data they contain (Art. 782, §4, second paragraph, 10° Judicial Code). Such analysis may not be carried out on the (metadata of) non-pseudonymized judgments referred to in Article

[1] The Act of 16 October 2022 establishing the Central Register for judicial decisions and concerning the publication of judgments and amending the assize procedure concerning the challenge of jurors, *Belgian Official Gazette*, 24 October 2022, *https://www.ejustice.just.fgov.be/mopdf/2022/10/24_2.pdf*#Page47. The Department of Justice also uses the catchphrase of JustJugment for this digitalization project. References to JustJudgment should be understood as such. For earlier analysis of the Act: Hendrickx (2023), Van Der Haegen & Van Doninck (2023), Mont (2023), Mont & Rosic (2023).

[2] We will use the terminology of 'judgment' instead of the more elaborate 'judicial decision' from now on, for a clarification of the material scope of the provision see section 2.

[3] See Art. 782, §8, first paragraph, 6° Judicial Code. The Act does not define exactly what is meant by a public authority, nor do the preparatory works offer any guidance. For example, is a municipality allowed to statistically examine local crime figures using pseudonymized decisions?

782, §5, first paragraph, 1°- 3° Judicial Code. To illustrate this objective, the Explanatory Memorandum refers to the identification of certain trends in case law in order to guide preventive and repressive criminal policy, and to the need to comply with evaluation clauses that are often included in EU regulations[4]. The internal section will serve as an authentic source of the judgments contained therein and should facilitate the exercise of the judicial order's legal tasks by centralizing the storage of all judicial decisions in dematerialized form (Art. 782, §4, second paragraph, 1° and 2° Judicial Code). This digitalization of the authentic source in the Central Register has a significant impact on the manner in which judicial decisions are made (see section 2).

Through the Central Register, members of the judiciary, as well as parties and their lawyers, can consult electronically the decisions which they are entitled to examine by law (Art. 782, §4, second paragraph, 3° Judicial Code). Scientists, historians, and journalists may also access the data contained in the internal section and may also process it (Art. 782, §4, second paragraph, 7° and 8° Judicial Code). The restrictions that apply to this consultation and processing will be discussed further (see section 3). A striking additional objective is the processing of data from the Central Register "to optimize the organization of the judicial system, to enable more efficient management, better policy support, better impact analysis of legislative changes, and better allocation of human and logistical resources within the judicial system" (Art. 782, §4, second paragraph, 5° Judicial Code). In other words, the collection of all judgments should pave the way for data-driven management of the administration of justice in all its facets, both in terms of content—as regards the application of the law—and in terms of (personnel) policy.

The Central Register must also serve to support members of the judiciary in the performance of their legal duties (Art. 782, §4, second paragraph, 6° Judicial Code). This refers to IT applications to support magistrates and their staff by means of AI. The Explanatory Memorandum mentions, among other things, the possibility of *case law enhancement*, whereby data from the Central Register can be linked to data from legislative or legal databases, and the possibility of automatically creating summaries of court decisions[5].

The Act on the Central Register therefore only allows the development of AI applications using the data contained in the Central Register to support members of the judiciary. The legal profession angrily called on the legislator to remove this restriction[6]. They believed that the legal profession and litigants should also be able to develop and use AI applications applied to the

[4] Draft law establishing the Central Register for judicial decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, 27, *https://www.dekamer.be/flwb/pdf/55/2754/55K2754001.pdf*. These evaluation clauses require national authorities to provide certain information on the practical application of the regulation to the European Commission so that it can analyze, among other things, the effectiveness and efficiency of European legislation.

[5] Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, p. 14-15.

[6] Callens (2022).

administration of justice. Moreover, there could be an imbalance if public prosecutors are able to use these applications, but lawyers for the defendant are not. According to the legal profession, this restriction was contrary to the recent European Data Governance Regulation[7]. Ultimately, the Constitutional Court had to rule on these objections (see part III).

Within the Department of Justice, a management committee is responsible for the organization and management of the Central Register (Art. 782, §6, ninth paragraph Judicial Code). The composition of the management committee was quite a challenge, which is not surprising given its important role. The management committee is composed of four representatives of the College of Courts and Tribunals, and two representatives each from the College of the Public Prosecutor's Office, the Court of Cassation, and the Department of Justice (Art. 782, §6, second paragraph Judicial Code). A representative of the Institute for Judicial Training and of the policy unit of the Minister of Justice sit as observers. The representatives of the judiciary have full voting rights; the representatives of the Department of Justice, on the other hand, only have partial voting rights: they sit as observers with regard to decisions relating to "the internal functioning of the judicial system," but do have voting rights in matters relating to the use of resources, technical aspects, and the parts of the Central Register that are accessible to the public, insofar as the latter do not affect the content or comprehensibility of the pseudonymized judgments and decisions (Art. 782, §6, third paragraph Judicial Code). The chair and vice-chair of the management committee are members of the sitting judiciary. The draft law initially did not allow representatives of the bar to sit on the management committee. Following criticism from the Council of State, which opined that lawyers, as judicial actors, make a significant contribution to the formation of judicial decisions[8], the draft law was amended[9]. The Act stipulates that one representative from each of the bar associations shall be part of the management committee, albeit in an advisory capacity. The management committee is established within the Department of Justice (Art. 782, §6, first paragraph Judicial Code). This choice was justified by the fact that the data contained in the Central Register will be generated by the judicial order[10]. Nevertheless, the choice was met with criticism[11].

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[7] Regulation (EU) 2022/868 of the European Parliament and of the Council of May 30, 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Regulation [2022] OJ L 152).

[8] Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, p. 85.

[9] Amendment (V. MATZ) to the draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/2.

[10] Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, p. 13.

[11] See the opinion piece by court of appeals judge Pierre Thiriar, who finds the fact that the Central Register will serve as an authentic source of judicial decisions incompatible with the placement of the management committee within the Department of Justice: Thiriar (2022), p. 11.

2. Digital judgments

The Act on the Central Register makes digital judgments the norm: Article 782, §1 Judicial Code stipulates that every judicial decision must be drawn up in dematerialized form, except in the event of technical problems. Digital judgments are signed electronically by means of a qualified electronic signature (Art. 782, §2, third paragraph Judicial Code). After signing, these digital judgments are automatically entered into the Central Register via a direct link to the case management application. The original of these digital judgments is therefore digital. When technical problems prevent a digital decision, , a dematerialized copy of the paper judgments, certified as true by the clerk, is entered in the Central Register (Art. 782, §5, first paragraph, 2° Judicial Code)[12].

The Act on the Central Register also changes the manner in which judgments are handed down. In 2019, Article 149 of the Constitution was revised[13]. Whereas this constitutional provision previously stipulated that judicial decisions were to be pronounced in public, it now requires that judicial decisions be made public in the manner prescribed by law; in criminal cases, however, the operative part is always pronounced orally. Article 782bis of the Judicial Code reflects this delegation to the legislature and stipulates that judicial decisions shall be pronounced in writing or orally by the president of the chamber that rendered the decision. In the case of an oral pronouncement, at least the operative part shall be read out. However, *ex officio* or at the request of one of the parties, the judge may decide not to limit the oral pronouncement to the operative part. In view of Article 149 of the Constitution, a written judgment is therefore only possible in civil cases. At the time of signing, the decision is entered in the Central Register and the parties can consult the (non-pseudonymized) decision in the internal section of the Central Register. The new law therefore achieves and guarantees the openness of the administration of justice by recording the decision in pseudonymized

[12] This makes it possible to include historical judgments, i.e., those dating from before the Central Register came into effect. The public tender that has already been issued to develop the Central Register also provides for this.

[13] Revision of Article 149 of the Constitution concerning the publicity of judgments and rulings, *Belgian Official Gazette*, 2 May 2019. For a discussion of this constitutional amendment and what preceded it, see Behrendt & Jousten (2020). This constitutional amendment was intended to put an end to the anachronistic obligation to deliver every judicial decision in full, an obligation that was rarely followed in practice and had already been mitigated by a cassation judgment in 2011 (Cass. 29 November 2011, AR P.10.1766.N, *Arr.Cass.* 2011, p. 2444, concl. M. Timperman: the obligation to deliver the judgment in open court serves to enable public scrutiny of judicial decisions. That objective generally requires the reading out in open court of both the grounds and the operative part of the judicial decision. However, it can also be achieved by a partial reading of the judicial decision, including in any case the operative part, together with the simultaneous or immediate subsequent publication of the judicial decision through other forms of publication such as the internet. No such obligation existed for the Constitutional Court: publication of its case law on the website was equated with a public ruling (see Article 110 of the Special Act of 6 January 1989 on the Constitutional Court).

form in the Central Register. According to the Act, this must be done within a reasonable period of time (Article 782bis, second paragraph, of the Judicial Code). If public disclosure via the Central Register is impossible, e.g. due to technical problems, the presiding judge must pronounce the judgment in full orally, or make the judgment available to the public in the courtroom until the end of the hearing[14].

Article 6 of the ECHR stipulates that the pronouncement of a judicial decision must be public. According to the ECtHR, the manner in which that public pronouncement is given effect may be determined by national law, taking into account the objectives of Article 6 of the ECHR, whereby the legal process must be considered as a whole[15]. According to the Court, the inclusion of the decision in a publicly accessible (offline) register meets the requirements of Article 6 of the ECHR[16]. The Court has not yet *expressly* stated whether publication via the internet also meets these requirements, although there are indications that the Court assumes this to be the case[17].

Not every court decision will be published in the public section of the Central Register. Final judgments, both in civil and criminal cases, and judgments of the Court of Assizes and the Court of Cassation[18] will be available to the public in pseudonymized form[19]. However, the judge may always order that his interim judgment be published in pseudonymised form via the Central Register (Art. 782, §5, first paragraph, 4° Judicial Code). The reverse is also possible: the court may prohibit the publication of a decision or omit

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[14] Not making the decision available to the public, nor reading it out in full at the hearing, is contrary to Article 6 of the ECHR: ECHR 17 January 2008, no. 14810/02, Biryukov v. Russia, and ECHR 15 January 2015, no. 23045/05, Malmberg and Others v. Russia.

[15] ECHR 8 December 1983, no. 7984/77, Pretto v. Italy, paras 25-26; ECHR 8 December 1983, no. 8273/78, Axen v. Germany, paras 30-32; ECHR 22 February 1984, no. 8209/78, Sutter v. Switzerland, paras 32-33.

[16] ECHR 8 December 1983, no. 7984/77, Pretto v. Italy, para 27.

[17] In its judgment in the Nikolova case, the ECHR placed publication on the internet on an equal footing with a public judgment and inclusion in a register accessible to the public (ECHR 17 December 2013, no. 20688/04, Nikolova & Vandova v. Bulgaria, para 84; see also *Guide on Article 6 of the European Convention on Human Rights. Right to a fair trial (civil limb)* (2022), p. 104, no. 472 and Commission européenne pour la démocratie par le droit du Conseil de l'Europe (Commission de Venise), *Mise à jour de la liste des criteres de l'état de droit adoptée par la Commission de Venise à sa 145e session plénière* (Venise, 12-13 décembre 2025), p. 21, no. 54: "Elles [judgments] devraient également être communiquées de manière à être facilement compréhensibles par le public, par des moyens facilement accessibles au public et reflétant les pratiques modernes en matière de communication."

[18] Currently, not all judgments of the Court of Cassation are published. Article 28 of the Act of 15 June 1935 on the use of languages in court proceedings stipulates that judgments of the Court of Cassation must be translated. In practice, only published judgments are translated (this is between one-third and one-half of all judgments). The Act on the Central Register takes into account a possible overload of the Court's translation service and amends Article 28 of the Act on the use of languages in court proceedings: now that all cassation judgments will be published, translations need only be made for those judgments which the Court, in accordance with the criteria laid down by the King after consultation with the Court, considers sufficiently relevant to the unity of case law or the development of the law.

[19] Article 782, §5, first paragraph, 4° of the Judicial Code refers to Articles 782bis (judgments and rulings) and 1109 (Court of Cassation) of the Judicial Code and to Articles 163 (police court), 176 (appeal judgments of the police court), 190 (criminal judgments), 209 (criminal rulings) and 337 and 346 (court of assizes) of the Code of Criminal Procedure.

certain parts of the reasoning from the publicly accessible version. The judge may do so *ex officio* or at the request of a party, and after hearing the parties, if the publication of the pseudonymized judgment or certain parts thereof disproportionately affects the right to privacy of the parties or other persons involved in the case. This decision must be reasoned and is included in the judgment (Art. 782bis, fifth paragraph Judicial Code). A mere agreement between the parties not to publish the decision (or a specific part thereof) cannot therefore prevent publication.

Decisions that are available for public consultation must be pseudonymized (Art. 782, §5, third paragraph Judicial Code)[20]. This pseudonymization must be carried out in accordance with Article 4, 5) GDPR[21], which means that the personal data contained in the decision cannot be linked to a specific individual without the need for additional data. Pseudonymization means that the personal data is encrypted so that it no longer leads to the identification of the person concerned. Only those who have the key can find out which person is behind the encrypted data. In court decisions, encryption can be achieved by converting names into procedural roles ("plaintiff," "builder," "defendant," etc.), or by simply removing address details, for example. In the case of pseudonymized court decisions, the key to re-identification is the original decision with the unaltered personal data. Pseudonymization must be distinguished from anonymization. In anonymization, the personal data is also encrypted, but there is no key that can lead to re-identification. The link between the publicly available, anonymized decision and the original decision, which is shielded from the public, is then severed so that—assuming someone has full access to the Central Register—the one can no longer be linked to the other. In practice, this is impossible for court decisions, because every specific detail of the case would have to be removed from the publicly available decision, which would render it meaningless. However, while the GDPR does not apply to anonymous data, it does apply to pseudonymized data[22]. The provisions of the GDPR therefore apply in full to the Central Register, both to the internal and external parts. This has important legal implications.

What does pseudonymization look like in practice? The Act on the Central Register stipulates that the identity details of natural persons mentioned in the judgment must be pseudonymized. The same applies to any element in the decision that allows natural persons to be identified directly or indirectly, but within the limits of the legibility and comprehensibility of the decision. The possibility to properly understand a decision therefore takes precedence

[20] The Act takes as its starting point the pseudonymization of the names of parties, thereby fully committing to the protection of privacy. In doing so, it follows recommendation no. 3/2021 of 8 February 2012 of the Data Protection Authority.

[21] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation, hereafter referred to as GDPR, [2016] OJ L 119).

[22] See recital 26 of the GDPR.

over the privacy protection of the parties, at least as far as the possibility of identification via elements other than identity data is concerned. The question arises as to whether anyone other than the judge is better placed to assess whether the readability and comprehensibility of his decision is compromised by excessive pseudonymisation[23]. This pseudonymization requirement does not apply to legal actors such as magistrates, clerks, and lawyers: their identity data is included in full in the decisions. However, the President of the court may make an exception to this, after consulting the public prosecutor, if the dissemination of such data could jeopardize their safety or that of their environment. However, the pseudonymization of the identity data of legal actors is carried out by operation of law if the case concerns criminal proceedings relating to terrorist offenses or organized crime (Art. 782, §5, third paragraph, 3° and 4° Judicial Code).

It is evident that the mandatory pseudonymisation of personal data contained in all decisions published in the public database is a particularly time-consuming task that is therefore only feasible if it is (to a large extent) automated. The Act makes this possible, but stipulates that in the case of automated pseudonymization, the result must be subject to human control (Art. 782, §5, fourth paragraph Judicial Code). The use of AI applications such as *machine learning*, in which *feedback loops*[24] will make automatic pseudonymization increasingly efficient, will make human intervention less and less necessary over time. The question is how far the legal requirement of human control extends: is it sufficient to review the automatic adjustments, or is it necessary to review the decision in its entirety? This human control of pseudonymisation must be carried out by a body that is directly dependent on or controlled by the judiciary[25]. It is to this same body that any interested party may submit a written request if they believe that certain non-pseudonymized personal data in a published decision should be pseudonymized (Art. 782, §5, fifth paragraph Judicial Code). The minister's representative stated that if this human control were to be entrusted to the registries of the courts and tribunals rather than to a newly established body, the impact on the workload would be monitored[26].

The pseudonymization of the identity data of natural persons, such as names, national registration numbers, and addresses, can be done relatively easily by automated means. This is much more difficult for those elements of a judgment that allow indirect identification. It is therefore striking that

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[23] de Codt (2021), p. 23-24.

[24] A *feedback loop* is a mechanism whereby the output data from a particular process is used, in whole or in part, as future input data, enabling the process to perform its task better over time.

[25] The Council of State emphasized the importance of this control or supervision by the judiciary, because decisions on pseudonymization may compromise the comprehensibility and thus the meaning of judicial decisions, which affects the separation of powers. (Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, p. 78).

[26] Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, p. 73.

the Act on the Central Register prescribes the pseudonymization of both direct and indirect identification possibilities for every judgment. It is obvious that the consequences of possible re-identification in terms of privacy are more harmful in sexual offenses than in, for example, (most) traffic offenses. A more flexible pseudonymization requirement with a layered approach depending on the nature of the case would have made the pseudonymization process a lot easier in general. The pseudonymization of elements from a decision that indirectly allow identification should then only take place when the infringement of privacy after possible identification in the case in question outweighs the effort required to pseudonymize those elements and the infringement of the openness of the administration of justice. This is the case in France. There, the names of parties or third parties are always omitted from published decisions, but those elements of a decision that allow indirect identification are only omitted after a decision to that effect by the judge who handed down the judgment[27].

The identity details of legal persons are not pseudonymized.

3. Consultation of the data in the Central Register

It goes without saying that the Central Register contains sensitive data. Access to this data is therefore regulated. No one has unrestricted access, and some require prior authorization from the management committee. Violation of the confidentiality of these consultations is punishable under Article 458 of the Criminal Code on professional secrecy (Art. 782, §8, fifth paragraph Judicial Code). The consultation and processing of data contained in the internal section of the Central Register are more strictly regulated than those of the external section.

The non-pseudonymized decisions in the Central Register may only be consulted and/or processed by specific categories of persons. Members of the judiciary[28] may consult their own decisions in the Central Register, within the limits of their legal duties. Upon reasoned request, they may also consult other specific judgments for the purposes of necessary research in the context of an investigation conducted by the applicant or in the context of a case pending before the applicant or in which the applicant is acting in a professional capacity, and in which the proceedings have not yet been closed. The parties, like their lawyers, may also consult the decisions rendered in their case. This

[27] See Articles L111-13, second paragraph, and R111-12 of the *Code de l'organisation judiciaire*.

[28] The Act on the Central Register refers to persons exercising a judicial office as referred to in Part II, Book II, Title I of the Judicial Code and magistrates in training, as included in the electronic list referred to in Article 315ter, §1, first paragraph Judicial Code. This therefore includes not only actual magistrates (whether acting or not) and magistrates in training, but also referendaries, public prosecutors, criminologists, registrars and level A staff members, public prosecutors' secretaries, assessors in the criminal enforcement court, judges in social affairs, judges and assessors in the disciplinary courts.

also applies to experts or others who, in accordance with the law, must have access to a decision (Art. 782, §8, first paragraph, 2°, e) Judicial Code).

The legal profession warned against the practice of magistrates consulting previous decisions concerning their clients without being able to contest them[29]. This would undermine the equality of arms between the public prosecutor and the defense and the adversarial nature of all evidence presented to the court. These comments were echoed in parliamentary amendments[30]. The Act provides for an obligation to notify the parties when a person exercising a judicial function or a magistrate in training consulted the (internal section of the) Central Register in the context of an investigation or a pending case and that consultation yielded a positive result (Art. 782, §8, third paragraph, in conjunction with Art. 315ter Judicial Code). When the magistrate consults previous judgments concerning a party in a case, that party is notified. This notification must enable the parties to contest the matter. It is unclear how this notification should take shape in practice. Such notification is not required when the magistrate has searched the external section of the database containing pseudonymized decisions.

Third parties may also be granted access to the Central Register, provided they have been authorized by the management committee and comply with the conditions laid down by the committee (Art. 782, §8, first paragraph, 5° Judicial Code). This allows scientists and historians to access and process individual or a set of decisions (Art. 782, §4, second paragraph, 7° Judicial Code)[31]. Journalists can access individual, non-pseudonymized decisions (Art. 782, §4, second paragraph, 8° Judicial Code). *Legal techs* can process data from the Central Register for the development of IT applications at the request of the judiciary (Art. 782, §4, second paragraph, 7° Judicial Code).

The external section of the Central Register will contain all pseudonymized judgments. This serves to ensure the transparency of and control over the judiciary as part of the constitutionally enshrined principle of open justice (Art. 782, §4, second paragraph, 9° Judicial Code). Access to the public section containing pseudonymized decisions is therefore logically free. However, the use of these decisions is not (see section 4). Article 782, §8, first paragraph, 7° of the Judicial Code stipulates that individual pseudonymized decisions are public. Otherwise, the Central Register would not enable transparency or control of the administration of justice.

According to the Act on the Central Register, the external section of the Central Register is intended to enable public access to the administration of

[29] Callens (2022).

[30] Amendment (V. MATZ) to the draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/2.

[31] If scientists or historians wish to carry out analyses on a set of pseudonymized decisions, they require authorization from the management committee. This applies even more so if they wish to carry out analyses on non-pseudonymized decisions. Without this authorization, they are subject to the criminalization provided for in Article 782, §8, second paragraph of the Judicial Code (see section 4).

justice. In reality, however, citizens will not consult this external section in order to monitor the judiciary on a decision-by-decision basis. Instead, they will use this database to find answers to specific legal questions in order to determine their legal position. This purpose—*access to justice*—would have been better included in the Act on the Central Register as a secondary objective of the external section[32]. The fact that this is not the case may have important implications in terms of personal data protection. Personal data, including pseudonymized judgments, may only be retained for as long as necessary for the purpose of processing (Art. 5.1, e) GDPR). If the processing purpose for the public section is merely the disclosure of court decisions, the question arises as to when that disclosure has been achieved and the pseudonymized decision must therefore be removed from the public section. It goes without saying that a public case law database from which all decisions disappear after a certain period of time does not increase access to justice.

If however all pseudonymized decisions remain available for consultation in the case law database, measures must be taken to ensure effective access to justice. A high-performance and user-friendly search engine is a *conditio sine qua non* in this regard[33]. With the general publication of case law, which amounts to approximately 1.3 million decisions per year[34], the risk of *information overload* is all too real: the information sought is simply lost in the mass of available information. In addition, there is also the risk of incorrect information: the user may encounter old case law that is no longer accepted or minority case law that is misleading. In such a mass of case law, legal searches will in any case produce a lot of noise[35], which will increase the cost of finding relevant case law.

Targeted measures can alleviate the problem of *information overload*[36], but they cannot eliminate it. High-performance and intuitive search engines and comprehensive metadata[37] can make the Central Register functional and user-friendly, but lawyers and litigants will need to learn how to use the search tools. Users can be guided by using importance indicators for domain rele-

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[32] On these two objectives of case law publication, see van Opijnen (2016), p. 34, Cadiet (2024), p. 49.

[33] See recitals 15 and 16 of the Conclusions of the Council and the representatives of the governments of the Member States, meeting within the Council, on best practices for the online publication of court decisions (2018/C 362/02), 8 October 2018, *https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018XG1008* por cien2801 por cien29. According to authoritative voices, the objective of increasing access to justice is better served by a broad but targeted publication of case law rather than by a complete publication. See van Opijnen (2016), p. 34 and Recommendation no. R(95)11 of the Committee of Ministers of the Council of Europe on "The Selection, Processing, Presentation, and Archiving of Court Decisions in Legal Information Retrieval Systems."

[34] Taelman & Van Der Haegen (2018), p. 273.

[35] Kahneman, Sibony & Sunstein (2022), p. 17.

[36] van Opijnen (2021), p. 131-135.

[37] *Metadata* is data about other data. In judicial decisions, metadata therefore includes information about the court, the branch of law in which the decision is situated, the articles of law on which the decision is based, etc.

vance[38], which can be used to filter search results. *Linked data* should also be used as much as possible: for example, different decisions in the same legal proceedings should be clearly linked to each other in order to show whether or not a legal remedy has been used (successfully)[39]. References to legislation and case law should also be mapped in order to identify similar decisions. Only with these and other tools will the public case law database be truly accessible to magistrates, citizens, and practicing lawyers[40].

The public tender that was issued for the establishment and management of the Central Register lists a number of requirements for a high-performance search engine, including automatic keyword extraction, automatic highlighting of the most important passages in a judgment, and an indexing mechanism[41]. This tagging and indexing are useful tools for creating a user-friendly search engine. It therefore seems that the government realized that without a good search engine and accompanying measures, this case law database would prove to be an empty box.

4. Public data, but no free use

The Central Register collects a massive amount of data that was previously scattered and stored disparately at the various courts and tribunals throughout the country. In addition, the Central Register makes a significant portion of that data (albeit considered individually) public. In this way, a wealth of information is gathered, which, through *data mining* techniques[42], can provide a great deal of insight into legal practice. This data is therefore also financially very interesting. The Act on the Central Register chooses to impose restrictions on the use that may be made of this data. First, the Act on the Central Register prohibits the mass downloading and processing of data from the Central Register. Second, it prohibits the analysis of legal actors (and their behavior). These restrictions apply to both non-pseudonymized and pseudonymized decisions.

The Act prohibits the mass downloading and processing of all data contained in the Central Register (Art. 782, §8, second paragraph Judicial Code).

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[38] The ECHR uses importance indicators to distinguish between landmark decisions and bulk judgments. These are, in descending order of importance for the Court's case law: *key cases*, *high importance*, *medium importance,* and *low importance*. See also van Opijnen (2014), p. 395-457.

[39] Preferably, the *European Case Law Identifier* (ECLI) should be used for this purpose, although its implementation in Belgium has been very difficult so far. See *https://e-justice.europa.eu/content_european_case_law_identifier_ecli-175-en.do*

[40] Practicing lawyers will probably have to rely on legal doctrine more often than is currently the case in order to ascertain the state of case law with regard to a legal problem. Insofar as this legal doctrine is behind a *paywall*, the publication of all case law may undermine access to the law and strengthen the revenue model of legal publishers.

[41] See *https://ted.europa.eu/udl?uri=TED*:NOTICE:76310-2022:TEXT:FR:HTML&tabId=1&tabLang=nl.

[42] *Data mining* techniques reveal patterns and correlations in large amounts of data, providing insights that are impossible or much more difficult to obtain by other means.

The prohibition does not apply to those who, by virtue of the law and under the conditions specified therein, are authorized to process data from the Central Register (see section 3). This prohibition was introduced at the request of the data protection authority[43]. Violators are punishable by a fine of between €250 and €15,000[44]. However, the legislator has little confidence in the deterrent effect of this criminalization: the Explanatory Memorandum makes it clear that advanced means will be used to prevent mass downloading or *scraping* as much as possible, including through technical means[45]. *Scraping* is the bulk downloading or other copying of data from a website. Through *scraping*, the contents of the Central Register, or at least the parts to which the user has access, can be copied relatively quickly to a personal data carrier or to online storage capacity. The precise boundaries of this new offense are not clearly defined. First, it is unclear what the legislator means exactly by "all data included in the Central Register." How many downloaded or processed decisions trigger criminal liability? Secondly, the criminal conduct is also unclear. While the term 'downloading' can be understood in its usual meaning, the precise definition of the term 'processing' is less clear. The definition contained in Article 3(2) of European Regulation 2018/1807 of November 14, 2018, on a framework for the free movement of non-personal data in the European Union provides clarification. There, the concept of processing is defined as "any operation or set of operations which is performed on data or on sets of data, whether or not by automated means, such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction of data." Processing is therefore a very broad concept, which could include mere consultation. Whereas the processing of an individual judgment is permitted, the processing of a set of judgments is punishable, although it is unclear how many judgments constitute a set and what exactly falls under the concept of processing[46].

In addition to its definition, this criminal provision also raises other questions. This prohibition is perhaps primarily aimed at legal publishers[47] and

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[43] See Recommendation no. 98/2022 of May 13, 2022, recitals 19 and 23.

[44] The Act on the Central Register refers to the penalties set out in Article 222 of the Act of 30 July 2018 on the protection of natural persons with regard to the processing of personal data, *Belgian Official Gazette,* 5 September 2018.

[45] Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, p. 21.

[46] See, inter alia, Cass. 27 May 2014, AR AR P.13.1420.N, *Arr.Cass.* 2014, p. 1334: The principle of legality in criminal cases requires that the legislator determine in sufficiently precise, clear, and legally certain terms which acts are punishable, so that those who engage in such conduct can adequately assess in advance what the criminal law consequences of that conduct will be.

[47] The Minister of Justice expressly stated that the prohibition applies to legal publishers. See Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, report on the second reading, *Parl.St.* 2021-22, no. 2754/7, p. 13. However, nothing prevents publishers from continuing their current practice of obtaining court decisions through various channels.

legal tech companies that would like to use the new Central Register to create large databases of case law, which they could then analyze and exploit commercially. From that perspective, this prohibition is understandable, because the Minister of Justice intended to allow the development of, for example, AI applications by the private market only at a later stage[48]. However, the description of the prohibited conduct is so broad that it could also extend to lawyers or magistrates who consult a (large?) number of (pseudonymized or non-pseudonymized) judgments, store them on their local PC, and mark and copy the relevant considerations of these decisions to another document to supplement their personal documentation. Surely this cannot be the intention?

Furthermore, the question arises as to whether publishers and *legal tech companies* cannot simply circumvent this penalty provision. All they need to do is download the Central Register decision by decision (if *scraping* is technically difficult) from a third country that is not subject to the GDPR in order to make a complete copy of it. Who will make the link with a Belgian or European client? With VPN connections, there is no need to turn to a foreign accomplice. The data obtained in this way can be processed, and as long as this is done secretly, the offender has little to fear. If and when the criminal prohibition is lifted, the applications based on it will be ready to conquer the market. It therefore seems that this criminalization is intended to be a deterrent, but without any teeth.

The contrast with the Netherlands could hardly be greater. Our northern neighbors do not have general but selective publication of case law, which, however, goes much further in scope than the current situation in Belgium. In 2024, 63.700 Dutch court decisions were published online. For higher court rulings, 9.650 judgments were published out of a total of 45.930 rendered, or 21 por cien[49].. However, the Dutch judiciary intends to publish at least 75 por cien of its decisions within ten years[50]. Dutch court decisions are published on the Rechtspraak.nl website. The Council for the Judiciary applies the principles of *open data*, which means that anyone can consult, use, and share this data. Until recently, Rechtspraak.nl also made it possible to download all decisions contained in this database in a single zip file[51]. In the Netherlands, therefore, there are no technical obstacles to *scraping*, let alone a criminal ban. On the contrary, downloading and using this data is facilitated[52].

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[48] This prohibition contrasts with the statement in the regulatory impact analysis of the draft law that *legal tech* companies could benefit from the publication in pseudonymized form of a significant proportion of court decisions and that they could make use of the public data included in the Central Register. See Draft law establishing the Central Register for Judicial Decisions and concerning the publication of judgments and rulings, *Parl.St.* Chamber 2021-22, no. 2754/1, p. 64.

[49] Raad voor de Rechtspraak (2024), p. 62 and 67.

[50] Naves, Sicking & van der wees (2021).

[51] See *https://www.rechtspraak.nl/Uitspraken/Paginas/Open-Data.aspx*. Since 10 January 2023 this option has been abolished because it was rarely used and because it was considered technically undesirable. However, it is still possible to obtain all decisions.

[52] The question arises, however, whether this policy will be continued when many more court decisions are published.

In France, too, the processing of data from court decisions is permitted. The general publication of case law was prescribed by the *loi pour une République numérique*[53]. Our southern neighbors have a project underway entitled "open data des décisions judiciaires." Led by the *Cour de cassation*, the project aims to publish all court decisions online in a phased rollout[54]. There are only two restrictions on the processing of the decisions published in this way. Firstly, the processing must not be aimed at identifying the persons involved in the decision[55]. Secondly, it is prohibited to analyze the work of magistrates and court clerks. Otherwise, the processing of decisions is unrestricted.

This penal provision in the Act on the Central Register also contravenes the relevant European recommendations. A *best practices* guide from the Council of Ministers on the publication of case law on the internet recommends that published decisions be made available for reuse in machine-readable formats as much as possible and that adequate download options be provided for reusers[56]. The European Open Data Directive also appears to oppose this criminal provision, depending on how it is interpreted[57]. This directive, which makes the reuse of public data for commercial and non-commercial purposes the norm, appears to apply to judicial decisions on the basis of recitals 8 and 43. The reuse of pseudonymized judicial decisions may, however, be subject to conditions[58]. Documents containing personal data whose reuse would be contrary to the GDPR or whose reuse is legally considered to undermine the protection of privacy and the integrity of the individual are excluded from the scope of the directive[59]. It could be argued that the reuse of judgments, even if pseudonymized, would undermine the protection of privacy given the risk of re-identification. In that case, the directive does not apply to judicial decisions.

In decisions published via the Central Register, the names of legal actors are not pseudonymized, except in specific cases (see above). Judgments by anonymous judges are difficult to reconcile with the principle of openness of the judiciary and undermine public confidence in the administration of justice. However, the mass publication of judgments makes it possible to use AI to subject legal actors to in-depth analysis[60]. This allows the writing style,

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[53] Act no. 2016-1321 of 7 October 2016, *pour une République numérique*, *JORF* no. 235 of 8 October 2016. For the history of case law publication in France, see Serverin (2018).

[54] For an overview of the project, its achievements, and the roadmap for the future, see www.courdecassation.fr/la-cour-de-cassation/demain/lopen-data-des-decisions-judiciaires.

[55] See Article 44 of Act no. 78-17 of 6 January 1978*, relative à l'informatique, aux fichiers et aux libertés*.

[56] Conclusions of the Council and the representatives of the governments of the Member States, meeting within the Council, on best practices for the online publication of judicial decisions (2018/C 362/02), 8 October 2018, *https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018XG1008* por cien2801 por cien29.

[57] Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019, on open data and the reuse of public sector information (recast), *OJEU* 2918, L 271.

[58] See Article 8 and recital 44.

[59] Article 1, 2, h).

[60] See, for example, Surden (2014), Van Der Haegen (2023).

referencing practices, expertise, and decision-making patterns of individual judges to be mapped out[61], as well as the extent to which their decisions are reformed or overturned on appeal. It is difficult to deny that such analysis can encourage *forum shopping* or the drafting of conclusions tailored to a particular judge. However, profiling can also provide insight into one's own decision-making practice and encourage reflection.

The Act on the Central Register prohibits the reuse of the identity data of magistrates, members of the court registry, and lawyers to evaluate, analyze, or compare their actual or presumed professional practices. Violation of this provision is punishable by a fine of 100 to 20,000 euros[62]. The use of AI techniques to dig deeper into judgments to find out how a particular judge rules is thus prohibited. The question arises as to what extent this criminalization was necessary: performing such analyses requires the massive downloading or at least the processing of a large number of decisions from the Central Register, which is already prohibited by law. However, the ban only targets the use of identity data. It therefore seems to be permitted to carry out such analysis using other data from the decisions that indirectly allow judicial decisions to be attributed to one or more magistrates, e.g. by carrying out the analysis on the case law of a magistrate's court of a specific canton or a chamber within a court or tribunal. Incidentally, this criminal provision does not provide for any exceptions: it is therefore not permitted for the Department of Justice or the judiciary itself to analyze judges on the basis of their decisions, e.g., in the context of a workload assessment.

The Belgian legislator took its cue from France, where a similar prohibition exists, the violation of which is punishable by a prison sentence of up to five years[63]. This criminal provision was preceded by a long discussion in legal circles regarding the pseudonymization of the names of magistrates in published decisions[64]. The reason for this was an article from 2016 in which the decisions of administrative courts on appeals against orders to leave French territory were compared from court to court and significant differences were found between the various courts[65]. The publication of these (unnuanced) findings caused quite a stir among our southern neighbors at the time.

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[61] In the United States, *LexMachina* allows users to analyze all available decisions of a specific court to find out how long a case is typically handled by a judge, the size of damages awarded, etc. See *https://lexmachina.com/legal-analytics/*.

[62] The Act refers to Article 227 of the Act of 30 July 2018, on the protection of natural persons with regard to the processing of personal data, *Belgian Official Gazette,* September 5, 2018.

[63] In France, however, an analysis of lawyers is permitted. See Article L111-13, paragraph 3, of the *Code de l'organisation judiciaire*, as introduced by Act no. 2019-222 of 23 March 2019 *de programmation 2018-2022 et de réforme pour la justice*, *JORF* No. 0071 of 24 March 2019. This stance may be shifting however. In its *Rapport sur l'évolution de l'open data des décisions de justice*, the working group presided by Daniel Ludet pleaded in favour of a systematic 'occultation' of the names of magistrates, court registrars, parties' lawyers and company names (Ministère de la Justice (2025), synthesis on p. 13ff). This would imply changes to Article L111-13 (Ministère de la Justice (2025), p. 11-12).

[64] For a discussion of arguments for and against the pseudonymization of legal actors, see Cadiet (2017), p. 43-52.

[65] See *https://www.village-justice.com/articles/impartialite-certains-juges-mise*,21760.html

5. Entry into force

The Act on the Central Register provided for the entry into force of the internal section of the Central Register on 30 September 2023. From that date judgments had to be included in full in that internal section. The pseudonymized decisions had to be available for consultation in the external section on December 31, 2023. The obligations arising from the European Recovery Fund, an important source of funding for the digitalization of the justice system, dictated this tight schedule. These deadlines were not met. The entry into force of the Act was postponed by a few months to 1 April 2024 with regard to the public section[66], but even on that date the Central Register was not operational.

The fact that the Act came into force despite the absence of a Central Register caused some unrest within the judiciary and beyond. Questions arose about the legal validity of traditional paper judgments, the possibility of obtaining legally valid copies now that the Central Register serves as the authentic source, and the manner in which the openness of the judiciary should be implemented, given that publication via the Central Register was not (yet) possible[67].

A letter from the minister of Justice was intended to reassure members of the judiciary. The minister pointed out that the Act already provided a solution in the event that technical problems prevented the creation of a digital judgment or made publication via the Central Register impossible. In such cases, a paper judgment is legally valid, and its public access is guaranteed by reading it out in full at the hearing or by making it available to the public during the hearing. Moreover, the Central Register served only as an authentic source for the digital judgments included in it, and therefore not for the paper judgments that could not yet be included. Business as usual, therefore, according to the minister, pending the full *go-live* of the Central Register.

III. THE RULING OF THE CONSTITUTIONAL COURT

However, this *go-live* was uncertain for a long time due to pending proceedings before the Constitutional Court. A group of magistrates and the Order of Flemish Bar Associations and *Ordres des barreaux francophones et germanophones* lodged appeals for annulment with the Constitutional Court against the Act on the Central Register. The aforementioned magistrates argued, among other things, that the Act created secret justice and that the management of the Central Register by the executive branch violated Article

[66] Amendment to Article 22 of the Act on the Central Register by Article 28 of the Act of December 19, 2023, containing provisions on the digitization of justice and various provisions, *Belgian Official Gazette*, 29 December 2023.

[67] Thiriar (2022), p. 11.

40 of the Constitution, the constitutional provision that stipulates that judicial power is exercised by the courts and tribunals. For their part, the bar associations criticized the lack of effective voting rights for their representatives on the management committee, the difference in access rights to the internal section between lawyers and magistrates, and the criminalization of profiling and the bulk downloading or processing of all data contained in the Central Register.

Some of the criticism expressed in the appeals for annulment was valid and prompted the legislator to introduce a repair law. The Act on the Central Register did not provide for an alternative form of publicity if the court decided not to publish a judgment or to omit certain parts of the reasoning for privacy reasons (Art. 782bis, fifth paragraph Judicial Code). The result would be secret justice if, in application of Article 149 of the Constitution, only the operative part were to be read out or only a written judgment were to be issued. The appeal for annulment lodged by a group of magistrates rightly pointed this out. The aforementioned legal provision was therefore amended so that if the court makes use of the possibility of a total or partial publication ban, publicity is guaranteed by the full reading of the decision at the hearing or by making it available to the public during the hearing[68]. The same amendment to the Act provided that no legal remedy is available against the court's decision to omit (part of) the reasoning from the published judgment, in order to avoid a trial within a trial.

In a long-awaited ruling on 30 January 2025, the Constitutional Court ruled that the Act on the Central Register passed the test of fundamental rights[69]. The Court ruled that a crucial principle of the Central Register, namely the public access to the administration of justice through the publication of pseudonymized decisions on the external section, did not violate fundamental rights. According to the Court, the legislator had struck a fair balance between, on the one hand, the requirement of public access to the administration of justice and, on the other hand, the right to respect for the private life of the persons concerned, not least because pseudonymization must not render a decision unreadable or incomprehensible[70].

The Act was only annulled in one respect, precisely where the legislator had already responded to the criticism expressed in one of the appeals for annulment with a repair law. The Constitutional Court ruled that, in the event of a total or partial publication ban within the meaning of Article 782bis, paragraph 5, of the Judicial Code, making the full decision available to the public during the hearing did not allow for effective publicity. According to

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[68] Art. 782bis, fifth paragraph Judicial Code, as amended by the Act of December 19, 2023, containing provisions on the digitalization of justice and various provisions, *Belgian Official Gazette*, 29 December 2023, *https://www.ejustice.just.fgov.be/eli/wet/2023/12/19/2023048419/justel*.

[69] Constitutional Court 30 January 2025, no. 9/2025, ECLI:BE:GHCC:2025:ARR.009, < *https://nl.const-court.be/ARR/9/2025* > and < *https://fr.const-court.be/ARR/9/2025* >. For further analysis of the ruling Mont (2025), Van Der Haegen & Van Doninck (2024) en Van Der Haegen (2025).

[70] Constitutional Court 30 January 2025, no. 9-2025, para B.22.3.

the Court, this method of disclosure does not allow for effective public scrutiny in all circumstances, as this depends, for example, on the length and complexity of the decision and the time a citizen may need to take note of it[71]. If the judge imposes a publication ban, he must read out the entire decision in open court.

However, the Constitutional Court saw no problem with the other alleged violations of fundamental rights that were raised in the various appeals for annulment, including those relating to the composition and functioning of the management committee. The fact that only magistrates have a decisive vote in the deliberations of the management committee is justified by the fact that the Central Register is primarily intended to serve as a working tool for the judiciary[72]. According to the Court, the placement of the management committee under the Department of Justice (Art. 782, § 6 Judicial Code) does not, in the Court's view, pose any problem with regard to the separation of powers, as it does not affect the functional independence of judges: the authenticity of the decisions recorded in the Central Register is guaranteed by the signature of the judge(s) and the registrar. The composition of and distribution of voting rights within the management committee also offers this guarantee of independence[73].

According to the Court, the different access to the internal section for lawyers and magistrates, in particular those of the public prosecutor's office, does not violate the principle of equality of arms, because this limited access to the internal section is important for the protection of privacy[74]. With regard to the criminal provisions contained in the Act, the Constitutional Court ruled that they do not violate fundamental rights, including the principle of legality in criminal matters[75].

IV. STATE OF AFFAIRS

The decision of the Constitutional Court cleared the way for the further development of the Central Register. However, this positive news cannot hide the fact that the work is far from complete and that a fully operational Central Register will not be ready for some time. Several factors explain this delay.

Firstly, legal proceedings, including those before the Constitutional Court, caused delays and uncertainty. At the legislative level, the implementing decrees on access, the structure, and operation of the Central Register, and on pseudonymization are still being devised. Privacy legislation is also a stumbling block. Almost ten years after GDPR, it appears that the Department of

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[71] Constitutional Court 30 January 2025, no. 9-2025, para B.22.12
[72] Constitutional Court 30 January 2025, no. 9-2025, paras B.39-B41.
[73] Constitutional Court 30 January 2025, no. 9-2025, para B.48.4.
[74] Constitutional Court 30 January 2025, no. 9-2025, paras B.55-B.58.
[75] Constitutional Court 30 January 2025, no. 9-2025, paras B.76.1-B.76.4.

Justice has not always given sufficient consideration to the applicability of this Regulation on the storage and processing of data within its own organization. For example, there is still no body within the Department of Justice to supervise this, as the Data Protection Authority does not have this power with regard to the processing of personal data in judicial functions[76]. The centralization and digitalization in the Central Register of the various, extensive, and sensitive personal data available to the Department of Justice brought matters to a head.

The delay factors mentioned above do not mean that technical work on the Central Register has been halted altogether. That technical work is however arduous. The Central Register must function as an application for the central storage, access to, and pseudonymized publication of digital judgments, but it is not a case management application in which metadata from pending cases are initially entered and judgments are created. Existing systems must therefore be linked to new systems.

This raises the issue of judgments handed down since 30 September 2023. According to the Act on the Central Register, a dematerialized certified copy of those 'paper' judgments must be included in the Central Register, and a pseudonymized version of all judgments handed down after 1 April 2024 must be published. It goes without saying that the longer the actual entry into force of the Central Register is delayed, the larger the stock of paper judgments that will theoretically have to be uploaded and published. However, the Act does not provide for a strict deadline within which the paper judgments must be included, so it is not impossible that the implementation of this obligation will be postponed indefinitely and thus remain a dead letter in practice.

V. A PREVIEW OF THE IMPACT ON LEGAL PRACTICE

1. Pseudonymization, an additional workload

In principle, every judgment handed down in public will be published online in the Central Register. The Act on the Central Register stipulates that these decisions must be pseudonymized. This pseudonymization will require a significant effort on the part of the courts. According to the Act, pseudonymization may be automated, but only if it is done under human supervision by an authority that is directly dependent on or controlled by the judiciary (Art. 782, § 5, fourth paragraph Judicial Code). Because pseudonymization affects the content of the judgment, it must be carried out under the responsibility of the magistrate or magistrates who issued the decision (see above, part II, section 2). The implementation may however be delegated to a clerk.

[76] See Art. 55, 3 of the GDPR and ECJ 24 March 2022, no. C-245/20, ECLI:EU:C:2022:216. The entity Cassation, the College of Courts and Tribunals, the College of the Public Prosecutor's Office, and the Department of Justice act as joint controllers within the meaning of the GDPR (Art. 782, § 7 Judicial Code).

The *JustMask* application is intended to facilitate this work by automatically pseudonymizing personal data and flagging data that could potentially lead to re-identification, so that manual pseudonymization can be guided. A considerable amount of work can be saved by omitting as much personal data as possible when drafting judgments, where this is not necessary. Nevertheless, the requirement for human control of automated pseudonymization will undoubtedly increase the workload, as pointed out by the *Association syndicale des magistrats* in a critical letter to the Minister of Justice[77].

2. A new contentious issue

In addition to an increased workload, the obligation to pseudonymize will also give rise to a new and special contentious issue. The mandatory pseudonymization of personal data is a good thing, but, unfortunately, the risk of re-identification can never be ruled out[78]. The Act on the Central Register therefore allows the judge, either ex officio or at the request of a party, and after hearing the parties, to decide to prohibit the publication of the judgment or to omit certain parts of the reasoning if their publication is disproportionate to the protection of the privacy of the persons concerned (Art. 782bis, fifth paragraph Judicial Code).This creates a new potential point of dispute in the handling of a case, namely which elements of the file may or may not be included in (the publication of) a judgment and to what degree of detail.

3. A new way of dealing with case law

The Central Register represents a paradigm shift in the field of case law publication. Whereas until now only a relatively small number of decisions have been published and, with the exception of the decisions of the highest courts, these have been hidden behind a paywall, the Central Register promises the publication of all case law in its entirety and accessible to those seeking justice.

We are therefore evolving from a publication of case law that is anything but a representative sample of Belgian case law to a publication in which the question of representativeness is no longer an issue and there is no longer even a sample. The impact of this on legal practice goes beyond an increased workload for magistrates and new points of attention for lawyers. This radical change in case law publication may have more fundamental consequences. It promises a new way of dealing with case law. The current approach to case law publication is an expression of our general legal culture, where attention is generally focused on the relatively limited number of decisions

[77] Letter from the ASM to the Minister of Justice dated 15 December 2023, *https://asm-be.be/wp-content/uploads/2023/12/lettre-au-ministre.pdf*.

[78] Vokinger & Mühlematter (2019), Allard (2018), p. 183-188.

of the highest courts as benchmarks in the legal landscape[79]. The availability of all factual case law may shift the focus from quality to quantity, whereby the authority associated with the traditional hierarchy within the judicial pyramid loses its significance and a mass of judgments takes on a certain precedential effect. A number of decisions in one sense or another may then manifest themselves as a supposed source of law. The impact on our legal culture is difficult to discern, but seems potentially far-reaching[80]. However, in order for published case law to be effectively used, the accessibility of the database must first and foremost be ensured. To this end, it is not enough to simply publish all case law online. Without measures to guarantee the practical accessibility and comprehensibility of this mass of information, insight into legal developments is in danger of being irretrievably lost. This is all the more pressing because the Central Register is likely to be consulted primarily for this purpose by those seeking justice, rather than to exercise control over the administration of justice *in abstracto*. It is striking that the Act on the Central Register remains silent on this point. Ideally, the database should be developed in such a way that the relevant data is easy to find for every user, whether that user is a specialist lawyer or a legal layman[81]. This is no easy task, but it is nonetheless essential.

VI. CONCLUSION

The Act on the Central Register has not been able to meet its strict timing, but to many that will come as no surprise. Although many steps have already been taken, we are still waiting for a fully operational Central Register. The Act has caused quite a stir in legal circles, which is unlikely to subside any time soon, even with the ruling of the Constitutional Court. This is because there are various fundamental interests and concerns that come together in the publication of case law on such a massive scale: the openness of the administration of justice, the protection of privacy, the accessibility of the law, the digitalization of the judiciary, working conditions within the judiciary, and so on. These interests and concerns deserve careful consideration. The impact of all this on legal practice, and more broadly on our legal culture, will have to become apparent in time.

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[79] Serverin (2018), p. 23-25.
[80] Deumier (2018), Cadiet, Chainais & Sommer (2022), Cadiet (2024), p. 56ff.
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Digital transformation and artificial intelligence integration in the iranian judicial system: legal infrastructure, regulatory framework, and systemic prerequisites

Mostafa Tabatabai*
Morteza Shahbazinia**
Mohammad Bagher Parsapour***

ABSTRACT: This article examines the legal infrastructure and systemic prerequisites for AI integration within Iran's judicial system. Using doctrinal and documentary analysis of binding instruments, it assesses institutional readiness across enabling capacities and governance safeguards. The analysis indicates that Iran has built a substantial enabling layer, and that registry-backed, rule-based automation is already operational in three legally consequential domains: heirs certification, financial enforcement under the Sayyad check system, and traffic bodily-injury compensation. In these domains, determinations that were historically produced through discretionary judicial steps are increasingly generated through interoperable registries and standardized workflows, grounded in pragmatic doctrinal accommodation and explicit statutory authorization.

By contrast, the protective layer has not developed at the same pace, particularly regarding transparency, data-subject rights, and effective contestability. To address this asymmetry, the article proposes a Qualified Human-in-the-Loop (Q-HITL) framework under which system outputs function only as advisory proposals and can acquire legal effect solely through mandatory validation (or reasoned rejection) by a legally accountable judge.

KEYWORDS: Artificial Intelligence; Digital Transformation of Justice; Judicial Digitization in Iran; Administrative Reallocation; Dejudicialization

* PhD Student, Faculty of Law, Tarbiat Modares University: Tehran, Iran. t.mostafa@modares.ac.ir, ORCID: 0009-0003-7858-8895

** Associate Professor, Faculty of Law, Tarbiat Modares University: Tehran, Iran. shahbazinia@modares.ac.ir, ORCID: 0000-0002-8659-4684

*** Associate Professor, Faculty of Law, Tarbiat Modares University: Tehran, Iran. parsapour@modares.ac.ir, ORCID: 0000-0002-2309-7138

SUMMARY: 1. INTRODUCTION: 1.1. Methodology and source materials.— 2. DOCTRINAL FOUNDATIONS: PRAGMATIC ADAPTATION IN A FIQH-BASED SYSTEM: 2.1. Pragmatic adaptation inside a fiqh-referential system: *lā ḥaraj*, authorization, validation; 2.2. Authorization in response to the *ijtihād* constraint: *qāżī maʾdhūn*, and the limited route for women; 2.3. Validation as a procedural arrangement: Family Protection Law (FPL), Article 2 (female advisor; written opinion; reasoned disagreement); 2.4. Humanhood, HITL/Q-HITL, and the statutory anchor in Article 113(a).— 3. THE REGULATORY LANDSCAPE: FROM DIGITAL VALIDITY TO AI POLICY: 3.1. Digital validity as a precondition: electronic records, signatures, and integrity; 3.2. Procedural institutionalization: judiciary instruments that routinize electronic litigation; 3.3. Data governance statutes and the legal architecture of inter-institutional exchange.— 4. DIGITIZATION AND DATAFICATION: GENERATING STRUCTURED PROCEDURAL RECORDS: 4.1. From e-services to integrated procedural architecture; 4.2. The gateway layer: Electronic Service Offices and the governance of data entry; 4.3. Datafication, standardization, and the limits of "ML readiness"; 4.4. Traceability and technological due process; 4.5. Interoperability constraints and organizational limits.— 5. INTEROPERABILITY AND REGISTRY INTERCONNECTION: THE ARCHITECTURE OF VERIFICATION: 5.1. Interconnection as a statutory governance project rather than *ad hoc* exchange; 5.2. What registry interconnection can enable in judicial administration; 5.3. Operational unevenness: legal mandates do not ensure reliable interoperability; 5.4. Governance implications: secondary use, transparency, and data-subject rights.— 6. REGULATORY DESIGN AND OPERATIONAL REALLOCATION: FROM COURT-CENTERED PROCESSING TO REGISTRY-BACKED DEFAULTS: 6.1. Regulatory design: reallocation as an intended architecture; 6.2. Heirs certification as a registry-backed administrative pathway; 6.3. Rule-based enforcement and the Sayyad architecture: the case of the Check Law; 6.4. Automated compensation for bodily injuries: interoperability across police, forensic, and insurance data; 6.5. Governance implications: contestability, transparency, and responsibility allocation.— 7. READINESS ASSESSMENT: THE STRUCTURAL ASYMMETRY: 7.1. The Asymmetry Thesis: Algorithmic speed *versus* analog contestability; 7.2. Operational readiness: The reliance on hybrid safety nets; 7.3. Alignment with international benchmarks.— 8. CONCLUSION: SYSTEMIC PREREQUISITES FOR RESPONSIBLE INTEGRATION: 8.1. The Doctrinal Prerequisite: Q-HITL as Jurisprudential Alignment; 8.2. The Regulatory Prerequisite: From Executive Directives to Risk-Based Statutes.— ACKNOWLEDGEMENTS.— BIBLIOGRAPHY

1. INTRODUCTION

Global justice administration is undergoing a fundamental transition, as paper-based traditions are increasingly replaced by data-centric models driven by the dual imperatives of efficiency and access[1]. Although this transition creates opportunities for automation, it also raises due process risks when embedded in specific institutional contexts. Against this background, this article examines AI integration within Iran's judicial system through doctrinal and documentary analysis of binding legal texts and strategic policy documents, assessing readiness across enabling capacities and governance safeguards. Recent Iranian scholarship has examined judicial AI mainly through feasibility and ethics-oriented analyses[2], but rarely offers a structured framework for assessing systemic readiness.

[1] OECD. (2025). Governing with artificial intelligence: The state of play and way forward in core government functions. OECD Publishing. *https://doi.org/10.1787/398fa287-en*

[2] Karimi, H. (2024). Possibility and barriers of using artificial intelligence to judge. Legal Studies in Digital Age, 3(2), 326-336. *https://doi.org/10.22048/LSDA.2025.10665.139*; Mohebbi, D., & Amiri, A. (2025). Ethical challenges of using artificial intelligence in justice and good governance. Legal Studies in Digital Age, 4(1), 83-98. *https://doi.org/10.22048/lsda.2025.10942.124*

Analytically, this article employs a hybrid theoretical lens combining fiqh-based permissibility principles with technological due process[3]. By 'fiqh-referential' governance, we refer to a legal system in which institutional authority derives from doctrinally recognized sources (fiqh) but permits pragmatic operational adaptation under principles such as *lā ḥaraj* (no undue hardship). This framework enables an analysis of how AI integration can be reconciled with existing accountability structures: fiqh-based permissibility defines who holds decision authority; technological due process defines how system-mediated steps must remain reviewable and contestable.

The assessment is grounded in three paradigmatic cases spanning non-contentious, commercial, and quasi-criminal domains: (i) heirs certification, where kinship-based inheritance determinations are generated through Civil Registration Association records and Civil Code provisions (Arts. 893–949)[4]; (ii) the New Check Law (Sayyad system), where validity verification, account blocking, and enforcement proceed through automated, networked banking infrastructure under the 2018 amendments; and (iii) traffic bodily-injury compensation, where triangulated dataflows among police, forensic, and insurance actors can replace routine judicial fact-finding under the default-validity regime introduced by the Seventh Development Plan Code and its 2025 Executive Bylaw. These cases illustrate that Iran's readiness is not merely aspirational: rule-based, registry-backed automation is already operational in legally consequential domains, raising immediate questions about procedural fairness and contestability.

1.1. Methodology and source materials

The study uses doctrinal and documentary analysis of binding legal texts (statutes and regulations) and judiciary policy documents. Policy texts are treated as indicators of institutional direction rather than enforceable safeguards. The analysis distinguishes legal obligation from policy orientation and does not claim measurable operational impact. As noted in recent scholarship[5], doctrinal analysis serves as the primary tool for assessing normative design and remains a precondition for subsequent empirical validation, though it assumes coherence in legal sources.

Each source is assessed through five criteria: legal effect (validity of digital outputs), attribution (allocation of responsibility), data integrity and traceability, interconnection and verification mandates, and contestability in administratively reallocated pathways[6]. International benchmarks are used

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[3] Citron, D. K. (2008). Technological due process. Washington University Law Review, 85, 1249–1313. *https://openscholarship.wustl.edu/law_lawreview/vol85/iss6/2/*

[4] Civil Code of the Islamic Republic of Iran. (1928, as amended). Accessible at: *https://www.wipo.int/wipolex/en/legislation/details/7731*

[5] Theil, S. (2025). Carefully tailored: Doctrinal methods and empirical contributions in legal research. Oxford Journal of Legal Studies, 45(4), 1047–1075. *https://doi.org/10.1093/ojls/gqaf029*

[6] Citron, D. K. (2008). Technological due process. Washington University Law Review, 85, 1249–1313. *https://openscholarship.wustl.edu/law_lawreview/vol85/iss6/2/*; Wieringa, M. A. (2020). What to

only for context (UN DESA; Freedom House), whereas domestic reports (e.g., Mizan; IRNA) are treated as institutional indicators.

Two primary limitations qualify this study. First, direct access to judicial micro-data in Iran remains strictly controlled; even studies conducted within the judiciary's own research institutes report constraints driven by privacy concerns and bureaucratic fragmentation[7]. Accordingly, the analysis relies on binding instruments and operational outputs instead of primary statistical modeling. Second, the regulatory landscape is evolving rapidly (2024-2025), so the assessment focuses on structural readiness of the legal architecture with long-term sociological effects outside its scope.

2. DOCTRINAL FOUNDATIONS: PRAGMATIC ADAPTATION IN A FIQH-BASED SYSTEM

Section 2 argues that Iran's fiqh-oriented legal system has shown a historical capacity for pragmatic adaptation when institutional realities make strict implementation of an ideal requirement difficult. That background matters for AI because it points to an integration pathway in which AI is treated as decision-support, with legally operative steps remaining attributable to a legally qualified human.

At the constitutional and statutory level, judicial qualification is framed through a fiqh-referential structure: Principle 163 delegates the judge's "attributes and qualifications" to legislation grounded in fiqh. The statutory regime on judicial selection treats three preconditions as central: humanhood, maleness, and *ijtihād*. Yet the same legal order recognizes controlled accommodations where institutional necessity makes full realization impracticable. By tracing flexibility regarding *ijtihād* and maleness, and then extending the same accommodation logic to the remaining precondition (humanhood), this section explains how AI assistance can be integrated without treating AI as an adjudicator.

2.1. Pragmatic adaptation inside a fiqh-referential system: *lā ḥaraj*, authorization, validation

A doctrinal basis for pragmatic calibration is the fiqh rule of *lā ḥaraj* (no undue hardship). It justifies narrowing or suspending an otherwise applica-

account for when accounting for algorithms: A systematic literature review on algorithmic accountability. In M. Hildebrandt & C. Castillo (Eds.), Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (FAccT '20) (pp. 1–18). Association for Computing Machinery. *https://doi.org/10.1145/3351095.3372833*

[7] Farzammehr, M. A., Tabrizi, E., & Moghimbeygi, A. (2024). Using machine learning to predict performance of trial court administration: An empirical study with Iranian performance indicators of trial case processing. Journal of Statistical Research, 58(2), 385–395. *https://doi.org/10.3329/jsr.v58i2.80626*

ble requirement only to the extent necessary to remove non-ordinary hardship, and only so long as the hardship persists[8]. Institutionally, this explains how the legal system can retain ideal requirements yet adopt bounded administrative adjustments.

In positive law, such calibration often appears through a separation between (i) producing an input and (ii) producing legal effect. Two devices are especially relevant. Authorization (*izn/ijazah*) confers ex ante permission for an otherwise non-standard actor to perform a legally operative function under defined conditions. Validation/ratification (*tanfidh*) makes an output legally consequential only through ex post endorsement by the competent authority. These are practical techniques for keeping legal effect tied to a qualified bearer of authority even when the workflow includes auxiliary participants.

2.2. Authorization in response to the *ijtihād* constraint: *qāżī maʾdhūn*, and the limited route for women

A clear example is the statutory response to the classical requirement of *ijtihād*. Faced with scarcity of fully qualified mujtahids, the law creates a controlled workaround through *qāżī maʾdhūn* (an "authorized judge"). The operative mechanism is authorization: adjudicative capacity becomes valid through a defined permission regime rather than administrative convenience. Institutional continuity is preserved by routing legal validity through authorization, thereby keeping the doctrinal ideal formally intact.

Within the same scarcity-based framework, the statute also provides a limited route for employing qualified women with judicial rank. The significance for present purposes is the method: the system manages a practical mismatch through bounded legal channels, and it continues to present judicial authority as a fiqh-referential institution whose validity depends on legally recognized pathways of authorization.

2.3. Validation as a procedural arrangement: Family Protection Law (FPL), Article 2 (female advisor; written opinion; reasoned disagreement)

A second accommodation concerns decision-preparation rather than personal qualification. Article 2 of the FPL structures family adjudication around a presiding judge and a female judicial advisor, whose written, reasoned opinion must be referenced in the judgment; if the judge disagrees, reasons must be stated. The arrangement formally integrates a non-binding auxiliary input

[8] al-Ansari, M. (n.d.). Farāʾid al-uṣūl (al-Rasāʾil) [The Principles of Jurisprudence] (Vol. 2). Al-Maktabah al-Islāmiyyah.; al-Sadr, M. B. (1398 A.H.). Durūs fī ʿilm al-uṣūl (al-Ḥalqa al-Thālitha) [Lessons in the Principles of Jurisprudence, Third Cycle]. Dār al-Fikr al-Islāmī.

into the record without displacing the judge as the sole source of legal effect, and it treats disagreement as something that must be justified.

For AI governance, the relevance is straightforward: Iranian procedural design already recognizes a model in which a "proposal-like" contribution can be institutionally required and must be addressed; legal effect remains tied to the judge's attributable decision and to reasons where the proposal is rejected.

2.4. Humanhood, HITL/Q-HITL, and the statutory anchor in Article 113(a)

The remaining precondition in the statutory picture of judging is humanhood. Within a fiqh-referential and cautious interpretive environment, the operative legal question is not whether a machine can be treated as a judge; it is how non-human tools can be used in adjudicative workflows provided that legal effect and responsibility remain attributable to a legally qualified human. Similar feasibility debates in Iranian legal scholarship stress that AI may assist but cannot assume adjudicative authority[9].

In the governance vocabulary of automated decision systems, Human-in-the-Loop (HITL) denotes arrangements in which a human reviews, approves, or overrides system outputs within the decision cycle. For adjudication, the relevant variant is Qualified Human-in-the-Loop (Q-HITL): the human in the loop is a legally qualified decision-maker to whom authority, accountability, and contestability attach. Under Q-HITL, system outputs remain non-binding unless adopted or rejected by the competent human, who remains responsible for the outcome.

This allocation is stated in Article 113(a) of the Seventh Five-Year Development Plan, which authorizes the use of new technologies, explicitly including AI, as assistance "for the judge" and preserves the judge's personal responsibility. The implementing regulation operationalizes this by treating system outputs as proposals requiring final user confirmation, with the user able to modify or reject them. Institutionally, the pattern mirrors earlier accommodations: auxiliary outputs may shape workflow, but legal effect remains tied to an attributable human act.

This doctrinal pathway also aligns with Iran's wider statutory treatment of electronic records and machine-processed information, which generally treats technical outputs as legally usable only under integrity, attribution, and traceability conditions reinforcing the same separation between producing an output and producing legal effect.

The operational implications of this doctrinal pathway are examined in Section 6 through heirs certification, Sayyad enforcement, and traffic injury

[9] Karimi, H. (2024). Possibility and barriers of using artificial intelligence to judge. Legal Studies in Digital Age, 3(2), 326-336. *https://doi.org/10.22048/LSDA.2025.10665.139*

compensation, domains where the separation between system outputs and legal effect has already become institutionally consequential.

3. THE REGULATORY LANDSCAPE: FROM DIGITAL VALIDITY TO AI POLICY

This dimension addresses the regulatory layer that enables digitized judicial procedure and frames permissible uses of advanced technologies, including AI. In Iran, it consists of binding statutes and judiciary procedural instruments, alongside non-binding policy documents that signal direction; legal assessment turns on distinguishing the two. Although Iran lacks a centralized AI statute, the framework has expanded by recognizing electronic records, institutionalizing e-litigation, and defining AI as supportive assistance subject to human oversight.

3.1. Digital validity as a precondition: electronic records, signatures, and integrity

AI integration presupposes a legal environment in which electronic records have legally cognizable status. The Electronic Commerce Act (2003) normalized digital records for commercial exchange, but their probative use in litigation raises distinct demands. Doctrinal analysis suggests that standards for authentication and chain-of-custody remain uneven, leaving a gap between transactional validity and evidentiary reliability[10]. For AI-related workflows, digitized outputs must be able to enter legal reasoning as evidence, not merely administrative metadata.

A complementary statutory layer addresses the security environment of digitized governance. Cybercrime and data manipulation risks can undermine the reliability of procedural records, and therefore the legitimacy of system-mediated pathways. Legal instruments that criminalize unauthorized access, interference, and manipulation operate as indirect safeguards of the evidentiary and procedural infrastructure, even though they are not tailored to judicial AI. Their doctrinal function is to reinforce the integrity of digital procedural artifacts and to signal that the state treats digital tampering as legally consequential[11].

[10] Mollaei, A. P., Salarzaei, A., & Tabatabaei, M. (2024). A legal analysis of the challenges and enforcement mechanisms of electronic evidence in the Iranian judicial system. Legal Studies in Digital Age, 5(2), 1–25. *https://doi.org/10.61838/kman.lsda.5.2.5*

[11] Computer Crimes Law (2009)

3.2. Procedural institutionalization: judiciary instruments that routinize electronic litigation

"Systemic readiness requires more than the mere permission of digital forms; it demands institutionalization through binding rules that define interfaces and distribute responsibilities. Iranian scholarship emphasizes that e-litigation can expand efficiency, but it must not compromise core procedural guarantees[12]. Judiciary-issued by-laws function here as 'procedural architecture,' effectively establishing electronic access, service, and record generation as the dominant operational standard.

Within this digitized architecture, physical fallbacks persist as protective safeguards. Although electronic workflows have been routinized as the default, the Tribunal of Administrative Justice has intervened to prevent technical mandates from overriding statutory access rights. It has upheld certain electronic mandates in the name of transparency (e.g., electronic attorney contracts)[13], but annulled directives that made tax stamps or criminal complaints exclusively electronic, requiring physical submission to remain available[14]. The result is an operationally electronic system that retains a residual physical option to protect the right to defense.

Consequently, the routinization of electronic filing generates the standardization and traceability required for AI integration. By producing structured procedural traces at scale—timestamps, routing metadata, and standardized fields—the infrastructure creates the data foundation necessary for future decision-support tools, subject to the development of governance mechanisms for auditability[15].

3.3. Data governance statutes and the legal architecture of inter-institutional exchange

AI-adjacent judicial functions such as verification, enforcement support, and standardized administrative outputs depend on access to authoritative

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[12] Mohseni, H., & Beheshtipour, Z. (2021). Adherence of e-justice to the basic principles of procedure: A comparative study in French law. Journal of Comparative Law, 5(2), 221–237. *https://doi.org/10.22080/lps.2022.22729.1292*; Shokri, 2021

[13] Tribunal of Administrative Justice. (2022). Judgment No. 140009970906011356 regarding the validation of the directive on mandatory electronic attorney contracts. Official Gazette of the Islamic Republic of Iran.

[14] Tribunal of Administrative Justice. (2021). Judgment No. 140009970905812407 on the annulment of the directive regarding exclusive electronic payment of attorneys' tax stamps. Official Gazette of the Islamic Republic of Iran.; 2023; 2025

[15] Fabri, M. (2024). From court automation to e-justice and beyond in Europe. International Journal for Court Administration, 15(3), Article 7. *https://doi.org/10.36745/ijca.640*; Wieringa, M. A. (2020). What to account for when accounting for algorithms: A systematic literature review on algorithmic accountability. In M. Hildebrandt & C. Castillo (Eds.), Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (FAccT '20) (pp. 1–18). Association for Computing Machinery. *https://doi.org/10.1145/3351095.3372833*

registries. The National Data and Information Management Law (NDIML) establishes a governance architecture for data custodianship, base data, and inter-institutional exchange, framing interoperability as a matter of public governance rather than ad hoc convenience and thereby strengthening prerequisites for registry-backed administration[16]. Yet studies of judicial e-services emphasize that organizational and cultural factors can disrupt interconnection even where mandates exist, so legal authorization does not guarantee operational reliability[17].

3.4. Strategic policy versus binding mandates: The status of the "National AI Document"

Merely featuring AI in national strategies does not equate to establishing an enforceable legal framework. To ensure precision, this analysis distinguishes between binding statutes and aspirational policy. A prime example is the National Artificial Intelligence Document, enacted by the Supreme Council of the Cultural Revolution in July 2024. Although this document establishes a 'National AI Organization' and sets ambitious goals for 2033 (Article 3), it functions primarily as a strategic roadmap rather than a source of justiciable rights.

Crucially, the document itself acknowledges the current legal vacuum. In Article 5 (Governance Infrastructures), it explicitly mandates the future 'drafting of necessary legal bills' to address liability, privacy, and algorithmic discrimination. This confirms that the institutional direction is set, yet the protective legal layer remains prospective. Consequently, for the purpose of judicial readiness, such documents should be treated as administrative guidance that signals intent, whereas actual operational authority is currently derived from older, generalist statutes like the Seventh Development Plan (Article 113) which authorizes technical modernization without yet providing specific AI safeguards[18].

4. DIGITIZATION AND DATAFICATION: GENERATING STRUCTURED PROCEDURAL RECORDS

Section 4 examines the extent to which Iran's judiciary has moved from isolated digital services toward systematic digitization that generates structured procedural data. This analytical dimension is distinct from the deployment of probabilistic AI and machine-learning (ML) systems: digitization

[16] Danaeefard, H., Babaee Mojarad, H., Khosravi, M., Morattab, Y., & Zinatbakhsh, J. (2024). The antecedents and consequences of the National Data and Information Management Law: A qualitative research. Iranian Journal of Public Policy, 10(3), 70–85. *https://doi.org/10.22059/jppolicy.2024.98675*

[17] Noori, R., Farrokh, M., & Mohebbati Dastjerdi, S. (2024). Challenges of organizational interoperability in the judicial integrated electronic service system. Public Management Researches, 17(65), 199–230. *https://doi.org/10.22111/JMR.2024.46687.6064*

[18] Supreme Council of the Cultural Revolution. (2024). National Artificial Intelligence Document of the Islamic Republic of Iran (Resolution No. 901). Official Gazette of the Islamic Republic of Iran.; Islamic Parliament of Iran. (2024). Seventh Five-Year National Development Plan Act. Official Gazette of the Islamic Republic of Iran.

can be extensive even when such AI remains aspirational or limited to pilots. Nonetheless, sustained digitization can supply technical prerequisites for algorithmic assistance by routinizing electronic interfaces and producing traceable procedural records[19].

ML readiness extends beyond data existence; it requires stable definitions, consistent quality across jurisdictions, and auditable traces that support reliable downstream analysis.

Available evidence suggests that some sub-systems may have crossed a datafication threshold insofar as they generate administrative records that can support experimental model training. Studies using case management records from Tehran's General Civil Courts report datasets with sufficient structure to support machine learning classification with high reported accuracy[20]. The key question, therefore, is whether governance frameworks are mature enough to manage the transition in which passive record-keeping gives way to active algorithmic analysis.

4.1. From e-services to integrated procedural architecture

Court digitization becomes a systemic prerequisite when it operates as an integrated procedural architecture rather than a set of isolated services. Two operational indicators are central: integrated identity and access (consistent authentication and routing), and integrated temporal traceability (standardized, time-stamped logs that enable reconstruction and audit).

A foundational layer is the Sana system (Electronic Judicial Service System), established under the 2016 By-law on the Use of Computer or Telecommunication Systems. Sana functions as mandatory infrastructure for authentication and electronic service of process and is designed to capture procedural events such as timestamps, access logs, and delivery receipts as auditable traces.

This infrastructure has also supported broader e-justice practices. Official reporting suggests extensive use of secure video-link channels for prisoner hearings[21]. As electronic records become the primary medium of litigation,

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[19] Fabri, M. (2024). From court automation to e-justice and beyond in Europe. International Journal for Court Administration, 15(3), Article 7. *https://doi.org/10.36745/ijca.640*; Wieringa, M. A. (2020). What to account for when accounting for algorithms: A systematic literature review on algorithmic accountability. In M. Hildebrandt & C. Castillo (Eds.), Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (FAccT '20) (pp. 1–18). Association for Computing Machinery. *https://doi.org/10.1145/3351095.3372833*

[20] Farzammehr, M. A., Tabrizi, E., & Moghimbeygi, A. (2024). Using machine learning to predict performance of trial court administration: An empirical study with Iranian performance indicators of trial case processing. Journal of Statistical Research, 58(2), 385–395. *https://doi.org/10.3329/jsr.v58i2.80626*

[21] reported at approximately 85% of relevant hearings; Mizan Online. (2025a, November 17). Head of the Judiciary Statistics & ICT Center: 85% of investigative and trial sessions for cases involving prisoners were held electronically. *https://www.mizanonline.ir/fa/news/4867341*

integrity, authenticity, attribution, and traceability of digital artifacts become conditions of procedural reliability; Iranian analyses therefore stress building enforcement mechanisms against manipulation into procedural design[22].

4.2. The gateway layer: Electronic Service Offices and the governance of data entry

Built upon Sana is a gateway layer managed by Electronic Judicial Service Offices. These offices standardize case inputs before they reach the court by transforming heterogeneous claims into predefined fields and drop-down classifications within the Case Management System (CMS).

This, in turn, implies governance by design: requiring users to fit disputes into fixed menus can reshape how grievances are framed and what becomes legible to downstream decision making[23]. Standardization can reduce entry errors and increase consistency, but it can also compress narrative nuance and generate classification bias by privileging the categories embedded in interfaces.

4.3. Datafication, standardization, and the limits of "ML readiness"

Official reports indicate that a high proportion of judicial notices are served electronically[24]. However, digitization must be distinguished from datafication. Electronic storage does not automatically yield the structured, machine-readable records required for reliable algorithmic processing. Research on algorithmic accountability emphasizes that downstream model reliability is constrained by upstream data quality and definitional stability[25].

Pilot studies confirm that data exists, yet it suffers from significant representational and normative limitations. For instance, Farzammehr and co-workers successfully trained logistic regression models on case management records[26]. However, a critical examination reveals that the study oper-

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[22] Mollaei, A. P., Salarzaei, A., & Tabatabaei, M. (2024). A legal analysis of the challenges and enforcement mechanisms of electronic evidence in the Iranian judicial system. Legal Studies in Digital Age, 5(2), 1–25. *https://doi.org/10.61838/kman.lsda.5.2.5*

[23] Shokri, M. (2021). Inadequacies of Iran's electronic judicial services in facing the rights of clients. Laws of New Technologies, 2(4), 227–251. *https://doi.org/10.22133/mtlj.2022.334470.1081*

[24] Reported at 96%; Mizan Online. (2025b). Over 96% of judicial notices are served electronically in Iran. *https://www.mizanonline.ir/fa/news/4854165*

[25] Wieringa, M. A. (2020). What to account for when accounting for algorithms: A systematic literature review on algorithmic accountability. In M. Hildebrandt & C. Castillo (Eds.), Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (FAccT '20) (pp. 1–18). Association for Computing Machinery. *https://doi.org/10.1145/3351095.3372833*

[26] Farzammehr, M. A., Tabrizi, E., & Moghimbeygi, A. (2024). Using machine learning to predict performance of trial court administration: An empirical study with Iranian performance indicators of trial case processing. Journal of Statistical Research, 58(2), 385–395. *https://doi.org/10.3329/jsr.v58i2.80626*

ationalizes "court performance" strictly as a function of clearance rates and processing speed. Training algorithms on such metrics risks entrenching a form of techno-solutionism, where judges are nudged to prioritize rapid disposal over substantive fairness[27]. Furthermore, the study relied on a small sample of 119 records from only 21 branches due to what the authors explicitly cite as "bureaucratic hurdles" and restricted access, confirming that the enabling data infrastructure remains fragmented even for internal researchers.

Similarly, Tabrizi and Farzammehr utilized divorce registry data to predict outcomes[28], yet their model relied on socio-economic proxies (such as unemployment rates from census data) rather than internal case-file narratives. This inadvertent admission demonstrates that the judiciary's internal records are not yet sufficiently datafied to support semantic analysis of legal merits. Consequently, these studies demonstrate a technical proof-of-concept for localized administrative analysis, but they do not establish system-wide readiness for adjudicative AI.

4.4. Traceability and technological due process

Digitization can strengthen contestability when it yields traceable records and durable audit trails. Citron's account of "technological due process" emphasizes that when computational systems shape public decision pathways, procedural fairness requires transparency, explanation, and meaningful review, including the capacity to identify errors and reconstruct how they occurred[29].

In court settings, this implies concrete requirements: retention of reliable logs for submissions and service events; recording of modifications with attribution and chronology; and an accessible disclosure pathway that enables parties and reviewing bodies to examine relevant trails. Role-based access controls should be paired with protected audit logging so the system can show what changed, who changed it, and when.

The European Ethical Charter likewise frames transparency, quality and security, and human control as safeguards for rights in judicial environments[30]. Iran's digitization program can generate the raw materials of contestability, but contestability depends on whether traces are accessible, intelligible, and reviewable within institutional design.

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[27] UN General Assembly (2025)

[28] Tabrizi, E., & Farzammehr, M. A. (2024). Classifying divorce cases in Iranian judiciary courts using machine learning: A predictive perspective. Journal of Sciences, Islamic Republic of Iran, 35(2), 147–157. *https://doi.org/10.22059/jsciences.2025.383202.1007887*

[29] Citron, D. K. (2008). Technological due process. Washington University Law Review, 85, 1249–1313. *https://openscholarship.wustl.edu/law_lawreview/vol85/iss6/2/*

[30] Council of Europe. (2018). European ethical charter on the use of artificial intelligence in judicial systems and their environment. CEPEJ. *https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c*

4.5. Interoperability constraints and organizational limits

Digitized procedure depends on interoperability across institutional boundaries, including stable linkages to registries for identity, address, assets, and legal status. Empirical research on Iran's integrated electronic service system identifies organizational and cultural obstacles, managerial constraints, cost pressures, and misalignment between processes and technology as significant sources of disruption[31]. Even extensive digitization may fail to produce reliable structured procedural data if interoperability is uneven, if gateway practices vary, or if system components do not match procedural realities.

These constraints have direct due process implications. Unstable linkages can increase risks of identity mismatches, defective service, erroneous verification, and delay, each of which can undermine procedural fairness. Accordingly, where digitization policies or by-laws were adopted in 2024–2025, the careful claim is that they mandate or intend architectural features, not that implementation outcomes have already stabilized.

5. INTEROPERABILITY AND REGISTRY INTERCONNECTION: THE ARCHITECTURE OF VERIFICATION

Section 5 examines whether interconnected registries can function as an infrastructural prerequisite for AI-enhanced judicial administration. Many efficiency gains arise less from prediction than from authoritative verification through standardized cross-institutional queries. These functions scale only when interconnection is legally mandated, institutionally organized, and operationally reliable. The analysis therefore asks whether the legal architecture for interconnection exists, what it is designed to enable, and what governance risks follow as procedural steps become registry-backed.

A concrete illustration is the judiciary's reported "smart financial inquiry" service, presented as a verification tool for locating assets relevant to enforcement[32]. Even if performance figures are treated cautiously as official claims, the example signals an institutional move toward registry-backed administrative outputs, where scale depends on interoperable access to authoritative sources rather than adjudicative reasoning.

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[31] Noori, R., Farrokh, M., & Mohebbati Dastjerdi, S. (2024). Challenges of organizational interoperability in the judicial integrated electronic service system. Public Management Researches, 17(65), 199–230. *https://doi.org/10.22111/JMR.2024.46687.6064*

[32] Mizan Online. (2025c). Smart financial inquiry system: 4,458,041 inquiries registered (1400–1403) and expanded usage. *https://www.mizanonline.ir/fa/news/4871215*

5.1. Interconnection as a statutory governance project rather than *ad hoc* exchange

The National Data and Information Management Law[33] frames data exchange and "base data registries" as objects of public governance rather than discretionary administrative cooperation. For judicial interoperability, this matters because key judicial databases are placed within the base-registry architecture, creating a statutory mandate for structured interconnection through standardized channels and assigned custodianship, in lieu of case-by-case requests.

At the same time, the NDIML's protective logic is primarily custodial: it emphasizes confidentiality and security duties for data-holding bodies, but it does not clearly articulate a parallel set of data-subject procedural entitlements (for example, transparency about system-mediated queries, access and correction rights, or meaningful objection pathways). If registry-backed outputs increasingly shape legal effects, the absence of explicit rights to understand, challenge, and correct underlying data can weaken procedural fairness even when interconnection itself is legally authorized.

Moreover, the NDIML's institutional governance design preserves judicial autonomy in ways that can be double-edged. Article 3 excludes "judicial matters" from the general interoperability working group's remit, which may protect the judiciary from external interference, yet it can also decouple judicial data practices from cross-government protective standards that would otherwise strengthen baseline accountability, common safeguards, and harmonized oversight.

5.2. What registry interconnection can enable in judicial administration

Interconnected registries can support legally meaningful steps across the litigation lifecycle. In civil procedure and enforcement contexts, the capacity to verify identity and legal status, validate addresses for service, discover assets relevant to execution, and confirm ownership records can reduce manual verification burdens and shorten procedural cycles. The underlying institutional logic is straightforward: when authoritative registries can be queried through standardized channels, courts and affiliated administrative units can rely less on paper submissions and discretionary verification, thereby increasing administrative throughput.

The paper treats such capabilities as governance-relevant even when they do not involve "AI" in a strict technical sense. Registry-backed verification is a precondition for later decision-support tools and is already a form of system

[33] NDIML (2022)

mediation that reshapes litigation burdens. As operationalized in heirs certification (Section 6.2), check enforcement (Section 6.3), and traffic-accident compensation (Section 6.4), verification can shift from discretionary judicial steps to automated or semi-automated determinations anchored in database status and cross-registry confirmation.

These capabilities also shift the locus of vulnerability. When procedural actions become dependent on registry data, erroneous or outdated entries can generate legally consequential outcomes. A digitized judiciary that relies on interconnection must therefore treat correction and contestation of underlying data as part of procedural fairness. Technological due process scholarship frames this as a precondition for meaningful contestability[34].

5.3. Operational unevenness: legal mandates do not ensure reliable interoperability

A readiness analysis must distinguish the existence of a legal framework from the stability of operational interoperability. Based on assessments reported by judges' office managers, Noori and co-workers emphasize that disruptions in information exchange reflect organizational and cultural barriers as much as technical connectivity, with cost and managerial constraints also prominent[35].

This point matters for claims about AI-enhanced justice. In the absence of reliable interconnection, the potential for consistent data-driven verification remains compromised. This fragility imposes structural limits on any future AI tools that depend on stable access to authoritative sources. Interconnection, then, serves as both a prerequisite for scaling system mediation and a test of governance resilience: increasing operational scope inevitably ties judicial outcomes more tightly to the health of cross-institutional data streams.

5.4. Governance implications: secondary use, transparency, and data-subject rights

Interconnection can generate procedural opacity: parties may not know which registries were queried, which fields were relied upon, or how discrepancies were resolved. As registry-backed outputs become practically binding, errors can propagate quickly and remedies can become harder to access. Work on technological due process and algorithmic legitimacy warns that system-mediated administration undermines fairness where affected persons

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[34] Citron, D. K. (2008). Technological due process. Washington University Law Review, 85, 1249–1313. *https://openscholarship.wustl.edu/law_lawreview/vol85/iss6/2/*

[35] Noori, R., Farrokh, M., & Mohebbati Dastjerdi, S. (2024). Challenges of organizational interoperability in the judicial integrated electronic service system. Public Management Researches, 17(65), 199–230. *https://doi.org/10.22111/JMR.2024.46687.6064*

cannot contest inputs, obtain meaningful review, or receive intelligible disclosure about how a result was produced[36].

Interoperability should be paired with safeguards that make registry-backed steps auditable and contestable, including durable query logs, notice and disclosure pathways, accessible correction and review mechanisms, and purpose-limitation and secondary-use controls to reduce mission creep.

Registry interconnection can accelerate judicial administration, but because it can produce legally significant effects, it intensifies the need for a protective layer. The governance question is therefore the procedural conditions under which registry-backed pathways remain transparent, correctable, and reviewable.

Comparable developments in the European Union have sought to systematize such safeguards within AI-driven dispute resolution frameworks, emphasizing categorization of systems, transparency obligations, and procedural guarantees for users interacting with automated or semi-automated processes[37].

6. REGULATORY DESIGN AND OPERATIONAL REALLOCATION: FROM COURT-CENTERED PROCESSING TO REGISTRY-BACKED DEFAULTS

Section 6 assesses whether administrative reallocation in Iran is shifting from court-centered processing toward registry-backed default pathways, where legally significant outputs are generated through standardized data queries and rule-based validation. The question is whether reallocation is being designed as a regulated architecture that assigns tasks to non-judicial bodies, relies on authoritative registries, and reserves judicial intervention for objections and contested cases.

6.1. Regulatory design: reallocation as an intended architecture

Iran's Seventh Five-Year Development Plan Act contains explicit mandates for administrative reallocation. Article 113 authorizes default, registry-backed pathways for heirs certification and traffic-injury compensation and anticipates executive bylaws adopted by the Cabinet after confirmation

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[36] Citron, D. K. (2008). Technological due process. Washington University Law Review, 85, 1249–1313. *https://openscholarship.wustl.edu/law_lawreview/vol85/iss6/2/*; Grimmelikhuijsen, S., & Meijer, A. (2022). Legitimacy of algorithmic decision-making: Six threats and the need for a calibrated institutional response. Perspectives on Public Management and Governance, 5(3), 232–242. *https://doi.org/10.1093/ppmgov/gvac008*

[37] Vilalta Nicuesa, A.E. & Saldaña, M.G. (2025). AI-driven alternative and online dispute resolution in the European Union: An analysis of the legal framework and a proposed categorization. *Computer Law & Security Review* 57

by the Head of the Judiciary. This design matters because it frames reallocation as formal institutional architecture rather than an informal shortcut[38].

A parallel regulatory signal appears in the judiciary's Directive on Smartization and Electronicization of Judicial Processes and Case Files. Its provisions envisage systems capable of reviewing case information and proposing appropriate procedural steps, and simultaneously reserving legally operative acts for competent authorities. For this dimension, the key point is that Article 19 explicitly links the use of "new technologies" in outputs such as heirs certification and check-related execution to confirmation by a competent judicial authority[39].

6.2. Heirs certification as a registry-backed administrative pathway

Heirs certification (*govahi-ye enhesar-e verasat*) offers a paradigmatic case of reallocation enabled by datafication. Historically, the certificate established the fact and date of death, the identity of heirs, and their legal shares in a non-contentious judicial process. Under the executive bylaw for Clause (th) of Article 113, issuance is shifted to the Civil Registration Organization through a system-mediated pathway: once the death event is registered, the certificate is to be generated and electronically notified within twenty days, without requiring a prior request from heirs or other beneficiaries[40].

Two structural factors make this reallocation technically feasible. First, the Civil Registration Organization maintains a family-relationship database recording identities, vital events, and kinship links. Second, inheritance shares are largely computable as a mapping from kinship relations onto statutory formulas. The bylaw operationalizes this by mandating online exchange of relevant judicial and administrative data, including final judgments affecting personal status, and by requiring cross-registry verification for variables that condition shares or eligibility[41].

Reallocation is not unconditional. Contestation is routed through an administrative-judicial ladder: objections may be filed within ten days before the Civil Registration dispute-resolution board, and its decision is appealable to a competent court within twenty days. The by-law also provides correction pathways for clerical errors and preserves a judicial route where certificates cannot be issued due to missing data[42]. These features show that de-judiciali-

[38] Islamic Parliament of Iran (2024); Cabinet of Ministers. (2025). Executive Bylaw of Clause D, Article 113, Seventh Five-Year Development Plan Act (Acceleration of processing traffic accidents resulting in non-intentional bodily injuries), as amended 2025. Official Gazette of the Islamic Republic of Iran.; Cabinet of Ministers. (2025b). Executive Bylaw of Clause Th, Article 113, Seventh Five-Year Development Plan Act (Issuance of heirs certification by the Civil Registration Organization). Official Gazette of the Islamic Republic of Iran.

[39] Head of the Iranian Judiciary, (2024)

[40] Cabinet of Ministers (2025b)

[41] Cabinet of Ministers (2025b)

[42] Cabinet of Ministers (2025b)

zation is paired with defined objection mechanisms, but ones that depend on timely notice and accurate upstream registries.

6.3. Rule-based enforcement and the Sayyad architecture: the case of the Check Law

Reallocation is also visible in financial enforcement. The Law on Amendments to the Law on Issuance of Checks and its Sayyad infrastructure reorganize enforceability around a central database and networked enforcement, reducing routine court involvement to validation of standardized identifiers and bank-issued certificates[43].

The most striking mechanism is the automated restrictions regime. After non-payment is registered in the Central Bank's integrated system, the system notifies all banks online; after twenty-four hours, banks must apply restrictions and block the issuer's funds across accounts up to the unpaid amount[44]. This is a form of disintermediated execution: enforcement is initiated by a registry event and propagated as an automated command through the inter-banking network, without requiring a prior court judgment on the underlying dispute.

Article 23 also preserves a judicial execution pathway: the holder may request an execution order from the competent court, and the issuer has ten days after service to pay, arrange payment, or introduce executable assets; otherwise enforcement proceeds under the law on financial judgments[45]. Defenses exist (e.g., conditional issuance, guarantees, theft, or fraud), but filing them does not automatically suspend execution; suspension requires a judicial order and may be conditioned on security. Contestability thus exists, but operates ex post against a fast restrictions layer.

6.4. Automated compensation for bodily injuries: interoperability across police, forensic, and insurance data

A third vector targets routine traffic-related bodily injuries (*tasādo fāt-e jarḥī*) through a default administrative pathway. Under Clause (d) of Article 113 and its executive bylaw, The Police Command of the Islamic Republic of Iran (FARAJA) prepares an electronic accident report and croquis, determines the cause, and notifies parties and the insurer or compensation fund through the Sana e-notification system. The Legal Medicine Organization issues a digital assessment of injury severity, also notified through Sana; parties and, where relevant, the insurer or fund have one week to object[46].

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[43] Islamic Parliament of Iran. (2018). Law on Amendments to the Law on Issuance of Checks (New Check Law). Official Gazette of the Islamic Republic of Iran.

[44] Islamic Parliament of Iran (2018)

[45] Islamic Parliament of Iran (2018)

[46] Cabinet of Ministers (2025a)

If no objection is lodged within the one-week window, the insurer or fund is legally obliged to pay within twenty days after the objection period expires, without a court judgment. If an objection is lodged, or if the injuries fall under specified serious-crime categories or cannot be reliably classified, the file is referred to the competent judicial authority. The architecture therefore treats the judge primarily as an exception handler: routine claims are resolved through interoperable police and forensic data, with judicial review triggered by objection or exceptional conditions[47].

6.5. Governance implications: contestability, transparency, and responsibility allocation

Across inheritance, check enforcement, and traffic-injury compensation, registry-backed automation now produces legally consequential effects quickly. Yet the protective architecture has developed unevenly. The governance risks arise whenever legal effects depend on system-mediated defaults and short objection windows: errors in upstream registries, failures of notification, or identity mismatches can translate into automatic restrictions, certificates, or payment obligations before affected persons can respond.

A readiness-oriented governance strategy should treat contestability and responsibility allocation as design requirements for reallocation. This implies traceable logs for registry access and decision triggers, notice about material data sources, accessible channels for rapid correction, and calibrated suspension where plausible error or irreparable harm is shown. These safeguards provide the institutional basis for Q-HITL: scalable algorithmic pathways may assist, but legally operative effects must remain attributable, reviewable, and contestable through qualified human oversight.

7. READINESS ASSESSMENT: THE STRUCTURAL ASYMMETRY

In this analysis, Systemic Readiness is defined as the structural alignment between the enabling infrastructure (data, networks, and algorithms) and the protective governance safeguards required to manage them. A system is deemed 'ready' only when its capacity to execute automated decisions is matched by its capacity to correct errors and protect rights.

Drawing on the doctrinal analysis and operational case studies, this section synthesizes the findings into a structured readiness assessment. The core finding is a persistent structural asymmetry: Iran has established a sophisticated "enabling layer" of digital infrastructure and statutory authorizations, but the "protective layer" of governance safeguards has not developed at a commensurate pace.

[47] Cabinet of Ministers (2025a)

7.1. The Asymmetry Thesis: Algorithmic speed *versus* analog contestability

The enabling layer has successfully transitioned from digitization to automation in key domains. As detailed in Section 6, the legal system now supports registry-backed workflows that produce binding effects without immediate judicial intervention. The Sayyad check system (Section 6.3) demonstrates the capability for networked execution (blocking accounts nationwide within 24 hours), and the traffic-injury compensation regime (Section 6.4) establishes a presumption of finality that compels payment if not contested within seven days.

However, the protective layer remains uneven: even as the enabling architecture operates at algorithmic speed, mechanisms of contestability remain functionally analog. There is no statutory requirement for ex ante notification before a Sayyad block, nor a dedicated expedited digital channel to contest registry errors in the traffic workflow. This velocity gap means automated execution outpaces the citizen's reactive remedy. Readiness is therefore high for administrative throughput but low for procedural due process. This asymmetry contrasts with emerging European approaches that frame digital justice as inherently "people-centric," emphasizing accessibility, fairness, and user-oriented safeguards as co-equal design requirements rather than downstream corrections[48].

7.2. Operational readiness: The reliance on hybrid safety nets

Operational readiness is characterized by a "hybrid" maturity. On one hand, the foundational datafication threshold has been crossed in specific subsystems. As shown in Section 4, the Sana infrastructure captures traceable procedural events, and pilot studies confirm that case management data is sufficiently structured to support experimental machine learning models[49].

Yet the system lacks the reliability to abandon physical fallbacks. The Tribunal of Administrative Justice has repeatedly annulled mandates for exclusive electronic processing (e.g., tax stamps and criminal complaints), indicating that operational readiness is not yet robust enough to fully replace physical access (see Section 3.2). The system thus relies on a hybrid safety

[48] Esteban de la Rosa, Fernando, 'Towards a People-Centric Digitalization of Justice Systems: Fostering Empowerment, New Rights, and Fair Treatment amid the Digital Divide', in Fernando Esteban de la Rosa, Pablo Cortés, and Nuria Marchal Escalona (eds), *Digitalization and Artificial Intelligence in Courts: Opportunities and Challenges* (Oxford, 2025; online edn, Oxford Academic, 22 Aug. 2025), *https://doi.org/10.1093/9780198918752.003.0002*, accessed 3 May 2026.

[49] Farzammehr, M. A., Tabrizi, E., & Moghimbeygi, A. (2024). Using machine learning to predict performance of trial court administration: An empirical study with Iranian performance indicators of trial case processing. Journal of Statistical Research, 58(2), 385–395. *https://doi.org/10.3329/jsr.v58i2.80626*

net, retaining paper-based options as a fail-safe against exclusionary risks. Readiness is conditional upon maintaining these physical parallels.

7.3. Alignment with international benchmarks

Although Iran's infrastructural focus aligns with global efficiency trends[50], its oversight model diverges from international benchmarks. The OECD (2025) stresses robust accountability mechanisms and transparency about how systems influence decisions, safeguards that remain underdeveloped in the NDIML's custodial framework. The UN Special Rapporteur similarly warns against techno-solutionism, where efficiency tools displace scrutiny without safeguards[51]. Iran's rapid deployment of automated enforcement in financial and inheritance workflows risks conflating system certainty with legal correctness, leaving limited visibility into how registry-backed determinations are generated.

Table 1. Comparative positioning: enabling vs. protective layers

Dimension	Iran	High-income OECD benchmark*
Enabling infrastructure	Strong (e-justice, registries, workflows)	Strong (integrated e-justice systems)
Protective safeguards	Weak (data-subject rights, contestability)	Moderate–strong (DP laws, access, ADR)
Oversight model	Embryonic Q-HITL	Diverse HITL / audit regimes
Key challenge	Asymmetry (enabling exceeds protective)	Balancing efficiency with rights

* Based on OECD (2025), UN DESA e-Government Survey (2024), and Oxford Insights Government AI Readiness Index (2024).

8. CONCLUSION: SYSTEMIC PREREQUISITES FOR RESPONSIBLE INTEGRATION

The analysis reveals a structural asymmetry in Iran's judicial digital transformation. The judiciary has consolidated a powerful enabling layer through interoperable registries and automated enforcement, evidenced by the Sayyad check system, heirs certification, and registry-backed compensation. Yet the protective regulatory layer has not developed at a commensurate pace, cre-

[50] World Bank. (2024). Global trends in AI governance: Evolving country approaches. World Bank Group.

[51] UN General Assembly (2025)

ating a velocity gap in which registry-backed execution outpaces procedural contestability.

To align this operational trajectory with the systemic prerequisites of justice, two fundamental conditions must be established within the legal infrastructure.

8.1. The Doctrinal Prerequisite: Q-HITL as Jurisprudential Alignment

For AI integration to remain legally valid under Iranian law, the tension between algorithmic automation and judicial authority (*wilayah*) must be resolved so that the constitutive act of judgment (*inshā*) remains human-attributable. Q-HITL satisfies this prerequisite by defining system outputs as preparatory advisory proposals, not autonomous judgments or binding presumptions. Legal effect is generated only through the competent judge's review and validation, keeping authority human, reviewable, and contestable.

High-throughput use is compatible with this allocation only if the validation step resists rubber-stamping under speed and volume. The interface should therefore incorporate three minimal safeguards: risk-based triage (flagging low-confidence or high-stakes outputs), active validation (affirmative confirmation of specified legal elements), and traceability (durable decision logs and registry references). Without such friction, efficiency tools can slide into techno-solutionism when speed metrics displace substantive fairness[52].

Doctrinally, this calibrated supervision parallels the governance logic of court control over outcomes generated through ADR, particularly arbitral awards. Judicial review in these models is limited yet decisive: courts do not re-litigate merits; instead, they test jurisdictional predicates, minimum due-process guarantees, and public-policy constraints before enforcement, or when setting aside an award[53]. The parallel for Q-HITL is the same division of labor: delegated processing reduces workload only if legal effect is attributed at an accountable human checkpoint. The judge therefore need not replicate computational steps; rather, it must verify legally relevant parameters and intensify scrutiny when contestation arises.

Furthermore, the procedural hierarchy provides a secondary fail-safe: because decisions produced under Q-HITL remain subject to appellate review

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[52] UN General Assembly (2025)

[53] United Nations. (1958). Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York Convention). *https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/new-york-convention-e.pdf*; United Nations Commission on International Trade Law. (2006). UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006. *https://uncitral.un.org/en/texts/arbitration/modellaw/commercial_arbitration*; van den Berg, A. J. (2007). New York Convention of 1958: Refusals of enforcement. ICC International Court of Arbitration Bulletin, 18(2), 1–35. *https://cdn.arbitration-icca.org/s3fs-public/document/media_document/media012125877992500 2007_icc_bulletin_aj_van_den_berg_denials_of_enforcement.pdf*

(*tajdid-nazar*), targeted human scrutiny can be concentrated precisely where the affected party challenges the systemic output.

8.2. The Regulatory Prerequisite: From Executive Directives to Risk-Based Statutes

Doctrinal alignment secures the internal logic of adjudication, but responsible integration also requires an external regulatory anchor capable of establishing enforceable rights and allocating liability. Existing executive directives, including frameworks that facilitate data exchange, do not by themselves supply the protective safeguards required for high-stakes justice applications.

A sustainable framework requires risk-based primary legislation. The ongoing legislative process on the National Artificial Intelligence Bill, assessed by the Research Center of the Islamic Parliament of Iran[54], provides a stronger platform than ad hoc by-laws for codifying safeguards in high-risk domains such as justice. At minimum, legislation should allocate civil liability for institutions that design, deploy, or rely on system outputs; codify data-protection duties calibrated to judicial uses; and establish procedural rights that make contestability effective, including accessible routes to correct registry errors and obtain reasoned responses when automated outputs are relied upon in contested matters. The objective is symmetrical governance: the citizen's capacity to challenge machine-mediated execution should be as robust as the state's capacity to deploy it.

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[54] Research Center of the Islamic Parliament of Iran. (2025). Expert opinion on the "National Artificial Intelligence Bill" [Persian] (Serial No. 20596, 2025, April). Research Center of the Islamic Parliament of Iran.

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PHYSICAL DECONTEXTUALIZATION IN ITALIAN CIVIL PROCEEDINGS: ONLINE COURTS AND A MEASURED USE OF ICT

Alessio Bigi
Università degli Studi della Tuscia

ABSTRACT: The recent reform of Italian civil procedure has accelerated the digitalisation of justice, building on solutions tested during the Covid-19 emergency. At the same time, other legal systems have experimented with forms of public online dispute resolution. This article examines these developments in light of the principles of Italian civil procedure, assessing whether a measured and sectorial use of online courts may enhance access to justice without undermining core procedural guarantees.

KEYWORDS: Digitalization of Justice; Online Dispute Resolution and Online courts; Access to Justice and Justice efficiency system; Oral and written hearings in civil proceedings.

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1. TOWARDS A MORE DIGITAL JUSTICE

While civil proceedings still retain a structural connection with the face-to-face hearing[1], the extrajudicial sphere has long relied on digital solutions capable of fully dematerialising disputes[2].

Along the same lines, certain jurisdictions have also moved towards the introduction, within the judicial system itself, of Online Dispute Resolution (ODR) platforms, giving rise to forms of so-called "public" ODR[3]. These developments have taken shape, in particular, in pilot projects for online courts implemented within the judicial systems of the United States, Canada, the United Kingdom, Australia, and China[4].

Unlike private-sector ODR mechanisms, online courts constitute an authentic exercise of judicial power, in which technology operates as a functional instrument aimed at improving access to justice[5], as well as enhancing the efficiency and overall quality of judicial proceedings. Within this framework, the digital resolution of disputes is entrusted to the judiciary, while the role of private actors external to the conflict is confined to a possible attempt at amicable settlement, serving a deflationary function and preceding the strictly jurisdictional phase of the proceedings.

The association of judicial proceedings with a notion traditionally linked to the extrajudicial sphere is only apparently inappropriate. A structurally oriented reading of the ODR phenomenon allows this category to be extended

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[1] On the divergence between the public and private sectors in the digital transformation of litigation, see Wagner & Eidenmüller (June 22, 2021), available at SSRN: *https://ssrn.com/abstract=3871612*.

[2] Reference may be made to the implementation of eBay's ODR pilot project in the late 1990s, whose systemic orientation is outlined by Rabinovich-Einy (2006), p. 253, p. 273. The author describes its nature no longer as a mere digital tool for individual conflict resolution, but as an instrument of dispute prevention. Comparable systems include those developed by PayPal and SquareTrade, as well as applications such as Opus2, Case Law Analytics, Modron, X.ai, and Modria.

[3] This acronym refers to alternative dispute resolution systems within public justice (Alternative Dispute Resolution) that make use of digital tools. In this sense, ADR is sometimes identified with electronic ADR (e-ADR), although, in the private sector, it is also referred to as iDR (Internet Dispute Resolution), eDR (Electronic Dispute Resolution), or oADR (online ADR). On the interaction between ADR and ODR, and on the possibility of identifying the latter as a conceptually independent category from ADR, see Nauss Exon (2017), pp. 614 ss.

[4] On U.S. initiatives, see Larson (2019), pp. 78 ss.; on developments in China, see Shi, Sourdin, & Li (2021). See also the Federal Court of Australia's eCourtroom and the Dutch projects (later discontinued), on which see Reiling (2017). More generally, see Rabinovich-Einy & Katsh (2017); Giacalone & Salehi, pp. 192 ss.

[5] "Access to justice" is linked to the idea of a legal system that does not relegate proclaimed rights to the level of mere formal enunciation (Cappelletti & Garth (1978), pp. 8 ss.). It is widely understood as a fundamental right, grounded in constitutional sources (Arts. 24 and 111 Cost.) and in supranational instruments (Arts. 67 and 81 TFEU; Art. 47 of the Charter of Fundamental Rights of the European Union; Arts. 6 and 13 ECHR). It aims to secure effective judicial protection whenever the enjoyment of a substantive right is hindered, which in turn requires removing barriers that prevent access to the justice system. For Cappelletti (1988), pp. 1 ss., this constitutes the "third", purely "social" dimension of law and justice. See also Galanter (1981); Cuniberti (2008); Dalfino (2014); Capponi (2014); Carratta (2019), pp. 6 ss.; Colesanti (2019).

beyond extrajudicial practice, to encompass any dispute-resolution process conducted largely through digital platforms accessible via the internet, thereby including proceedings before online courts[6] as well.

The purpose of the following remarks is precisely to assess the extent to which space may exist, within the Italian legal system, for the introduction of an online court. At present, as will be further illustrated below, Italian civil justice already displays a relatively advanced level of digitalisation: civil proceedings are conducted primarily in electronic form through the Civil Trial Online system (Italian: *Processo Civile Telematico*, or PCT)[7]. Nevertheless, a strong physical and symbolic anchoring to courtrooms and face-to-face hearings persists. This prompts an inquiry into the feasibility of a complete dematerialisation of civil proceedings, to be conducted considering the fundamental principles governing their structure and operation.

2. THE ONLINE COURT AS A THEORETICAL MODEL

In its more technical dimension, the online court may be defined as a judicial system for dispute resolution conducted entirely by digital means, without any necessary anchoring to the physical space of courtrooms[8]. Dialogue between the parties and the judge, the taking of evidence, and, more generally, every procedural activity—whether defensive or entrusted to the adjudicating authority—take place through a continuous exchange of communications and documents, structured within a defined time frame and channelled entirely through a dedicated digital platform. Judicial proceedings are therefore not organised around a hearing, even a virtual one, but are instead managed through a fully asynchronous handling of the case[9],

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[6] The expression "online court" is used here as a term of art, referring to a model of judicial adjudication that is distinct both from the mere digitisation of civil proceedings and from the simple use of remote hearings. In this sense, it denotes not a technological modality of conducting a case, but a broader reconfiguration of how disputes are managed and resolved. For an initial account of the model, see Susskind (2019), pp. 62 ss.

[7] An "entirely digital" justice system is envisaged in *Un libro bianco per la giustizia e il suo futuro* (2021), at 20 ff. (available at www.giustizia2030.it). A similar understanding informs recent EU legislation (in particular, Regulation (EU) 2020/1783 on the taking of evidence in civil or commercial matters and Regulation (EU) 2020/1784 on the service of judicial and extrajudicial documents in civil or commercial matters), as well as broader EU initiatives. See, inter alia, Council Conclusions, *Access to justice—seizing the opportunities of digitalisation* (8 Oct. 2020); COM(2020) 710 final, *Digitalisation of justice in the European Union: A toolbox of opportunities* (2 Dec. 2020); COM(2021) 759 final, *Proposal for a Regulation on the digitalisation of judicial cooperation and access to justice in cross-border civil, commercial and criminal matters* (1 Dec. 2021); COM(2020) 712 final, *Proposal for a Regulation on a computerised system for communication in cross-border civil and criminal proceedings (e-CODEX)* (2 Dec. 2020). See also below, § 5.

[8] Susskind (2019), p. 60.

[9] For recent contributions on the relationship between procedural simplification and flexibility, considering the aims of speed and efficiency, see Carratta (2020); De Cristofaro (2020); Biavati (2019); and Lupoi (2018), pp. 57 ss., pp. 593 ss.

characterised by streamlined and simplified procedural forms [10]. In this sense, digitalisation is meant to enhance the overall efficiency of the justice system.

Alongside this technical understanding, a second and broader conception of the online court emerges, one that more directly addresses concerns of access to justice. It rests on the assumption that technology may support a judicial service that does not exhaust itself in the delivery of a decision and that is, for the most part, accessible even without mandatory legal representation. From this perspective, online courts take the form of so-called "extended courts" [11], capable of orienting parties—already at the pre-litigation stage—towards a clearer awareness of their rights and respective positions, as well as guiding them in the preparation of pleadings and in the identification of evidence relevant to the proceedings to be initiated.

A rethinking of the judicial function, in the sense of assigning the judge a more proactive role even after the proceedings have been instituted, represents the connecting element between these two conceptions of the online court, understood both as a fully digital form of adjudication and as an "extended court". The choice of a simplified and asynchronous procedural model, in fact, presupposes a flexible management of the dispute and a more pronounced degree of judicial autonomy in shaping its procedural development, an autonomy that, in certain respects, appears closer to the flexibility traditionally associated with arbitration than to the merely managerial powers ordinarily recognised to the civil judge [12].

At the same time, the combined requirements of efficiency and equal access delineate a model of adjudication marked by features that may be described as ideally inquisitorial [13], capable of offering an adequate level of judicial protection even in the absence of a synchronous hearing and, concurrently, of ensuring an effective right of defence for self-represented parties [14]. Such protection, however, can only partially be achieved through procedural simplification and through the very architecture of the court conceived as an "extended court" [15].

A "pure" model of online court—one in which legal representation is entirely excluded, and adjudication is conducted exclusively in written form, without any possibility of holding hearings—nonetheless encounters significant obstacles to its practical affirmation, nor do compelling reasons appear to support its adoption. The core issue raised by online courts does not therefore concern a generalised renunciation of hearings or of technical legal

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[10] On streamlined and simplified procedural forms in digitally managed proceedings, see further the analysis in Lupoi (2018), pp. 57 ss.

[11] The expression "extended courts" is taken from Susskind (2019), pp. 6 ss.; the underlying idea also informs a substantial part of the scholarly and institutional debate on online courts.

[12] On flexibility in arbitration and its procedural implications, see Zucconi Galli Fonseca (2018), pp. 14 ss., esp. 67 ss.

[13] In this sense, see Susskind (2019), p. 146, esp. pp. 232 ss.

[14] In particular, the "one-shotter" litigants discussed by Galanter (1974), pp. 94 ss.

[15] Susskind (2019), pp. 154 ss.

defence, but rather the possibility that the holding of hearings may become a secondary mode of adjudication and that judges may assume, throughout all stages of the dispute, a more proactive role, in the sense outlined above[16].

3. ONLINE COURTS IN THE UNITED KINGDOM: A SYSTEMIC APPROACH

Among the various comparative experiences developed to date, two approaches to online courts stand out for their scope and for the heterogeneity of the solutions adopted: on the one hand, the United Kingdom's governmental platform, administered by Her Majesty's Courts and Tribunals Service (HMCTS); on the other, the Civil Resolution Tribunal (CRT) of British Columbia.

The British experience currently consists of a plurality of pilot projects covering a significant portion of civil litigation and extending also to certain disputes falling within the jurisdiction of tax courts and criminal courts[17]. The reform programme was launched in August 2017 with the pilot project known as Online Civil Money Claims (OCMC)[18]. It was designed to offer an alternative both to ordinary civil proceedings and to the pre-existing Money Claim Online (MCOL) service[19], with the specific aim of enabling disputes concerning low-value monetary claims to be dealt with under a faster and simplified procedural scheme[20].

However, the English model of online court appears to distance itself from the genuinely adversarial dimension of adjudication and does not display a strong ambition to manage the underlying conflict between the parties through procedural mechanisms within a fully-fledged adjudicatory framework. As a result, both the potential gains in terms of access to justice – which this form of digitalisation might otherwise deliver[21]– and the very objectives of procedural efficiency pursued by the reform are negatively affected.

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[16] See, infra, esp. footnotes 48 and 99.

[17] The guidelines of the reform programme are set out in the joint statement *Transforming Our Justice System*, issued by the Lord Chancellor and the Lord Chief Justice together with the Senior President of Tribunals in September 2016, available at *https://www.gov.uk/government/publications/transforming-our-justice-system-joint-statement* (accessed January 2026).

[18] Enforceable for claims up to £10,000, or £25,000 where both claimant and defendant are represented by a lawyer. Currently operative until 1 October 2026, the scheme is governed by Practice Direction 51R.

[19] The service applies to claims under £100,000 and is regulated by Practice Direction 7C.

[20] Giacalone & Salehi, pp. 192 ss.

[21] Legal representation is not always required; proceedings are characterised by very short timeframes and low costs; and the upper value limit of the claim—especially under MCOL—is sufficiently high to make the online procedure an attractive alternative to traditional litigation. Moreover, usability is enhanced by the requirement that each procedural step, starting from the filing of the claim, be carried out through standardised forms, partly pre-filled, containing the minimum information necessary to allow parties to make informed choices. Issues of territorial jurisdiction arise only at a later stage and, in any event, no longer *in limine litis*, but only if the proceedings continue under traditional procedural forms.

In proceedings for payment orders, whose basic structure is replicated across other forms of digital adjudication[22], the dispute may be handled entirely online only where the claimant's credit is fully acknowledged in the defendant's initial response, or where the defendant remains in default[23]. What follows are procedural schemes of varying degrees of complexity. In these schemes, the most significant form of judicial intervention is essentially confined to an assessment of the economic sustainability of the payment proposal submitted by the claimant to the debtor. This occurs where the latter does not intend to adhere to the payment offer already advanced by the opposing party at the time of entering an appearance, provided that the debtor is a natural person[24].

It follows that only in a limited number of cases—each of them linked to the absence of any substantive contestation of the claim—does the proceeding unfold entirely online. Even in such cases, digitalisation is most often confined to the introductory phase of the proceedings[25]. Ultimately, the judicial function appears to be reduced to a formal ratification of an agreement already reached by the parties as to the outcome of the dispute[26].

4. THE CIVIL RESOLUTION TRIBUNAL OF BRITISH COLUMBIA

More closely aligned with an understanding of online courts as a model of full digitalisation of both the dispute and the mechanisms entrusted with its resolution is the institutional design of the Civil Resolution Tribunal (CRT) of British Columbia. The CRT is expressly conceived to ensure a comprehensive digital handling of the conflict throughout all procedural stages, thereby offering a more structurally coherent implementation of online adjudication than the models developed in other jurisdictions[27].

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[22] In particular, the system has been extended to claims for damages (see Practice Direction 51ZB), to possession claims (see Practice Direction 55B), and to a range of family and personal status proceedings, including divorce and dissolution of civil unions, as well as certain proceedings concerning minors, labour disputes, and challenges to administrative measures in immigration matters.

[23] Where the claimant's request is contested, and unless the parties consent to mediation, the case is referred to a County Court Hearing Centre, which decides the dispute without a face-to-face hearing.

[24] The procedure varies depending on whether the defendant, while admitting the claim in full, makes an immediate offer of payment or proposes a payment plan spread over time. In the latter case, the plan must be accepted by the creditor or, alternatively, any different proposal advanced by the claimant must pass the court's affordability assessment.

[25] Where the defendant is a legal person and the claimant proposes a different repayment plan, the case is invariably referred to the Civil National Business Centre.

[26] For claims submitted under Practice Direction 7E, the parties may nonetheless file pleadings and annex documents with the County Court Hearing Centre by e-mail. See Practice Direction 5B.

[27] The CRT forms part of British Columbia's public justice system. Party pleadings and final decisions are subject to character limits, which vary depending on the procedural act and may be extended upon request to the case manager (Rule 7.3 Civil Resolution Tribunal Rules; version in force since February 2024). As with online payment order proceedings in the UK, the tribunal's jurisdiction is limited by the multi-party nature of litigation (Rule 1.3 CRT Rules), unless representation by a primary applicant preserves the bilateral structure of the dispute. Multi-party proceedings resulting from the joinder of linked disputes are nevertheless permitted (Rule 1.18 CRT Rules).

The CRT is vested with sector-specific but exclusive jurisdiction[28], encompassing selected corporate and condominium disputes, claims for damages arising from motor vehicle accidents—provided that their value does not exceed CAD 50,000—as well as small claims up to CAD 5,000. Proceedings before the tribunal are conducted through a cloud-based platform structured around two digital services, corresponding to the two main phases of the procedure.

The first service, known as the Solution Explorer, performs a preliminary analysis of the dispute. It offers an interactive framework through which the claimant may explore consensual avenues for satisfying the claim, while simultaneously assisting in identifying the judicial application most appropriate to the circumstances of the case. Where the dispute is not resolved at this preliminary stage, the claim is transmitted to the tribunal for the continuation of the proceedings.

In such cases, the tribunal is required to carry out a prima facie assessment of its jurisdiction, taking into account both subject-matter requirements and the additional conditions prescribed for digital adjudication[29]. At the same time, the tribunal assesses the reasonable prospects of success of the claimant's request, through an evaluation which—if favourable—does not preclude a different determination once adversarial proceedings have been formally instituted.

Following the respondent's entry of appearance[30], the procedure moves to a preliminary negotiation phase conducted entirely online. An exception applies to small claims arising out of motor vehicle accidents, which proceed directly to the decision-making stage. Where negotiation fails, a case manager is appointed. Acting as a procedural facilitator, the case manager assists the parties in a further attempt at amicable settlement and may, where necessary, request the production of evidentiary material in support of their respective positions.

Despite the clear preference accorded to consensual solutions—more pronounced than in the UK models of online courts—the Canadian design achieves a close integration between amicable dispute resolution and judicial protection. The latter does not recede but remains firmly anchored to the persistence of the conflict between the parties[31]. Where no settlement is reached, the dispute is resolved through a judicial decision comparable, in terms of reasoning requirements and legal effects, to one rendered in ordinary proceedings, albeit following a decisional process shaped throughout by the digital form.

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[28] See Rule 113 ss. Civil Resolution Tribunal Act.

[29] See Art. 11 Civil Resolution Tribunal Act.

[30] The respondent may file counterclaims or third-party claims under Part 3 of the Civil Resolution Tribunal Rules.

[31] This feature marks the most significant divergence from the UK model of digital adjudication.

If the facilitation phase also fails to produce an amicable outcome, the proceedings enter their strictly adjudicatory stage through the assignment of the dispute to a member of the CRT. The judge's decision is formed within an adversarial framework that is ordinarily conducted in writing. An in-person hearing may nevertheless be convened where the judge considers it necessary[32]. Such hearings are held only on an exceptional basis[33], digital forms of interaction being preferred, including, where appropriate, asynchronous communication[34].

With specific regard to the Civil Resolution Tribunal, therefore, the concept of online court finds concrete implementation in both of its core dimensions: that of an extended, immediate, and accessible form of justice[35], and that of adjudication ordinarily conducted online, flexibly adapted to the needs of the individual case. This form of adjudication is not necessarily confined to written proceedings alone, yet it reshapes the exercise of procedural rights and guarantees—particularly in evidentiary matters—where, as a rule, evidence to be taken is translated into written reproductions or, at the very least, detached from the traditional physical setting of the courtroom.

5. POST-PANDEMIC DIGITALISATION OF ITALIAN CIVIL JUSTICE

The comparative overview reveals that online courts may be implemented through a variety of institutional configurations, depending on how digitalisation is combined with existing procedural structures. Against this background, certain features typically associated with online adjudication—especially those drawn from the experience of the UK—can already be observed within the Italian system of civil justice[36].

Despite the terminology commonly used to describe it, the Italian Civil Trial Online essentially amounts to a dematerialisation of the case file and

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[32] The parties alone may request the holding of an in-person hearing; such a request is in no case binding on the tribunal.

[33] In assessing the appropriateness of an in-person hearing, the judge must take into account the nature of the dispute and any extraordinary circumstances. An order to appear in person or to take evidence in traditional form may be issued only where this is deemed necessary "in the interests of justice" (Art. 39 Civil Resolution Tribunal Act; Rule 9.1 CRT Rules).

[34] Pursuant to Art. 39 of the Civil Resolution Tribunal Act, the means of communication specified by the tribunal need not allow all parties to attend the hearing at the same time.

[35] Art. 20 Civil Resolution Tribunal Act requires parties to appear in person, limiting legal representation to cases in which a party lacks procedural capacity or where representation is permitted by law or by the tribunal itself.

[36] In Italy, the idea of computerising the civil justice system had already gained ground in 1997, but became a tangible reality with Presidential Decree No. 123 of 13 February 2001, which laid down its guiding principles, and, in practice, with the introduction of mandatory electronic filing of certain procedural documents through Decree-Law No. 179 of 12 October 2012, as converted and subsequently amended. On the intentions and stages of implementation of the telematic civil process, see Costantino (1999), pp. 77 ss.; Ferrari (2010), pp. 1379 ss.; De Santis (2017), pp. 749 ss.; the contributions collected in Ruffini (2019); and, more recently, Brunelli (2021), pp. 957 ss., as well as the critical analysis by Punzi (2022), pp. 2 ss.

procedural acts rather than to a reconfiguration of adjudication itself[37]. Civil proceedings are today conducted primarily in electronic form, with pleadings and documentary evidence filed and managed digitally.

With Legislative Decree No. 149 of 2022, the Italian civil process has additionally incorporated certain modes of conducting hearings that had already been experimented with during the Covid-19 public health emergency[38]. As a result, the hearing is no longer conceived exclusively as a face-to-face moment of oral interaction but may also take place in written or virtual form.

The judge's power to order a written hearing or to conduct the hearing through audiovisual connection, however, retains a residual character and remains subject to the conditions set out in Arts. 127-bis ss. Code of Civil Procedure (c.p.c.). Written hearings are admissible only where participation is limited to the parties' counsel. Remote hearings—typically conducted through videoconferencing platforms such as Microsoft Teams—are confined to the participation of the parties, their lawyers, the public prosecutor where applicable, and judicial auxiliaries. Third parties, such as witnesses or court-appointed experts, are excluded from these formats. Consequently, whenever the taking of evidence requires their involvement, the hearing must necessarily be held as an in-person (face-to-face) hearing.

Art. 196-duodecies of the Implementing Provisions to the Code of Civil Procedure further requires that remote hearings be conducted in a manner that preserves the adversarial principle and ensures the effective participation of all parties. In practice, this requirement has resulted in the virtual reproduction of the formal dynamics typical of in-person hearings: following audiovisual identification, each participant is required to confirm that no unauthorised persons are present in the place from which the connection is established and that the hearing is not being attended by third parties[39].

Taken together, these elements show that, while the Italian civil process has undergone a significant degree of technological modernisation, digitalisation has so far operated primarily at the level of procedural infrastructure. It has not entailed a rethinking of the adjudicative model comparable to that embodied by online courts, nor has it displaced the centrality of the in-person hearing as the paradigmatic setting of judicial decision-making[40].

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[37] In this specific sense, in addition to the literature cited in the previous note, see Tedoldi (2021), p. 860, and the emblematic definition referring to the PCT as an "ultra-form".

[38] For the detailed rules set out in Art. 221 of Decree-Law No. 34 of 2020, also with reference to the timing of the judge's communication of the telematic modalities and the further measures envisaged, see Fabiani & Piccolo (2020), pp. 1028 ss.; Brunelli (2021), pp. 957 ss.

[39] Apart from favourable assessments of the emergency regime—largely linked to the exceptional and ideally temporary nature of the measures—the alternative ways of conducting proceedings have prompted scholarly debate on the possible stabilisation of emergency procedural law and its compatibility, in particular, with the principles of orality and immediacy in civil proceedings. Without claiming completeness, see Carpi (2021), pp. 43 ss.; Biavati (2021), pp. 135 ss.; Cecchella (7.3.2021); Pagni (15.12.2020); Scarselli (13.5.2020); Corea (4.6.2020); Villa & Imbrosciano (2020), pp. 1 ss.

[40] On the recent technical and regulatory developments affecting the digital infrastructure of Italian civil justice, see Prandini (2025) and Brunelli (2025), which highlight both the consolidation of

6. THE "EXTENDED COURT" AND ACCESS TO JUSTICE

It is nevertheless clear that, in a legal system which has never generally renounced the holding of in-person (face-to-face) hearings, the possible institutionalisation of an online court—even if limited to only one of the two meanings outlined in paragraph 2—raises issues that go beyond the purely technical dimension of procedural design and affect the very essence of judicial protection[41].

It is therefore appropriate to start from the broader understanding of online courts and to focus, as a first step, on the questions raised by the possible introduction of an "extended court".

In order to assess its potential benefits in terms of access to justice, it is necessary to engage preliminarily with the regime governing mandatory legal representation. Under the current framework, parties may appear in court without legal counsel only in disputes before the giudice di pace where the value of the claim does not exceed €1,100[42], unless the party holds a personal qualification enabling it to act as counsel pursuant to Article 86 c.p.c., or in disputes before the tribunale governed by labour procedure, up to the limit of €129.11, under Article 417 c.p.c.. Further instances of optional legal representation are provided for by specific statutory provisions[43] and by a substantial body of case law, which nevertheless links the necessity of legal counsel to a case-by-case assessment of the contentious nature of the individual proceedings[44].

The reasons underlying the legal requirement of mandatory legal representation are traditionally identified in the difficulties a party would encounter, in its absence, in effectively presenting its defence. These difficulties stem both from the high degree of technical complexity—procedural and substantive—and from the inevitable emotional involvement that may hinder an objective assessment of one's own claim[45]. From this perspective, the role of legal counsel performs an instrumental function in ensuring the effectiveness of the right of defence guaranteed by Article 24 of the Italian Constitution[46].

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digital tools and the persistence of critical issues concerning system reliability, interoperability and procedural guarantees.

[41] See Carpi (2021), p. 45.

[42] Art. 82(2) of the Code of Civil Procedure further provides that the justice of the peace, having regard to the nature and extent of the dispute, may authorise a party to appear without legal representation even where the value of the claim exceeds the prescribed threshold.

[43] See, inter alia, disputes concerning the payment of lawyers' fees and dues (Art. 14(3) of Legislative Decree No. 150 of 1 September 2011) and, limited to first-instance proceedings, disputes concerning opposition to orders imposing administrative sanctions (Arts. 6(9) and 7(8) of Legislative Decree No. 150 of 1 September 2011).

[44] Nappi (2018), pp. 886 ss., with further references.

[45] On the role of the lawyer, see Carnelutti (1940), pp. 65 ss.; Pavanini (1957), pp. 246 ss.; Mandrioli (1959), pp. 383 ss.; and, more recently, Punzi (2020), pp. 1 ss.

[46] See Corte cost., 27 May 1996, No. 171, in Foro it., 1997, I, 1027 ss.; Corte cost., 16 March 1971, No. 47, in Foro it., 1971, I, 835 ss. On the right of defence in general, see Comoglio (1970).

These concerns, however, could be at least partially mitigated through the institutional architecture of an online court conceived as an "extended court"[47]. Nor should this give rise to doubts as to the impartiality of the judge, understood as equidistance from the opposing interests of the parties[48], or to specific issues regarding the availability of evidence[49]. Case law has, moreover, clarified that the constitutional grounding of legal representation does not exclude the legislature's discretion in identifying situations in which legal counsel may be optional, provided that such choices are not unreasonable and do not undermine the guarantees of the adversarial principle[50]. It may further be observed that, notwithstanding the corrective measures adopted in December 2011[51], the value threshold laid down in Article 82 c.p.c.—still expressed in lire—could have had a broader impact on the number of disputes effectively eligible for exemption from mandatory legal representation. What remains to be determined, therefore, is primarily an appropriate value threshold on which such an exemption could be anchored[52].

Even in the absence of legislative intervention aimed at extending the scope of self-representation[53], the introduction of an online court could nonetheless

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[47] . This issue should not be understood in terms of automating lawyers' work or predicting litigation outcomes. Rather, it concerns a rethinking of the function of courts—conceived as a "service"—and of the role of judges, who would be called to adopt a more proactive stance both before proceedings are initiated and throughout their course. In Susskind's theorisation (2019), p. 154, the structuring of proceedings through "online continuous hearings" serves precisely this objective, although he also envisages a less interventionist approach in view of a gradual implementation of digital formats, which nonetheless affects the modalities of the proceedings (p. 158).

The reference to the architecture of the court is here intended as relating to interventions at the pre-litigation stage. From this perspective, a system of access to the court—more or less interactive and linked to a typology of disputes destined for online adjudication—could guide parties in drafting pleadings (by highlighting the issues most relevant to the decision) and in identifying the relevant evidence. This does not necessarily imply form-based justice (on which see infra), but rather the preliminary provision of information on the substantive framework and procedural rules, particularly as regards evidence, applicable to the specific case..

[48] On judicial impartiality, see also, with further references, Cappelletti & Vigoriti (1971), pp. 604 ss.; Fazzalari (1972), pp. 193 ss.; Trocker (1974); Scarselli (1996), pp. 3616 ss.; Tiscini (2000), pp. 40 ss.

[49] Without prejudice to the principle of party disposition, the parties' control over facts and evidence sets a technical limit on judicial decision-making. If judicial activity remains within the scope of the parties' claims, openness to a more active role in evidentiary matters—understood here as indicating the types of evidence normally required for a given category of dispute and making such information available to all users prior to the initiation of proceedings—appears to be primarily a matter of legal policy. On this point, see Liebman (1960), pp. 551 ss.; Cappelletti (1962), pp. 317 ss.; Taruffo (2011), pp. 101 ss.; Mandrioli & Carratta (2022), pp. 88 ss.; contra Monteleone (2012), pp. 323 ss.

[50] See Corte cost., 10 July 1975, No. 202, in Foro it., 1975, I, 1575 ss.; Corte cost., 28 December 2006, No. 460, in Foro it., 2007, I, 1668 ss.; Corte cost., 22 December 2010, No. 368, in Giust. civ., 2011, I, 28 ss.

[51] Decree-Law No. 212 of 22 December 2011, converted with amendments by Law No. 10 of 17 February 2012.

[52] A resolution would require a preliminary definition of the disputes to be assigned ratione materiae to digital adjudication (see para. 7), as well as an assessment of the implications of fully digital proceedings for the fair management of the trial (para. 8 ss.). Ultimately, this appears to be a matter of legal policy.

[53] This perspective remains distant from the current reform of civil proceedings, which, on the contrary, has reinforced the requirements of Art. 163 c.p.c. by adding an express warning to the defendant as to the mandatory nature of legal representation in proceedings before the court.

produce significant benefits in terms of accessibility. On the one hand, it could operate as a procedural deflator for disputes that already fall within the scope of optional legal representation[54]. On the other hand, for disputes requiring legal counsel, it could eliminate costs related to travel and, where applicable, to the need for domiciliation before lawyers practising in the competent forum.

There nevertheless remain issues of a more distinctly "systemic" nature, primarily concerning whether recourse to an online court should be conceived as mandatory or optional. This question has already arisen in the past with reference to so-called compulsory arbitration and was resolved in the sense of its constitutional illegitimacy, due to its incompatibility with Articles 24, 25, and 102 of the Italian Constitution[55]. Regarding the possible voluntary or mandatory introduction of online adjudication, however, the issue appears to arise mainly for extra-legal reasons, linked to the perspective of self-representation[56], and in particular to the differing degrees of users' familiarity with digital tools. In this respect, the integration of online courts into the public justice system may be capable of removing, at the outset, the structural distortions that characterised the experience of compulsory arbitration.

7. DEFINING THE JURISDICTION OF ONLINE COURTS

Which disputes may, then, be allocated to forms of adjudication conducted entirely online?

First, disputes arising in the field of electronic commerce appear particularly suitable for online adjudication[57], as they originate within an environment intrinsically detached from traditional notions of territoriality and materiality[58]. The extension of the dematerialisation of conflicts generated online to their resolution phase, moreover, already represents a consolidated practice among e-commerce operators[59].

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[54] The purpose of online courts conceived as extended tribunals is primarily to make parties aware of their rights and of the merits of their respective positions and, in this sense, could—at least ideally—prevent the institution of proceedings based on manifestly unfounded claims (see supra note 49).

[55] See, in general, Corte cost., 14 July 1977, No. 127, with note by Andrioli (1977), pp. 1143 ss.; Corte cost., 27 December 1991, No. 488, with note by Recchia (1992), pp. 247 ss.; as well as Recchia (1994), pp. 477 ss.

[56] The issue could arise again at a supranational level through Art. 6 ECHR if the mandatory use of digital tools were combined with additional admissibility requirements capable of rendering access to justice unreasonable. This risk, however, appears to be avoided where the choice between legal representation and self-representation remains voluntary.

[57] Given the origin of this category of disputes, concerns regarding users' digital skills do not appear sufficiently compelling to preclude the establishment of an online court with mandatory access.

[58] For some references, see Martin (2002), pp. 125 ss.; Crawford (2002), pp. 383 ss.

[59] Along these lines, see Katsh (2001), pp. 93 ss., who observes that technology may act as a "fourth party" in a dispute, assisting the parties in reaching an agreement either independently or in cooperation with a third party (mediator, arbitrator or judge). This view was later developed, inter alia, by Lodder (2006), pp. 143 ss., who introduced the figurative notion of a "fifth party", referring to the provider of the technological solution. See also Pappas (2008), pp. 16 ss., who, already with reference to online courts, notes that "if technology serves as the 'fourth party', courts have a unique opportunity to

While it is true that out-of-court dispute resolution mechanisms offer an adequate response for many e-commerce disputes—especially where no full judicial fact-finding is required and recourse to public justice would provide limited added value for the parties—in other cases judicial intervention remains indispensable, either due to the nature of the dispute or to the widespread impact of the alleged violation[60].

The characteristics of disputes originating from electronic commerce, which are predominantly documentary and often serial in nature, allow for a further extension of the potential jurisdiction of online courts to cases that do not require oral evidence[61], or that do not raise issues of novelty such as to qualify as leading cases within the relevant field.

In line with the approaches observed in the comparative experiences discussed above, disputes concerning debt recovery could likewise be assigned to fully digital forms of adjudication, including opposition proceedings against payment orders—particularly in the banking sector, where litigation is ordinarily documentary—as well as disputes characterised by a limited degree of adversarial conflict. This would allow, at least about this category of cases, a reduction in the concerns associated with a possible extension of situations in which legal representation is not mandatory[62], concerns that already appear mitigated in the field of electronic commerce[63].

From this perspective, the scope of online adjudication could also encompass certain proceedings traditionally classified under voluntary jurisdiction[64], such as applications for *amministrazione di sostegno*[65], the revocation of a strata manager or the appointment of a joint ownership administrator[66],

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serve as a 'fifth party'", thereby identifying advantages of judicial digitalisation that cannot be achieved through more informal ODR mechanisms.

[60] As noted by Gioia (2018), p. 42, such disputes would in any event end up before the courts once the uncertainty surrounding the protection of the relevant rights reaches levels that can no longer be tolerated, thereby generating an ever-increasing flow of litigation.

[61] By way of a reductive but paradigmatic example, consider proceedings for the correction of material errors pursuant to Art. 287 ss. c.p.c., on which see the amendments suggested by Art. 1(8)(g) of Law No. 206 of 26 November 2021.

[62] The assessment as to whether legal representation is required must, in any event, be carried out on a case-by-case basis.

[63] Given that the value threshold provided for labour disputes does not apply to the category of disputes under consideration, the current limit set at €1,100 may already prove sufficient to meet the accessibility needs typically associated with e-commerce litigation.

[64] In this regard, it is worth noting the delegation for measures aimed at the de-jurisdictionalisation of "certain administrative functions", subsequently brought back within the scope of voluntary jurisdiction, as provided for by Art. 1, para. 13, lett. b), of Law No. 206 of 26 November 2021 and implemented by Art. 21 of Legislative Decree No. 149/2022.

[65] In compliance with the provisions of the reform set out in the above note, on 1 March 2024 a pilot project was launched for the introduction of "online courts" in voluntary jurisdiction proceedings before selected Italian courts. The service—accessible via the dedicated platform (*https://smart.giustizia.it/to?id=to_servizi_menu*)—allows for the electronic handling of proceedings such as *amministrazione di sostegno*, management of dormant estates, authorisation of extraordinary acts involving minors, and the issuance of passports for minors.

[66] On this point, see Tommaseo (2005), p. 196, as well as the considerations set out in the preceding note.

as well as joint proceedings for separation and divorce or those concerning the regulation of parental relationships, including the modification—upon joint request—of conditions established by prior judicial decisions, even where such decisions were authoritatively adopted. These are, moreover, proceedings that the recent reform has already subjected to a predominantly written form of treatment[67].

Finally, it would appear intuitive to envisage the allocation to online adjudication of disputes characterised by limited complexity or low economic value[68].

Leaving aside the latter category[69], it is apparent that, with respect to disputes of limited complexity, definitional issues already addressed in legal scholarship in relation to the summary proceedings model formerly governed by Articles 702-bis ss. c.p.c. (now Articles 281-decies ss. c.p.c.) resurface.

These issues are, however, enriched in the present context by an additional evaluative dimension concerning the very notion of complexity. If the aim is to assess the institutionalisation of an online court in both dimensions outlined in § 2, such an assessment should not be limited to the telematic, written or virtual modalities of adjudication and the simplified procedural rules applicable thereto[70], but should also consider the perspective of party self-representation.

The criteria delimiting the scope of online adjudication could therefore be anchored to the value of the dispute and to the complexity of the evidentiary phase, excluding cases that are particularly difficult to reconstruct in factual or legal terms[71]. Thus, for instance, cases raising purely legal issues, where the relevant facts are undisputed, may be regarded as displaying limited complexity; the same may hold true for cases based exclusively on documentary evidence, which do not require the examination of witnesses; and possibly also for those that hinge upon the preparation of a report by a court-appointed expert, where such report is expected to resolve exhaustively all outstanding factual issues.

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[67] See Cass., 23 June 2017, No. 15706

[68] Again, these are proceedings that culminate in a measure which does not affect rights or personal status.

[69] Greater difficulties arise when envisaging the handling—purely in written or possibly virtual form—of family litigation proceedings, where the high degree of conflict that often characterises such disputes requires a communicative effort by the judge that may lose effectiveness if conducted through means other than a face-to-face hearing. This is one of the contexts in which the "ritual dimension" of the courtroom (see infra § 9) appears to be most valued; see, however, also the contributions collected in Dalla Bontà (2021).

[70] See the considerations above in note 54, to which add Susskind (2019), p. 150, who rejects the idea that the value of the dispute may serve as a dividing line between ordinary and digital adjudication, while nonetheless acknowledging that any systematic attempt to identify the types of cases most suitable for online courts would require empirical data that only the implementation and use of such courts could provide.

[71] It should be noted, however, that some authors, in addressing simplified forms of summary proceedings and the greater procedural freedom entrusted to the judge therein, have considered the deformalized procedure more suitable than the ordinary one for dealing with complex cases. In this sense, see Balena (2018), p. 339. On the possibility of converting the procedure *in itinere*, see infra.

Given that complexity is a variable and fluid category, difficult to predetermine before proceedings are instituted[72], it would be advisable to provide for a safeguard mechanism capable of preserving access to ordinary judicial protection for disputes of greater complexity, along the lines of Article 281-duodecies c.p.c.[73]. Accordingly, the judge should be empowered to convert proceedings initiated entirely online where the relevant requirements are found not to be satisfied.

This solution should be distinguished from the more radical option of generalising the online hearing model—whether written or virtual—to all categories of disputes[74]. Such a generalisation has already occurred, albeit within the limits of the measures experimented during the pandemic period[75].

8. PROCEDURAL DESIGN AND SYSTEMIC TENSIONS

Once the scope of disputes suitable for fully online adjudication has been outlined, further difficulties emerge when considering whether such adjudication should be conceived as mandatory, understood as the possibility of conducting the proceedings entirely through a digital platform, either without hearings or through virtual hearings, and—if so—which phases of the dispute may be validly handled online and which, by contrast, would require a return to an in-person hearing[76].

Unlike solutions limited to the introduction of virtual hearings, the outright abandonment of the hearing in favour of a continuous but asynchronous exchange between the parties and the judge represents the development that most clearly conflicts with the current structure of Italian civil procedure[77].

Despite its idealistic appeal, the model of so-called continuous online hearings raises significant risks and potential inefficiencies[78]. In the absence of

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[72] On the relationship between complexity, simplification and elasticity of procedural rules, in addition to the references already cited in note 9, see Graziosi (2009), pp. 137 ss.; Costantino (2015), pp. 654 ss.; Costantino (2017), pp. 1440 ss., all of whom emphasise the requirements of foreseeability and predetermination of procedural rules; see also Cipriani (2002), pp. 1243 ss.; Caponi (2009), pp. 136 ss.; the contributions collected in Dondi (2011); and the proposal advanced by Pagni (2019), pp. 113 ss.

[73] See Biavati (2020), p. 441, referring to Taruffo (2011), p. 179.

[74] See Lupoi (2018), pp. 407 ss., with further references. For the opposite view, see Biavati (2020), pp. 440 ss., and, more extensively, Biavati (2019), p. 1158, note 12, who limits complexity factors to factual, substantive or procedural elements, such as the presence of multiple claims or a plurality of parties. In similar terms, see also Caponi (2009), p. 136.

[75] This is the position advocated by Susskind (2019), pp. 148 ss., which nevertheless appears preferable not to endorse. Notably, Susskind himself observes that it is not highly complex cases that occupy courtrooms daily, which seems sufficient, at least at present, to ground a discussion on the possible implementation of the adjudicatory model conveyed by online courts.

[76] Suggested in the speech *The Modernisation of Access to Justice in Times of Austerity* (2016) by Ernest Ryder, Senior President of Tribunals in the United Kingdom, and later taken up by Susskind (2019), p. 146.

[77] On this distinction, see supra note 71.

[78] Susskind (2019), pp. 144 ss.

evidentiary preclusions, for instance, a party's defensive position may be undermined by an excessive and unstructured documentary production by the opposing party—an occurrence far from unlikely in disputes involving large economic operators—especially where the weaker party appears without legal representation[79].

The point of greatest tension, however, concerns the role that such a model would assign to the judge. The latter would be called upon to manage proceedings characterised by a high degree of regulatory essentiality[80] and, in pursuit of maximum procedural simplification, to guide the parties whenever a submission or an item of evidence appears incomplete or insufficient[81]. In this perspective, the risks stemming from the absence of evidentiary preclusions might appear, at least in part, mitigated[82].

Nevertheless, such a proactive exercise of judicial powers would inevitably raise concerns regarding judicial impartiality[83], particularly in light of the fact that the ordinary civil judge is not endowed with a form of managerial autonomy comparable to the inherent jurisdiction typical of common law systems[84], nor with unrestricted powers of evidentiary initiative or of adjudication over facts and issues not placed within the scope of the dispute by the parties themselves[85].

9. THE RIGHT TO BE HEARD, ORALITY AND ASYNCHRONOUS ADJUDICATION

Both modes of online adjudication—written and virtual—also affect the Italian civil procedure's long-standing oralist tradition, to the point that, according to some accounts, its very persistence has been called into question[86].

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[79] Susskind (2019), pp. 157 ss.

[80] Susskind (2019), p. 146, may be read in this sense, where the author expresses openness to procedural rules departing from the adversarial model to promote simplification and a less confrontational framework for self-represented parties, although such a solution does not appear fully convincing or decisive.

[81] On the principle of party disposition in relation to digitalisation, see Comoglio (2018), pp. 83 ss. See also Fabiani (2008), pp. 107 ss.; Nieva-Fenoll (2014), pp. 943 ss.

[82] See the definition proposed by Jacob (1970), pp. 23 ss., spec. p. 51, and its evolutionary reinterpretation by Sime (2020), pp. 269 ss.

[83] See the observations of Rule (2021), pp. 181 ss., according to whom the implementation of ODR systems within public justice has been pursued particularly in jurisdictions characterised by more flexible judicial structures. See also the convergence between civil law and common law systems described by Cavallini (2022), pp. 161 ss., and Carratta & Cavallini (2022), pp. 427 ss.

[84] See the considerations above concerning pre-trial judicial intervention (supra note 52), together with the statutory exceptions provided for by the legislature (inter alia, Arts. 117, 118 and 281-ter c.p.c.).

[85] While rejecting a general exclusivity of the parties over the subject matter of the dispute, the court's power of ex officio intervention nonetheless does not extend to facts that may be raised only by way of strict exceptions. On the scope of this power, see Colesanti (1965), pp. 172 ss.; Colesanti (2016), pp. 273 ss.; Denti (1961), pp. 22 ss.; Oriani (2005), pp. 1011 ss.; Mandrioli & Carratta, pp. 117 ss., with extensive references to case law.

[86] The principles of orality, concentration and immediacy that inspired the procedural model proposed by Chiovenda found only limited implementation at the time of the promulgation of the Code of

These implications of digitalisation appear particularly close to the current—and prospective—reality of Italian civil proceedings. Yet, where confined to a delimited set of disputes, they do not seem to entail such a radical departure from the ordinary procedural paradigm[87].

As is well known, orality does not merely consist in the prevalence of spoken argument over written submissions[88]. Rather, it reflects a broader conception of how proceedings are conducted and of the very structure of adjudication[89]. Its paradigmatic locus lies in the assessment of evidence[90], and it presupposes both immediacy and concentration in the handling of the dispute[91].

Before qualifying as a principle, however, orality functions as an instrument aimed at facilitating the judge's understanding of the factual grounds of the case[92], more than as a decisive factor in the formation of the legal reasoning eventually crystallised in the decision[93]. Through direct interaction with the parties and witnesses, the judge may articulate doubts and request clarifications[94]. Nonetheless, oral interaction remains ancillary to an adversarial exchange that has already unfolded—and will continue to unfold—primarily in written form[95], and, above all, to an evaluation of evidentiary material which, at the decisional stage, is conducted mainly based on the records of hearings. This is even more evident in a procedural system which, at present, encounters structural difficulties in satisfying the requirements of concentration typically associated with procedural orality[96].

Civil Procedure of 1940, before being taken up and affirmed first in labour proceedings with the 1973 reform and later also in ordinary proceedings. On the scope of these principles, see Chiovenda (1924), pp. 1 ss.; Calamandrei (1939), pp. 174 ss. (now in Id. (2019), pp. 450 ss.); Carnelutti (1958), pp. 153 ss.; Costa (1950), pp. 77 ss.; Cappelletti (1962); as well as the critical reflections of Vocino (1980), pp. 592 ss.

[87] While, for some, an exaltation of orality appears no longer feasible due to the erosion of its underlying premises (cf. Verde (2021), p. 1172), others maintain that the rituality of justice—expressed through courtroom dynamics and formalities—is what renders the constitutional order perceptible and, in this sense, essential. In these terms, see Garapon (2021), p. 116, who also warns against perceptual distortions associated with mediation through a digital screen.

[88] Giabardo (2022), pp. 132 ss.

[89] Chiarloni (2019), pp. 134 ss.

[90] Cappelletti (1962), pp. 104 ss.

[91] Chiovenda (1928), pp. 681 ss.; Chiovenda (1931), pp. 413 ss.; Calamandrei (2019), pp. 452 ss.

[92] Cappelletti (1962), pp. 46 ss. This assumption, while deeply rooted in procedural tradition, has increasingly been questioned considering contemporary insights into the cognitive dynamics of adjudication. On the epistemic risks connected with an overestimation of immediacy and judicial interaction as reliable tools for fact-finding, see Nieva-Fenoll (2025), who emphasises how cognitive overload, fragmentation of information and the loss of stable procedural landmarks may ultimately impair, rather than enhance, the quality of judicial decision-making in digitally mediated proceedings.

[93] Giabardo (2022), recalling Mortara (1923), p. 5586; see also Cecchella (7.3.2021), p. 17.

[94] Picardi (1973), pp. 1 ss.

[95] Cappelletti (1962), pp. 76.

[96] See Nieva-Fenoll (2019), pp. 71 ss., and the studies on the psychology of witness evidence referred to therein. While undoubtedly relevant to understanding the concrete value of testimonial evidence, such studies do not entirely negate the practical relevance of oral evidence where it alone may clarify decisive factual elements.

Against this background, when choosing between written proceedings and virtual hearings within the framework of online adjudication[97], it appears appropriate to reserve the former for purely documentary disputes or for procedural models already tested and consolidated during the pandemic[98]. Otherwise, one must accept a different—and more proactive—role for the judge. Virtual hearings, by contrast, may offer an opportunity to address the uncertainties inherent in evidence yet to be taken when it is forcibly channelled into a written format—now no longer exceptional under Italian law (Art. 257-bis c.p.c.)—while at the same time preserving those managerial and guarantee-related features typically associated with procedural orality, both in terms of evidentiary assessment and in relation to the contemporaneous unfolding of the adversarial exchange[99].

At this juncture, it becomes apparent that preserving an alternative in the form of an in-person (face-to-face) hearing may represent the preferable solution, not as a residual attachment to traditional forms, but as a structural safeguard against the risks of procedural over-simplification[100]. This would require defining the conditions under which in-person hearings may be admitted, to prevent the procedural flexibility potentially afforded by online adjudication from degenerating into a purely normative construct, detached from actual practice. A contribution in this respect may come from that strand of legal scholarship which has already reflected on the relationship between the procedural forms imposed during the pandemic and the traditional hearing.

Beyond the specific aims of this study—which are primarily directed at assessing the impact of a possible digital implementation of civil justice as conceived in legal theory—it appears that, in order not to nullify the advantages that an online court may bring as an online form of adjudication, some degree of sectionalization is unavoidable. This may occur either upstream, by circumscribing the court's jurisdiction, or—where alternative hearing formats are generalised—by limiting the availability of in-person hearings to narrowly defined cases. Both approaches entail an equivalent definitional effort, which, at present, does not appear sustainable, especially where one seeks to combine the two.

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[97] On the need to rethink the relationship between online adjudication and hearing formats, see supra § 8.

[98] Dalfino & Poli (2020), pp. 225 ss.; Brunelli (2021), pp. 977 ss.

[99] For a nuanced position on the relationship between oral and written forms of adjudication in digitally mediated proceedings, see Punzi (2024), who argues that digital technologies may transform—rather than suppress—procedural orality, while warning against both its uncritical preservation and its complete dematerialisation. See also Ruffini (2021), p. 17; Giabardo (2022), pp. 152 ss.; Gradi (2019), pp. 549 ss.

[100] In this broader cultural perspective, see Nieva-Fenoll (2025), who frames digitalisation as part of a wider transformation of the meaning of adjudication, calling for a reflective and normatively guided approach capable of preserving fairness and legitimacy in technologically mediated forms of justice. See also Carpi (2021), pp. 47 ss. on "secondary" orality; Ruffini (2021), pp. 15 ss.; Pagni (15.12.2020), pp. 9 ss.; Brunelli (2021), pp. 974 ss.; contra, Costantino (2.5.2020); Scarselli (13.5.2020), pp. 2 ss.; Punzi (2022), pp. 7 ss.; Biavati (2021), pp. 139 ss.; Biavati (2022), p. 54.

Conversely, omitting altogether any association between online adjudication and specific categories of proceedings, or any minimal predetermination of the circumstances under which in-person hearings should be retained where alternative forms are generally preferred, would risk undermining the very paradigm shift between in-person and virtual orality (or between orality and writing) on which the idea of the online court rests—and which distinguishes it from the procedural model imposed during the pandemic. It would also risk leaving the choice of virtual adjudication to the technological inclinations of the court and the parties, irrespective of the actual needs of the dispute.

Between sectionalization in terms of jurisdiction and the definition of conditions governing access to in-person hearings, the former appears preferable. In practice, however, the provision of a safety valve for disputes of limited complexity (see supra § 7), if insufficiently regulated, might lead to outcomes not dissimilar from those resulting from a complete lack of association between online adjudication and any qualifying element. If properly regulated in its prerequisites, the first solution would ultimately be equivalent to the second. In that case, there would be no need to address the issue of the parties' consent to a shift between different forms of adjudication—an issue that inevitably arises wherever an alternative to in-person hearings is preserved (and all the more so where such alternative becomes the rule rather than the exception), but which becomes irrelevant where the choice of procedural modality is entrusted exclusively to the judge on the basis of an assessment of complexity, as is currently the case under the procedure governed by Arts. 281-decies ss. c.p.c.

10. ONLINE COURTS AND THE IDEA OF JUSTICE

Each of the moments of interaction between digitalisation and civil procedure reconstructed above ultimately points to a further and more general question, in which the various issues examined appear to converge: namely, whether justice delivered through an online court—albeit not implemented in its "pure" theoretical configuration—may nonetheless be regarded as a distinct expression of jurisdiction.

An affirmative answer may reasonably be advanced about the categories of disputes hypothesised as suitable for online adjudication in the preceding § 7[101], and, to a certain extent, may be extended where a paradigmatic shift in the roles of judges and lawyers is assumed. Such a conclusion, however, cannot be generalised to all forms of litigation in light of the objectives pur-

[101] Consider, for instance, simplified procedures for low-complexity disputes, such as the European small claims procedure established by Regulation (EC) No. 861/2007 (as most recently amended by Regulation (EU) No. 2017/1259), on which see, inter alia, Leandro (2009), pp. 65 ss.; D'Alessandro (2010), pp. 39 ss.; and, more recently, Lupoi (2018), pp. 33 ss. On the subject, see already Biavati (2002), pp. 752 ss.

sued by digital justice. In particular, it does not appear transferable to small claims or disputes lending themselves to immediate resolution, which have long benefited from simplified procedural mechanisms[102].

Nor can digital justice be regarded as genuinely "new" when considered in light of the trajectory followed by the most recent reform, in which digitalisation—whether in the form of virtual hearings or predominantly written proceedings—has already been largely internalised within legal practice.

Against this background, the model of digital implementation considered here would be characterised by a more limited scope of application. It is precisely in its relationship with disputes remaining outside the sphere of online adjudication that such a reform could prove most valuable. While not, in itself, decisive in achieving the objectives of speed and efficiency in civil justice[103], it could nonetheless enable a more rational allocation of time and resources, to be devoted to the oral handling of other, more complex and socially significant disputes.

Such an option would evidently require the establishment of a preferential procedural track, grounded in the mandatory recourse to a dedicated court and in the definition of procedural rules tailored to the specific adjudicatory model adopted.

From this perspective, written proceedings would need to be carefully structured, to prevent the conduct of the trial from being unnecessarily burdened by repetitive submissions or hearing notes merely reproducing earlier pleadings. Indeed, this might provide an opportunity to give concrete effect to the principle of conciseness of procedural acts, long aspired to by the system[104] and only timidly implemented by the most recent reform[105]. This need not entail the adoption of rigidly form-based models, which nevertheless might be considered—at least—in connection with the possibility for parties to appear without legal representation[106].

At the same time, reflection would be required on the State's heightened responsibility for ensuring the proper functioning of the justice service, as

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[102] It is widely recognised in the literature that purely technical procedural initiatives cannot be decisive unless accompanied by system-wide organisational measures.

[103] In this sense, see already Biavati (2022), p. 56, with reference to the possible articulation of the principle of conciseness introduced by Law No. 206 of 26 November 2021.

[104] On this issue, see, inter alia, Taruffo (2017), pp. 453 ss.; Biavati (2017), pp. 467 ss.; Finocchiaro (2013), pp. 853 ss.; Capponi (2014), pp. 1075 ss.; De Santis (2017), pp. 749 ss.; Panzarola (2018), pp. 69 ss.; Scarselli (2017), pp. 323 ss.

[105] Although the principles of clarity and conciseness are today affirmed in the Code of Civil Procedure as immanent to civil proceedings, there is no direct sanction for their violation, which may at most be considered by the court for the purposes of allocating costs. On this subject, see Ghriga (2023), pp. 415 ss. For a stricter implementation of the principle in administrative proceedings, see, inter alia, Consiglio di Stato, 13 April 2021, No. 3006.

[106] While noting the criticisms levelled by some scholars against form-based justice (see, most recently, Scarselli (23.6.2021)), it is worth observing the extensive use of standardised forms in EU legislation and, in particular, in proceedings governed by Regulations (EC) No. 805/2004, No. 1896/2006, and No. 861/2007, in addition to the initiatives already mentioned above in note 101.

well as on the precise procedural consequences arising from failed or defective virtual connections[107]. Concerns repeatedly voiced in the literature would also persist regarding a potential loss of the ritual dimension of civil justice resulting from the conduct of proceedings in virtual environments[108]. This is far from a marginal issue, as it affects not only the social perception of justice but also the capacity of the process to fulfil its institutional function. From this standpoint, the physical courtroom would likely need to retain a meaningful connection with the lived reality of adjudication[109].

With specific regard to the evidentiary phase, however, the issue of so-called "de-ritualisation" may lose some of its relevance in light of the considerations developed above on orality and of the recognition that justice does not reside in a place as such, but rather manifests itself as a service[110]. Finally, since the forms and settings of the trial contribute to conveying a certain idea of justice, while that perception is also shaped by the broader cultural context of a society, these concerns may, over time, be mitigated or even gradually dissolve.

Technology, after all, enables more efficient and rationalised forms of interaction and, in some respects, entails profound transformations whose implications have yet to be fully explored. Yet it remains, first and foremost, a cultural evolution[111]—one that can, and must, be accompanied by a conscious and critically oriented legal reflection.

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[107] Brunelli (2021), p. 978, identifies the postponement of the hearing as the only viable solution.

[108] On the continuing relevance of the physical hearing as a space of symbolic and communicative density, even in technologically advanced systems, see Punzi, (2024), especially on the risk that a purely virtual setting may weaken the dialogical and relational dimensions traditionally associated with procedural orality. In addition to Garapon's remarks (2021), see also, inter alia, Scarselli (23.6.2021), pp. 2 ss.; Tedoldi (2021), pp. 868 ss.; Biavati (2022), p. 54.

[109] See the considerations above in note, which further support reserving sectorial adjudication for online courts, together with the view that orality and de visu case management remain valuable resources currently sacrificed to the volume of litigation handled by a justice system with limited human resources.

[110] Thus Brunelli (2021), p. 979.

[111] Garapon & Lassègue (2021), pp. 35 ss., who speak, in this regard, of a "revolution".

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FROM PAPER TO PORTAL: THE SLOVENIAN COVL REFORM AND THE DIGITALISATION OF MASS ENFORCEMENT

Marko Bratković*

SUMMARY: This article analyses the Slovenian reform of enforcement proceedings based on trustworthy documents, centred on the creation of the Central Department for Trustworthy Documents (COVL). It demonstrates how centralisation, full digitalisation and procedural redesign transformed mass enforcement into a highly efficient, largely automated system, offering transferable design lessons for jurisdictions confronted with high volumes of uncontested debt claims.

KEYWORDS: judicial digitalisation; civil enforcement; uncontested claims; Slovenia; automation

SUMMARY: 1. INTRODUCTION.— 2. ENFORCEMENT BASED ON A TRUSTWORTHY DOCUMENT: A PROCEDURAL INNOVATION.— 3. THE SLOVENIAN FRAMEWORK AND THE PERSISTENCE OF THE TRUSTWORTHY DOCUMENT PROCEDURE.— 4. ENFORCEMENT BASED ON A TRUSTWORTHY DOCUMENT AS A GENERATOR OF COURT BACKLOGS.— 5. THE PROJECT OF SYSTEMIC REORGANISATION OF THE PROCEDURE FOR ISSUING ENFORCEMENT ORDERS.— 6. THE CENTRAL DEPARTMENT FOR TRUSTWORTHY DOCUMENTS (COVL).— 7. THE DIGITALISATION OF THE ISSUING PHASE.— 8. THE NORMATIVE FRAMEWORK OF THE REORGANISED PROCEDURE.— 9. CONCLUSION: WHAT THE SLOVENIAN COVL REFORM TEACHES ABOUT DIGITALISING MASS CIVIL JUSTICE.— BIBLIOGRAPHY.

1. INTRODUCTION

The increasing incorporation of digital technologies into civil justice systems has generated significant potential for reshaping the administration of

* Marko Bratković, PhD, is an Associate Professor at the Department of Civil Procedure, Faculty of Law, University of Zagreb. E-mail: *marko.bratkovic@pravo.unizg.hr*. ORCID ID: *orcid.org/0000-0003-0893-6682*.

high-volume, standardised procedures, although the extent to which this potential is realised in practice varies considerably across jurisdictions. One area in which this potential has been particularly visible is the judicial handling of uncontested monetary claims, where procedural standardisation and automation can substantially reduce institutional burdens.

This article examines the Slovenian reform of a summary judicial procedure for issuing enforcement orders on the basis of specific categories of documents—referred to in Slovenian law as *verodostojna listina* and translated here as "trustworthy documents". In this procedure, the court issues an enforcement order without prior adversarial proceedings, relying solely on the creditor's application and the indicated documentary basis; the order becomes final and enforceable unless the debtor lodges a timely objection. The analysis therefore concerns the judicial determination of enforceability, rather than the subsequent execution of enforcement measures. In practice, the procedure most commonly relies on invoices and extracts from business records, which makes it particularly amenable to standardised electronic filing and automated processing. The Slovenian case thus offers an instructive example of how a traditionally paper-based, court-centred model for issuing enforcement orders in uncontested cases has been reconfigured into a digitally mediated system capable of processing large volumes of claims. The analysis therefore concentrates on the issuing phase, while the execution phase, in which structural bottlenecks may persist, lies beyond the scope of the article.

Although enforcement based on trustworthy documents was incorporated into Slovenian law as part of the inherited procedural framework following the dissolution of the former Yugoslavia, the organisational and technological framework governing its operation underwent a profound shift only later. Prompted by severe court congestion and the mass volume of such cases, Slovenia introduced a comprehensive reform in 2008 centred on the creation of the Central Department for Trustworthy Documents (COVL). Through the centralisation of jurisdiction and the full digitalisation of filing, communication, and case management, the COVL reform transformed the issuing phase of enforcement orders from a fragmented, paper-intensive process into a largely automated, portal-based workflow.

This article draws on the Slovenian experience and selected efficiency indicators. It examines how digital infrastructure, procedural design, and institutional reorganisation interact in the large-scale issuance of enforcement orders based on trustworthy documents. The analysis proceeds in four steps. First, it situates enforcement based on a trustworthy document as a distinctive procedural innovation within the former Yugoslav tradition and explains its doctrinal logic and subsequent adaptation in Slovenian law (Sections 2 and 3). Secondly, it shows how this mechanism, when combined with mounting structural pressures and uneven organisational capacity, became a significant generator of court backlogs and prompted a reform strategy centred on centralisation and digitalisation (Section 4). Thirdly, it analyses the project of systemic reorganisation, including the establishment of the Central

Department for Trustworthy Documents (COVL), its organisational rationale, staffing structure, outsourcing arrangements, and procedural outcomes (Sections 5 and 6). Finally, it examines the digitalisation of the issuing phase and the accompanying normative framework, before drawing out the broader implications, design lessons, and trade-offs for jurisdictions considering the digitalisation of mass, documentation-based civil justice (Sections 7–9).

2. ENFORCEMENT BASED ON A TRUSTWORTHY DOCUMENT: A PROCEDURAL INNOVATION

Enforcement based on a trustworthy document represents a distinctive procedural mechanism developed within former Yugoslav procedural law, designed to facilitate the judicial handling of uncontested monetary claims. Its defining feature is that the court may issue an enforcement order on the basis of specified categories of documents, without prior adversarial proceedings. The order becomes final and enforceable if the debtor fails to lodge an objection within the statutory time limit; if an objection is filed, the dispute is transferred to ordinary civil litigation. The procedure thus operates as a summary and conditional pathway to enforceability, with full judicial scrutiny deferred unless triggered by the debtor[1].

The legislative rationale underlying this mechanism was to avoid the need for full-scale civil litigation—often lengthy and resource-intensive—in cases where the existence of the claim was not genuinely disputed[2]. By allowing creditors in possession of a statutorily defined document to seek an enforcement order directly, the procedure aimed to reduce institutional burdens while preserving the debtor's right to contest the claim through a timely objection.

Historically, the procedure emerged as a development within former Yugoslav enforcement law. Its initial formulation under the Enforcement Procedure Act of 1978 was relatively narrow and conceptually imprecise. A more coherent design was introduced by the 1990 legislative amendment, which clarified the procedural structure and expanded the range of documents on which the procedure could be based. While originally limited to invoices, bills of exchange, and cheques, the catalogue of "trustworthy documents" was extended to include public documents, extracts from certified business records, and statutorily authenticated private documents.

At the time this mechanism was conceived, the evidentiary assumptions underpinning it were shaped by the technological and economic context in which it operated. The production and circulation of documents such as invoices or certified business records were comparatively costly and administratively demanding, which contributed to their perceived reliability as

[1] Bratković (2015, p. 1026).
[2] Uzelac and Bratković (2015).

indicators of an uncontested claim. This context helps to explain why the legislator was prepared to attach significant procedural consequences to the mere indication of such documents. Advances in information technology and the ease of document generation in contemporary practice have since altered this background assumption.

Conceptually, the mechanism drew inspiration from the documentary payment order procedure[3]. Under that model, the court issues a payment order on the basis of documentary evidence and without prior adversarial proceedings, subject to the debtor's right to object. The Yugoslav legislator went one step further by integrating this logic directly into enforcement law: a single judicial act combined a conditional payment order with a conditional enforcement order, both of which became unconditional and final in the absence of an objection.

Within the broader system of enforcement law, trustworthy documents thereby acquired—albeit conditionally—the function of enforcement titles (*tituli executionis*). Their role as a basis for enforcement was nevertheless initially subject to significant limitations. Under the 1978 regime, enforcement based on a trustworthy document was confined to due monetary claims between organisations engaged in economic activity. The 1990 reform relaxed these constraints by extending the availability of the procedure to claims held by all legal persons, regardless of the debtor's status[4].

3. THE SLOVENIAN FRAMEWORK AND THE PERSISTENCE OF THE TRUSTWORTHY DOCUMENT PROCEDURE

Following the dissolution of the Socialist Federal Republic of Yugoslavia and the proclamation of independence, the Republic of Slovenia largely continued to apply the former federal enforcement framework. Slovenia's first autonomous Enforcement Act (*Zakon o izvršbi in zavarovanju*) was adopted only in 1998 and, notwithstanding numerous subsequent amendments, remains in force today[5]. The Yugoslav innovation of enforcement based on a trustworthy document was incorporated as an integral component of that statute.

In a judicial system burdened by lengthy civil proceedings and a growing volume of unresolved cases, the retention of this mechanism appeared functionally justified. At the normative level, both Slovenian enforcement law abandoned the personal limitations that had previously restricted the application of the procedure. As a result, any creditor—whether a natural or a legal person—holding a trustworthy document evidencing the existence of a monetary claim became entitled to seek the issuance of an enforcement order against the debtor[6].

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[3] Dika (2007, p. 253); Triva, Belajec, and Dika (1984, p. 155).
[4] Bratković (2015, p. 1027).
[5] Bratković (2015, p. 1027).
[6] Bratković (2015, p. 1028).

From the perspective of the statutory conditions governing the compulsory realisation of claims, the conceptual design of this mechanism proved particularly attractive for creditors of monetary claims. Creditors were, in principle, able to obtain a final enforcement order without initiating ordinary civil litigation and to pursue satisfaction of their claims in subsequent enforcement proceedings. The issuing phase of the procedure was intended to be simple and expeditious. In practice, however, procedural speed and simplicity depended not only on the normative design of the mechanism, but also on organisational capacity, the allocation of tasks within courts, and the professional expertise of the personnel involved[7].

The structural pressures confronting the Slovenian judiciary at the turn of the millennium illustrate the systemic relevance of these factors. Statistical data for the year 2000 indicate that more than 63 per cent of first-instance civil proceedings before local courts exceeded one year in duration, with over 28 per cent lasting longer than three years. Before district courts, more than 80 per cent of first-instance commercial disputes lasted longer than one year, and over 36 per cent longer than three years[8]. Although subsequent judicial reforms led to measurable improvements over the following decade—such that by 2010 approximately 60 per cent of first-instance civil proceedings were resolved within one year—these figures illuminate the institutional environment in which enforcement based on trustworthy documents increasingly assumed a central role within the Slovenian justice system.

4. ENFORCEMENT BASED ON A TRUSTWORTHY DOCUMENT AS A GENERATOR OF COURT BACKLOGS

Prior to the 2008 reform, the issuing of enforcement orders based on trustworthy documents in Slovenia fell entirely within judicial jurisdiction, in continuity with the former Yugoslav model. Competence for issuing such orders was distributed among 44 first-instance local courts (*okrajna sodišča*), whose territorial jurisdiction was generally determined by the debtor's place of residence or registered seat. The processing of these cases engaged approximately 350 judicial staff members nationwide, at least for a substantial portion of their working time[9].

Although the availability of a summary procedure for issuing enforcement orders contributed to a modest reduction in the inflow of new civil cases in litigation, it simultaneously generated significant pressure within the enforcement segment of the judiciary. Judges and court staff dealing with enforcement matters became increasingly overburdened, often performing tasks that were administrative rather than adjudicative in nature[10]. As noted

[7] Bratković (2015, p. 1028).
[8] Bratković (2015, p. 1027).
[9] Strojin (2013, p. 161).
[10] Bratković (2015, p. 1028).

in the literature, such patterns are characteristic of enforcement systems in several jurisdictions shaped by a socialist legal tradition, where enforcement structures have tended to be under-resourced, highly formalised, and administratively intensive[11].

The sheer volume of applications for enforcement orders based on trustworthy documents placed considerable strain on Slovenian courts and gradually emerged as a systemic challenge. Inefficiencies within enforcement proceedings thus became one of the structural sources of inefficiency affecting the judiciary as a whole. Empirical data indicate that, between 1997 and 2004, a substantial proportion of all unresolved court cases at the end of each year—on average approximately 38 per cent—consisted of unresolved enforcement matters, irrespective of the date of filing[12].

Given the procedural attractiveness of enforcement based on trustworthy documents from the creditor's perspective, it is unsurprising—and empirically confirmed—that a large share of enforcement cases concerned precisely this category of proceedings. Available statistical data show that, in the period from 2003 to 2007, Slovenian courts registered an annual average of approximately 148,000 new enforcement cases, of which around 118,000 related to enforcement based on trustworthy documents. In other words, roughly 80 per cent of all enforcement cases filed during that period fell into this category[13].

The cumulative effect of this caseload concentration adversely affected key indicators of judicial efficiency and had broader systemic implications, including in the context of Slovenia's accession negotiations with the European Union[14]. In its 2004 annual report, the Slovenian Supreme Court explicitly identified enforcement proceedings as an area requiring thorough analysis and radical reform in order to improve overall judicial performance. A subsequent review conducted by the Ministry of Justice in cooperation with the courts established that enforcement cases accounted for as much as 42 per cent of all unresolved court cases[15].

One of the central conclusions of that analysis was that courts were predominantly occupied with enforcement proceedings based on trustworthy documents, many of which concerned claims of relatively low monetary value. Subsequent assessments confirmed that it was precisely the mass volume of such cases that constituted one of the most significant drivers of court backlogs. Crucially, however, the problem was not attributed to the legal or factual complexity of these cases. Rather, it stemmed from the extensive administrative processing associated with the issuing of enforcement orders, which consumed a disproportionate share of judicial working time.

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[11] Uzelac (2010, p. 84).
[12] Bratković (2015, p. 1029).
[13] Bratković (2015, pp. 1029–1030).
[14] Strojin (2013, p. 170).
[15] Strojin (2013, p. 170).

Courts thus perceived themselves as overburdened with administrative activities remote from their core adjudicative function. The analysis further noted the paradox that some courts were able to resolve legally and factually more complex enforcement proceedings—such as those involving immovable property—more swiftly than legally straightforward proceedings based on trustworthy documents[16]. Against this background, the procedure for issuing enforcement orders based on trustworthy documents was identified as requiring comprehensive structural reform.

5. THE PROJECT OF SYSTEMIC REORGANISATION OF THE PROCEDURE FOR ISSUING ENFORCEMENT ORDERS

Confronted with mounting structural pressures within the judiciary, the Slovenian legislator pursued a reform strategy centred on the digitalisation and internal reorganisation of the judicial procedure for issuing enforcement orders. This approach was grounded in the assessment that the structure of trustworthy documents was particularly well suited to electronic data processing, given that the law exhaustively defined both the permissible categories of such documents and their mandatory content. That initial assessment, however, required further elaboration at the organisational, technical, and normative levels[17].

Between 2004 and 2008, a specialised unit within the Slovenian Supreme Court responsible for collecting and organising case law played a leading role in developing a project to systematically reorganise the procedure for issuing enforcement orders based on trustworthy documents through the use of modern information technology. More broadly, this department was responsible for the development and implementation of information and communication technology within the Slovenian judiciary until the end of 2014, when these responsibilities were transferred to the newly established independent Project Management Service (*Služba za upravljanje projektov*, SUP). Within the same institutional framework, the Centre for Informatics (CIF) was established as a specialised organisational unit of the Slovenian Supreme Court tasked with providing technical support to courts and developing centralised judicial information systems. Strategic coordination of digitalisation projects was further ensured through a User Council composed of representatives of individual courts, which convened at least annually to assess progress and determine future development priorities[18].

The project of systemic reorganisation was conceived as a direct response to the deficiencies previously identified in the field of judicial enforcement and as a means of improving overall efficiency. Through the digitalisation of

[16] Bratković (2015, p. 1031).
[17] Bratković (2015, p. 1032).
[18] Bratković (2015, p. 1032).

the issuing phase, the objective was to enable the judiciary to provide the service of issuing enforcement orders in a rapid and user-friendly manner. The project's stated aim was that, following implementation, creditors would be able to obtain an enforcement order based on a trustworthy document swiftly by electronic means and to monitor the progress of the procedure at any time through a dedicated online portal.

Implementation of the project took place within the framework of a broader European initiative, in which Slovenian representatives cooperated with German experts on measures to reduce court backlogs, notably the EU Twinning project *Reduction of Judicial Backlog*[19]. The reorganisation resulted in a partial reallocation of judicial jurisdiction, the development of a new information system, and a series of accompanying normative amendments. The implementation process, however, was not without difficulties. According to participants involved in the project, institutional support from the competent ministry was at times insufficient, leading to the abandonment of certain design proposals, such as the establishment of a separate debtor registry or the introduction of a minimum claim threshold for enforcement against immovable property[20].

Additional challenges emerged during the implementation phase, particularly with regard to coordination and team cooperation within the project structure. As one participant observed, effective twinning presupposes sustained joint engagement, including the exchange of ideas, proposals, and working documents—a condition that was not consistently fulfilled across all segments of the project. Despite these constraints, the project's core objectives were ultimately achieved, largely due to the sustained commitment of a number of proactive individuals[21].

6. THE CENTRAL DEPARTMENT FOR TRUSTWORTHY DOCUMENTS (COVL)

As of 1 January 2008, the issuance of enforcement orders based on trustworthy documents was concentrated within a single judicial body: the Local Court in Ljubljana (*Okrajno sodišče v Ljubljani*), more precisely its specialised unit known as the Central Department for Trustworthy Documents (*Centralni oddelek za verodostojno listino*, COVL). The designation "central" reflects the nationwide jurisdiction of this department over all proceedings for the issuance of enforcement orders based on trustworthy documents in Slovenia.

The decision to concentrate jurisdiction in a single court formed part of a broader strategy to redesign the processing of mass, documentation-based claims. It was driven primarily by organisational considerations and infor-

[19] Strojin (2013, p. 168).
[20] Strojin (2013, pp. 179–180).
[21] Strojin (2013, pp. 179–180).

med by comparative experience with centralised judicial dunning procedures, most notably the *Mahnverfahren* in German and Austrian law. While the *Mahnverfahren* is not identical to enforcement based on trustworthy documents, both mechanisms address structurally similar challenges arising from high volumes of uncontested monetary claims and rely on standardisation and limited judicial intervention at the initial stage[22].

The establishment of COVL replaced the earlier decentralised model under which 44 local courts had been competent to issue enforcement orders based on trustworthy documents. Under the reformed system, local courts retained jurisdiction only for the subsequent execution phase once an enforcement order became final, as well as for decisions arising in the course of enforcement. The issuing phase, by contrast, was fully centralised[23].

Organisational Rationale and Staffing Structure

The creation of a single body competent to issue enforcement orders based on trustworthy documents was intended to remedy structural deficiencies arising from the uneven professional and technical capacities of courts under the previous decentralised model. Prior to the reform, enforcement matters were administered in highly divergent ways. In many courts, particularly smaller ones, judges were required to handle enforcement cases in their entirety, including tasks of a clerical and administrative character, often without the support of specialised administrative staff. This arrangement was not perceived as problematic by judges themselves, since such activities enabled them to meet formally prescribed workload targets. In practice, however, it was not uncommon for a single judge to process all enforcement cases received by a given court, a situation that inevitably diverted judicial resources from other categories of cases and contributed to broader systemic backlogs[24].

A different organisational pattern could be observed in larger courts, where individual procedural steps were allocated to designated staff members who had developed a degree of specialisation in particular segments of enforcement proceedings[25]. Yet this model was likewise affected by structural shortcomings. Limited coordination among staff, combined with the varying complexity of individual cases, resulted in delays and placed considerable pressure on human resources. As a consequence, a substantial number of judicial and non-judicial personnel across the court system were required to participate in enforcement-related tasks alongside their other duties. In quantitative terms, this involved more than 350 individuals nationwide, in-

[22] Uzelac and Bratković (2015).
[23] Bratković (2015, p. 1033).
[24] Bratković (2015, p. 1033).
[25] Strojin (2013, p. 172).

cluding approximately 50 judges, who were engaged in enforcement matters at least for part of their working time[26].

By contrast, following the establishment of the Central Enforcement Department (COVL), the previously dispersed enforcement-related workload was consolidated within a compact organisational unit comprising some seventy staff members. Judicial involvement was correspondingly limited. Enforcement matters within COVL were entrusted to a very small group of judges, initially numbering around four, with a temporary increase to approximately six in response to fluctuations in application volumes, before settling at around five. The organisational model adopted at COVL relies predominantly on non-judicial staff. Approximately two thirds of personnel are judicial assistants and court clerks, complemented by a smaller contingent of registry officers and legally trained professional associates. In practical terms, this arrangement entails that the nationwide issuance of well over 200,000 enforcement orders annually, together with decisions on some 20,000 objections, is handled by a limited number of judges supported by a compact administrative and professional structure[27]. Judges at COVL are authorised to reject objections that are inadmissible, incomplete, out of time, or insufficiently reasoned.

Outsourcing and Administrative Streamlining

In assessing the staffing figures, it is necessary to take account of the fact that a significant portion of tasks previously performed within courts was outsourced following the establishment of COVL. In particular, the preparation and dispatch of outgoing mail were entrusted to a private service provider equipped with appropriate IT infrastructure. All documents are transmitted to the provider in electronic form, printed, sorted, enveloped, recorded, and submitted for postal delivery. During the design phase of the reform, judges had already identified mail handling as a potential bottleneck, and comparative experience played an important role in shaping this solution. In 2010 alone, more than 1.1 million postal items comprising over 9.4 million pages were dispatched for the purposes of COVL. Absent outsourcing, this volume would have required the engagement of an estimated 60 to 70 additional staff members on an annual basis. The outsourcing model proved highly effective and was later extended to land registry and insolvency proceedings[28].

From 2011 onwards, the digitisation of delivery receipts was also outsourced. Incoming receipts were scanned and the date of service entered directly into the electronically generated case file. This model was subsequently applied more broadly across enforcement proceedings[29]. These measures resulted in substantial reductions in postal and administrative costs for the

[26] Strojin (2013, p. 204).
[27] Bratković (2015, p. 1034).
[28] Strojin (2013, p. 190).
[29] Strojin (2013, p. 190).

judiciary as a whole. Postal expenditure had previously accounted for almost one quarter of the judiciary's total non-salary material budget[30]. Within this framework, COVL alone allocated approximately €3.5 million per year to postal services, representing roughly half of the funds earmarked for material costs[31], while a further €0.5 million annually was devoted to outsourced services. Beyond direct financial savings, outsourcing also produced organisational benefits by relieving courts of a significant volume of time-consuming administrative tasks that had previously absorbed considerable judicial and clerical resources[32].

Procedural Outcomes and Performance Indicators

The competence of COVL is confined to the issuing phase of enforcement orders based on trustworthy documents and to decisions concerning the admissibility, completeness, timeliness, and reasoning of objections. In practice, approximately 90 per cent of enforcement orders issued at this stage become final upon the expiry of the objection deadline, with the objection rate remaining broadly stable and close to one tenth of all issued orders[33]. The relatively low incidence of objections may therefore be regarded as an indicator of procedural efficiency. Where proceedings operate efficiently, debtors are disincentivised from raising unfounded objections, as they are aware that doing so would merely expose them to additional financial burdens—such as court fees, potential legal representation costs, and accrued default interest—which they would be required to bear within a relatively short period of time[34].

Further insight into the proportion of substantiated objections is provided by the fact that a substantial share of objections lodged was dismissed as inadmissible, incomplete, out of time, or insufficiently reasoned[35]. Where an objection is dismissed on any of these grounds, the party concerned may lodge an appeal, which is decided by a single second-instance court, namely the Higher Court in Ljubljana (*Višje sodišče v Ljubljani*). In order to prevent divergences in the case law of different appellate courts, the legislature designated a single appellate forum for enforcement proceedings based on trustworthy documents. This solution, however, was adopted only in 2011, when the Ministry of Justice ultimately endorsed the proposal for a centralised appellate forum[36]. Appeals against decisions rejecting objections have in practice remained rare, accounting for only a very small fraction of cases, generally in the range of one to two per cent.

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[30] Bratković (2015, p. 1035).
[31] Bratković (2015, p. 1035).
[32] Bratković (2015, p. 1035).
[33] Bratković (2015, p. 1035).
[34] Bratković (2015, p. 1036).
[35] Strojin (2013, p. 203).
[36] Bratković (2015, p. 1037).

Trends in caseload further illustrate the capacity of the centralised system to absorb fluctuations in demand. Throughout the period examined, COVL was required to process a very large volume of enforcement matters—on the order of two hundred thousand applications annually—yet the digitalised system proved capable of accommodating increased inflows without major disruption to overall performance[37].

This capacity was reflected in processing times. One of the project's operational objectives—namely, the issuance of enforcement orders within a very short period following filing—was achieved in a substantial proportion of cases. In the great majority of proceedings, orders were issued within a matter of days, representing a dramatic improvement compared with the pre-reform situation, in which the issuing phase alone frequently extended over several months. As a result, the average duration of proceedings handled by COVL was reduced to a fraction of its previous length[38].

The reorganisation of the issuing phase also appears to have had a behavioural impact on debtors. In a significant share of cases, obligations were satisfied, either in full or in part, before coercive enforcement measures were carried out. Empirical findings indicate that debtors discharged their obligations prior to execution in roughly one third of cases[39]. This is further reflected in the withdrawal of approximately one tenth of applications before the enforcement order became final, as well as in an additional withdrawal of around one fifth of cases before execution proceedings commenced[40].

7. THE DIGITALISATION OF THE ISSUING PHASE

The digitalisation of the procedure for issuing enforcement orders based on trustworthy documents constituted a core element of Slovenia's project of systemic reorganisation. From the outset, the reform was premised on the assessment that this category of proceedings was particularly well suited to electronic processing. The law exhaustively enumerates both the permissible types of trustworthy documents and their mandatory content, which enabled a high degree of standardisation and the development of uniform electronic application forms[41].

Electronic Filing and User Access

From 1 January 2008 onwards, applications for enforcement orders based on trustworthy documents could be submitted electronically, alongside the continued availability of a strictly prescribed paper form obtainable free of

[37] Bratković (2015, p. 1038).
[38] Bratković (2015, p. 1038).
[39] Bratković (2015, p. 1039).
[40] Strojin (2013, p. 202).
[41] Bratković (2015, p. 1039).

charge at local courts. Each paper application bears a unique identification number, which must be referenced when paying the court fee[42]. Electronic filing and case tracking were initially facilitated through a dedicated portal and, from 1 March 2012, through the *e-Izvršba* (e-Enforcement) sub-portal within the broader *e-Sodstvo* platform. The latter enabled electronic filing not only in enforcement proceedings, but also in land registry and insolvency matters, thereby consolidating user access to multiple judicial services[43].

Electronic applications may be submitted by any person with internet access and a valid email address, irrespective of nationality. Registration on the *e-Sodstvo* portal requires only the applicant's name and email address, to which a personal access password is sent. This minimalist registration model marked a deliberate departure from more formalistic approaches traditionally associated with civil procedure[44]. It was adopted under the influence of pragmatic foreign models, most notably the English *Money Claim Online* system, which is premised on the assumption that users who are willing to pay the applicable fee and bear the legal consequences of filing should not be subject to excessive entry barriers. Comparable simplified filing models had also been observed in Finland during expert study visits conducted in the course of the reform project[45].

In addition to ordinary users, the platform allows for the registration of "qualified users", who authenticate themselves by means of a qualified electronic certificate. Qualified users are authorised to submit multiple applications simultaneously, a feature particularly relevant for institutional creditors. The filing process was designed to be accessible even to users with basic digital literacy, supported by detailed instructions, frequently asked questions, and a dedicated technical support channel. User uptake was rapid: by 2014, 99.7 per cent of enforcement applications were filed electronically, with the proportion submitted by qualified users increasing from approximately 20 per cent in 2008 to around 50 per cent in 2014[46].

Document Abstraction and Procedural Logic

Although the procedure continues to be described as enforcement "based on" a trustworthy document, the reorganised model no longer requires the submission of the document itself at the issuing stage. Instead, the creditor merely indicates the document and specifies its date of issuance. The procedure therefore operates on a model of affirmative *litis contestatio*, in the sense that the debtor's failure to lodge a timely, complete, and reasoned objection is

[42] Bratković (2015, p. 1040).
[43] Bratković (2015, p. 1040).
[44] Bratković (2015, p. 1040).
[45] Strojin (2013, p. 184).
[46] Strojin (2013, p. 204); Business Intelligence System of the Supreme Court.

treated as acceptance of the creditor's factual assertions[47]. In the absence of an objection, the conditional payment order and the conditional enforcement order become unconditional and final. Conversely, a valid objection prevents finality and results in the transfer of the dispute to ordinary civil litigation.

The abstraction from documentary submission significantly facilitated digitalisation and relieved courts of the need to examine and store annexes. At the same time, it altered the balance of procedural safeguards[48]. Documentary evidence can assist both courts and debtors in assessing whether a claim exists and in what amount[49]. While the existence of a trustworthy document may indicate a higher probability that a claim is genuine, certain categories of such documents—particularly invoices and extracts from business records—are relatively easy to generate in contemporary practice. As a result, judicial review at the issuing stage, even where documents are submitted in other systems, often remains largely formal rather than substantive[50].

Data Integration and Automated Verification

Digitalisation also addressed a further structural weakness of the earlier system: the time-consuming collection of data from external public registers. Under the previous model, creditors were required to obtain information concerning the debtor's employer, bank accounts, immovable property, or securities through separate written requests, a process that was often slow and incomplete. Drawing inspiration from the Finnish model, the Slovenian system now enables courts to obtain such data electronically[51].

The judicial information system is connected to a range of external registers, including tax registers, citizenship records, the central register of bank accounts, land registers, and the commercial register. Where electronically available data indicate that enforcement is feasible with respect to the objects proposed by the creditor, the Local Court in Ljubljana is authorised not only to issue the enforcement order, but also to transmit it directly to the relevant addressees, such as the debtor's debtor, the land registry court, the enforcement agent, or the payment services provider, depending on the enforcement method sought[52].

Data integration also performs a corrective function at the filing stage. Information entered by the applicant is automatically cross-checked against official registers, and the user is alerted to potential errors or inconsistencies. By way of example, the debtor's forename and surname are electronically

[47] Čalija and Omanović (2000, p. 311).
[48] European Commission (2002, Section 3.1.1).
[49] Dika (2007, p. 253); Triva, Belajec, and Dika (1984, p. 132); Poznić and Rakić-Vodinelić (2010, p. 447).
[50] Bratković (2015, p. 1041).
[51] Bratković (2015, p. 1042).
[52] Strojin (2013, p. 190).

compared with the register of Slovenian citizens, and the applicant is warned of possible difficulties in identifying the debtor. Nevertheless, where the discrepancy is minor and the creditor considers it not to be decisive for the application, the application may still be lodged notwithstanding the warning. Automated error signalling has contributed to the acceleration of the procedure as a whole, by reducing the number of applications that courts are required to return for correction or completion on account of incompleteness or lack of clarity. In 2011, only 1.5 per cent of electronically filed applications were incomplete, compared with more than 16 per cent of paper-based submissions[53]. Certain stages of processing, however, continue to require human verification, particularly where paper applications are digitised.

End-to-End Digital Processing and Statistical Monitoring

Digitalisation in the reorganised procedure extends beyond filing. Judicial decisions—including requests for correction of incomplete applications and enforcement orders—are generated electronically, and all paper submissions received at COVL are digitised, subjected to optical character recognition, and verified by administrative staff[54]. Even paper-based applications are thus fully integrated into the electronic workflow.

From the outset, project participants emphasised the importance of reliable statistical monitoring[55]. Prior to the establishment of COVL, dependable data on the number of proceedings based on trustworthy documents, objection and appeal rates, and the duration of the issuing phase were largely unavailable. German experts involved in the project had warned that existing judicial statistics were overly complex and unsuitable for systematic analysis[56]. Accordingly, although formally a department of the Local Court in Ljubljana, COVL was treated as a separate statistical unit to ensure accurate monitoring of outcomes and reform effects.

Finally, the reorganised system incorporated additional design features drawn from comparative experience. Each case is assigned a unique identification number that remains attached to it throughout its lifecycle, preventing double counting where cases are transferred between courts and enabling reliable tracking of final outcomes[57]. To further streamline filing, an electronic court-fee payment system was introduced, allowing fees to be paid by credit card and automatically matched to the relevant application through the judicial information system[58].

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[53] Strojin (2013, p. 207).
[54] Strojin (2013, p. 198).
[55] European Commission for the Efficiency of Justice (2008).
[56] Borchert (2016, p. 10).
[57] Bratković (2015, p. 1043).
[58] Strojin (2013, p. 190).

8. THE NORMATIVE FRAMEWORK OF THE REORGANISED PROCEDURE

The organisational and technological changes described above would not have been possible without sustained and coordinated legislative activity accompanying the implementation of the reform project. The converse is equally true: purely normative amendments, in the absence of technically and organisationally viable solutions, would not have produced the desired effects. Incremental or fragmentary changes to individual statutes would likewise have been insufficient. The Slovenian reform therefore proceeded on the premise that digitalisation required a comprehensive and coherent normative framework capable of supporting new procedural practices[59].

To that end, legislative intervention extended beyond enforcement law and the rules of civil procedure—applied subsidiarily in enforcement proceedings—to a broader set of organisational and procedural regulations. These included amendments to the Courts Act, the Court Rules of Procedure, legislation governing court fees, and related regulatory instruments. Even the Criminal Code was amended to criminalise abuse of enforcement proceedings, punishable by a fine or imprisonment of up to two years (Slovenian Criminal Code, Art. 216). Taken together, these reforms underscore the legislature's recognition that procedural efficiency depends not only on technological tools, but also on the legal environment in which those tools operate. A deliberate sequencing strategy proved decisive: practical technical solutions were developed and tested first, and only subsequently embedded in binding legal rules once their operational viability had been demonstrated[60].

Enabling Electronic Procedure

A central precondition for digitalisation was the removal of normative barriers to electronic communication with courts. Prior to the establishment of COVL, electronic filing of submissions was, in practice, not feasible within the Slovenian judiciary, despite the existence of provisions on electronic commerce and electronic signatures. The relevant procedural rules were mutually inconsistent and, at times, contradictory. Courts were, for example, considered entitled to reject electronically filed submissions on the ground that they had not been submitted in a sufficient number of copies for the court and the opposing party[61].

This situation changed with the 2007 amendment to the Civil Procedure Act (ZPP-C), which introduced a realistically operable framework for elec-

[59] Bratković (2015, p. 1044).
[60] Strojin (2013, p. 206).
[61] Strojin (2013, p. 171).

tronic judicial proceedings. Electronic submissions were, in principle, equated with written submissions, and a secure electronic signature verified by a qualified certificate was equated with a handwritten signature. Courts were authorised to issue and sign decisions electronically, without the need for judges to affix handwritten signatures, and electronic service of documents was equated with traditional service.

At the same time, the legislature addressed a range of technical and procedural details—sometimes to a notably granular extent—in order to prevent excessive formalism from undermining the practical implementation of electronic procedures. It was expressly provided, for example, that an electronic submission need be filed in only a single copy, so that courts could no longer reject e-submissions on the ground that they had not been lodged in a sufficient number of copies for the court and the opposing party. Similarly, parties were relieved of the obligation to submit written proof of payment where court fees were paid electronically.

The degree of regulatory detail reflects a legislator attentive to lessons learned from earlier practice. This is illustrated by the adoption of a special regulation that standardised, in a uniform manner, the colour, size, printing method, and overall appearance of envelopes used for the service of court documents in civil proceedings. Such measures were intended to ensure that the transition to electronic communication would not be frustrated by residual formal requirements inherited from paper-based procedure[62].

At the same time, the statute did not directly authorise electronic filing without a secure electronic signature. Instead, it empowered the Minister of Justice to specify which submissions, and under what conditions, could be filed electronically. Pursuant to this authorisation, a special regulation provided that an applicant seeking an enforcement order based on a trustworthy document need identify themselves only by stating their name and a valid email address. The absence of additional formal requirements was counterbalanced by the obligation to pay a court fee: where the fee was not paid within eight days of filing, the application was deemed withdrawn (a period reduced from ten days in 2012). Applicants may also seek exemption from court fees, either in advance or at the time of filing, with COVL maintaining a dedicated register of persons exempt *ex lege*[63].

Adaptation of Enforcement Law

Parallel amendments were made to the Enforcement Act, the *sedes materiae* of enforcement law. A 2007 amendment abolished the obligation to submit the trustworthy document itself at the issuing stage. It now suffices for the creditor to refer to the document and specify its date of issuance and

[62] Strojin (2013, p. 186).
[63] Bratković (2015, p. 1045).

the maturity date of the claim. In addition to the principal amount, creditors may seek recovery of interest and procedural costs. The Act further requires that court fees be paid by reference to the unique identification number of the enforcement application, enabling automated recording within the judicial information system. It also expressly obliges COVL to examine the feasibility of enforcement against the proposed enforcement objects by consulting relevant electronic registers.

The structure and content of both paper-based and electronic submission forms are regulated by a dedicated by-law, which provides standardised variants for cases involving multiple creditors, multiple debtors, or multiple trustworthy documents. Exclusive jurisdiction of the Local Court in Ljubljana for issuing enforcement orders based on trustworthy documents is prescribed in the Courts Act, which also obliges custodians of relevant public registers to provide data to courts promptly and free of charge, thereby enabling technical interoperability between judicial and external information systems.

Court Fees as a Regulatory Instrument

Court fees form an integral part of the redesigned enforcement framework. In proceedings based on trustworthy documents, fees are regulated by the Court Fees Act, amended in 2013 specifically for this category of cases. Irrespective of the value of the claim, the fee amounts to EUR 44 where the application is filed electronically and EUR 55 where it is filed on paper; even where an application is withdrawn or rejected, one third of the prescribed fee remains payable.

The flat-rate structure of court fees, detached from the monetary value of the claim, reflects a deliberate legislative choice. By setting a fixed rather than proportional fee, the legislature sought both to incentivise electronic filing and to discourage the initiation of enforcement proceedings in respect of very small claims[64]. Court fees thus function not merely as a source of public revenue, but as behavioural instruments within a mass enforcement system.

At the same time, the use of court fees as a procedural filter inevitably raises questions of access to justice. Fixed fees—particularly those applicable to objections and appeals—may deter not only frivolous challenges but also economically vulnerable debtors from exercising available remedies. The Slovenian system seeks to mitigate this risk through statutory exemptions and judicial discretion in granting fee relief. Even so, the impact of court fees on effective access to justice warrants cautious interpretation and ongoing empirical assessment.

[64] Bratković (2015, p. 1046).

Fiscal Effects and Systemic Implications

From a systemic perspective, the redesigned fee structure has also had significant fiscal implications. In 2010, enforcement applications concerned claims exceeding EUR 1.2 billion in total value, with an average claim of approximately EUR 5,700 and an average claim per individual trustworthy document of around EUR 1,400[65]. Creditors were incentivised to consolidate multiple documents into a single application, as the court fee is payable only once irrespective of the number of documents relied upon[66].

Court fees collected through COVL constitute a substantial source of revenue for the state budget. Approximately EUR 10 million was collected in 2010, decreasing to around EUR 8.3 million in 2013[67]. These revenues exceed COVL's annual operating costs, which range between EUR 5.5 and 6 million, the largest components being postal costs (EUR 3.5 million) and outsourced printing and scanning services (EUR 0.5 million)[68]. Given that development costs for the new system up to 2008 amounted to approximately EUR 3.2 million, the reform rapidly recouped its initial investment[69].

9. CONCLUSION: WHAT THE SLOVENIAN COVL REFORM TEACHES ABOUT DIGITALISING MASS CIVIL JUSTICE

Although the new organisational model of issuing enforcement orders based on trustworthy documents initially encountered a degree of scepticism[70], the Slovenian experience is today widely regarded as a success. The available evidence supports this assessment. The statistical data presented above substantiate the conclusion that the principal objective of the reform project—namely, the establishment of a rapid and efficient system for issuing enforcement orders based on trustworthy documents—has largely been achieved. System users likewise report a high level of satisfaction, reflected in an average satisfaction score of 4.13 obtained through a user survey[71].

At the same time, it would be misguided to regard this reform as signalling the completion of Slovenia's broader judicial transformation. Considerable efforts remain necessary to ensure that the judicial system as a whole becomes consistently efficient and worthy of public trust—particularly in the subsequent execution phase, where structural bottlenecks may persist even where the issuing phase is markedly accelerated. Nevertheless, the reorga-

[65] Strojin (2013, p. 202).
[66] Bratković (2015, p. 1046).
[67] Bratković (2015, p. 1046).
[68] Strojin (2013, p. 203).
[69] Bratković (2015, p. 1047).
[70] Volk (2007).
[71] Strojin (2013, p. 203).

nisation of the issuing procedure demonstrates that sustained, interdisciplinary engagement—despite institutional resistance and implementation challenges—can yield tangible and measurable results. It also confirms that purely normative reform, unaccompanied by technically and organisationally workable solutions, is rarely sufficient[72].

The Slovenian experience may be distilled into a set of general lessons relevant to the digitalisation of mass civil justice[73] First, reliable empirical data constitute a prerequisite for any serious quantitative and qualitative assessment of existing judicial arrangements. Without such analysis, and without clearly defined yet realistically attainable objectives, meaningful and systematic judicial reform is unlikely to succeed. Secondly, the determination of uncontested monetary claims calls for a specialised and autonomous procedural framework tailored to high-volume, standardised processing. Centralisation of such a framework can contribute both to operational efficiency and to consistency of practice, particularly where the prior model was fragmented across institutions with uneven capacity.

Thirdly, digitalisation delivers durable efficiency gains only when it is embedded in institutional design. In high-volume procedures, the decisive question is not whether documents are "digitised", but whether the procedure is redesigned into structured, standardised data inputs and predictable decision outputs. Digitalisation can significantly accelerate processing and, equally importantly, enable continuous statistical monitoring of relevant performance indicators, thereby facilitating iterative refinement. In this regard, digitalisation is markedly easier to implement where documentary evidence—such as trustworthy documents—is not required at the initial issuing stage, allowing the process to proceed through form-based submissions and conditional finality unless contestation is activated.

Fourthly, digital justice depends not only on filing technology but also on interoperability and workflow design. Connectivity between court information systems and external public registers offers an economically efficient solution for both courts and litigants and can reduce error rates through automated cross-checking. The introduction of a unique case identifier likewise enhances transparency and improves the reliability of judicial statistics, preventing double counting and enabling meaningful performance monitoring.

Fifthly, administrative bottlenecks often determine overall system performance. Where clerical tasks threaten to overwhelm adjudicative functions, selective outsourcing may represent an effective solution—provided that procurement compliance, auditability, and accountability for legally significant documents are ensured. Clear and well-designed rules on service of documents, together with intelligible procedural requirements, remain essential preconditions for efficiency in any judicial setting, including fully digital environments.

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[72] Bratković (2015, p. 1047).
[73] Bratković (2015, pp. 1047–1048).

Finally, the Slovenian experience illustrates that procedural incentives matter. Where appropriate safeguards exist for those genuinely unable to pay court fees, the imposition of fees for objections may help reduce the incidence of unjustified challenges. At the same time, a low objection rate should not be treated as a sufficient indicator of procedural quality. While it may be consistent with efficiency, it may also reflect informational asymmetries or practical barriers to contestation; it should therefore be interpreted with care and corroborated by additional indicators, including accessibility of remedies and effective debtor protection.

More broadly, the Slovenian case shows that in mass, documentation-based procedures, durable efficiency gains arise not from digitalisation alone, but from the co-design of procedure, institutional organisation, and incentives—within a framework that preserves meaningful avenues for contestation. Judicial reform, accordingly, must be carefully designed, professionally led, and insulated from the exigencies of day-to-day politics if it is to achieve durable and legitimate outcomes.

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CASSATION AND ARTIFICIAL INTELLIGENCE: TOWARDS THE END OF A SYSTEM THAT HAS NEVER WORKED PROPERLY?

Jordi Nieva-Fenoll
Full Professor of Procedural Law
University of Barcelona

ABSTRACT: The system of cassation, and more generally the system of appeal before supreme courts, has ultimately failed to adequately fulfill its nomophylactic function—that is, the protection of statute law—primarily because the creator of legal norms does not coincide with their supposed protector. This has produced paradoxical situations in the normative sphere, as illustrated by the concept of precedent. Generative artificial intelligence opens new possibilities in this regard, potentially enabling the legislative branch to recover its former role as guardian of its own laws, while also allowing cassation appeals to be resolved with unprecedented speed, thereby enhancing legal certainty.

KEYWORDS: Supreme Court; remand; separation of powers; nomophylactic function.

TABLE OF CONTENTS: 1. INTRODUCTION.— 2. WHAT PURPOSE HAS CASSATION REALLY COME TO SERVE?.— 3. THE PROBLEM OF "COPYPASTE CASE LAW".— 4. THE SEEMINGLY UNSTOPPABLE TENDENCY OF SUPREME COURTS TO USURP LEGISLATIVE POWER.— 5. LEGISLATIVE POWER AND ARTIFICIAL INTELLIGENCE.— 6. THE END OF APPELLATION. A RETURN OF CASSATION TO TIS LEGISLATIVE ORIGIN?.— 7. BIBLIOGRAPHY.

1. INTRODUCTION

It may be time to acknowledge that cassation, despite the vast scholarship devoted to it and the remarkable exaggeration of its originality and supposed technical perfection[1] —both of which are highly debatable[2]— is, in reality, a system that has failed to solve any major legal problems that could not equally have been addressed through an ordinary appeal heard by a court situated at the apex of the judicial hierarchy[3], as has traditionally been the case in the United States. Moreover, the institution has generated unnecessary controversies[4], encouraged the usurpation of the legislator's role on numerous occasions, and produced an unacceptable degree of complexity in the appeals drafted by lawyers, often beyond what the law itself requires and frequently serving only the purpose of reducing judicial workloads[5].

The preceding observations are necessarily severe. Few institutions in procedural law have been subjected to such intense fetishization. Cassation has been elevated almost to the status of a legal deity, whereas no comparable reverence has ever been shown toward the appeals systems of the Common Law tradition, despite the fact that they constitute its historical antecedent. In the United Kingdom[6] and the United States[7], the supreme court is undoubtedly regarded as an institution of great significance within the legal order. Yet the appeal mechanism itself has never become the object of doctrinal fanaticism designed to magnify that significance. Such glorification is not merely unnecessary; it is actively misleading.

In several continental legal systems, praise for cassation may have become confused with praise for the judges who sit on supreme courts. The influence of Piero Calamandrei's work likely played a role in this development. As we shall see, he placed cassation at the centre of the legal order, even present-

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[1] See Calamandrei, P., *La cassazione civile*, Roma 1920, at the very first page quoting Napoleon. See also Serra Domínguez, M., *Del recurso de Casación*, en: "La reforma de los procesos civiles (Comentario a la Ley 10/92 de medidas urgentes de reforma procesal)", Madrid 1993, p. 215, Vázquez Sotelo, J.L., *La Casación Civil (Revisión crítica)*, Barcelona 1981, or myself: Nieva-Fenoll, J., *El recurso de casación ante el Tribunal de Justicia de las Comunidades Europeas*, Barcelona 1998, p. 13.

[2] Nieva-Fenoll, J., "The English Origin of French Cassation", *(2022) 41 Civil Justice Quarterly, Issue 1*, p. 31.

[3] See some of the following compilations, more ancient than cassation, Rubeo, P. *Sacrae Rotae Romanae Decisionum Recentiorum*, Roma 1640. O Xammar i De Sala, J.P., *Rerum iudicatarum in sacro regio senatu Cathaloniae*, Barcelona 1657. Popham, J., *Reports and cases*, London 1656.

[4] Iacoviello, F.M., *La motivazione della sentenza penale e il suo controllo in cassazione*, Milano 1997, p. 267.

[5] See Taboada Roca, M., *La casación civil española en alguna de sus complejidades*, Madrid 1977. Iacoviello, *La motivazione della sentenza penale e il suo controllo in cassazione*, p. 279. Morello, A.M., *La casación. Un modelo intermedio eficiente*, La Plata 2000, p. 191.

[6] Jones, D. L., "The Judicial Role of the House of Lords before 1870, in AAVV, The Judicial House of Lords: 1876-2009, Oxford 2009, p. 6.

[7] Irons, P., *A People's History of the Supreme Court*. New York 1999. Schwartz, B., *A History of the Supreme Court*, 1995. Rehnquist, W., *The Supreme Court*. New York 1987.

ing it as a guarantor of the separation of powers[8]. Such a role is clearly not performed by cassation today, and it is doubtful whether it ever truly performed it, even in France[9]. There is an important distinction between the decisions of supreme courts —which undoubtedly can have constitutional significance, whether positive or negative— and the notion that cassation itself is the guardian of the Law —*ius constitutionis*[10]—. The latter proposition is a considerable exaggeration and perhaps even a rather heartless lie.

Beyond these theoretical debates, courts of cassation have, in recent decades, increasingly standardized and parameterized their work. Where judges once engaged in careful analysis of individual cases in order to develop case law capable of guiding lower courts, one now often finds little creativity —or creativity directed in questionable ways— and a great deal of repetition. In some jurisdictions this tendency has become firmly established[11]. Courts increasingly appear motivated by convenience, abandoning their role as genuine adjudicative bodies and transforming themselves into institutions whose legal nature is quite peculiar: courts of precedent.

Whether this transformation is desirable or not, it is clear that such courts do not perform a nomophylactic function. Instead, they sometimes become "norm-producing" institutions, or alternatively ultra-conservative guardians of existing jurisprudence.

If supreme courts spend the overwhelming majority of their time merely repeating their own precedents, one may legitimately ask whether human beings are truly necessary for that task—especially given that those very judges already work with artificial intelligence and will increasingly do so in the future. Why should a small group of individuals repeatedly perform the same operation when a machine is capable of doing precisely that?

The pages that follow will address these questions with the aim of reaching conclusions that may help us imagine a future that is perhaps better, though certainly different.

2. WHAT PURPOSE HAS CASSATION REALLY COME TO SERVE?

If one sets aside everything that Calamandrei's influential work has generated, the truth is that it is now very difficult to confirm his main conclusion: the purpose of cassation was the defence of the *ius constitutionis*, that is, the preservation of the laws issued by the legislative assembly, taking advantage of litigants' willingness to defend their rights up to the highest court[12]. It is

[8] Calamandrei, *La cassazione civile*, vol. I., p. 399.

[9] Halperin, J.-L., *Le Tribunal de Cassation et ses pouvoirs*, Paris 1987, p. 64.

[10] Calamandrei, *La cassazione civile*, vol. II, p. 50.

[11] Mitidiero, D., *Precedentes: da persuasão à vinculação*, São Paulo 2022. Marinoni, L.G., *Precedentes obrigatórios*, São Paulo 2022.

[12] Calamandrei, *La Cassazione civile*, Vol II, p. 133-137.

not easy to discern a *nomophylactic* function that would be achieved through the maintenance of uniform case law. Nor does it perhaps make much sense to affirm that uniform case law, guiding lower courts, protects statute law, because especially those evolutionary interpretations that adapt to a constantly changing reality are the ones that are most useful to the legal system, and not fossilized ones.

What actually happens in practice is quite different. Supreme courts do not consist of a group of judges particularly attentive to the work of the legislator and striving to preserve it while channelling its democratic intentions. Rather, what happens is that those judges generate case law in which, although they usually comply —as they should— with statute law, they sometimes correct that legislative work, or even turn their backs on it, more or less explicitly, if they are not convinced by it, formulating solutions that may suit a particular appellant and which, if they are fortunate, are later repeated by the cassation court itself, thereby generating case law.

In other words, what is often observed is not respect for the *ius litigatoris* per se, but rather respect for the *ius* of some *litigator*, attempting to provide a solution to a fortunate litigant whose interest happens to resonate with the cassation court, and from that point, sometimes, case law of broader scope is generated. Only in this way can it be understood that lawyers, when searching for case law, rather than locating those major interpretative lines—when they exist—try to find a decision of the supreme court that may serve them in defending their client. Of course, sometimes one of those broad jurisprudential lines is found, but this is not the most frequent occurrence in an appeal, since those lines are usually already followed by lower courts and do not generate conflict. Ultimately, in most cases, we are not even dealing with case law lines, but rather with the *voluntas legislatoris*, that is, the mandates of the legislator repeated and explained by case law, which is logical, given that courts, including supreme courts, should lack *voluntas*, a term that should be reserved exclusively for the legislator.

In short, in most cases cassation courts are no longer bodies that overturn or annul decisions that defy the law, thereby generating uniform case law, but rather they mainly ensure that their own case law—whether correct or not—is being respected by lower courts, and that justice has been done to the litigant in the lower instances[13]. This often involves consideration of the "small history" of the case, that is, the facts, even though cassation courts are theoretically not supposed to deal with factual matters, nor certainly go beyond the facts declared proven by lower courts. All of this in the name of a—again fetishistic—respect for the principle that cassation courts do not

[13] See art. 487.1 of the Ley de Enjuiciamiento Civil after its reform By Real Decreto-ley 5/2023, 28th june: "*El recurso de casación se decidirá por sentencia, salvo que, habiendo ya doctrina jurisprudencial sobre la cuestión o cuestiones planteadas, la resolución impugnada se oponga a dicha doctrina, en cuyo caso el recurso podrá decidirse mediante auto que, casando la resolución recurrida, devolverá el asunto al tribunal de su procedencia para que dicte nueva resolución de acuerdo con la doctrina jurisprudencial.*"

deal with the point of fact. This requirement, heavily criticized by doctrine[14], originated in the first French *Cour de cassation*[15], which in turn had copied it from English law, probably under the influence of Merlin de Douai, Attorney General of the *Tribunal de cassation* from 1801 to 1814, who had already demonstrated in the Assembly in 1790 the parallelism between the English *appeal* before the *House of Lords* and cassation[16].

The fact is that in the English legal system this limitation made perfect sense because, in England at the time, cases were usually[17] decided at first instance by a jury that declared facts proven without providing reasoning. In fact, the restriction to the *point of law* applied not only to cassation, but to any appeal, as is logical[18]. However, when in France this restriction was copied only for a supreme court, within a system without juries, the exclusion of the *point of fact* ceased to be a logical measure—as it was in English law—and became merely a habit of cassation courts to rid themselves of cases.

It should therefore be understood that the landscape of cassation is much more discouraging than has been acknowledged: an appeal filled, in one way or another, with formalistic requirements that does not truly concern itself with preserving the *voluntas legislatoris*, but rather resolves concrete cases in a fragmented way, attempting to distance itself from the real facts of the dispute, perhaps accepting as proven a falsehood declared in lower instances,

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[14] See Chiarloni, S., "La cassazione e le norme", *Riv. di dir. proc. civ.* 1990, p. 992. Guasch Fernández, S., *El hecho y el derecho en la casación civil*, Barcelona 1997, p. 200. Iacoviello, F. M., *La motivazione della sentenza penale e il suo controllo in cassazione*, p. 265. Mazzarella, F., ""Fatto e diritto" in Cassazione", *RTDPCIt*, 1974. p. 82. Neumann, U., „Die Abgrenzung von Rechtsfrage und Tatfrage und das Problem des Revisionsgerichtlichen Augenscheinsbeweises", *GA*, 1988, p. 387. Satta, S., "Il formalismo nel proceso", *RTDPCIt*, 1958, p. 1154. Serra Domínguez, "Del recurso de casación", *Comentarios a la reforma de la Ley de Enjuiciamiento Civil*, Madrid 1985, p. 843. Vázquez Sotelo, *La Casación Civil (Revisión crítica)*, p. 198.

[15] Judgement of 8-1-1806: "*la discussion de ce point de fait, et l'examen des preuves y relatives ne sont pas du domaine de la Cour de cassation*". *Journal du Palais*, 1er sem., nº 373, 20-5-1806, p. 442.

[16] Archives Parlementaires de 1787 à 1860 - Première série (1789-1800) Tome XV - Du 21 avril au 30 mai 1790. Paris : Librairie Administrative P. Dupont, 1883, p. 666, 24 de mayo de 1790. *https://archive.org/details/archivesparlemen15pariuoft/page/666/mode/2up*: *Les Anglais j'ose le dire, Messieurs, les Anglais vous ont donn*é là-dessus une grande leçon. Ces hommes qu'on nous a cités si souvent comme des maîtres en fait d'ordre judiciaire; ces hommes qui ont admis l'ambulance des juges ordinaires, ont senti la *necessité de rendre sédentaires les juges de cassation. C'est à leur chambre-haute qu'ils ont attribué le pouvoir exclusif de casser les arrêts qui contreviennent aux lois du royaume et assurément, il serait difficile de leur persuader qu'ils eussent mieux fait, pour leur intérêt national, de confier ce pouvoir à un tribunal errant.*

[17] See Blackstone, W. *Commentaries on the Laws of England*, Lib. III, London 1794, p. 336: "This is the only method of trial known to the civil law; in which the judge is left to form in his own breast his sentence upon the credit of the witnesses examined: but it is very rarely used in our law, which prefers the trial by jury before it in almost every instance."

[18] Blackstone, *Commentaries on the Laws of England*, p. 455: "*…an appeal to the king in parliament was always unquestionable allowed. But no new evidence is admitted in the house of lords upon any account, for this a distinct jurisdiction: which differs it very considerably from those instances, wherein the same jurisdiction revises and corrects its own acts, as in rehearings and bills of review. For it is a practice unknown to our law, (though constantly followed in the spiritual courts) when a superior court is reviewing a sentence of an inferior, to examine the justice of the former decree by evidence that was never produced below. This is the general method of proceeding in the courts of equity.*"

and afterwards trying to create certain case law lines that, more than supporting legislative mandates, seek to complete them for a plurality of specific cases, as if the mission of the cassation court were to regulate rather than to assist in the effective enforcement of statute law. This task—if it may be called that—is completed by a systematic repetition of precedents whenever possible, sometimes even contradictory ones.

With such premises, it is simply impossible to formulate, as in the past, clear purposes for cassation within legal systems that continue to use this mechanism; or perhaps, rather than systems, those that simply continue to use this terminology—cassation. In the end, the only difference between appeal and cassation is the famous—and in Civil Law systems absurd—restriction to the point of law. In all other respects, the cassation court operates like any other court, sometimes resisting issuing a new judgment in systems that insist on remanding—another trace of its Common Law past[19], equally incomprehensible in Civil Law systems—and sometimes attempting to establish binding precedents in legal cultures traditionally accustomed to the persuasive (and therefore non-binding) force of case law.

Thus, this is the current image of cassation: an amorphous institution whose sole authority lies, in reality, in the fact that it is handled by a single court for an entire State. This gives its decisions a prominence and public visibility that, quite often, they likely do not even deserve.

3. THE PROBLEM OF "COPYPASTE CASE LAW"

A different issue is the obsessive repetition of precedents in the name of judges' convenience, making use of a technological advantage of recent times: the "copy and paste" tool.

For a couple of decades now, the study of case law has been greatly simplified, as has its production. It is easy to find judgments that copy each other using exactly the same wording as the first decision that established the criterion. In addition, judgments have become excessively convoluted, since judges are accustomed to copying and pasting—sometimes with quotation marks, sometimes without—entire sections of decisions that merely serve to increase the length of the current judgment, but are of no use whatsoever in producing more accurate criteria or in more easily presenting the reasoning of the current decision.

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[19] Elsynge, H., *The ancient and present manner of holding Parliaments in England with their priviledges*, London 1663, p. 224: "*it was to demand Judgment in a Case depending in the Common pleas, which was of such difficulty for point of Law, that the Judges did forbear to proceed, and so the Lords of Parliament directed them on which side to give judgment. Note that the Commons joined with the Lords to damn the recoignance of Elizabeth de Burgo, but the Commons did not join in the assent touching G. de Stantons petition, for there the Lords direct Justice to be done in another Court.*"

Quite the opposite. Although it has been praised, in good faith[20], that case law should always use the same wording when reiterating a precedent—thus reducing interpretative uncertainties that may arise from reformulations—the constant repetition of the same words carries the drawback that a given erroneous interpretation or formulation may become entrenched. Ultimately, judgments are not handbooks, but rather the product of resolving specific cases, in which it is always dangerous to formulate general statements with a quasi-legislative ambition.

This is so for several reasons. First, as noted, such texts resolve a specific case, and those words may fit well within that particular situation, but in order for them to apply to another, they sometimes need to be reshaped, with the risk of distorting the understanding of the original case by presenting as identical what is not. Moreover, case law does not have, nor can it have, a vocation of exhaustiveness, as its role is not to issue general mandates but, at most, to formulate guiding criteria—even in jurisdictions where *stare decisis* exists[21]. Finally, case law resembles an opinion more than a statute: it seeks to persuade rather than to command. Regardless of any binding effect it may have, the persistence of case law ultimately depends on its persuasive force, which requires argumentation rather than instruction—that is, rhetoric rather than command. Consequently, always repeating the same paragraphs from a given body of case law, however well-intentioned that practice may be, can prove counterproductive, and even dangerous if those words exceed the limits of the law, something that occurs on occasion in overly creative decisions[22].

"Copy and paste" serves only to increase the weight of decisions, or to perpetuate past errors without correcting them in the slightest. It is a crude fraud that creates the appearance of industriousness and, moreover, as has already been pointed out, generates errors. Dopico Gómez-Aller[23], following Soucek[24], has ironically coined the term "copypaste case law," which, beyond its playful tone, perfectly captures the phenomenon described.

Indeed, the author precisely identifies, under this label, very concrete consequences of the abusive use of the "copy & paste" tool: incoherent juxtaposition of unrelated or contradictory judicial citations[25]; reproduction of precedents that are no longer valid, even if they concern the same subject matter[26];

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[20] Dopico Gómez-Aller, J., "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", in Llabres, Gili, Tomás-Valiente e. a. (ed.), *Estudios Penales en homenaje al Profesor Juan Carlos Carbonell Mateu*, Valencia 2025, p. 441-442.

[21] Cross, R., *Precedent in English Law*, Oxford 1961, p. 130.

[22] See STS (Sala 2ª) 119/2019, 6-3-2019, FD 3.

[23] Dopico Gómez-Aller, "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", p. 441.

[24] Soucek, B., "Copy-Paste Precedent", *The Journal of Appellate Practice and Process*, vol. 13 (2), 2012, p. 153.

[25] Dopico Gómez-Aller, "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", p. 442.

[26] Dopico Gómez-Aller, "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", p. 444.

standardized reasoning that, as noted, does not address the specific case[27]; incomprehensible accumulation of paragraphs from different judgments[28]; and loss of identification of the original source of a precedent when a later decision is cited instead[29]. In short, it is not surprising that the author calls, in line with what is argued here, for a return to the citation of statutes[30] instead of precedents—unless the latter are truly useful and necessary—as was commonly the case before the advent of "copy & paste."

Such a catalog of absurdities would be enough to cast doubt on the current relevance of the *nomophylactic* function in contemporary case law. However, that original *ius constitutionis* might have had some real significance when the initial *Tribunal de cassation* limited itself to literally—almost mechanically—breaking (*casser*) any judgment that contained an express violation of the text of the law. In other words, when the cassation body acted purely as a guardian of the legislative power[31], standing alongside it[32], as the French revolutionaries preferred to say, or even forming part of it, as was the case in the original English system, that first *Tribunal de cassation* seems to have confined itself to verifying the existence of an express violation of statute law[33], without producing case law—that is, without creating any legal construction that might rival the work of the legislator. Because that creative activity, despite its advantages, entails obvious risks. Ultimately, it is similar to the difference between a recording and a witness. The recording reproduces exactly what it captured. The witness uses memory and, even with the best intentions, will alter what was seen and heard[34]. Courts can never fully reproduce the *voluntas legislatoris*, especially if they do not even attempt to do so.

Even beyond "copypaste jurisprudence," it is interesting to briefly examine what has occurred within the *Common Law* tradition with respect to this judicial function. The well-known debate between Bentham and Austin on the maxim *non exemplis, sed legibus iudicandum est* ("judgment should be based on laws, not on precedents")[35] is illustrative. Bentham, one of the main intellectual influences of the French codification period[36], favoured legisla-

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[27] Dopico Gómez-Aller, "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", p. 447.

[28] Dopico Gómez-Aller, "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", p. 447.

[29] Dopico Gómez-Aller, "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", p. 448.

[30] Dopico Gómez-Aller, "Copypasteprudencia (notas sobre una técnica defectuosa de redacción de resoluciones judiciales", p. 453.

[31] Merlin de Douai, *Opinion de M. Merlin sur la nécessité de rendre le Tribunal de Cassation sédentaire*, Paris 1790, p. 5.

[32] Art. 1 del Decret 27 november-1 december 1790.

[33] Merlin de Douai, *Recueil alphabétique de questions de droit*, t. III, Paris 1829, p. 240.

[34] Von Liszt, F. „Strafrecht und Psychologie", *Deutsche Juristen-Zeitung*, 1-1-1902, n. 1, p. 16-18. Manzanero, A. L., *Psicología del testimonio*, Madrid 2008, p. 38-39. Julià Pijoan, M. "Un análisis del fundamento de la declaración del testigo ocular como medio de prueba, a partir de la investigación empírica", *Ius et Praxis*, vol. 29, n. 2, 2023, p. 44.

[35] Codex 7, 45, 13

[36] Bentham, J., *Traités de Législation civile et pénale*, t. III, Paris 1820, p. 185.

tive commands over judicial ones[37], whereas Austin adopted a far more flexible view[38]. In reality, Bentham was simply seeking legal certainty, which is precisely what precedent-based systems often fail to provide. Except in those rare cases where a single precedent is repeatedly applied because the factual situation is clearly identifiable, case law tends to evolve constantly until it eventually disappears, sometimes without even explicitly acknowledging that fact—something that is truly striking.

Although there are many examples, this is precisely what has happened with regard to the exclusionary rule, which remains in force under the case law of the US Supreme Court, yet has all but consigned the original 1914 case of Weeks v. U.S.[39] to oblivion. Case law was able to adapt to the police misconduct of the time, establishing the exclusionary rule for evidence derived from unlawful searches in Silverthorne Lumber Co. v. U.S.[40], and reformulating it in Nardone v. U.S. in 1939[41] using different wording, but without altering its substance, and coining the term that has gone down in legal history as the "fruits of the poisonous tree" doctrine. This case law was upheld in the case of the unfortunate Mrs Mapp (Mapp v. Ohio)[42], who was deceived with a non-existent search warrant and subsequently convicted of possessing obscene material. Fortunately, the Court was still in the so-called Warren era.

But then came the case of Wong Sun v. US (1963)[43], in which the police illegally obtained a guilty plea from a Chinese citizen who did not speak English; despite this, the Supreme Court, invoking the attenuation doctrine, argued that the self-incrimination was all but spontaneous. This was followed by US v. Crews (1980)[44], in which the Supreme Court held that there was no causal link between the photograph taken following a suspect's arrest and the identification of the victims; rather, the complainants' recollection was an independent source of the photograph obtained as a result of that unlawful arrest. All it took was a case of the kind that inspires universal solidarity, such as Nix v. Williams (1984)[45], to establish the "inevitable discovery" doctrine. It was only a matter of time before Hudson v. Michigan (2006)[46] came along for

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[37] Bentham, J., *Introduction to the principles of morals and legislation*, London 1823. First edition 1780, p. 272.

[38] See Moreso Mateos, J.J., "Cinco diferencias entre Bentham y Austin", *Anuario de Filosofía del Derecho*, VI, 1989, p. 354, quoting Austin, J., *Lectures on Jurisprudence or the Philosophy of Positive Law*, Glashütten im Taunus 1972, 35, p. 525, 532-533.

[39] 232 U.S. 383 (1914).

[40] 251 U.S. 385 (1920).

[41] 308 U.S. 338 (1939).

[42] 367 U.S. 643 (1961).

[43] 371 U.S. 471 (1963).

[44] 445 U.S. 463 (1980).

[45] 467 U.S. 431 (1984).

[46] 547 U.S. 586 (2006). See *Tomkovicz, J. J.,* "Hudson v. Michigan and the Future of Fourth Amendment Exclusion", *Iowa Law Review, 93, 2008, p. 1819. Alschuler, A., "The Exclusionary Rule and Causation: Hudson v. Michigan and Its Ancestors", Iowa Law Review, 93, 2007-2008, p. 1741. Davies, S.L.; Scanlon, A.B., "Katz in the Age of Hudson v. Michigan: Some Thoughts on "Suppression as a Last Resort", University of California, Davis Law Review, vol. 41, 2008, p. 1035.*

the Supreme Court to endorse an illegal entry and search justified by the—allegedly—large quantity of drugs seized, a claim which was, moreover, false, since only twenty rocks of crack cocaine were seized from seven people[47]. The exclusionary rule had died whilst its survival was being proclaimed when Utah v. Strieff (2016)[48] came along and drove another nail into its coffin, with the Supreme Court justifying yet another unlawful arrest for the extremely serious offence of failing to pay a parking ticket. And all this, I insist, whilst the validity of the exclusionary rule continues to be affirmed[49].

Something should already have been foreshadowed by a review of the legal doctrine of another Common Law country, the United Kingdom[50], where it was found that the House of Lords had for decades been allowing lawyers to stretch the interpretative possibilities of precedents to the point of distorting them as they saw fit. It is not surprising that Passanante should have spoken, quite rightly, of the "impossible precedent"[51], when encountering quasi-legislative concepts such as the "prospective ruling"[52], or an application of precedents in the common law tradition which, although it may appear otherwise[53], are in fact treated as rules, taking into account the specific case in which they arose and comparing it with the present one. It may seem that, in this way, precedent is not treated as if it were statute law, but the opposite is actually true: precedent is treated as statute law for that specific case and its direct analogues. It is simply a matter of correctly determining its factual circumstances, a task that is more difficult in the continental legal tradition, as we are accustomed to the general provisions of statutes, which, whilst also addressing specific cases, do not reveal precisely which cases were in the legislator's mind—a task that can indeed be carried out by the judicial mind when dealing with a precedent.

4. THE SEEMINGLY UNSTOPPABLE TENDENCY OF SUPREME COURTS TO USURP LEGISLATIVE POWER

Be that as it may, it seems evident that only statutes truly provide a higher level of legal certainty, in the sense that they establish commands that can be clearer, since their drafters are precisely thinking in terms of issuing mandates, rather than resolving a specific case. Ultimately, when a judge interprets a precedent, he or she must act as a legislator of the concrete case, taking what a colleague previously did as a reference and attempting to com-

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[47] Moran, D.A., "The End of the Exclusionary Rule, Among Other Things: The Roberts Court Takes on the Fourth Amendment", *Cato Supreme Court Review*, 2005-2006, p. 297.

[48] 579 U.S. _, 136 S. Ct. 2056 (2016).

[49] See Miranda Estrampes, M., *Prueba ilícita y regla de exclusión en el sistema estadounidense. Crónica de una muerte anunciada*, Madrid 2019.

[50] Cross, R.; Harris, J.W., *El precedente en el Derecho inglés*, Madrid 2012, p. 153.

[51] Passanante, L., *Il precedente impossibile*, Torino 2018.

[52] Passanante, *Il precedente impossibile*, p. 273.

[53] See Passanante, *Il precedente impossibile*, p. 263.

pare the situation judged then with the one now under examination. By contrast, when interpreting a statute, the judge merely reproduces its command and ensures that the specific case falls within the set of factual situations imagined by the legislator.

However, the risks of maintaining what may now be considered an anomalous situation have already been set out. If we truly believe in the theory of the separation of powers and understand that it arose, above all, to guarantee the validity of legislative mandates and judicial independence from the political commands of monarchs[54], then, updating these ideas to our present time, it may be said with some confidence that what remains fundamental is, first, that judges do not arrogate to themselves a legislative power that does not belong to them, and second, that they remain independent from the fluctuations and influences of politics. In fact, upon closer observation, both ideas are complementary and can be summarized as follows: the judge should follow only one political directive—the one established by Parliament[55].

Nevertheless, there are more than enough examples, in too many countries, showing that some judges—particularly those of supreme courts—do not agree with legislative mandates, which they regard as originating from disoriented, corrupt, or ignorant politicians, while they themselves see themselves as the elite of legal knowledge. Under such conditions, they feel more qualified than legislators to make law, completely disregarding, and in a very serious manner, the democratic legitimacy of legislative power, which no court, of course, possesses.

In the original English model, the House of Commons emerged victorious from the Glorious Revolution of 1688, which expelled King James II, the last Stuart (with the exception of the later Queen Anne). At that moment, it became clear that kings would no longer appoint judges, and that judges would henceforth follow the mandates of Parliament when judging[56]; as Blackstone put it, there was no authority on Earth superior to Parliament[57].

However, there are clear hints[58] that this outcome did not please those who had previously been favoured by the monarch, namely those in the House of Lords, the upper chamber, which, coincidentally, was responsible for the *appeals* that had previously been decided by the king. It is evident that, in the turbulent years of the seventeenth century, the House of Lords, making use of

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[54] Bill of Rights, 1689: "*That the pretended power of suspending the laws or the execution of laws by regal authority without consent of Parliament is illegal; That the pretended power of dispensing with laws or the execution of laws by regal authority, as it hath been assumed and exercised of late, is illegal;*" See also the U.S. Declaration of independence 1776: "*He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary powers*", "*He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries*".

[55] Andrés Ibáñez, P., *El tercero en discordia*, Madrid 2015, p. 158.

[56] See again the quoted passage of the Bill of Rights.

[57] Blackstone, *Commentaries on the Laws of England*, Lib. I, p. 185.

[58] Jones, D. L., "The Judicial Role of the House of Lords before 1870", in The Judicial House of Lords: 1876-2009, Oxford 2009, p. 3.

its judicial functions—very limited in the sixteenth century—sought to assert itself against the House of Commons, as part of the well-known historical tensions between the two chambers[59]. What is particularly striking is that it was the House of Lords, feeling evidently threatened[60], that, towards the end of the nineteenth century[61], articulated the doctrine of precedent, probably as a means of reaffirming its own authority and strengthening itself after a century of disputes between the legislative chambers, combined with the doctrinal contributions of Bentham and Austin mentioned earlier[62]. In the end, although this was a judicial section of the House of Lords rather than strictly the legislative chamber itself, through the doctrine of precedent, binding law could, in one way or another, originate from that chamber, even without influence from the statutory law enacted by the House of Commons. The disputes between the two legislative chambers during the nineteenth century particularly reflected an increasingly strong rejection by the House of Commons of the judicial functions of the House of Lords[63], with several failed attempts at reform or abolition—*Appellate Jurisdiction Bill* (1870) y *Supreme Court of Judicature Act* (1873)—[64]. Nevertheless, the *Appellate Jurisdiction Act* of 1876 preserved the judicial role of the House of Lords[65], which later[66] strengthened the doctrine of binding precedent —even for itself— thereby considerably reinforcing the authority of its decisions, in evident rivalry with statutory law, even though only statute could overturn precedent. Indeed, the ruling in *London Street Tramways Co Ltd v London County Council* (1898)[67]

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[59] Jones, "The Judicial Role of the House of Lords before 1870", p. 3-7.

[60] Steele, "The Judicial House of Lords: Abolition and Restoration 1873-6", p. 14.

[61] Duxbury, N., *The Nature and Authority of Precedent*, Cambridge 2008, p. 42.

[62] Duxbury, *The Nature and Authority of Precedent*, p. 42.

[63] Jones, "The Judicial Role of the House of Lords before 1870", p. 10-11.

[64] Jones, "The Judicial Role of the House of Lords before 1870", p. 12. Steele, D., "The Judicial House of Lords: Abolition and Restoration 1873-6", in The Judicial House of Lords: 1876-2009, Oxford 2009, p. 13.

[65] Steele, "The Judicial House of Lords: Abolition and Restoration 1873-6", p. 13.

[66] London Tramways v. London County Council (1898), AC 375. *"a decision of this House once given upon a point of law is conclusive upon this House afterwards, and that it is impossible to raise that question again as if it was res integra and could be reargued, and so the House be asked to reverse its own decision. That is a principle which has been, I believe, without any real decision to the contrary, established now for some centuries."* (Earl of Halsbury LC).

[67] "My Lords, I only wish to say one word in answer to a very ingenious argument which the learned counsel set before your Lordships. It is said that this House might have omitted to notice an Act of Parliament, or might have acted upon an Act of Parliament which was afterwards found to have been repealed. It seems to me that the answer to that ingenious suggestion is a very manifest one—namely, that that would be a case of a mistake of fact. If the House were under the impression that there was an Act when there was not such an Act as was suggested, of course they would not be bound, when the fact was ascertained that there was not such an Act or that the Act had been repealed, to proceed upon the hypothesis that the Act existed. They would then have ascertained whether it existed or not as a matter of fact, and in a subsequent case they would act upon the law as they then found it to be, although before they had been under the impression, on the hypothesis I have put, either on the one hand that an Act of Parliament did not exist, or on the other hand that an Act had not been repealed (either case might be taken as an example) and acted accordingly. But what relation has that proposition to the question whether the same question of law can be reargued on the ground that it was not argued or not sufficiently argued, or that the decision of law upon the argument was wrong? It has no application at all." (Earl of Halsbury LC).

clearly states that the House of Lords had been accused of disregarding an Act of Parliament—an accusation it dismissed as nothing more than a "mistake of fact." There is little more to debate after such pronouncements.

Be that as it may, the result was that a legislative chamber functioned as a supreme court. When this model was adopted in the United States, it was decided that this role would not be exercised by a legislative body; instead, a Supreme Court was created at the apex of the judicial branch. That Court, incidentally, very quickly emphasized its political power by establishing judicial review in *Marbury v. Madison* (1803), less than thirty years after independence.

All of this suggests that supreme courts tend, in one way or another, to end up occupying the position of the legislator. If that is so, one may ask whether it would be possible to devise a mechanism to prevent this tendency. In this regard, it may be time to open a debate: could generative artificial intelligence help ensure that judges comply with legislative mandates?

5. LEGISLATIVE POWER AND ARTIFICIAL INTELLIGENCE

Generative artificial intelligence (GenAI) is based on a language model[68] that ensures fairly predictable responses even for those who have not configured the tool, provided that the data has been properly introduced during programming. This means that, for instance, when examining a cassation appeal of low or medium complexity—one that, aside from rhetoric, is drafted in a data-driven manner—the response produced by GenAI should always be the same. On this basis, one could begin to envisage, at the very least, a tool that assists judges of supreme courts, or perhaps even the legislative power itself, as will be discussed below.

In any event, the configuration of the tool must guarantee its democratic control[69], in the sense that the development of the algorithms it uses to function cannot be left in the hands of actors outside the State. As I have explained elsewhere[70], it is necessary to establish a procedure—that is, a phased course of action—ensuring both the selection of the individuals responsible for building the tool and the delimitation of the functionalities it is intended to have.

In this regard, the purpose of those constructing such a tool is straightforward. It should be a system that, in light of the facts of a specific case and the defects alleged as grounds for cassation, determines the existing case law and

[68] See Lee, R., "Large Language Models (LLMs) and Generative Artificial Intelligence (Gen AI)", en *Natural Language Processing*, Springer 2025, p. 241. Mehta, S.D., Paul, S., Awiti, E. e.a., "Evaluation of large language models within GenAI in qualitative research", *Scientific Reports*, n. 15, 2025, 34993.

[69] See Reid, M., "Rethinking the Fourth Amendment in the Age of Supercomputers, Artificial Intelligence, and Robots." *West Virginia Law Review*, 2017, 119 (3), p. 873.

[70] Nieva-Fenoll, J., "Perder el control digital: ¿hacia una distopía judicial?", *Actualidad Civil*, n. 4, abril 2023, p. 1.

proposes the application only of that which is consistent with the law. This requires prior work of data selection, which must, naturally, be carried out by human beings, literally combing through the entirety of case law to ensure that only that which complies with the law is incorporated into the system, discarding erroneous, outdated, or abandoned case law, and also identifying creative precedents so that they may be classified as mere alternative solutions, at least in situations where the factual circumstances do not allow the direct application of the law and require resolution by analogy.

This entire process of constructing the tool should be monitored by the legislative power, as the author of the norms subsequently applied by case law, or upon which analogies are based. Certainly, taking into account the variability of parliamentary compositions and, at times, the much-criticized—though democratically inevitable—lack of legal expertise of some members of Parliament, there might be a temptation to entrust all such control to the Supreme Court. However, despite the unquestionable merits such a body might possess, it may not be appropriate to entrust a small group of distinguished legal professionals—who perform judicial functions—with the interpretation, for purposes of parametrization—that is, with a generalizing intent—, of norms that they themselves did not create. To do so would be tantamount to reducing the legislature to the mere role of producing norms, which could then be altered through various means by the judiciary. As has already been seen, such excesses may be frequent, unless judges exercise a level of restraint and responsibility that, unfortunately, has not always been observed in the past in virtually any supreme court.

Accordingly, the idea would be for legislative chambers to appoint a substantial group of highly qualified jurists to carry out this work, organized in commissions that do not depend on legislative terms, but rather maintain continuity over time, regardless of political changes. This would constitute, in effect, a kind of artificial intelligence section within Parliament. In reality, legislators already rely on a considerable number of advisors, but the proposal is that this group be more plural and stable, so that, by virtue of its legal prestige, it may earn the confidence of both parliamentary chambers and the public at large, regardless of the political origin of its composition.

Their function would be limited to the development and continuous updating of the tool, the use of which should be validated by Parliament, which would also require its modification when errors are detected. In essence, this would be nothing more than a complement to the current legislative work of Parliament, ensuring that such work has greater reach, coherence, and effectiveness in the technological world of the twenty-first century and beyond.

In this way, it would also become easier to propose small reforms—so often subject to political delay—whenever gaps in the legal system are detected, or simply when laws have become outdated. This would avoid the current situation in which the task of adaptation is left to the fragmented possibilities available to judges when resolving individual cases. Thus, the legislative

power would be equipped with a tool, configured by Parliament itself, to perform a genuine, indeed pure, *nomophylactic* function, with the creator of the law acting as its guardian—a solution that, moreover, seems to be the only logical one from the perspective of the separation of powers and, as already explained, represents a return to the original model.

Furthermore, this approach would be technically refined, given that it would be undertaken by genuinely top-level jurists—this must be emphasized—who would configure the tool independently of the resolution of specific cases, that is, without being driven by the incentives associated with litigation. This would help ensure a greater degree of independence and, ultimately, what matters most: the neutrality and excellence of their criteria.

It should be clearly understood that the tool is not intended to judge, but rather to perform the original function of cassation: the detection of judicial errors in the application of the law. In this way, those errors could be identified far more quickly, without the need to wait for the lengthy timeframes characteristic of cassation courts. These timeframes would instead correspond to the ongoing maintenance of the tool by the parliamentary commission, ensuring that it remains constantly ready to respond, with very high speed, to concrete cases of judicial infringements of the law. The response time would be unprecedented, effectively reduced to the time required for the tool to analyse cassation appeals drafted in a structured manner—measured in seconds. The only exceptions would arise in cases where such automation is not possible, either due to errors or gaps in the tool or in the laws themselves, or because the case is unusually complex. The former, everyday cases of low or medium difficulty, should be resolved by the parliamentary AI commission, while the latter should, as a matter of course, be addressed by the legislative power itself through a much more agile procedure than that of current legislative initiatives, in order to clarify the interpretative uncertainties that gave rise to the complexity of the appeal. Ultimately, this would involve filling a gap or resolving an ambiguity, rather than enacting a new law.

Incidentally, under such a system, it might actually make sense to reintroduce remand to the court, so that once the tool has identified the error, the court may correct it and proceed accordingly—necessarily in a direction opposite to its previous ruling—in order to prevent the resistance that has historically been observed in such situations[71].

6. THE END OF *APPELLATIO*. A RETURN OF CASSATION TO ITS LEGISLATIVE ORIGIN?

It is more than likely that all of the above will generate mistrust, reservations, and even a certain nostalgia, which is entirely understandable. We have lived for a very long time with supreme courts embedded in our collective

[71] Calamandrei, *Cassazione civile*, p. 433-434.

imagination, and one might fear that without this final guarantor, nothing could work.

On the contrary, we already have the legislative power, in the unprecedented technological conditions described, to carry out the task of supervising the work of judges in complying with the law, with the assistance of appellants. Moreover, we would have a supreme interpreter of the law who would also be the one who logically and exclusively should always have been entrusted with this role: the legislator itself, now equipped with a tool that would have been unimaginable just a few years ago, allowing it to work with extraordinary speed and efficiency, thereby also reducing the time citizens must wait for the resolution of disputes.

When such technological assistance did not exist, it may have been reasonable to entrust this task to a group of the most distinguished jurists in the country acting as judges, because perhaps there was no alternative, beyond the historical reasons already explained, so specific in England —where the entire system originated[72]— and so novel, in their time, in the United States. But it must be made immediately clear that those historical reasons are precisely what have produced the system we have today. By identifying them, it becomes evident that the model has exhausted its potential and must therefore be overcome, since none of our institutions should persist independently of the scientific reality of the time, and, more specifically in this case, its technological reality.

It is interesting to reflect on how everything began with that *appellatio* or *provocatio* to Caesar in the year 30 B.C.[73] It was an exceptional remedy, perhaps inspired by Egyptian sources[74], which allowed the one who held all powers to review a case and issue a new judgment. That person was also the one who legislated, and for this reason it is not surprising that, over time, this capacity was assumed by a royal council, which in turn was responsible for drafting the laws later signed by the king. From those royal councils or *curia regis* emerged the upper chamber of the English Parliament[75] and, indeed, all the supreme courts of the *ancien régime*, whether called councils[76] or royal audiences[77], among other denominations. The emergence of cassation courts is simply a consequence of the overcoming of that *ancien régime*, stripping the king, in most places, of that original *curia*, following the French model which itself had drawn inspiration from the English system.

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[72] Nieva-Fenoll, J., "The English Origin of French Cassation", *(2022) 41 Civil Justice Quarterly, Issue 1*, *passim*.

[73] See Kaser; Hackl, *Das römische Zivilprozessrecht*, München 1996, p. 446, 501.

[74] See Gaballa, G.A., *The Memphite Tomb-Chapel of Mose*, Warminster 1977, p. 30. In Mesopotamia, Sasson, J.M., "Treatment of Criminals at Mari: A Survey", *Journal of the Economic and Social History of the Orient*, vol. XX, part. I, 1977, p. 100-101.

[75] Blackstone, W., *Commentaries on the Laws of England*, Lib. III, London 1768, p. 454.

[76] Nueva Recopilación, Book II, tit. IV.

[77] Constitucions y Altres Drets de Catalunya, I, 27 (p. 77).

However, it is important to note that cassation courts may represent the final remnants of that ancient *appellatio*. What justification remains today for a supreme instance of appeal before a body that, unlike the ancient emperor, does not enact laws?

In reality, this justification has been gradually constructed by appellants themselves, who, in search of a favourable outcome for their case, repeatedly turn to these courts seeking, not so much justice, but an interpretation of the law that benefits them, or even a supra-legal or extra-legal criterion that might also satisfy their interests—just as, in the past, litigants appealed to Caesar in the hope that he would overturn the decisions of judges by declaring what the law should be.

But that model has been surpassed. The democratic legitimacy of the legislator cannot end with the mere promulgation of laws; it must recover the function of protecting those norms, a function it undoubtedly possessed in the past. Technology may greatly assist in achieving this restoration. In any case, such a transformation would finally bring an end to the role of bodies that have at times been excessively elitist, and that even take the liberty—particularly, but not exclusively, in Common Law countries—of arbitrarily selecting the cases they hear[78], and that, on many occasions, compete with the legislator.

By contrast, we are now presented with the possibility of creating a tool capable of extending democratic legitimacy to the *nomophylactic* function itself. It would not be a bad idea, with a certain degree of progressivism and by abandoning the comfort of traditionalism, to set to work on this endeavour.

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[78] See *Judiciary Act* 1891 (*Evarts Act*), *Judiciary Act* 1925 and *Supreme Court Case Selections Act* 1988.

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ARTIFICIAL INTELLIGENCE AND FUNDAMENTAL PROCEDURAL PRINCIPLES IN CIVIL JUSTICE

Konstantinos Papachristou Dimitras
PhD in Civil Procedural Law, Aristotle University of Thessaloniki, Greece
ORCID iD: *https://orcid.org/0009-0005-3299-2088*

ABSTRACT: This article examines the impact of AI on fundamental procedural principles in civil justice. It argues that AI integration must remain subject to procedural safeguards, transparency, and meaningful human oversight to preserve fair trial guarantees.

KEYWORDS: Artificial Intelligence, Civil Procedure, Fundamental Principles Digitalisation of Courts, Procedural Fairness

SUMMARY: I. THE INTEGRATION OF ARTIFICIAL INTELLIGENCE INTO LAW.— II. THE EU AND INTERNATIONAL REGULATORY FRAMEWORK ON ARTIFICIAL INTELLIGENCE AND PROCEDURAL SAFEGUARDS.— III. FUNDAMENTAL PROCEDURAL PRINCIPLES AS THE CORE OF THE PROTECTION OF THE RULE OF LAW: a. The Principle of Party Disposition; b. The Adversarial Principle and the Right to Be Heard; c. The Principle of Equality of the Parties; d. The Principle of the Lawful Judge; e. The Principle of Good-Faith Conduct of Proceedings.— IV. INSTITUTIONAL, PROCEDURAL AND COGNITIVE RISKS OF AI IN CIVIL JUSTICE.— V. FINAL REFLECTIONS: THE EMOTIONAL CRITERION AS A LIMIT TO THE INTERVENTION OF ARTIFICIAL INTELLIGENCE IN JUSTICE.— BIBLIOGRAPHY.

I. THE INTEGRATION OF ARTIFICIAL INTELLIGENCE INTO LAW

The systematic engagement of legal bibliography with artificial intelligence dates back to the 1970s and is closely associated with the work of *Thorne McCarty*[1] and the TAXMAN programme. This pioneering project,

[1] McCarty (1977, pp. 837–893).

which was based on provisions of United States tax law, did not aim at the creation of a "robot judge" nor at the automated issuance of judgements. Rather, its primary objective was to explore the manner in which legal professionals interpret vague legal concepts and balance competing arguments. In this sense, TAXMAN constitutes an early computational attempt to model legal interpretation, already raising at that time the fundamental question of whether—and to what extent—the interpretation of law can be represented computationally.

Despite these initial, fragmented research efforts, the establishment of a distinct scientific community in the field of artificial intelligence and law was effectively achieved with the organization of the first International Conference on Artificial Intelligence and Law (ICAIL), held in Boston in May 1987[2]. From that point onwards, research in the field acquired institutional continuity and scientific coherence[3]. The founding of the International Association for Artificial Intelligence and Law (IAAIL) in 1991, followed by the launch of the journal Artificial Intelligence and Law in 1992, completed the institutional consolidation of this area of knowledge. The maturation of scholarly discourse was particularly evident around 2012 with the publication entitled "A History of AI and Law in 50 Papers: 25 Years of the International Conference on Artificial Intelligence and Law"[4], which undertook a comprehensive retrospective assessment of the evolution of artificial intelligence in law through the analysis of fifty seminal papers presented at ICAIL conferences during the first twenty-five years of their existence.

Today, the rapid integration of artificial intelligence into civil proceedings constitutes a structural turning point capable of transforming existing normative frameworks[5], giving rise to concerns regarding the safeguarding of core guarantees such as the right to a fair trial, equality of arms, the right to a natural and independent judge, and procedural transparency—always under the guiding principle of proportionality. Fundamental procedural principles, as enshrined in national codes of civil procedure, are not merely aspirational declarations or non-binding guidelines[6]. They embody essential legal-policy choices made by the legislature on matters governing the conduct of proceedings from their initiation to their conclusion, thereby shaping the distinctive character of the judicial process[7]. Through these principles, the long-term compatibility of civil procedure with fundamental human rights is ensured[8].

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[2] Bench-Capon *et al.* (2012, pp. 215–252), especially section 1 on the historical development of AI and Law.

[3] Since then, ICAIL has been held biennially, in odd-numbered years.

[4] See Bench-Capon *et al.* (2012).

[5] Sorabji (2024, pp. 53 ff.). For China, see Shi *et al.* (2021, pp. 4 ff.). See also *Chinese Courts and the Internet Judiciary* (2019, p. 59). For current EU developments, see European Commission (2025, p. 43).

[6] Diamantopoulos (2023, p. 4).

[7] In Greek law, see Kargados (1987, pp. 465 ff.); Gesiou-Faltsi (1995, pp. 129 ff.).

[8] Cf. on the issue of infringements of fundamental rights through the use of artificial intelligence systems Malgieri and Santos (2025, pp. 106 ff.); Ho-Dac (2025, pp. 1299 ff.).

Although the means of administering justice are undergoing transformation—marked by the transition from physical to digital or hybrid proceedings—the purpose of civil litigation remains unchanged: the realization of the substantive right at stake[9]. Applications of artificial intelligence now interact directly with these fundamental procedural principles[10], rendering it necessary to adapt procedural law to contemporary technological practices. Comparative analyses reveal divergent national approaches to the incorporation of artificial intelligence into civil procedure, with a common denominator being the need to preserve meaningful human oversight, transparency, technological procedural equality, and effective mechanisms for accountability and contestability of automated functions[11].

This article makes three original contributions. First, it reframes traditional procedural guarantees—such as the right to be heard and the principle of the lawful judge—in light of algorithmic mediation in civil proceedings. Rather than focusing on a single procedural principle, it examines the interaction between artificial intelligence and a set of fundamental procedural guarantees, understood as forming an interconnected normative framework. This methodological choice reflects the structural nature of civil procedure—particularly in continental legal systems—where procedural principles do not operate in isolation, but in a dynamic relationship that collectively shapes the fairness and legitimacy of adjudication.

Second, it argues that the integration of AI into civil justice systems does not merely raise technical or efficiency concerns but reshapes the normative core of procedural fairness. Adopting a rights-based and system-oriented approach, the article analyses how the integration of AI into civil justice systems affects core procedural guarantees, including the right to be heard, equality of arms, and the principle of the lawful judge. It distinguishes between systemic risks—such as algorithmic opacity, automation bias, and structural inequalities— and those risks that may be mitigated through procedural safeguards, including transparency, explainability, and meaningful human oversight.

Third, by drawing on EU law, European human rights jurisprudence, and comparative procedural theory, the article further argues that the legitimacy of AI-assisted adjudication depends not only on compliance with formal legal rules but also on the design, governance, and institutional embedding of digital systems. In this context, it proposes a framework for assessing the compatibility of AI with fundamental procedural principles, emphasising that technological integration must remain subordinate to the requirements of a fair trial and the preservation of human judicial responsibility.

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[9] On the purposes of civil procedure, see Gaul (1968, pp. 27 ff.); Jauernig (1971, pp. 329 ff.); Henckel (1988, pp. 41 ff.); Pawlowski (1960, pp. 209 ff.). On civil procedure as protection of substantive rights, see Jacobs (2005, pp. 184–185); Pohle (1957, pp. 197, 234); Mitsopoulos (1972, pp. 34–36).

[10] On technology and civil justice, see Sourdin (2021, pp. 1 ff.); Lopes (2025, pp. 47 ff.); Russell and Norvig (2021); Strong (forthcoming 2026, pp. 1, 41); Edwards (2022); Re and Niederman (2019, pp. 242 ff.); van Gyseghem (2021, pp. 257 ff.); Kaisis (2007, pp. 1025 ff.)

[11] Sorabji (2024, pp. 57 ff.); see also De la Torre Soto and Rodriguez-Serpa (2024, pp. 807 ff.).

II. THE EU AND INTERNATIONAL REGULATORY FRAMEWORK ON ARTIFICIAL INTELLIGENCE AND PROCEDURAL SAFEGUARDS

Taken as a whole, fundamental procedural principles—being an embodiment of value judgments, ideological choices, and legal-policy balancing[12]—lay down binding rules and provide interpretative guidance for the operation and structure of civil proceedings. These principles do not constitute mere guidelines, but rather foundational normative assumptions that shape the model of an ideal, and above all fair, procedure. The introduction of artificial intelligence systems into the administration of justice affects this procedural structure not only at a technical level, but also at a normative one, reshaping the fragile balance between the efficiency of judicial activity and the safeguarding of fundamental rule-of-law guarantees[13]. Relevant concerns were raised at the European level as early as 2018, when the Council of Europe, through the European Commission for the Efficiency of Justice (CEPEJ)[14], adopted the *Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment*. This Charter identified five fundamental principles:

(a) the principle of respect for fundamental human rights, as protected by the European Convention on Human Rights and the GDPR[15];

(b) the principle of equality and non-discrimination[16];

(c) the principle of quality and security, encompassing security, confidentiality, and integrity[17];

(d) the principle of transparency, impartiality, and fairness[18]; and

(e) the principle of autonomy and independence, understood as the possibility of reviewing the data and outputs generated by algorithmic systems under human supervision[19].

Subsequently, on 20 February 2020, the European Commission issued the *White Paper on Artificial Intelligence*[20], which outlines the Union's strategy for strengthening its competitiveness while simultaneously safeguarding fundamental rights, citizens' trust, and the human-centric character of artificial intelligence[21]. This development reflected the growing recognition that the

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[12] Kargados (1987, p. 465).

[13] See Kosta (2024, pp. 9 ff.). On the historical development and gradual institutional integration of artificial intelligence into EU law, see Jougleux (2025, pp. 19 ff.).

[14] Council of Europe – CEPEJ. See also Christodoulou (2025, pp. 32 ff.).

[15] See van Gyseghem (2021, pp. 257 ff.); see also Demetzou (2025).

[16] Lütz (2024, pp. 79 ff.).

[17] Eliot (2020).

[18] Cheong (2023); Söderlund (2025, pp. 96 ff.); Larsson and Heintz (2020); see also Mittelstadt, Russell, and Wachter (2019, p. 279).

[19] Terzidou (2022, p. 160); Lopes (2025, pp. 51 ff.).

[20] European Commission (2020), *White Paper on Artificial Intelligence: A European Approach to Excellence and Trust*.

[21] Söderlund (2025, p. 98); Amariles and Baquero (2023); Schmager, Pappas, and Vassilakopoulou (2025, pp. 3771 ff.); Bryson and Theodorou (2019, pp. 305 ff.).

legitimacy of artificial intelligence within judicial proceedings is inextricably linked to the preservation of trust in the judicial function[22] and to compliance with the guarantees of a fair trial.

This regulatory trajectory culminated in the adoption of the *Artificial Intelligence Act (AI Act)*[23], which introduces harmonised and binding rules governing the development and use of artificial intelligence systems within the European single market[24]. The Regulation explicitly underscores that its application must be consistent with the fundamental values of the Union, as enshrined in the Charter of Fundamental Rights of the European Union, aiming to protect both natural and legal persons without stifling technological progress[25].

At the international level, similar orientations are reflected in the OECD Principles on Artificial Intelligence[26], which emphasize respect for the rule of law and fundamental rights, the human-centric approach to artificial intelligence, transparency, and the possibility of challenge and accountability. Taken together, these EU and international frameworks, in conjunction with the guarantees enshrined in Article 6 of the European Convention on Human Rights, articulate the new procedural landscape of the digital era, in which innovation must remain subject to the constraints of the right to a fair trial[27]. From this perspective, the right to a fair trial operates as a supraordinate principle permeating the entirety of procedural rules and is interpreted dynamically as a "living instrument"[28], in the light of evolving social, economic, and technological conditions.

III. FUNDAMENTAL PROCEDURAL PRINCIPLES AS THE CORE OF THE PROTECTION OF THE RULE OF LAW

In light of the foregoing, it becomes clear that the supranational guarantees of the European Convention on Human Rights and the Charter of Fundamental Rights of the European Union do not operate autonomously, but permeate domestic procedural law, influencing the interpretation and application of national Codes of Civil Procedure. Transposing these supranational fundamental procedural principles to the national level, the principles typically enshrined in national Codes of Civil Procedure—such as: (a) the principle of party disposition, (b) the adversarial principle, (c) the principle

[22] For a more detailed analysis, see Section V below.

[23] The Regulation applies from 2 August 2026, unless otherwise provided for specific chapters or provisions (Art. 113). It was preceded by Proposal COM(2021) 206 final.

[24] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024, available at EUR-Lex.

[25] AI Act, recital 1.

[26] Di Sibio (2023). On relevant principles, see OECD AI Principles (2019).

[27] Terzidou (2022, p. 154); Lopes (2025, pp. 49 ff.).

[28] ECtHR, *Tyrer v. the United Kingdom* (Application No. 5856/72): "the Convention is a living instrument … to be interpreted in the light of present-day conditions".

of equality of the parties, (d) the principle of the right to be heard, (e) the principle of the lawful judge, (f) the principle of good-faith conduct of proceedings— are called upon to be redefined under the new conditions. This is because the convergence of these international principles with domestic procedural law is of decisive importance, insofar as only when artificial intelligence is embedded within the framework of fundamental procedural principles can it be considered to operate legitimately within the rule of law.

The following analysis proceeds by examining selected fundamental procedural principles, not as isolated doctrinal categories, but as functional guarantees that may be affected—directly or indirectly—by the integration of artificial intelligence into civil proceedings. The aim is to highlight how these principles are not merely challenged, but potentially redefined in the context of algorithmic mediation.

a. The Principle of Party Disposition

The principle of party disposition establishes the parties' control over the subject matter of the dispute[29]: proceedings are initiated, conducted, and terminated at the initiative of the parties[30]. It constitutes an expression of private autonomy within the procedural legal order and operates as an institutional counterweight against any form of heteronomous determination of judicial protection. From this perspective, the introduction of artificial intelligence systems into civil proceedings raises the critical question of whether—and to what extent— algorithmic support may influence the formulation, scope, or even the will of the parties with regard to the disposition of the subject matter of the dispute.

It is preferable to accept that even where proceedings are conducted through electronic means (e.g. electronic filing, automated registration or processing of data, etc.), the initiative of the parties and their ability to delimit the subject matter of the dispute must remain intact. The integration of artificial intelligence systems into civil procedure cannot lead to the substitution of the parties' will through algorithmically generated suggestions or pre-selected automated options. In this respect, the requirements of transparency (Article 13 AI Act) and human oversight (Article 14 AI Act) constitute a necessary condition for compatibility with the ECHR (Article 6).

Moreover, the Court of Justice of the European Union has repeatedly emphasized—inter alia in cases C-349/07[31] and C-300/11[32]— that every judicial procedure must ensure the effective possibility of expression, participation,

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[29] From Greek legal bibliography, see Kerameus (1986, p. 148); Gesiou-Faltsi (1987, pp. 641 ff.); Nikas (2020, pp. 563 ff.).

[30] Delikostopoulos (1965).

[31] CJEU, Case C-349/07, *Sopropé*, ECLI:EU:C:2008:746

[32] CJEU, Case C-300/11, *ZZ v Secretary of State for the Home Department*, ECLI:EU:C:2013:363.

and control by the person concerned[33]. In line with this reasoning, Article 14 of the EU Artificial Intelligence Regulation (AI Act) expressly establishes the requirement of human oversight[34] in high-risk systems, which include systems providing legal protection used[35] in the administration of justice.

Such human oversight may be either constitutive, where human intervention constitutes a necessary element of decision-making, or corrective, where a human intervenes ex post in order to review, revise, or annul an outcome produced or supported by an artificial intelligence system[36]. This oversight serves not only procedural safety, but also procedural equality, the right to be heard, and ultimately trust in the administration of justice[37]. For this reason, it must be meaningful and grounded in an institutionally embedded distrust towards the algorithm[38].

Indeed, the use of artificial intelligence systems in judicial proceedings does not automatically guarantee scientific validity. Where such systems are based on methodologies not recognised by the international scientific community or attempt to resolve conceptually unsolvable problems, there is a risk that they may devolve into forms of "junk science"[39], with direct and serious consequences for due process and the protection of fundamental rights.

In the absence of a clear regulatory framework, there is always a risk that algorithmic convenience may evolve into a normative substitute for the will of the parties, thereby calling into question the very core of the fair trial.

In this context, a possible normative approach could take the following form:

> "No procedural act shall produce legal effects insofar as it is based exclusively on automated processing without meaningful human oversight".

b. The Adversarial Principle and the Right to Be Heard

The adversarial principle ensures that factual and legal issues are developed by the parties themselves and constitute the subject of adversarial debate before the court[40]. Each party must have the opportunity to submit arguments, to adduce and challenge evidence, and to be aware of the entirety of the evidentiary material on which the judicial decision will be based. The principle of the right to be heard further guarantees each party the

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[33] More generally, procedural rules must not become obstacles that negate access to justice and substantive adjudication. See ECtHR, *Savvides v. Cyprus* (Application No. 14195/15); ECtHR, *Zubac v. Croatia* (Application No. 40160/12).

[34] Laux (2023, pp. 2853 ff.); Söderlund (2025, pp. 104 ff.); see also Davidovic (2023, p. 2).

[35] For this distinction, see Laux (2023, pp. 2853 ff.).

[36] Selçuk, Konca, and Kaya (2025, pp. 106–136); Terzidou (2022, p. 165).

[37] See Davidovic (2023, pp. 1 ff.).

[38] Laux (2023, p. 2854), who conceptualises distrust as a democratic tool.

[39] See Palmiotto (2024).

[40] See Rammos (1934); Kargados (1980, pp. 233 ff.).

right to express views on all arguments and evidence introduced into the proceedings[41].

The use of automated or algorithmic systems in judicial proceedings confers a new dimension upon these principles. Pursuant to Article 22 GDPR, every person has the right not to be subject to a decision based solely on automated processing without the possibility of human intervention. Thus, even where an information system proposes a solution or assists in shaping the court's assessment, each party must retain the possibility of human review and substantive reconsideration of the outcome. If a party is unaware of the methodology, criteria, and parameters on the basis of which an outcome is produced, it is deprived of the possibility of effective challenge, thereby infringing the core of the right to be heard[42].

In a contemporary context, the right to be heard is intrinsically linked to the explainability of algorithms, as it is understood as a right to comprehension and effective rebuttal, rather than as mere formal participation in the proceedings. Particularly illustrative in this regard is case C-245/2025[43], which clearly highlighted the procedural risks inherent in the use of advanced simulation software in the administration of justice. Specifically, in a traffic accident case in Sofia, the claimant requested a judicial expert opinion to determine liability. The expert used the Virtual Crash 4.0 software (designed for the US market), which automatically generates results and simulates accidents. The court found that the software operates as a high-risk artificial intelligence system and referred a preliminary question to the CJEU as to whether such software, which assists the expert in drafting a report upon which the judicial decision is based, falls within the definition of high-risk AI systems. This case demonstrates that the use of algorithmic tools in judicial proceedings is not procedurally neutral. On the contrary, where the generated outcome is not sufficiently explainable or verifiable by the parties and the court, a serious risk arises of infringing the adversarial principle and the right to be heard. Moreover, decision-making based on artificial intelligence is equally vulnerable to error and bias, as algorithms lack the mechanisms of social control that govern human behavior[44].

In light of the above, it becomes evident that the effective exercise of the right to be heard presupposes not only the formal possibility of participation in the proceedings, but also substantive understanding and the ability to challenge algorithmically generated outcomes. This necessity grounds the normative requirement of explainability and human intervention as indispensable conditions for the compatibility of artificial intelligence with fundamental procedural principles.

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[41] See in particular Apalagaki (1989, pp. 107 ff.); Klamaris (1989).

[42] See ECtHR, *Regner v. the Czech Republic* (Application No. 35289/11); see also CJEU, Case C-349/07, *Sopropé*; CJEU, Case C-300/11, *ZZ v Secretary of State for the Home Department*.

[43] Available at CURIA.

[44] Sorabji (2024, p. 60); see also Gadamer (1972, pp. 279, 291–292); Christodoulou (2025, p. 35).

In this context, a possible normative approach could take the following form:

> "At every stage of the proceedings, where algorithmic or automated means are used, the parties shall have the right of access to documentation that is explainable".

c. The Principle of Equality of the Parties

Within the framework of digital justice, the principle of equality of arms assumes the form of technological procedural equality, as a specific manifestation of Articles 6 §1 ECHR and 47 of the Charter of Fundamental Rights of the European Union[45]. This principle requires that each party enjoy substantively equivalent opportunities to present arguments and evidence, without being placed at a disadvantage due to technical, digital, or cognitive factors. The introduction of digital procedures into civil litigation must therefore ensure not only enhanced access to justice in general, but also intelligible, accessible, and functionally equivalent use of technological tools that influence the formation of judicial reasoning.

However, digital and artificial intelligence systems are often designed in ways that restrict accessibility or generate indirect inequalities, either due to poor design or implicit and unconscious bias on the part of their developers. Such biased specifications may affect specific groups, in particular persons with visual or hearing impairments, learning disabilities, elderly persons, foreigners, individuals with low digital literacy, or limited financial resources[46]. For this reason, the need to maintain parallel non-digital channels of access to justice ("offline justice") has rightly been emphasised, especially where exclusive reliance on digital means becomes practically prohibitive or creates a risk of unequal treatment. The problem becomes more acute in cases of technical malfunctions or cyberattacks, where the absence of alternative procedural options may undermine equality of arms and the right of access to justice, as exemplified in procedures governed by the principle of temporal priority (e.g. electronic filing with land registries).

Finally, it must not be overlooked that, in certain cases, non-digital solutions—such as physical hearings before the court— may constitute the most appropriate means of safeguarding fundamental procedural rights[47]. Technology, therefore, does not operate as an end in itself, but as a tool that must remain subordinate to the requirements of a fair trial.

In this context, a possible normative approach could take the following form:

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[45] Sorabji (2024, pp. 38, 58 ff.); see also EU Agency for Fundamental Rights (2025, Opinion 4, p. 10); CEPEJ (2018, p. 47).

[46] Sorabji (2024, pp. 61 ff.); Terzidou (2022, pp. 162 ff.).

[47] EU Agency for Fundamental Rights [FRA] (2025, Opinion 4, p. 10).

"The use of artificial intelligence shall not be permitted to create inequalities in access, comprehension, or effective participation in the proceedings".

d. The Principle of the Lawful Judge

The principle of the lawful judge[48]—according to which justice is administered by a judge designated by law prior to the emergence of the dispute and composed in accordance with general and objective rules— constitutes a fundamental guarantee of a fair trial and judicial independence. It derives both from national constitutions and, in particular, from Article 6 §1 ECHR, as well as Articles 19 TEU and 47 of the Charter of Fundamental Rights of the European Union. From this perspective, the principle of the lawful judge is incompatible with the notion of an "algorithmic judge". Artificial intelligence cannot substitute the human judge, either in the constitution of the court or in judicial decision-making. It permits only the use of algorithmic tools as auxiliary means, within clearly defined limits of accountability, transparency, and human oversight.

Of particular importance in this regard is the pending case C-159/2025[49] (SLPS, Poland), which concerns the legality of the use of automated case allocation software (System Losowego Przydziału Spraw – SLPS) in Polish courts is of particular importance. Operating under the supervision of the Ministry of Justice, the system assigns cases to judges through algorithmic "random" selection. In the case at issue, cases initially allocated automatically to a specific judge were reassigned, following her transfer, to another judge without justification and without transparency as to the functioning of the algorithm. The judge who received the cases raised an objection, arguing that the allocation was irregular and uncontrolled. The Warsaw court submitted a preliminary reference to the CJEU, seeking clarification as to whether the use of an artificial intelligence or automated system for case allocation—without adequate reasoning, without the possibility of reviewing the source code, and with the involvement of an executive authority— is compatible with Article 19 TEU, Articles 20 and 47 of the Charter, and Article 14 of the AI Act, in terms of judicial independence, impartiality, and the lawfulness of the judge.

The significance of this case goes beyond the technical organization of courts. It touches upon the very core of the principle of the lawful judge, as opaque or uncontrolled algorithmic allocation of cases may create—or at least give rise to a reasonable suspicion of—indirect influence on judicial activity. In the same vein, the CJEU, in its landmark judgment Associação Sindical dos Juízes Portugueses (C-64/16)[50], emphasised that judicial independence is not an organisational detail, but a fundamental prerequisite for trust in the rule of law and effective judicial protection. Consequently, the

[48] Kondylis (2007, *passim*); Dagtoglou (2012, pp. 1214 ff.).
[49] EUR-Lex.
[50] CJEU, Associação Sindical dos Juízes Portugueses, Case C-64/16, ECLI:EU:C:2018:117.

principle of the lawful judge operates as a normative limit to the integration of artificial intelligence into judicial activity.

In this context, a possible normative approach could take the following form:

> "The administration of justice shall be exercised by human judges; artificial intelligence shall be permitted solely as an auxiliary means under human oversight".

e. The Principle of Good-Faith Conduct of Proceedings

In the contemporary digital environment, the principle of good-faith conduct of proceedings assumes increased importance. The use of artificial intelligence systems in judicial practice has qualitatively altered the conditions under which procedural rights are exercised. While artificial intelligence may legitimately function as a tool of assistance, it simultaneously entails a risk of abuse with a direct impact on the good-faith conduct of proceedings. In particular, the use of artificial intelligence to generate false or manipulated evidentiary documents, fabricate non-existent case law or fictitious judgements, alter digital evidence (e.g. deepfakes, images generated by ChatGPT), or misleadingly analyze factual circumstances with the aim of distorting the court's assessment, constitutes a direct infringement of the principle of good faith and the duty of truth[51].

In this context, a possible normative approach could take the following form:

> "The use of artificial intelligence shall comply with the duty of truth and the principle of the good-faith conduct of proceedings".

IV. INSTITUTIONAL, PROCEDURAL AND COGNITIVE RISKS OF AI IN CIVIL JUSTICE

In this context, the European Union Agency for Fundamental Rights (FRA) has highlighted that the systematic introduction of digital tools and artificial intelligence applications into the judicial practice of Member States constitutes a profound institutional transformation which, in the absence of adequate safeguards, may significantly affect the fundamental rights enshrined in the Charter of Fundamental Rights of the European Union. The FRA points out that[52], despite the significant benefits of digitalization (speed, transparency, improved access to justice), serious risks persist for: the right to respect for private life (Article 7 CFR), the protection of personal data (Article

[51] Diamantopoulos (2025, pp. 73 ff.).

[52] EU Agency for Fundamental Rights [FRA]. (2025). *Digitalising justice: A fundamental rights-based approach*. Publications Office of the European Union.

8), the prohibition of discrimination (Article 21), the right to a fair trial and effective judicial protection (Article 47), as well as defence rights (Article 48).

In its relevant study, the FRA analyzed the use of 31 digital justice tools across seven Member States (Austria, Estonia, France, Italy, Latvia, Poland, and Portugal), concluding that digitalization must be implemented under a human-centric approach[53] and continuous oversight, so as to strengthen— rather than undermine— fundamental rights[54].

Thus, the integration of artificial intelligence into civil justice systems gives rise to a multi-layered set of risks, which cannot be treated as a homogeneous category. For analytical clarity, these risks may be distinguished into three interrelated dimensions: (a) institutional risks, which affect the institutional foundations of the judicial function; (b) procedural risks, which impact the operation of procedural guarantees and (c) cognitive risks which relate to the behavior and decision-making patterns of human actors interacting with AI systems.

At the institutional level, the use of AI challenges structural guarantees of the rule of law, particularly transparency, accountability, and judicial independence. The so-called "black-box effect[55]", whereby algorithmic reasoning remains opaque, undermines both the publicity of proceedings and the ability to verify the basis of judicial outcomes. This opacity weakens the intelligibility of adjudication as a public act of justification, thereby eroding trust in judicial reasoning as a reason-giving enterprise grounded in Art 6 (1) ECHR requirements. Moreover, reliance on privately developed systems introduces risks of external influence and shifts elements of judicial epistemic authority towards non-state actors, particularly where proprietary protections and trade secrets limit scrutiny of algorithmic design. In this sense, the institutional architecture of adjudication risks becoming partially dependent on infrastructural technologies that are neither democratically legitimised nor fully subject to traditional forms of judicial oversight.

At the procedural level, AI directly affects the conditions under which fundamental rights are exercised. Algorithmic opacity may limit the parties' ability to challenge evidence, thereby undermining the adversarial principle and the right to be heard[56]. This is particularly problematic in light of the requirement that parties must be able to understand and contest the evidentiary basis of judicial reasoning in order to exercise effective remedies, including the right of appeal. At the same time, unequal access to advanced technological tools creates asymmetries between litigants, raising concerns under the principle of equality of arms[57]. Such disparities may distort procedural equilib-

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[53] On the human-centred character of artificial intelligence systems, see supra note 21.

[54] EU Agency for Fundamental Rights [FRA] (2025, Opinions 6–7).

[55] Pasquale (2015); Söderlund (2025, p. 112); Scherer (2019, pp. 22 ff.); Terzidou (2022, p. 164); Lopes (2025, pp. 59 ff.).

[56] EU Agency for Fundamental Rights [FRA]. (2022). *Bias in algorithms: Artificial intelligence and discrimination*. Publications Office of the European Union.

[57] Panagopoulou (2024, p. 52).

rium not only through differential access to AI-enhanced legal analytics, but also through unequal capacity to interpret or rebut algorithmically generated outputs presented in court. These risks, however, may be partially mitigated through procedural safeguards such as transparency obligations, explainability requirements, disclosure duties regarding algorithmic involvement in decision-making, and guaranteed access to meaningful human review, consistent with the guarantees embedded in Art 47 CFREU and the broader ECHR framework.

Finally, at the cognitive level, the interaction between human decision-makers and AI systems generates risks such as automation bias[58], cognitive offloading, and diminished critical scrutiny[59]. Judges and legal practitioners may, consciously or unconsciously, defer to algorithmic outputs perceived as objective or scientifically neutral, thereby weakening independent legal reasoning. This tendency may be reinforced by institutional pressures such as workload efficiency demands and the perceived authority of data-driven systems. As a result, AI may subtly reshape judicial cognition by transforming the judge from an active evaluator of facts and law into a more passive validator of pre-structured outputs. Over time, such dynamics risk altering the epistemic culture of adjudication itself, reducing the intensity of deliberative engagement with evidence and legal argumentation. Consequently, safeguarding the cognitive autonomy of judicial actors becomes essential to preserving the integrity of fair trial guarantees in an increasingly algorithmically mediated justice system.

The case of State v. Loomis (2016)[60] is illustrative in this respect. Eric Loomis was sentenced to six years' imprisonment following a risk assessment conducted by the COMPAS[61] software, which classified him as a high risk of reoffending. Loomis challenged the software, arguing that it failed to assess his individual circumstances in concreto, thereby violating his rights to a fair trial and individualized sentencing. The Wisconsin Supreme Court dismissed Loomis's appeal, noting that the risk assessment produced by COMPAS was only one of several factors considered and not the decisive one. Nevertheless, the core issue lies in the impossibility of determining the extent to which the judge's decision was influenced by the automated system. The judicial outcome may have been significantly shaped by the software's result without this influence being readily detectable. Under such conditions, the institutional safeguarding of human judgment as the final filter of any automated process becomes indispensable. The significance of the case lies not merely in the use of algorithmic tools, but in the difficulty of assessing their actual influence on

[58] Strong (2026, p. 20); Skitka *et al.* (1999, p. 991).

[59] See in detail Strong (2026, pp. 22 ff.), who observes that "generative AI" entered legal practice when, in 2023, ChatGPT was found capable not only of passing but excelling in U.S. bar examinations. See also American Bar Association, Task Force on Law and Artificial Intelligence, *AI and Legal Education Survey Results* (2024); cf. Marcellino *et al.* (2023, p. 26).

[60] Wisconsin Supreme Court, *State v. Loomis*; Lopes (2025, pp. 54 ff.).

[61] Correctional Offender Management Profiling for Alternative Sanctions (COMPAS).

judicial reasoning. Even where such tools are formally presented as auxiliary, their practical impact may be decisive, without being transparent or subject to effective scrutiny. In this respect, the case exemplifies broader concerns regarding opacity, accountability, and the limits of meaningful human oversight.

To address these risks, priority is given to the institutional safeguarding of human judgment as the ultimate filter of every automated process, through human oversight, transparency, and explainability of artificial intelligence systems, as well as the establishment of mechanisms for control, accountability, and ethical governance[62]. A pivotal role is ultimately played by the principle of proportionality, which is called upon to delineate the use of artificial intelligence, permitting it only where it improves procedural efficiency without distorting judicial reasoning, as has also been emphasized in the case-law of the European Court of Human Rights.

Indicatively, in Xavier Lucas v. France (2022)[63], the ECtHR held that digital technologies may contribute to improving the administration of justice, provided that the requirements imposed for electronic filing are proportionate to the legitimate aim pursued. The Court found that the strict requirements imposed on the applicant, combined with the severe consequences of non-compliance, violated the right of access to a court under Article 6 § 1 ECHR. Similarly, in Patricolo and Others v. Italy (2024)[64], the ECtHR ruled that Italy had violated the right of access to a court, as the applicants' cases were dismissed due to uncertified copies of electronic documents, without granting them the opportunity to submit the required certifications.

While procedural safeguards constitute a necessary condition for the lawful integration of artificial intelligence into civil justice, they are not, in themselves, sufficient. A purely rules-based approach risks addressing the effects of artificial intelligence without adequately regulating its underlying architecture. Accordingly, the legitimacy of AI-assisted adjudication depends equally on governance structures, system design, and lifecycle management.

The European Union's Artificial Intelligence Act reflects this shift towards a systemic approach. In particular, high-risk AI systems—such as those used in the administration of justice—are subject to a set of ex ante and ongoing obligations, including: the continuous operation of a risk management system [Art 9 of the Regulation (EU) 2024/1689]; the use of high-quality training, validation, and testing data to prevent discrimination (Art 10); the preparation and continuous updating of technical documentation (Art 11); record-keeping (Art 12); transparency and traceability, through the automatic generation of logs and the provision of clear instructions for use, so that users understand the system's capabilities and limitations (Art 13); human oversight (Art 14); and finally, technical robustness, accuracy, and cybersecurity

[62] See supra Section III(a).

[63] ECtHR, *Xavier Lucas v. France*, Application No. 15567/20, Judgment of 9 June 2022.

[64] ECtHR, *Patricolo and Others v. Italy*, Application Nos. 37943/17, 54009/18, and 20655/19, Judgment of 23 May 2024.

(Art 15). These requirements demonstrate that the regulation of artificial intelligence in civil justice cannot be confined to procedural guarantees alone. Instead, it must extend to the design, deployment, and institutional supervision of technological systems.

From this perspective, procedural law and technological governance operate as complementary layers of protection. While procedural principles safeguard the fairness of the individual case, governance mechanisms ensure the structural reliability of the systems upon which those procedures increasingly depend.

V. FINAL REFLECTIONS: THE EMOTIONAL CRITERION AS A LIMIT TO THE INTERVENTION OF ARTIFICIAL INTELLIGENCE IN JUSTICE

The introduction of artificial intelligence into judicial practice does not merely constitute a technological transition, but rather a profound institutional threshold. It is evident that artificial intelligence is penetrating ever more deeply into the sphere of civil justice, reshaping procedural mechanisms, accelerating adjudication, and enhancing organizational efficiency. This transition, however, does not take place in an institutional vacuum. Fundamental procedural principles—such as party disposition, adversarial proceedings, the right to be heard, equality of arms, the natural judge, and the good-faith conduct of proceedings— operate as normative counterweights, as limits that define not only *how* artificial intelligence may be integrated into judicial proceedings, but, more crucially, *how far* such integration may go.

As aptly observed by an Italian judge: *"Digitalization can make the [justice] system more efficient and speed up decisions. That would benefit everyone who turns to [it] to protect fundamental rights. But the risk is that poor digitalization can instead make it harder to protect those rights"*[65] Efficiency, when deprived of institutional guarantees, may thus shift from a means of strengthening justice to a factor contributing to its erosion. Automation, when applied within a functional and well-structured institutional framework, amplifies effectiveness; when applied within an institutionally fragile system, it operates inversely, magnifying distrust[66].

Accordingly, notwithstanding the undeniable importance of artificial intelligence in the organization, classification, and processing of information, the essential core of the adjudicative function must remain irreducibly human-centered. At this juncture emerges the so-called *"emotional criterion"*,

[65] EU Agency for Fundamental Rights [FRA]. (2025). *Digitalising justice: A fundamental rights-based approach*.

[66] As noted in contemporary bibliography, the regulation of artificial intelligence primarily aims at the protection of citizens and fundamental values; however, technologically extensive deployment entails the risk of reinforcing institutional inequalities and social distrust if not accompanied by clear limits and human oversight; see Wang (2024, Article 105965).

not as an argument against technology, but as a normative boundary that separates human judgment from algorithmic calculation—and ultimately as an institutional barrier against automation.

Judicial decision-making, after all, is not constructed exclusively from rules and data. It incorporates human experience, an understanding of the fragile balance between positive law and justice, and the judge's capacity to weigh non-quantifiable factors. While algorithms may calculate probabilities, identify patterns, and correlate data, they cannot "encounter" the human being in the realm of moral judgment and emotional experience. Emotional intelligence, respect for human dignity, sensitivity to social complexity, and attentiveness to individual particularities constitute insurmountable limits for artificial intelligence.

It is precisely within this grey zone—where technical means cannot intervene—that human oversight becomes indispensable, not as a mechanism of formal control, but as a necessary procedural complement. The explicit enshrinement of human oversight in Article 14 of the AI Act is therefore not a merely technical provision, but a normative acknowledgment that ultimate responsibility for judgment cannot be detached from the human agent. It should not be forgotten that the court has historically been more than a venue for dispute resolution; it has functioned as a symbol of legality. In the digital era, where judgment increasingly shifts from the courtroom to algorithmic and platform-based environments, the court must not entirely forfeit this traditional, albeit symbolic role[67].

From this perspective, artificial intelligence can operate only as an instrument for enhancing, and never substituting, judicial reasoning. The judge remains the sole irreplaceable point of connection between law and the human condition—the only actor capable of interpreting legal norms in light of the concrete case, weighing the interests of the parties, integrating equity, and apprehending the subtle moral dimension inherent in every judicial decision.

While certain elements of the analysis draw on conceptual frameworks developed within common law scholarship, it must be acknowledged that continental legal systems—particularly those influenced by Napoleonic codification—approach procedural principles in a more systematic and codified manner. Nevertheless, functional equivalents of these principles can be identified, allowing for a comparative and integrative analysis that transcends formal doctrinal differences. Within this framework, Sorabji[68] likewise proposes a unified system of procedural principles, such as Purposive, Efficiency, Autonomy, Concentration, Prevention, Cooperation, and Proportionality, which function as normative axes governing every procedural act. The innovation of his approach lies in the explicit linkage of these principles to the digital transformation of justice, underscoring that the use of technology—and artificial

[67] Helberger (2025, pp. 106 ff.).
[68] Sorabji (2024, *passim*).

intelligence in particular—is not value-neutral, but must be aligned with the fundamental guarantees of a fair trial.

Ultimately, the emotional criterion should not be understood as a purely subjective or psychological element, but as a juridically relevant dimension of adjudication. It reflects the capacity of the judge to engage in individualized assessment, to interpret and apply the law in light of the specific circumstances of the case, and to provide reasoned decisions that are both rationally justified and socially intelligible. In this sense, the emotional dimension of judicial decision-making is closely linked to established procedural guarantees, such as the duty to give reasons, the principle of the appearance of justice, and the requirement of individualized adjudication. These elements cannot be fully replicated by algorithmic systems, which operate on the basis of generalization, pattern recognition, and probabilistic reasoning. Accordingly, the emotional criterion functions not as a rejection of technological innovation, but as a normative boundary ensuring that the core of adjudication remains anchored in human judgment.

In this regard, the enduring formulation of the European Court of Human Rights in *Delcourt v. Belgium*[69] remains emblematic: *"Justice must not only be done; it must also be seen to be done."* Justice, therefore, need not only be rational; it must also be recognisably human. Ultimately, the question is not whether artificial intelligence should be integrated into civil justice, but how its integration can be structured in a way that preserves the normative integrity of procedural law.

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[69] ECtHR, *Delcourt v. Belgium*, Application No. 2689/65, para. 31.

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HIGH-RISK JUSTICE: DECISION-MAKING AUTOMATION AND THE STRUCTURAL LIMITS OF THE "ROBOT JUDGE" IN ENFORCEMENT PROCEEDINGS

Emanuele Pasquale Scigliano*
Università degli Studi Magna Græcia di Catanzaro

ABSTRACT: This article examines the structural limits of decision-making automation in civil justice by taking enforcement proceedings as a paradigmatic test case. The enforcement phase is frequently portrayed as the segment most exposed to standardisation and, for this reason, as the privileged field for the application of artificial intelligence. Such a representation rests on the idea of forced enforcement as a formalised procedure strictly bound to the enforceable title and reducible to a sequence of technical operations devoid of evaluative content.

The article challenges this assumption, showing that the alleged automatism of enforcement does not constitute a structural feature of the system, but rather the product of a historically and dogmatically determined construction, consolidated through modern codification and crystallised in the 1940 Code of Civil Procedure. Through a historical and systematic reconstruction, the contribution demonstrates that the enforcement paradigm incorporates a program of automatism which, in practical application, encounters an internal limit.

Even within a procedure conceived as formally constrained, there emerge decisive junctures at which the enforcement judge is required to exercise powers of procedural governance, legality control, and assessment of the proportionality of coercive measures. These interventions take place within a sphere of endo-executive cognition which, although not amounting to a full determination of substantive rights, entails contextual, attributable, and reviewable decisions, necessarily requiring adversarial participation and reasoned justification.

From this perspective, the analysis identifies the hypotheses of early termination of enforcement proceedings as an emblematic case. Precisely where the procedure appears most amenable to standardisation, decisions arise that cannot be reduced to an automated output without undermining judicial accountability and the controllability of jurisdictional activity. On this basis, the figure of the so-called "robot judge" is employed not as a futuristic provocation, but as a critical category through which to assess the compatibility between automation and procedural guarantees.

* PhD Candidate in Civil Procedural Law. Magna Graecia University: Catanzaro. ORCID: 0009-0007-8680-9124

The article concludes that artificial intelligence may legitimately serve a supportive function with respect to repetitive and organisational tasks, but encounters an intrinsic limit when it purports to replace the attributable decision-making core of the judicial function. Any technological innovation must therefore be confined within a paradigm of augmented intelligence, preserving human responsibility, motivation, and judicial accountability.

KEYWORDS: Artificial Intelligence; enforcement proceedings; judicial discretion; predictive justice; robot judge.

SUMMARY: 1. PREFACE.— 2. ENFORCEMENT PROCEEDINGS AS A TEST CASE FOR AUTOMATION.— 3. THE ENFORCEMENT PARADIGM AND THE PROMISE OF AUTOMATISM.— 4. THE EMERGENCE OF ENDO-EXECUTIVE COGNITION AND THE INTERNAL LIMITS OF AUTOMATISM.— 5. EARLY TERMINATION OF ENFORCEMENT AS AN EMBLEMATIC CASE.— 6. THE "ROBOT JUDGE" AS A CRITICAL CATEGORY.— 7. ALGORITHMIC OPACITY, AUTOMATION BIAS, AND DECISION-MAKING ACCOUNTABILITY.— 8. CONCLUDING REMARKS.— 9. BIBLIOGRAPHY.

1. PREFACE

The increasing use of artificial intelligence (AI) tools in the administration of justice has revived, with renewed intensity, the debate on the limits of automating judicial decision-making. Enforcement proceedings are not approached here as a technically neutral or residual sector, but rather as a paradigmatic field for assessing the conditions under which AI may be legitimately employed within civil justice. While, at an initial stage, scholarly attention focused predominantly on adjudicatory proceedings, it has become increasingly evident that the issue also concerns—perhaps above all—the phase of coercive enforcement of rights, where the legal system is required to transform a legal claim into a concrete outcome[1]. From this perspective, enforcement proceedings are frequently identified as the privileged terrain for potential decision-making automation, insofar as they have traditionally been portrayed as formalised, serial procedures strictly bound to the enforceable title.

Such a representation, however, is potentially misleading. It presupposes that forced enforcement is structurally reducible to a sequence of technical operations devoid of evaluative content and, precisely for this reason, fully delegable to algorithmic systems[2]. This contribution challenges that as-

[1] Scholarly reflection on the impact of digital technologies in civil justice initially focused on adjudicatory proceedings, but has progressively extended to enforcement proceedings as the decisive stage for the effectiveness of judicial protection. From this perspective, the coercive enforcement of rights is increasingly regarded as an integral part of the "process" for the purposes of assessing both its reasonable duration and its effectiveness. On the relationship between effectiveness of judicial protection, reasonable length of proceedings, and enforcement, see: Verde, G. (2019). Effettività e durata ragionevole della tutela giurisdizionale. *Rivista di diritto processuale,* 1–15; Monteleone, G. (2012). *Manuale di diritto processuale civile*. (Vol. II). CEDAM, 78–85.

[2] The conception of forced enforcement as a merely technical procedure strictly bound to the enforceable title derives from a dogmatic construction aimed at rigidly separating adjudication and enforcement, thereby neutralising any evaluative content within the enforcement phase. Such a representation, however, reflects a normative programme rather than an accurate description of enforce-

sumption, treating enforcement proceedings not as a marginal domain of technological innovation, but as a paradigmatic testing ground for assessing the structural compatibility between automation and the judicial function. Technological innovation is therefore not evaluated in the abstract, but rather from the vantage point of those moments in which enforcement procedures require decisions that are attributable, reasoned, and subject to review.

From this standpoint, enforcement proceedings constitute a particularly significant test case for the analysis of decision-making automation in civil justice. They occupy a structurally ambivalent position: on the one hand, they are traditionally designed as formalised procedures, articulated through standardised sequences and oriented toward the swift implementation of the enforceable title; on the other hand, they contain decision-making junctures in which the enforcement judge is called upon to exercise powers of procedural governance, to assess the legality and proportionality of coercive measures, and to balance competing interests. It is precisely this coexistence of standardisation and attributable decision-making that makes it possible to test whether, and to what extent, AI may be employed as a supportive tool without undermining the guarantees of adversarial proceedings, reasoning, and judicial accountability.

The central thesis advanced here is that forced enforcement, precisely in the segment that appears most exposed to standardisation, contains decisions that cannot be reduced to mere calculation. These decisions do not amount to a full determination of substantive rights, but rather take place within a sphere of endo-executive cognition[3], functional to procedural governance, the management of adversarial participation, and the preservation of the legality and proportionality of coercion. It is within these decision-making passages—attributable, reasoned, and reviewable—that the structural limits of any hypothesis of substitutive automation of the enforcement judge emerge.

From this perspective, the figure of the so-called robot judge is not employed as a futuristic suggestion, but as a critical category through which to interrogate the traditional concepts of civil procedure in light of ongoing technological transformations. Recourse to the dogmatics of enforcement does not therefore represent a regression to classical models, but rather a necessary step in understanding why AI, while capable of performing auxiliary and supportive functions, encounters an intrinsic limit when it purports to replace the public responsibility inherent in judicial decision-making.

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ment practice. On the premises and limits of this paradigm, see: Liebman, E.T. (1931). *Le opposizioni di merito nel processo d'esecuzione* (Vol. I). Società Editrice del Foro Italiano, 2–10; Monteleone G. (2012), *Manuale di diritto processuale civile*, cit., 78–85.

[3] The expression "endo-executive cognition" refers to forms of incidental evaluation internal to enforcement proceedings, which are functional not to the definitive determination of substantive rights, but to procedural governance and to the legality of coercive measures. Although such evaluations do not amount to a decision on the merits, they remain attributable to the enforcement judge and subject to judicial review. From this perspective, enforcement proceedings are not ontologically extraneous to the act of "deciding". See: Cavuoto, V.E. (2017). *La cognizione incidentale sui crediti nell'espropriazione forzata*. Edizioni Scientifiche Italiane, 322–330.

2. ENFORCEMENT PROCEEDINGS AS A TEST CASE FOR AUTOMATION

The conception of enforcement proceedings as a predominantly technical and serial sequence does not constitute a natural given, but rather the product of a historically determined construction, aimed at isolating the moment of "decision-making" within adjudication, and at neutralising it in the enforcement phase[4]. This construction has fostered a representation of enforcement as a constrained procedure, impermeable to evaluation and therefore structurally predisposed to standardisation. It is precisely against this background that, today, the hypothesis of automating enforcement appears, at first glance, particularly plausible. The portrayal of enforcement as a standard sequence thus constitutes the theoretical premise upon which many contemporary proposals for the automation of civil justice are built, grounded in the assumption that coercive action can be reduced to predetermined procedural flows.

The separation between adjudication and enforcement has deep historical roots, already traceable to Roman law, where the principle *non est inchoandum ab executione* expressed the requirement of a prior determination of rights before coercive enforcement could take place[5]. This approach was progressively rigidified through modern codification and found an organic articulation in the 1865 Code of Civil Procedure, which contributed to depicting enforcement as an autonomous and formalised phase, entrusted to a sequence of typified acts distinct from adjudicatory proceedings[6]. Within this framework, the enforceable title ceases to function as a mere operational prerequisite and assumes the role of a genuine organising concept of the enforcement experience[7]: it allows coercion to be abstracted from the material

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[4] The separation between adjudication and enforcement has its roots in Roman law and in medieval elaborations, where the principle *non est inchoandum ab executione* expressed the requirement of a prior determination of the right before coercive enforcement could take place. On this point, see: Andolina, I. (1966–1968). I presupposti dell'esecuzione forzata nel diritto romano. *Jus. Rivista di Scienze Giuridiche*, 127–164, esp. 101–144; La Rosa, F. (1963). *L'actio iudicati nel diritto romano classico*. Giuffrè; Buzzacchi, C. (1996). *Studi sull'actio iudicati nel processo romano classico.* Giuffrè; Andolina, I. (1985). Accertamento ed esecuzione nel diritto italiano nel tardo Medio Evo. *Studi in onore di Cesare Sanfilippo* (Vol. VI), 4–30; Corbino, A. (2014). *Diritto privato romano*. CEDAM.

[5] On the Roman-law foundation of the principle *non est inchoandum ab executione* and, in particular, on the function of the *actio iudicati* as the procedural instrument marking the transition from adjudication to coercive enforcement, see: Andolina, I. (1966–1968), I presupposti dell'esecuzione forzata nel diritto romano, cit., p.127–144; La Rosa, F. (1963) *L'actio iudicati nel diritto romano classico*, cit.; Buzzacchi, C. (1996) *Studi sull'actio iudicati nel processo romano classico*, cit.

[6] Nineteenth-century codification played a decisive role in representing forced enforcement as a formalised activity distinct from adjudication, according to an enforcement-oriented model that would find its full articulation in the 1865 Code of Civil Procedure. In this sense, see: Picardi, N., & Giuliani, A. (Eds.). (2004). *Il codice di procedura civile del Regno d'Italia.* Giuffrè, VII–XX; Gargiulo, F. S. (1872). *Il codice di procedura civile del Regno d'Italia* (Vol. II). Marghieri; Magni, C. (1880). *Codice di procedura civile del Regno d'Italia* (Vol. II). Eugenio e Filippo Cammelli.

[7] On the role of the French model in disseminating a conception of enforcement as a predominantly administrative activity, see: Ziino, S. (2004). *Esecuzione forzata e intervento dei creditori*. ILA Palma,

foundation of the right and relocates all issues of adjudication outside and prior to enforcement proceedings, according to a sharp dichotomy between title and oppositions[8].

It is precisely this theoretical construction that renders the promise of automatism intelligible. If the legitimacy of enforcement action is resolved entirely within the enforceable title, the procedure may appear to be fully governed by typified documentary prerequisites and reducible to an impersonal sequence of operations[9]. The admission of enforceable titles lacking prior judicial determination—emblematically represented by negotiable instruments—further reinforces this representation, consolidating the idea of an enforcement process emancipated from adjudication and structurally self-sufficient[10]. The *Relazione al Re* of 1940 fits coherently within this trajectory, asserting the need to "liberate" enforcement from the superstructures of contentious proceedings and to strengthen its executory character, while at the same time placing the enforcement judge at the center of the procedure with functions of direction and coordination[11].

Automatism, however, is not a structural feature of enforcement, but rather a normative program. If automatism is a program, then any form of algorithmic automation cannot be conceived as a mere technical transposition,

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50–70; Padoa Schioppa, A. (2007). *Storia del diritto in Europa. Dal medioevo all'età contemporanea*. Il Mulino, 436. With specific reference to the ancien régime, see: Jousse, D. (1777). *Nouveau commentaire sur l'Ordonnance civile de 1667*. Hachette Livre, 225–250; Carré, G. L. J., & Chauveau, A. (1861). *Leggi della procedura civile* (Vol. III). Gabriele Rondinella, 797–799; Garsonnet, E. (1961). *Trattato teorico e pratico di procedura civile* (Vol. IV). Società Editrice Libraia, 129–131.

[8] On the enforceable title as the pivotal element of coercive action and as the organising concept of the enforcement experience, legal scholarship is notoriously extensive and stratified. See: Proto Pisani, A. (Ed.). (1993). *Titolo esecutivo, precetto, opposizioni.* UTET, 9–40; Mandrioli, C. (1995). *L'azione esecutiva: contributo alla teoria unitaria dell'azione e del processo.* Giuffrè; Carnelutti, F. (1931). Titolo esecutivo. *Rivista di diritto processuale civile*, Vol. I, 313–350; Satta, S. (1963). *L'esecuzione forzata*. UTET; Tarzia, G. (1961). *L'oggetto del processo di espropriazione*. Giuffrè; Chiovenda, G. (1930). L'azione nel sistema dei diritti. *Saggi di diritto processuale* (Vol. I), 37–70.

[9] On the representation of forced enforcement as an abstract procedure based on typified documentary prerequisites and susceptible to standardisation, see: Vaccarella, R. (2007). Esecuzione forzata. *Rivista dell'esecuzione forzata*, 14–40; Capponi, B. (2020). *Manuale dell'esecuzione civile*. Giappichelli, 167–422.

[10] On the bill of exchange as an enforceable title and on its innovative role within the theory of the enforceable title, see: Bonelli, G. (1913). L'esecuzione cambiaria. *Rivista di diritto commerciale*, Vol. I, 258–300; Marghieri, A. (1883). La cambiale come titolo esecutivo. *Diritto commerciale*, 86–120; Italian Supreme Court (Cassazione), 10 August 1963, no. 2276; Italian Supreme Court (Cassazione), 23 January 1968, no. 178; Italian Supreme Court (Cassazione), 18 September 1980, no. 5299. In legal scholarship: Redenti, E. (1926). *Diritto processuale civile* (Vol. III). Giuffrè, 317–340; Bianchi d'Espinosa, L. (1959). Cambiale (dir. proc.). *Enciclopedia del diritto.* Vol. V, 917–950; Angeloni, V. (1964). *La cambiale e il vaglia cambiario*. Giuffrè, 421–460; Oriani, R. (2006). La sospensione dell'esecuzione. *Esecuzione forzata*, 14–35; in Chiovenda's thought: Chiovenda, G. (1904). *L'azione nel sistema dei diritti.* Zanichelli, 44–60; Proto Pisani, A. (1993), *Titolo esecutivo, precetto, opposizioni*, cit., 27–35.

[11] On the *Relazione al Re* of 1940 and on the positioning of the enforcement judge as the organ responsible for directing the procedure, see: Satta, S. (1965). *Prefazione al Commentario al codice di procedura civile* (Vol. III). Casa editrice dr. Francesco Vallardi; Andrioli, V. (1964). *Appunti di diritto processuale civile. Processi di cognizione e di esecuzione forzata.* Jovene; Carratta, A. (Ed.). (2012). *Struttura e funzione nei procedimenti giurisdizionali sommari*. Jovene, pp. 27–45.

but must instead be understood as a choice that affects procedural guarantees and the *loci* of decision-making. It is within the practical experience of forced enforcement that this program reveals its intrinsic limits. Even within a procedure constructed as formally constrained, there emerge decision-making junctures in which the implementation of the enforceable title cannot be governed through a mere sequence of predetermined operations, but instead requires incidental evaluations, regulatory choices, and acts of procedural governance – all functional to the overall coherence of coercive action[12]. In such instances, the activity of the enforcement judge does not consist merely in carrying out a command already "closed" within the title, but requires a responsible governance of the procedure, oriented toward maintaining the integrity of the coercive process as a whole.

It is precisely this endo-procedural evaluative dimension—physiological, attributable, and subject to review—that renders enforcement proceedings a privileged laboratory for assessing the compatibility of judicial automation. If AI is oriented toward reproducing standard sequences and generalising cases, forced enforcement appears, in the abstract, to be the segment of civil proceedings most exposed to hypotheses of decision-making automation. Yet it is the very emergence, even within this domain, of internal spaces of evaluation that compels a critical assessment of the conditions under which such automation may operate without degenerating into an improper substitution of the judicial function.

3. THE ENFORCEMENT-ORIENTED PARADIGM AND THE PROMISE OF AUTOMATISM

The 1940 Italian Code of Civil Procedure expressly pursues the rationalisation of forced enforcement, pursuing both speed and legal certainty. The solution adopted is grounded in a guiding idea: to strengthen the functional separation between adjudication and enforcement, construing the latter as an autonomous enforcement phase, largely insulated from interferences with fact-finding, so as to remove enforcement proceedings from the forms of contentious litigation whenever there is, in a strict sense, no dispute to be decided. Within this framework—motivated by considerations of procedural

[12] Legal scholarship has long emphasised that the concursal dimension of enforcement inevitably entails a form of substantive evaluation by the judge, resulting in a structural overlap between enforcement and adjudicatory functions. In this sense, see: Menestrina, F. (1962). *L'accessione nell'esecuzione*. Legare Street Press, 204–230; Verde, G. (1968). *Intervento e prova del credito nell'espropriazione forzat*a. Giuffrè, 42–70; Mandrioli, C. (1995) *L'azione esecutiva*, cit., 546–580; Costa, S. (1953). *L'intervento in causa*. UTET, 336–360; Montesano, L. (1968). La cognizione sul concorso dei creditori nell'esecuzione ordinaria. *Rivista trimestrale di diritto processuale civile*, (1), 576–620; Andrioli, V. (1937). Il concorso dei creditori nell'esecuzione singolare. *Foro Italiano*, (1) 11–40. Contra: Segni, A. (1938). La sentenza dichiarativa di fallimento. *Rivista di diritto commerciale*, I, 235–260. For a unitary approach, see: Garbagnati, E. (1938). *Il concorso dei creditori.* Giuffrè, 323–360; Carnelutti, F. (1931). *Lezioni di diritto processuale civile. Il processo di esecuzione* (Vol. I). CEDAM, 297–330; Mortara, L. (1923). *Commentario del codice e delle leggi di procedura civile* (Vol. V). Casa editrice dr. Francesco Vallardi, 248–280.

economy—the representation of enforcement as a "serial" and standardisable segment of civil justice also takes shape, a representation that is frequently invoked today as the theoretical premise of projects which, precisely for this reason, must confront the presence of internal evaluative junctures within the procedure[13].

From this perspective, the enforceable title is valued not merely as evidence of the claim, but as the typical and legitimising prerequisite of coercive action: the fact that a claim can be subsumed under a documentary scheme prescribed by law is deemed sufficient to justify enforcement, irrespective of any current verification of the underlying substantive relationship. Enforcement action is thus constructed as formally autonomous from adjudication, while issues concerning the right itself are diverted to external remedies, according to the logic of the so-called "dual-track" system, which channels cognition into oppositions and typified incidental proceedings[14].

This framework, however, does not result in the complete expulsion of the evaluative dimension from enforcement. Even within the structure of the Code, the figure of the enforcement judge emerges as one who is not merely tasked with supervising the formal regularity of acts, but is also entrusted with directing and governing the procedure; and this centrality—although justified in organisational terms—inevitably introduces spaces of choice and responsibility that mitigate the rigidity of a purely enforcement-oriented paradigm[15].

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[13] On the rationale underlying Book III of the 1940 Code of Civil Procedure and the decision to construe enforcement as an enforcement-oriented segment distinct from contentious adjudication, see the Report to His Majesty the King Emperor by the Minister of Justice (Grandi), presented at the hearing of 28 October 1940–XVIII, especially § 31, where enforcement is described as an activity in which "the task is not to decide, but to operate in conformity with a title that is already, in itself, enforceable", with the express aim of freeing the procedure from the "superstructures" of contentious litigation. On the systemic significance of this approach and on the subsequent normative and interpretative stratification of the Code over more than eighty years since its entry into force, see: Chizzini, A. (2023). Il codice italiano di procedura civile negli ottant'anni dalla sua entrata in vigore. *Judicium*, 1, 1 ff.

[14] On the reconstruction of the enforceable title as the typical and legitimising prerequisite of coercive action and on the principle *nulla executio sine titulo*, in case law see: Italian Supreme Court (Cassazione), 12 June 1968, no. 1883; Cass., 21 June 1974, no. 1854; Italian Supreme Court (Cassazione), Joint Chambers, 7 January 2014, no. 61. On the dogmatic level, for the systematisation of the enforceable title as the organising core of Book III and for the construction of the relationship between the autonomy of enforcement action and oppositional remedies according to the logic of the "dual-track" system, see: Verde, G. (1999). Attualità del principio "nulla executio sine titulo". *Rivista di diritto processuale*, 962–980; Micheli, G.A. (1971). *L'esecuzione forzata. Appunti delle lezioni di diritto processuale.* Giunti; Satta, S. (1971). *Commentario al codice di procedura civile* (Vol. IV). Libris, 69–85; Mazzarella, F. (1965). *Contributo allo studio del titolo esecutivo.* Giuffrè; Vaccarella, R. (2007). Esecuzione forzata. *Rivista dell'esecuzione forzata*, 1, 97–120.

[15] On the centrality of the enforcement judge in the 1940 legislative design and on the function of directing and governing enforcement proceedings, see again the Grandi Report, particularly the passages concerning Arts. 484–487 of the Code of Civil Procedure, with specific reference to the link between procedural direction, simplification of procedural forms (petition and order), and the provision for hearing the interested parties under Art. 485. In case law, on the distinction between acts advancing enforcement and merely organisational acts, with consequences for the system of remedies, see: Italian Supreme Court (Cassazione), 24 July 1971, no. 2459; Italian Supreme Court (Cassazione), 19 August 1971, no. 2566. In legal scholarship, for the qualification of the organisational function of the enforcement judge and the need to avoid improper assimilations to the examining judge, see: Satta, S.

The tension between the enforcement paradigm and the need for evaluation becomes particularly evident in the distribution phase, but it is not confined to it. The implementation of the *par condicio creditorum* cannot be entrusted to an impersonal sequence of mechanical operations: admission to the distribution, ranking of claims, and management of priorities entail verifications and comparisons which, while not amounting to full adjudication, nonetheless exceed the logic of the mere material execution of the title. Even within a formally enforcement-based structure, the judge is required to resolve interferences among competing claims and to preserve the overall balance of the coercive process[16].

Similar considerations apply to enforcement in specific form, where the immediate relationship with the concrete content of the obligation requires the modalities of coercion to be adapted to the result owed: conformity with the enforceable title does not exhaust the question of how enforcement is to be carried out, which necessarily involves contextual assessments that cannot be entirely predetermined *ex ante*[17].

Finally, the very architecture of oppositions—designed to externalise adjudication—ultimately reveals a physiological area of internal enforcement control. The need to prevent coercive action from being driven by merely asserted claims has imposed, at both the doctrinal and practical levels, forms of scrutiny concerning the admissibility and seriousness of the grounds invoked, giving rise to a type of cognition that is functional not to the definitive determination of the right, but to the procedural sustainability of enforcement itself[18].

(1965), *Prefazione al Commentario al codice di procedura civile,* cit.; Micheli, G. A. (1971), *L'esecuzione forzata*, cit.

[16] On the principle of *par condicio creditorum* and its projection onto the distribution phase, with the resulting necessity of comparative assessments (admission, ranking, priorities), see: Satta, S. (1971), *Commentario al codice di procedura civile*, 165–185; Andolina, I. (1979). *"Cognizione" ed "esecuzione forzata" nel sistema della tutela giurisdizionale*. Giappichelli, 71–95; Colesanti, V. (1984). Mito e realtà della par condicio. *Il fallimento*, (1) 7, 32–55; Jaeger, P.G. (1984). Par condicio creditorum. *Giurisprudenza commerciale*, I, 88–115; Tarzia, G. (1984). Parità e discriminazioni tra i creditori. *Il fallimento*, 1, 153–180. For a comparative perspective on distribution and allocation models in European enforcement proceedings, see: Tarzia, G. (1999). La distribution des deniers dans l'exécution forcée en Europe. *Revue internationale de droit comparé*, 51 (2), 331–360; Migliaccio, E. (2012). *Parità di trattamento e concorso dei creditori*. Edizioni Scientifiche Italiane, 43–70.

[17] On enforcement in specific form and on the need to adapt both the modalities and the content of coercion to the result owed, with a corresponding limit on the *ex ante* predetermination of enforcement operations, see: Castoro, P. & Castoro, N. (2023). *Il processo di esecuzione nel suo aspetto pratico.* Giuffrè. On the substantive-law level, as an indicator of the complexity of the relationship between adjudication and enforcement, see the regulatory framework of Arts. 2930, 2931, 2933 and 2932 of the Italian Civil Code.

[18] On the traditionally debated position according to which a creditor lacking an enforceable title could confine itself to the mere allegation of the claim, with consequent implications for the distribution of proceeds and for the scope of controls exercisable within enforcement proceedings, see: La China, S. (1960). *L'esecuzione forzata e le disposizioni generali del c.p.c.* Giuffrè, 452–480; Carnelutti, F. (1956). *Istituzioni di diritto processuale civile* (Vol. V). Società Editrice del Foro Italiano, 85–110; Minoli, E. (1950). *Contributo alla teoria del giudizio divisorio*. Giuffrè, 143–170. For a systematic reconstruction of the issue in post-war commentaries and manuals, see: Andrioli, V. (1957). *Commento al*

The result is a model which, while coherent in its enforcement-oriented inspiration, displays an internal fragility: the more enforcement is represented as the automatic unfolding of the enforceable title, the more situations arise in which evaluation, balancing, and procedural regulation become unavoidable. It is precisely within this friction—further accentuated in subsequent decades by reform measures aimed at reducing duration and backlogs, including through the progressive internalisation of cognitive incidents—that the problem of the limits of automation in enforcement proceedings, and more broadly the relationship between efficiency and the guarantees of adjudication, comes into focus[19].

4. THE EMERGENCE OF ENDO-ENFORCEMENT COGNITION AND THE INTERNAL LIMITS OF AUTOMATISM

Starting from a framework historically grounded in the separation between adjudication and enforcement, the evolution of enforcement proceedings has progressively called into question the image of the enforcement judge as confined to a merely executory function. While the classical model—built around the formal autonomy of the enforceable title and the externalisation of disputes concerning the underlying substantive relationship—tended to portray enforcement as a constrained and tendentially "automatic" phase, in the sense of being structurally predetermined, practical experience and doctrinal elaboration have revealed the difficulty of sustaining that promise in a context characterised by a plurality of interests, increasing technical complexity of coercion, and the strengthening of procedural guarantees, and above all by the need to preserve, within the enforcement phase itself, a core of adversarial participation and reviewability of the decisions governing coercive action[20].

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codice di procedura civile (Vol. III). Jovene, 1–35; Micheli, G.A. (1959). *Corso di diritto processuale civile* (Vol. I). Giuffrè, 300–340; D'Onofrio, P. (1957). *Commento al codice di procedura civile* (Vol. IV). CEDAM, 110–145; Satta, S. (1971), *Commentario al codice di procedura civile*, cit., 215–240. With specific regard to the effects on the distribution phase and to the need for controls functional to the stability of the creditors' concurrence, see: Redenti, E. (1957). *Diritto processuale civile* (Vol. I). Giuffrè, 70–90 and 198–215; Tomei, G. (1979). I difficili nodi dell'atto di precetto. *Studi in onore di Liebman* (Vol. III), 2397–2425. For a systematic connection with concursus logic and with models of verification of claims, see: Lanfranchi, L. (1979). *La verificazione del passivo nel fallimento*. Giuffrè, 227–260.

[19] On the relationship between efficiency-driven impulses, the duration of enforcement proceedings, and the progressive tendency to "bring back inside" enforcement proceedings verification points and cognitive moments functional to reducing duration and systemic workload, see: Chizzini, A. (2023), as a comprehensive framework for reconstructing the reform trajectory and normative stratification. From a systemic perspective, the references to the Grandi Report allow the 1940 model to be assumed as the original paradigm of neutralisation of cognition, against which subsequent reforms may be read—according to the analytical perspective adopted in this contribution—as interventions affecting the line of demarcation between "enforcement" and "cognition", with the progressive internalisation of evaluative moments within the enforcement phase (see § 3).

[20] On the "classical" construction of enforcement action as autonomous from the adjudication of the underlying substantive right and on the formal sufficiency of the enforceable title, it has been stated that "enforcement protection is severed from any link with its purpose" and that "the enforceable title

This transformation did not occur through an explicit abrogation of the principle of separation, but rather through its internal adaptation. The rigidity of the enforcement paradigm proved incapable of governing the complexity of contemporary enforcement, thereby requiring the emergence of forms of intra-procedural control which, without amounting to full adjudication, nonetheless assume a substantive content in terms of legality and proportionality of coercive action. In this context, the enforcement judge has inevitably been called upon to perform a function that goes beyond the extrinsic verification of the enforceable title and the sequential management of procedural acts, assuming tasks of functional regulation aimed at ensuring the overall coherence of the proceedings and their conformity with the legal limits governing coercion[21].

This expansion of the cognitive powers of the enforcement judge becomes particularly evident at those junctures where procedural automatism risks undermining the equilibrium of the proceedings: from the verification of the admissibility of interventions and, more broadly, of participation in the creditors' concourse, to the management of interferences among creditors, and up to the measures through which the proceedings are governed (conversion, reduction of attachment, modulation of enforcement modalities). In these decision-making passages, the intervention of the judge does not merely consist in "giving effect" to a command already closed within the title, but entails incidental assessments of the legality, utility, and proportionality of coercion in relation to its remedial purpose, resulting in decisions that are imputable and subject to review precisely because they concretely affect the positions involved[22]. It is precisely these decisions governing the proceedings—rather than the mere repetitiveness of individual operations—that constitute the

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[…] is in itself sufficient to allow the creditor to obtain enforcement in his favour: nothing further must be alleged or proved"; see Liebman, E.T. (1931), *Le opposizioni di merito nel processo d'esecuzione*, cit., 159–169. For the systematic framework of the separation between enforcement action and disputes concerning the obligatory relationship (devolved to opposition proceedings), see Mandrioli, C. (1955).). *L'azione esecutiva*, cit. On the enforceable title as the organising core of coercive action, see Carnelutti, F. (1931), *Lezioni di diritto processuale civile*, cit., 313–330. On the theoretical background provided by the notion of action within the system of rights, which underlies this separative construction, see Chiovenda, G. (1930), L'azione nel sistema dei diritti, cit., 37–55. On the codified programme aimed at neutralising cognition within enforcement proceedings, see the Report to His Majesty the King Emperor by the Minister of Justice (Grandi), 28 October 1940–XVIII, especially no. 31.

[21] On the dogmatic and systematic emergence of powers of direction and control vested in the enforcement judge, and on the ensuing crisis of the purely executory paradigm, see Andolina, I. (1979), p. 71–95. On the continuing centrality of the enforceable title, together with the role of the judge in ensuring the overall coherence of coercive action, see Verde, G. (1999), Attualità del principio "nulla executio sine titulo", cit., 962–985. On the organisational and regulatory function of the enforcement judge within Book III of the Code—and on the irreducibility of enforcement proceedings to a mere sequence of acts—see Satta, S. (1965), *Prefazione al Commentario al codice di procedura civile*, cit., 165–190.

[22] On the distribution phase as a "cognitive" juncture internal to enforcement proceedings (admission to the concourse, ranking, priorities, and distributive disputes), and on the non-mechanical character of the *par condicio creditorum*, see Satta, S. (1963), *L'esecuzione forzata*, cit.; Bonsignori, E. (1962). *Assegnazione forzata e distribuzione del ricavato*. Giuffrè; Tarzia, G. (1984), Parità e discriminazioni tra i creditori, cit., 153–180; Jaeger, P. G. (1984), Par condicio creditorum, cit., 88–115; Colesanti, V. (1984), Mito e realtà della par condicio, cit., 32–55. For a comparative framing of distribution

true testing ground for the structural limits of any hypothesis of substitutive automation in the enforcement phase.

Along this trajectory lie the reform measures introduced since 2005–2006, which sought to institutionalise adversarial participation also within enforcement proceedings and to anticipate, in forms compatible with the remedial function, verifications of the seriousness of creditors' claims at selective stages of the procedure (in particular those connected with participation in distribution and with the orderly management of the concourse)[23]. The subsequent wave of reforms—including those of 2014 and Decree-Law no. 83/2015—continued along this path, intensifying the drive towards rationalisation and expedition while at the same time strengthening instruments and powers functional to the governance of the proceedings. This confirms that the efficiency of enforcement does not coincide with the neutralisation of jurisdiction, but rather with its capacity to supervise and regulate the critical points of coercive action.

The most recent reforms, culminating in Legislative Decree no. 149 of 10 October 2022 and its subsequent amendments, have further accentuated this tendency, rendering structural a dimension of evaluation that initially appeared exceptional. Particularly emblematic in this regard is the expansion of the scope of application of Art. 614-bis of the Code of Civil Procedure and, more generally, the enhanced recognition of spaces for judicial intervention also with respect to the effectiveness of the command and the adaptation of the remedy. These developments confirm that the enforcement phase is increasingly less reducible to a merely executory pathway in a technical sense and increasingly exposed to decisions regulating the concrete case[24].

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models, useful from an Italian–European perspective, see Migliaccio, E. (2012), *Parità di trattamento e concorso dei creditori*, cit., 43–70.

[23] On the reforms of 2005–2006 (Law no. 80 of 14 May 2005; Law no. 263 of 28 December 2005; Law no. 52 of 24 February 2006) and on the strengthening of adversarial participation and judicial control within enforcement proceedings—particularly with reference to selective mechanisms connected with intervention and verification of claims (Art. 499, para. 6, of the Code of Civil Procedure, and distributive disputes under Art. 512)—see Capponi, B. (2006), L'intervento dei creditori dopo le tre riforme della XIV Legislatura, cit. L'intervento dei creditori dopo le tre riforme della XIV Legislatura. *Rivista dell'esecuzione forzata*, 22–45; Storto, A. (2007). La riforma del processo espropriativo e l'accertamento anticipato dei crediti. *Rivista dell'esecuzione forzata,* 1, 221–250; Carola, C. (2008). La contestazione dei crediti ex art. 499 c.p.c. *Rivista dell'esecuzione forzata*, 470–500; Oriani, R. (2010). L'intervento dei creditori nell'esecuzione forzata. *Studi in onore di Modestino Acone*, vol. II, 1403–1435. In case law, on the enforceable title as the foundation of enforcement action and on the judicial control of its "fitness" (not merely apparent validity), see Italian Supreme Court (Cassazione), 12 June 1968, no. 1883; Italian Supreme Court (Cassazione), 21 June 1974, no. 1854.

[24] On Art. 614-bis of the Code of Civil Procedure as an instrument of effectiveness and on the progressive expansion of its scope of application up to the Cartabia reform (Legislative Decree no. 149 of 10 October 2022) and subsequent amendments, see Proto Pisani, A. (2010). Appunti sulla tutela di condanna. *Foro italiano*, 1, 257–280; Sassani, B. (2009). A.D. 2009: ennesima riforma. *Judicium*, 1, 1 ff.; Tiscini, R. (2014). Efficacia e stabilità dei provvedimenti decisori. *Liber amicorum Romano Vaccarella*, 231–260. For an updated reconstruction of the reformed system and of the powers of the judge, see Carratta, A. (2023). Le riforme del processo civile. Giappichelli. For a practical–systematic perspective on the "governance" of enforcement also in relation to indirect coercive measures, see Castoro, P. & Castoro, N. (2023). *Il processo di esecuzione nel suo aspetto pratico.* Giuffrè; Corea U. (2023). *Condanna*

The result is a figure of the enforcement judge that is ever less reconcilable with the paradigm of the technical executor and ever more closely aligned with that of a guarantor of legality and of the effectiveness of judicial protection. From this perspective, endo-enforcement cognition does not represent a pathological deviation from the codified model, but rather a systemic response to the complexity of contemporary enforcement. The emergence of evaluative spaces internal to the proceedings marks the overcoming of the idea of a process entirely governed by enforcement automatism and constitutes, precisely for that reason, the point of entry for a critical interrogation of the promise of decision-making automation[25]. Artificial intelligence may assist the judge in informational and organisational management; however, where the procedure requires choice, reasoning, and responsibility, output cannot become decision. When enforcement action confronts decision-making passages that demand reasoning, adversarial participation, and review, what is at stake is not merely the "technique" of enforcement, but the structural compatibility between efficiency and imputability of the decision—namely, the terrain on which the contemporary discourse on AI in enforcement proceedings is situated.

Within this framework, the emergence of evaluative powers internal to enforcement does not remain confined to isolated moments of the procedure, but assumes decisive relevance when enforcement fails to reach its remedial outcome. It is in such situations that enforcement comes to a halt as a result of a governing choice by the judge, and that the endo-enforcement decision reveals, with particular clarity, its function of control and regulation of coercion. It is precisely here that the internal limit of any representation of enforcement as an entirely predetermined sequence becomes apparent, together with the fragility of the automatistic paradigm.

5. EARLY TERMINATION OF ENFORCEMENT AS AN EMBLEMATIC CASE

Cases of early termination of enforcement proceedings make visible, in paradigmatic form, the role of enforcement as a test case: precisely where the procedure appears most exposed to standardisation, decisions emerge that cannot be reduced to an automatic output without affecting the responsibility and controllability of judicial power.

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civile e misure coercitive. Pacini Giuridica; Guarnieri, M.L. (2025). *Misure coercitive e poteri del giudice*. Pacini Giuridica.

[25] On the "structural" nature of endo-enforcement cognition—as functional, incidental, imputable, and subject to review—and on the consequent impossibility of reducing enforcement proceedings to a purely automatic sequence of acts, see Andolina, I. (1979), *"Cognizione" ed "esecuzione forzata" nel sistema della tutela giurisdizionale*, cit., 71–95; Satta, S. (1965), *Prefazione al Commentario al codice di procedura civile*, cit., 165–190; Verde, G. (1999), p. 962–985. From a more specific perspective, on the notion of endo-enforcement cognition as a functional evaluative activity distinct from full adjudication, yet capable of affecting the trajectory of coercive action, see Cavuoto, V.E. (2017), *La cognizione incidentale sui crediti nell'espropriazione forzata*, cit., 322–350.

The analysis of the progressive expansion of the cognitive powers of the enforcement judge[26] finds a particularly significant vantage point in cases of non-remedial termination of enforcement proceedings[27]. In such situations, enforcement comes to an end prior to the distribution or assignment of the proceeds, not as a result of a ruling on the substantive right, but following a decision that directly affects the continuation of the procedure. It is within this space—distinct both from full adjudication and from the merely "chain-like" implementation of the enforceable title—that the function of procedural governance assumes a particularly evident profile: the judge is required to assess whether coercive action remains feasible, useful, and legally sustainable, and to translate that assessment into a decision that is imputable and subject to review.

Doctrine and case law have at times subsumed these situations under the—intrinsically ambiguous—category of "atypical extinction"[28]. Such a label, however, is misleading, as it flattens heterogeneous phenomena under a nominalistic heading and risks extending, without adequate normative basis, a regime of typified effects to situations that are not typified. Articles 629–632 of the Code of Civil Procedure, in fact, delineate an institution of extinction of enforcement proceedings characterised by exhaustive prerequisites, a defined procedural framework, and systemically significant consequences, including in particular the issue of the effects on limitation periods in connection with Art. 2945(3) of the Civil Code[29]. It follows that an expansive use of "extinctive" terminology to designate every form of early termination of enforcement may generate consequences not justified by the positive law, shifting to the interpretative level choices that the legislature has instead anchored to determined factual hypotheses. Proceeding from these premises, the Supreme Court has

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[26] For a comprehensive analysis of the cognitive powers of the enforcement judge, see Limongi, B. (2025). *Contributo allo studio dei poteri "cognitivi" del giudice dell'esecuzione.* Edizioni Scientifiche Italiane.

[27] On the non-pathological character of non-remedial forms of termination of enforcement proceedings and, more generally, on the presence of internal "governance" junctures requiring evaluation within enforcement proceedings, see Menestrina, G. (1962), *L'accessione nell'esecuzione*, cit., 204–230; Verde, G. (1968), *Intervento e prova del credito nell'espropriazione forzat*a, cit., 42–65; from a reconstructive perspective already oriented towards the direction of coercive action, see Carnelutti, F. (1931), p. 297–320.

[28] On the genesis and ambiguity of the category of "atypical extinction" (and on the need to distinguish it from typical extinction under Arts. 629 ff. of the Code of Civil Procedure), see Bellè F. (2007). Estinzione tipica e chiusura atipica del procedimento esecutivo. *Rivista dell'esecuzione forzata*, p. 433–470; Giorgetti M. (2005). L'estinzione atipica del processo esecutivo e i suoi rimedi. *Rivista dell'esecuzione forzata*, p. 680–715; Damiani F. (2017). Estinzione atipica e chiusura anticipata del processo esecutivo. *Giusto processo civile*, 425–455; with specific reference to the effects on available remedies, see Limongi B. (2021). Effetti dell'ordinanza di chiusura anticipata del processo esecutivo (c.d. estinzione atipica) e i rimedi esperibili da parte del debitore. *Rassegna dell'esecuzione forzata*, 207–240.

[29] On the typical regime governing extinction of enforcement proceedings under Arts. 629–632 of the Code of Civil Procedure, on the related procedure, and on the principal effects (including those concerning substantive law), see Andrioli V. (1957), p. 390–430; Iannicelli L. (2004). *Note sull'estinzione del processo esecutivo*. Luigi Iannicelli, 149–190; for a systematic commentary on the provisions, see Arieta G., De Santis F., & Didone A. (Eds.). (2016). *Codice commentato delle esecuzioni civili.* UTET, 1723–1765.

progressively clarified that forms of termination of enforcement proceedings not expressly provided for as extinction must be referred to a different category, variously described as procedural non-viability or early closure of the procedure[30]. In such cases, the decision of the enforcement judge does not amount to a declaration of extinction in the strict sense, but rather constitutes an act of procedural governance acknowledging the legal or functional impossibility of bringing coercive action to its physiological outcome[31]. This qualification is not merely terminological: it directly affects the remedies available and the degree of reviewability of the decision, leading, as a general rule, to the inclusion of such measures within the scope of opposition to enforcement acts under Art. 617 of the Code of Civil Procedure, rather than the complaint provided for under Art. 630(3) for typical extinction[32].

The relevance of this distinction is not merely nominal. Classifying a case as extinction or as procedural non-viability directly affects the regime of both substantive and procedural effects of termination, starting with whether or not the permanent interruptive effect on limitation periods is preserved. The analogical extension of Art. 2945(3) of the Civil Code to non-typified cases of early termination raises, from this perspective, problems of systemic coherence: it risks entrusting to the interpreter—and at times to the enforcement judge—a determination concerning the "attributability" of termination

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[30] Cass., 1 April 2004, no. 6391, which affirmed the principle of exhaustiveness of the causes of extinction of enforcement proceedings, referring non-typified cases to the category of non-viability of the procedure. On the exhaustiveness of causes of extinction of enforcement proceedings and, correlatively, on the need to classify non-typified cases under different categories (non-viability/early termination), see Olivieri G. (2020). Note sulla chiusura atipica del processo esecutivo. *Rivista dell'esecuzione forzata*, 80–110; Petrella L. (2004). L'estinzione atipica del processo di esecuzione: un istituto di creazione giurisprudenziale e la sua evoluzione alla luce dei moderni principi. *Giurisprudenza di merito*. (I), pp. 1373–1405; on "anomalous closures" and more recent statutory classifications, see Moretti (2015). Le nuove ipotesi di chiusura anomala del processo esecutivo introdotte dal d.l. 132/2014. *Giusto processo civile,* 589–620; Montanaro M. (2018). L'estinzione della procedura esecutiva ai sensi dell'art. 631-bis c.p.c. *Rivista di diritto processuale*, 698–730.

[31] On the qualification of "non-typical closures" as cases of non-viability or early termination (rather than extinction in the strict sense), and on the systemic consequences of such classification, see Micali D. (2017). "Inammissibilità" e "infruttuosità" dell'espropriazione forzata. *Rivista di diritto processuale*, 1052–1085; Vincre S. (2018). L'"improcedibilità" dell'espropriazione e l'opposizione all'esecuzione. *Rivista di diritto processuale*, 1651–1685; Felloni G. (2017). Interferenze tra improcedibilità dell'esecuzione e sospensione ex art. 624 c.p.c. *Giurisprudenza italiana,* 2385–2415; with reference to positive law and judicial practice, see Lodolini P.R. (2016). La chiusura anticipata della procedura per infruttuosità e l'estinzione per mancato espletamento della pubblicità sul portale delle vendite pubbliche. *Rivista dell'esecuzione forzata*, 232–260.

[32] To the same effect, among many others, see Cass., 17 March 2005, no. 5789; Cass., 12 September 2014, no. 19283; Cass., 18 December 2023, no. 35365, which confirm the availability of opposition to enforcement acts against early termination measures not referable to Arts. 629–631 of the Code of Civil Procedure. On the allocation of remedies between opposition to enforcement acts (Art. 617 c.p.c.) and the complaint under Art. 630(3) c.p.c., as well as on the implications in terms of reviewability of the concluding decision, see Oriani R. (1987). *L'opposizione agli atti esecutivi*. Jovene; Boccagna S. (1998). Estinzione del processo esecutivo e opposizione ex art. 617 c.p.c. *Foro italiano*, I, 1240–1270; Bonafine A. (2022). Il reclamo ex art. 630, comma 3°, c.p.c.: natura e modalità di deposito. *Rivista di diritto processuale,* 1380–1415; Cirulli M. (2022). Natura cognitiva del reclamo ex art. 630 c.p.c.: inquadramento sistematico e conseguenze applicative. *Rivista dell'esecuzione forzata*, 736–770; Balena G., Caponi B., Chizzini A., & Menchini S. (Eds.). (2009). *La riforma della giustizia civile*. UTET, pp. 189–215.

to the creditor's conduct that, within the legislative architecture, is instead governed through predetermined prerequisites[33]. The point is not to deny that a "fault-based" termination may have consequences; rather, it is to avoid attaching typical substantive effects to elastic categories, with heterogeneous and potentially unpredictable outcomes[34].

From a different but complementary perspective, cases of early termination show with particular clarity how the enforcement judge is required to perform assessments that, while not amounting to adjudication of the substantive right, decisively affect the fate of the proceedings. A declaration of procedural non-viability may, in fact, be based on controls relating to the object of enforcement (for example, where supervening circumstances affect attachability or the interest in continuing proceedings), the continued effectiveness of the attachment, the feasibility of enforcement modalities, or even the utility of continuing the procedure in light of costs and the reasonably attainable outcome. These are assessments that presuppose an appraisal of the concrete case and cannot be reduced to a rigidly predetermined sequence of acts, because what the judge ultimately decides is whether coercive action can still be governed within a framework of legality, proportionality, and effectiveness[35].

For this very reason, early termination of enforcement should not be understood as a marginal anomaly, but rather as one of the revealing manifestations of endo-enforcement cognition permeating contemporary enforcement proceedings. It makes visible a structural feature already present at other critical junctures of the procedure: the impossibility of reducing enforcement to a purely automatic mechanism entirely governed by the enforceable title and formal rules of sequence. In such cases, the judge does not merely ascertain the existence of a normative prerequisite, but exercises a functional, imputable, and reviewable decision-making power aimed at preserving the coherence of the proceedings and preventing coercion from degenerating into a mere act of force devoid of measure and control[36].

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[33] Critically, on the risk of an improper extension of Art. 2945(3) of the Civil Code to cases of non-viability, see Olivieri G. (2020), p. 87–100.

[34] On the critical issues raised by extending Art. 2945(3) of the Civil Code to non-typified cases of early termination (and on the issue of the "attributability" of termination to the creditor's conduct), see Olivieri G. (2020), p. 87–110; Attanasio C. (2024). Un altro assurdo corollario della teoria della "obiettivazione" del pignoramento. *Rassegna dell'esecuzione forzata,* 927–960; Tosches G. (2020). La mancata rinnovazione della trascrizione del pignoramento come causa di estinzione atipica ed insanabile del processo esecutivo immobiliare. *Rassegna dell'esecuzione forzata*, 195–225.

[35] On judicial controls concerning the object of enforcement, supervening circumstances affecting attachability or interest in continuation, as well as cases of ineffectiveness of attachment and related forms of "closure", see Balena G. (2016). Termine di efficacia del pignoramento ed espropriazione presso terzi. *Giusto processo civile*, 1–25; Fabiani E. (2010). L'inefficacia della trascrizione del pignoramento. *www.judicium.it*; De Carolis V. (2021). Disorientamenti giurisprudenziali in tema di deposito della nota di trascrizione e sanzione di inefficacia del pignoramento immobiliare. *Rassegna dell'esecuzione forzata*, 143–175; Ruffini G. (2020). La "chiusura anticipata" dell'espropriazione immobiliare per assenza di documentazione. *Rivista di diritto processuale*, 1301–1335; Arieta G., De Santis F. & Didone A. (2016), p. 1216–1255.

[36] On the governance function of enforcement proceedings and on the imputable and reviewable nature of endo-enforcement measures, see De Stefano F. (2020). Il giudice dell'esecuzione e la gov-

From this perspective, early termination of enforcement does not represent the sole *locus* in which the decision-making dimension of the enforcement phase manifests itself, nor does it purport to exhaust the forms of endo-enforcement cognition. It does, however, constitute a paradigmatic example capable of rendering visible, in concentrated form, the point at which enforcement requires an imputable and controllable choice. Against this background, the analysis of automation and AI applied to enforcement proceedings acquires its full meaning: technological assistance may have a role in the management of repetitive activities and in organisational rationalisation, but it cannot replace—without constitutional and procedural friction—those decisions of procedural governance that require reasoning, adversarial participation, responsibility, and review. Early termination thus reveals, in concentrated form, the internal limit of substitutive automation: where the procedure demands a legally imputable choice, output cannot be delegated to a "mechanism" without calling into question the very structure of guarantees governing the enforcement phase[37].

6. THE "ROBOT JUDGE" AS A CRITICAL CATEGORY

In light of the reconstructed evolution, the figure of the enforcement judge can no longer be described as a mere technical executor of a command already "closed" within the enforceable title. Endo-enforcement cognition—although functional in nature and not equivalent to full adjudication—now operates as a safeguard of legality and proportionality in coercive action. It manifests itself at those junctures where the procedure must be governed, the balance among competing interests preserved, and the concrete consequences of enforcement kept within legally acceptable limits. A first firm conclusion follows: enforcement proceedings, precisely in the segment that appears most serial and standardised, contain decisions that are contextual, relational, and imputable, and which therefore require reasoning and judicial control.

On this basis, the hypothesis of the "robot judge" must be addressed not as a futuristic provocation, but as a critical category for assessing the resilience of procedural concepts in the face of algorithmic efficiency-driven pressures. If automation aims at reproducing standard sequences, the core issue is not

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ernance del processo. *Rivista dell'esecuzione forzata*, 1–30; Fornaciari M. (2009). *Esecuzione forzata e attività valutativa*. Giappichelli, 201–245; Tiscini R. (2009). *I provvedimenti decisori senza accertamento*. Giappichelli; from a historical perspective, see Mortara L. (1923), p. 248–280; as well as Carnelutti F. (1931), *Lezioni di diritto processuale civile*, cit., 297–320.

[37] For a framing of "merits-based" controls and of enforcement judge's measures as a sensitive terrain for issues of responsibility and review, see Tota, G. (2018). I controlli sulle decisioni "di merito" del giudice dell'esecuzione. *Rivista di diritto processuale,* 1506–1540; Capponi, B., Sassani, B., Storto, A. & Tiscini, R. (2014). Il processo esecutivo. *Liber amicorum Romano Vaccarella.* UTET, 945–980; from a general perspective on the "status" of enforcement jurisdiction and its tensions with reductive models, see Tedoldi, A.M. (2023). *Esecuzione forzata?* Pacini Giuridica.

the delegation of data processing or the management of repetitive activities, but rather the possibility of transferring to decision-making systems—structurally non-transparent or only partially intelligible in their functioning—decisions that affect subjective positions, presuppose adversarial participation, and remain, by their very nature, responsibly attributable to the judge as a person. From this perspective, comparative analysis further clarifies the critical scope of the notion of the "robot judge." In certain extra-European models, and in particular in the experience of Chinese Smart Courts and Internet Courts[38], AI is deployed within a project of systemic digitalisation of justice, in which decision standardisation and the reduction of discretionary variables are explicitly pursued as objectives of judicial efficiency[39]. In such contexts, algorithms do not merely support judicial activity, but tend to orient *ex ante* the outcome of decisions, embedding them within predetermined schemes of predictability and uniformity. This approach, however, highlights by contrast the specificity of the European paradigm of jurisdiction[40]. In civil law systems, judicial discretion does not constitute an irrational residue to be compressed, but a physiological element of adjudication, inseparably connected with personal judicial responsibility, reasoning, and adversarial procedure. Precisely in enforcement proceedings—and particularly at points of endo-enforcement cognition—decision-making cannot be reduced to a function of calculation without losing its imputable and reviewable character. For this reason, the idea of the "robot judge" assumes not a descriptive, but a critical relevance: it marks the point beyond which automation would shift from a supporting tool to a substitution incompatible with the very structure of the judicial function.

Hence the need to examine concretely the two blind spots of decision-making automation: the opacity of algorithmic processes and the phenomenon of automation bias, together with their implications for reasoning, reviewability, and the responsibility of judicial decisions.

The judicial function is not a conceptually static category, but one that evolves over time in relation to the configuration of legal sources, organisational transformations of justice, and the technical tools that support its exercise. The current historical phase—marked by the pervasiveness of digital technologies[41] and the emergence of AI systems applied to law—thus requires

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[38] On the model of Smart Courts and Internet Courts and on the use of artificial intelligence as a tool for procedural standardisation, see Clementi, D. & Comberiati, C. (2023). Digital justice as a tool of socio-juridical control: the cases of the United States of America and the People's Republic of China. *La cittadinanza europea. Rivista di studi e documentazione sull'integrazione europea*, 1, § 3.

[39] Stern, R., Liebman, B.L., Roberts, M.E., & Wang, A.Z. (2021). Automating Fairness? Artificial Intelligence in the Chinese Courts. *Columbia Journal of Transnational Law*, 59, 1–55.

[40] Clementi, D. & Comberiati, C. (2023), Digital justice as a tool of socio-juridical control, cit., § 1; Xu, Z., Zhao, Y., & Deng, Z. The possibilities and limits of AI in Chinese judicial judgment. *AI & Society. On the relationship between algorithmic support and the structural limits of decision-making substitution* 37 (4), 1601-1611.

[41] For further analysis, see Comoglio, P. (2018). *Nuove tecnologie e disponibilità della prova. L'accertamento del fatto nella diffusione delle conoscenze.* Giappichelli.

a critical reassessment of the adequacy of traditional categories and of the structural limits of mechanising the decision-making process[42], especially in those segments where jurisdiction is called upon to govern the concrete case.

In contemporary debate[43], the hypothesis of employing AI in enforcement proceedings appears, at first glance, particularly plausible. Enforcement is often portrayed as the segment of the process most exposed to seriality, standardisation, and the repetition of formalised operations, thereby rendering it—at least in appearance—a privileged terrain for decision-making automation[44]. From this perspective, the figure of the "robot judge" might seem the natural continuation of an already structurally mechanical model.

Such a representation, however, does not withstand careful analysis of the current profile of enforcement proceedings. As the preceding sections have sought to demonstrate, the activity of the enforcement judge does not exhaust itself in a sequence of rigidly predetermined operations, but entails choices governing the procedure and balancing competing interests. These interventions are not aimed at full adjudication of the substantive right, but at safeguarding the correctness, proportionality, and legality of coercive action, and are located within a space of endo-procedural evaluation structurally connected to the concrete case. This decision-making space exhibits characteristics that render any reduction to automated terms problematic: it is contextual, because it depends on the concrete configuration of the proceedings; relational, because it develops through the confrontation of opposing subjective posi-

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[42] See, in a classical framework, Chiovenda, G. (1980). *Principi di diritto processuale civile. Le azioni. Il processo di cognizione.* Jovene, especially on the principles of orality, immediacy, and concentration as epistemological presuppositions of judicial decision-making. In a contemporary perspective, see Luciani, M. (2018). La decisione giudiziaria robotica. *Rivista AI*C, 3, 884–915, where the issue of algorithmic decision-making is framed not as a merely technical problem, but as one of jurisdictional culture, responsibility, and democratic control over the formation of judicial decisions.

[43] For a reconstruction of the first applications of predictive justice in contemporary judicial systems, see the analyses of the French and Dutch models, which integrated algorithmic tools to develop case-law predictions and to monitor decision quality. Also significant is the experience of the State of New Jersey, which replaced traditional bail hearings with a risk-assessment tool: release is no longer based on an individualised judicial assessment, but on a probabilistic estimate generated by an algorithm on the basis of objective and predetermined parameters. The system allows release without bail when the resulting risk index falls below a predefined threshold. Although designed to promote greater equity in access to personal liberty, this experiment has raised substantial concerns regarding transparency of the decision-making process and compliance with fundamental guarantees. See Castelli, C. & Piana, D. (2018). Giustizia predittiva. La qualità della giustizia in due tempi. *Questione giustizia*, 4, 154–175; Livini, E. (2017). Nei tribunali del New Jersey è un algoritmo a decidere chi esce su cauzione. *Internazionale.it*, 1 ff..

[44] For a position emphasising the organisational and managerial dimension of enforcement as an area particularly exposed to technological innovation and automation, see Nieva-Fenoll, J. (2021). El futuro humanista y telemático de la ejecución forzosa. *Esecuzione forzata*. In a broader perspective on the relationship between AI and procedural law, see Nieva-Fenoll, J. & Comoglio, P. (2019). *Intelligenza artificiale e processo*. Giappichelli, where a distinction is drawn between auxiliary activities and decision-making functions, and the structural limits of judicial automation are highlighted. See also Nieva-Fenoll, J. (2022). Inteligencia artificial y proceso judicial: perspectivas tras un alto tecnológico en el camino. *Revista General de Derecho Procesal*, 57, 1 ff. where enforcement of monetary judgments is treated as a paradigmatic case of automation, albeit without a central focus on endo-enforcement evaluative activity.

tions; and responsible, because it results in decisions that are imputable, reasoned, and subject to review. Within this framework, any use of algorithmic tools may at most perform an auxiliary function supporting judicial activity, without ever replacing the judge's decision-making role. Delegation of processing is compatible with the legal order; delegation of responsibility is not[45].

It is from this perspective that Calamandrei's warning acquires renewed significance, according to which the judge is not a "syllogistic machine," but a conscience called upon to synthesise norm and fact[46]. This warning is not rhetorical here: it identifies the legally decisive point of adjudication, namely its attributability and its justificability through argumentation. An algorithmic output may assist analysis, but it cannot assume public responsibility for the choice. In enforcement proceedings, such synthesis does not concern the merits of the claim, but the manner in which coercion is concretely exercised, modulated, and kept within the bounds of legality. It is precisely this dimension that prevents reducing the activity of the enforcement judge to a function fully amenable to automation.

The figure of the "robot judge," therefore, is not a futuristic provocation, but a critical lens through which to assess the compatibility between automation and the judicial function. It is on this ridge—between technological assistance and decision-making substitution—that the principal challenges of judicial automation are situated. These challenges are not primarily technical, but properly procedural, and concern the opacity of algorithmic processes, the risk of automation bias, and the attributability of decisions, which form the object of the analysis that follows.

7. ALGORITHMIC OPACITY, AUTOMATION BIAS, AND RESPONSIBILITY FOR THE DECISION

The introduction of artificial intelligence into the legal domain is neither a neutral nor a merely technical development. It directly affects the very modalities through which decisions are constructed, calling for a critical reflection on the epistemological premises and the structural limits of resorting to automated procedures within adjudication[47]. It would, moreover, be unreal-

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[45] On this point, see Luciani, M. (2018), La decisione robotica, cit., 887–889, where it is shown that attributing "decisive" legal effects to an algorithmic output raises issues of imputation, reviewability, and responsibility that are incompatible with the constitutional structure of judicial decision-making, which remains personal and subject to control.

[46] Calamandrei, P. (1954). *Processo e democrazia*. CEDAM, 58–63; Calamandrei, P. (1939). Il giudice e lo storico. *Rivista di diritto processuale*, 105, where judging is understood as an interpretative and evaluative activity that cannot be reduced to mere "automatic" subsumption, with a critique of the Enlightenment-derived image of the judge as the mere "mouth of the law".

[47] On the non-neutral nature of algorithmic innovation and on the transformation of algorithms into opaque "black boxes" that are difficult to scrutinize, see Pasquale, F. (2015), *The Black Box Society: The Secret Algorithms That Control Money and Information,* Harvard University Press, 19 ff.; in a theoretical–legal perspective, Rodotà, S. (2012). *Il diritto di avere diritti*, Laterza, 401 ff., on the risk of a new

istic to assume that legal experience could remain impermeable to technological transformations that have already profoundly reshaped social, economic, and institutional relations.

The primary risk lies not so much in the use of algorithms as decision-support tools, but in the gradual substitution of legal reasoning with computational procedures. Within this dynamic, the algorithm tends to present itself as an "objective" outcome of a chain of logically coherent operations, thereby concealing the classificatory, selective, and evaluative choices that constitute its underlying premises[48]. In convergent terms, algorithmic opacity translates into a problem that is not merely technical, but properly procedural: where the logic of the output cannot be reconstructed, the decision tends to escape adversarial scrutiny and judicial review, with a consequent weakening of procedural guarantees. This explains the need to preserve a human center of attribution and responsibility as a limit to forms of fully automated decision-making[49]. On the same premise rests the principle of non-exclusivity of algorithmic decision-making, according to which an automated output—where capable of affecting subjective legal positions—cannot constitute the sole basis of the decision, but must remain embedded within a decisional process effectively supervised by a human intervention that is responsible and reviewable[50]. The decision thus risks appearing as the product of technical necessity, rather than the outcome of a controllable argumentative path.

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form of *arcana imperii* of an algorithmic kind, in which transparency is imposed on citizens while the procedures underlying decision-making power remain inaccessible.

[48] For a critique of the reduction of adjudication to a computational sequence, and for the thesis that full automation is incompatible with the structural values of the judicial process (reason-giving, fact-finding, and prudent conviction), see Carratta, A. (2019). Decisione robotica e valori del processo, *Leggi d'Italia*, 2 ff.; more broadly, on the legal experience in the face of technological change, Punzi, A. (2018). Intelligenza delle macchine e libertà dell'uomo. *Protezione dati per un'etica del digitale,* 22 ff.; Breggia, L. (2019). Prevedibilità, predittività e umanità nella soluzione dei conflitti, *Rivista trimestrale di diritto processuale civi*le, 1, 403 ff.

[49] From this perspective, Italian administrative case law has qualified algorithmic decision-making as a technically relevant rule with legal significance, emphasizing that the opacity of automated procedures—even when justified by the protection of trade secrets or intellectual property—directly affects guarantees of knowledge, contestability, and judicial review. This has led to the requirement of ensuring a level of substantive transparency sufficient to allow control over the decisional logic, up to raising, in extreme cases, the issue of access to source code where a merely functional description proves insufficient. See Consiglio di Stato, Sez. VI, 8 April 2019, No. 2270; 13 December 2019, No. 8472; in legal scholarship, Pesce, G. (2020). Il giudice amministrativo e la decisione robotizzata. Quando l'algoritmo è opaco, *Judicium*, 1, 1 ff.

[50] In convergent terms, EU law has linked the use of automated decision-making procedures to the requirement of ensuring intelligibility and comprehensibility of the decisional process, as well as the identification of a human center of attribution of the decision. In particular, Art. 22(1) and (3) of Regulation (EU) 2016/679 (GDPR), while not imposing an absolute ban on automated decisions, conditions their admissibility on the provision of adequate safeguards, including human intervention, the possibility to express one's views and to contest the outcome, and the attribution of the decision to a responsible subject. These provisions do not reflect a rejection of technology as such, but rather safeguard the requirement that algorithms do not result in a withdrawal of decisions from the standards of attributability, reasoning, and reviewability inherent in the judicial function.

A further clarification helps to delineate the scope of this limit. In legal scholarship, *de iure condendo* discussions have explored the hypothetical attribution of legal subjectivity to AI through legal fiction, up to the well-known formula of the "electronic person." At present, however, the machine lacks self-awareness and the capacity to understand meaning, operating exclusively at the morphosyntactic level of signifiers[51]. Only by embracing radical theoretical hypotheses—such as the "algorithmic theory of mind" or the possibility of self-consciousness as a function of computational complexity—could one envisage a rethinking of traditional categories of attribution and responsibility.

Under the law as it stands, however, such hypotheses remain outside the normative horizon, thereby confirming the non-delegability of responsibility for judicial decisions. Algorithms operate through abstract and predetermined rules designed to function independently of concrete context and the specificities of individual cases. They generalise, decompose, and quantify, treating heterogeneous situations as equivalent and reducing the complexity of reality to measurable parameters. In doing so, algorithmic procedures lose contact with that dimension of "practical reasonableness" that enables the perception of what appears unreasonable, disproportionate, or misaligned with the concrete consequences of a decision[52].

This structural limitation acquires particular significance in judicial proceedings—including enforcement proceedings—where decision-making does not consist in the mechanical application of legal norms, but involves the selection of legally relevant facts, the management of adversarial participation, and the assessment of the impact of the measure on the positions involved. In such a context, reliance on algorithmic tools may generate an automation bias, inducing the human decision-maker to conform uncritically to the outcome suggested by the system, perceived as technically reliable and statistically grounded[53].

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[51] On the morphosyntactic and non-conscious nature of automated processing; on the hypothesis of legal subjectivity of artificial intelligence as a functional fiction (the so-called "electronic person"); and, in purely theoretical terms, on the "algorithmic hypothesis of the mind" and its possible implications for categories of attribution and responsibility, see Taddei Elmi, G. & Romano, F. (2016). Il robot tra ius condendum e ius conditum. *Informatica e diritto*. XXV (1), 4 and 8.

[52] On the non-mechanical structure of legal interpretation and on the idea that legal norms are structurally incomplete and require qualification, integration, and axiological balancing in the concrete case, see Betti E. (1990). *Teoria generale dell'interpretazione*, Giuffrè, 33; Perlingieri, P. (1975). Interpretazione e qualificazione: profili dell'individuazione normativa, *Diritto e giurisprudenza*, 1, 826 ff., now in Perlingieri, P. (1989). *Scuole, tendenze e metodi*, Edizioni Scientifiche Italiane, 27 ff.; Perlingieri, P. (2014). L'interpretazione giuridica e i suoi canoni, *Rassegna di diritto civile*, 407 ff.; Grossi, P. (2017). *L'invenzione del diritto*, Pacini Editore, 118.

[53] On the risks of decisional conditioning and compression of human control—also with regard to judicial independence—see Gioia, G. (2025). Intelligenza artificiale e indipendenza della magistratura: un equilibrio tra trasparenza e controllo, *Rivista di diritto processuale*, 338 ff.; for a "procedural" reading of the risk of delegation and of the illusion of technical neutrality, Carratta, A. (2019). *Decisione robotica e valori del processo*. Il Mulino.

In order to assess the robustness of this representation, it is nonetheless necessary to clarify preliminarily what is meant by AI applied to judicial decision-making. Under this label coexist profoundly different models, with heterogeneous legal implications. A first relevant distinction opposes rule-based systems—founded on predetermined rules formalised by experts—to data-driven systems, typically based on machine-learning techniques, in which the decisional model emerges from statistical analysis of large datasets. In the former, the decisional path is knowable and verifiable *ex ante*; in the latter, the output results from learning processes that do not always allow full transparency of the choices made by the system.

This distinction is of decisive relevance in the judicial domain. Data-driven systems presuppose the availability of high-quality information, selected and structured according to criteria that are never neutral. The relationship between the quantity of data and the reliability of the output is neither linear nor guaranteed: model training, the selection of relevant variables, and the optimisation function all incorporate preliminary value judgments that directly affect decisional outcomes. It follows that AI does not merely "calculate," but crystallises—often opaquely—classificatory choices and normative assumptions that escape the immediate control of the user[54].

From this perspective, a frequently underestimated profile emerges: discretion is not eliminated, but displaced. The algorithm inevitably incorporates the choices of the expert who designed and modelled it, from the selection of training data to the definition of relevant variables. Data quality is not ensured by data quantity, nor is output neutrality guaranteed by model complexity[55]. Discretion thus relocates into an opaque dimension, removed from adversarial scrutiny and difficult to attribute[56].

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[54] On the link between data quality and representativeness, modelling choices (feature selection, objective function), and the risk of bias, as well as on the often-naïve assumption of neutrality of algorithmic output, see Pasquale F. (2015). *The Black Box Society*, cit., 19 ff.; Wischmeyer, T. & Rademacher, T. (2020). *Regulating AI*, Springer, 75 ff.; more recently, Ruffolo, G. & Amidei, N. (2024). *Diritto dell'intelligenza artificiale*. (Vol. I), Giappichelli, 20–21.

[55] On the distinction between rule-based (symbolic) systems and data-driven (sub-symbolic, machine learning-based) models and its implications for controllability and explainability, see Palmirani, M. (2022). Explainable AI and Legal Reasoning, *Rivista di informatica giuridica*, 69 ff.; Quintarelli, S. (2019). *Intelligenza artificiale*. Bollati Boringhieri, 12 ff.; in a regulatory and policy-oriented perspective, Calo, R. (2017). *Artificial Intelligence Policy: A Primer and Roadmap*. U.C. Davis Law Review, 513 ff.; Chesterman, S. (2021). *We the Robots? Regulating Artificial Intelligence and the Limits of the Law*, Cambridge University Press, 63 ff.

[56] On the opacity of sub-symbolic models, on the limits of current explanatory techniques, and on explainability as a requirement in tension with the structure of judicial decision-making, see Palmirani, M. (2022), Explainable AI and Legal Reasoning, cit.; Quintarelli S. (2019). *Intelligenza artificiale*, cit., 12 ff.; Wischmeyer, T. & Rademacher, T. (2020). *Regulating AI*, cit., 75 ff.; Chesterman, S. (2021). *We the Robots?*, cit., 63 ff. On the risk that latent biases embedded in data translate into discriminatory outcomes, and on the COMPAS experience as a paradigmatic case of algorithmic risk assessment in the judicial field, Pasquale F. (2015). *The Black Box Society*, cit., p. 19 ff.; for a recent systematization, Ruffolo, G. & Amidei, N. (2024). *Diritto dell'intelligenza artificiale*, cit., § 1.4.

This displacement raises difficult questions concerning responsibility, reasoning, and reviewability of decisions[57]. The algorithm is not responsible, is not dialogical, and is incapable of justifying its choices in argumentative terms. Its structural opacity makes it problematic to verify the reasons leading to a given outcome, thereby undermining the requirement of transparency and reasoning that constitutes a core safeguard of jurisdiction.

Moreover, the ambition to entrust predictive calculation with the function of orienting or anticipating judicial decisions risks rigidifying the law through the reproduction of the past[58]. Algorithms learn from historical data and tend to replicate precedents, practices, and entrenched distortions, whereas law—especially in its constitutional dimension—is oriented toward transforming existing conditions and adapting to the concrete case.

Within this framework, the idea of a fully automated "predictive justice" proves incompatible with the judicial function. Algorithms may offer valuable assistance by identifying precedents, inconsistencies, or logical constraints, but they cannot replace the capacity for contextual evaluation and argumentative responsibility that remains non-delegable. The algorithm's blind spot ultimately lies in its inability to engage with the qualitative and relational dimension of legal decision-making. For this very reason, the use of AI in judicial proceedings must be confined within a paradigm of augmented intelligence, in which the machine supports—but does not replace—the human judge, who alone remains the holder of decisional authority and the responsibility that flows from it[59].

Within this perspective, the risks of opacity and automation bias are not mere side effects, but the very point of friction between calculation and jurisdiction. It is upon this friction that the limits of substitutive automation and the conditions for the admissibility of algorithmic assistance must be measured.

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[57] On the relationship between reason-giving and external reviewability of the exercise of judicial power as safeguards of rationality and responsibility in adjudication, see Taruffo, M. (1975). *La motivazione della sentenza civile*. CEDAM.

[58] On the axiological dimension of law and the risk that "predictive" rationality may rigidify the legal system through the reproduction of past practices, see Zagrebelsky, G. (2008). *La legge e la sua giustizia*. Il Mulino, 278 ff.; Ferrajoli, L. (2022). Il futuro del costituzionalismo. *Costituzionalismo.it*. (2), 182 ff.; more specifically on algorithmic prediction, Zaccaria, G. (2021). Mutazione del diritto: innovazione tecnologica e applicazioni predittive. *Ars interpretandi*, 1, 29 ff.

[59] European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems, adopted by the CEPEJ (Council of Europe), 2018, especially the principles of human oversight, transparency, data quality and security, and accountability of the human decision-maker; Regulation (EU) 2016/679 (GDPR), Art. 22, on the right not to be subject to a decision based solely on automated processing and on the guarantees of human intervention, contestation, and the expression of one's point of view; Riccio, G. M., Scorza, G., & Bellisario, E. (eds.). (2018). *GDPR e normativa privacy. Commentario*. Ipsoa, 225 ff.; Sandulli, S. (2018). Algoritmi, trasparenza ed effettività del consenso. *Il diritto dell'informazione e dell'informatica*, 1528 ff. For the most recent regulatory framework, see Regulation (EU) 2024/1689 (AI Act), especially with regard to the qualification of AI systems used in the administration of justice as "high-risk" systems and the related obligations concerning governance, transparency, and human supervision.

8. CONCLUDING REMARKS

The present reconstruction supports a clear conclusion: the idea of enforcement proceedings as an "automatable segment" of civil procedure is the product of a historically contingent representation, rather than a structural *datum*. The codified tradition—from the nineteenth-century separation between adjudication and enforcement to its systematic arrangement in the 1940 Code—has undoubtedly fostered an enforcement paradigm centered on the executive title and on the tendential externalisation of cognition[60]. Within this framework, enforcement appears as a constrained and largely predetermined activity, and therefore—at least in appearance—susceptible to mechanisation. It is against this background that the contemporary appeal of the "robot judge" gains immediate plausibility: where procedure seems reducible to a standardised sequence, automation promises efficiency at no apparent theoretical cost.

Yet the very evolution of the system shows that contemporary enforcement can no longer be reduced to a merely serial mechanism. In practice, the procedure contains moments in which the judge is required to govern conflicts, balance competing interests, and safeguard the legality and proportionality of coercive action. The emergence of endo-executive cognition thus marks a decisive point: it is not a pathological deviation from the model, but rather a functional response to the complexity of coercive enforcement as it operates in the law in action. In other words, enforcement "works" not because it excludes decision-making, but because it concentrates it in forms compatible with its claim-satisfaction function and with the system of remedies.

This insight produces a first methodological implication: discussing AI in justice without distinguishing between repetitive activities and decision-making functions leads to a fundamental misunderstanding. Even where enforcement presents itself as a formalised procedure, judicial intervention never coincides entirely with an external verification of regularity. It entails choices concerning the direction and regulation of the procedure, incidental assessments of the legality of coercive action, proportionality control in relation to the enforcement aim, management of adversarial participation, and coordination among competing positions. The decisive distinction, therefore, is not between "phases" of the process, but between delegable operations and non-delegable endo-executive decision points, which require reasoning, adversarial safeguards, and responsibility. Within this space, automation may at most serve an organisational and informational support function; it cannot replace the core of the judicial function, which remains imputable, reasoned, and subject to review.

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[60] In legal scholarship, it has been emphasised that recent organisational reforms of civil justice—and, in particular, the establishment of the Office for the Process—while pursuing objectives of efficiency and backlog reduction, raise significant concerns with regard to the transparency of decision-making, the redefinition of responsibilities, and the perception of the judge as the central actor of jurisdictional activity. Ghirga, V. M.F. (2022). L'ufficio del processo: una sfida. *Rivista di diritto processuale*, 1, 177; Carratta, A. (2019). *Decisione robotica e valori del processo*, cit., 134–135.

A second, systemic consequence follows. The debate on the "robot judge" should not be treated as a futuristic hypothesis, but as a critical category capable of testing the resilience of procedural guarantees under efficiency-driven pressure. The promise of algorithmic technical neutrality risks obscuring a basic reality: decision-making systems always embed classificatory choices and design options; in data-driven models, these choices are grafted onto data that are never "pure", but selected, structured, and potentially biased[61]. The result may be a displacement of discretion into an opaque domain, removed from adversarial scrutiny and difficult to impute, with direct consequences for the reasoning and external controllability of decisions. In this context, the danger lies not in the use of AI as such, but in cognitive delegation and the automation bias it may generate: algorithmic output, perceived as reliable and "objective", tends to become a practical standard of conformity, compressing the responsibility of the human decision-maker. This dynamic is further confirmed, by contrast, through observation of legal systems that have experimented with advanced forms of judicial digitalisation, where system efficiency is pursued through a programmed reduction of decisional variability. Comparative analysis thus highlights that, within the European paradigm of jurisdiction, reasoned and imputable discretion is not an obstacle to efficiency, but a precondition for its compatibility with procedural guarantees.

From this perspective, enforcement proceedings offer a particularly instructive vantage point precisely because they disprove—from within—the myth of automatism. Early termination and other instances in which the judge interrupts, redirects, or governs the trajectory of enforcement make it evident that efficiency is not achieved by neutralising jurisdiction, but by disciplining and rendering controllable the points at which jurisdiction must intervene. Enforcement "functions" not when the judge is eliminated, but when the decision-making nodes at which coercive action might otherwise degenerate into sheer force are clearly identified and effectively safeguarded.

A third implication, of a policy-oriented nature, follows from this analysis: the decisive question is not whether AI should "enter" the justice system, but under what conditions[62]. From a constitutionally oriented perspective, technological innovation is compatible with adjudication only if it remains within a paradigm of augmented intelligence: transparent and verifiable tools, governed by high-quality data, and—above all—subject to effective human

[61] A historical reconstruction of the interactions between technological innovation, forms of information control, and transformations of the public sphere shows that technical change never operates as an unequivocal determining factor. Rather, technological innovations are embedded within cultural, institutional, and epistemic processes already in motion, shaping—and being shaped by—them. Landi, L. (2011). *Stampa, censura e opinione pubblica in età moderna*. Il Mulino, 11.

[62] From a broader perspective, it has been observed that contemporary technological transformations place a renewed responsibility on jurists—and particularly on scholars of procedural law—not to oppose scientific progress as such, but to govern its institutional impact, preventing technical efficiency from expropriating the human dimension of adjudication. The risk is not merely that of error, but that of its symbolic removal. Verde, G. (2025). Il giurista nel XXI secolo: lo studioso del processo civile. *Rivista di diritto processuale*. (3), 831–832.

supervision. In this direction, AI may improve access to sources, document management, detection of inconsistencies, scheduling support, and the handling of repetitive tasks; but it cannot become a device for substituting judicial choice, nor a technological alibi capable of attenuating the duty to give reasons and the personal responsibility of the decision-maker.

In conclusion, enforcement proceedings overturn a widespread assumption underlying much contemporary debate: they are not the most easily automatable terrain, but the one in which the structural limits of substitutive automation appear most clearly. The figure of the enforcement judge, far from being a technical residue destined to fade away, is confirmed as a living safeguard of legality. It is precisely this safeguard—and its irreducibility to calculation—that points the way toward a technology compatible with procedural guarantees: not a jurisdiction delegated to machines, but a jurisdiction capable of using machines without losing its public, responsible, and human character.

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THE FUTURE OF CIVIL JUSTICE IS TODAY: DIGITALISATION ACROSS THE VARIOUS STAGES OF CIVIL PROCEEDINGS IN ITALY

Dr. Alessia Bastianelli*
University of Tuscia

ABSTRACT: This article analyses the digitalisation of Italian civil justice, from the Telematic Process to Artificial Intelligence. It examines the *Riforma Cartabia* and the National Recovery and Resilience Plan (PNRR) regarding the *Ufficio per il Processo* and judicial reorganization. Through pilot projects, the study assesses digital technologies in the introductory, preliminary, and decision-making phases. Finally, it evaluates the future prospects and limitations of Artificial Intelligence in civil proceedings.

KEYWORDS: civil proceedings; digital justice; *e-justice;* judicial case management; judicial decision-making support system.

SUMMARY: 1. INTRODUCTION. FROM DIGITAL JUSTICE TO *GIUSTIZIA AGILE*.— 2. THE DIGITISATION AND THE USE OF AI IN CIVIL PROCEEDINGS: 2.1 Digitisation in the introductory phase; 2.2 Digitisation in the investigative phase; 2.3 Digitisation in the decision-making phase.— 3. FROM *GIUSTIZIA AGILE* TO PREDICTIVE JUSTICE. PROSPECTS AND LIMITS IN THE USE OF AI.— 4. BIBLIOGRAPHY

1. INTRODUCTION. FROM DIGITAL JUSTICE TO *GIUSTIZIA AGILE*

The process of digitising Italian justice is a phenomenon involving the technological implementation of judicial offices, but also a change in the way these offices work. In fact, while the primary objective in the initial phase,

* PhD Candidate in Civil Procedural Law, University of Tuscia, Via Santa Maria in Gradi 4, 01100 Viterbo, Italy, alessia.bastianelli@unitus.it, ORCID ID *https://orcid.org/0009-0002-2614-526X.*

which began with the advent of the PCT, was simply to dematerialise document flows, the current drive for reform under the National Recovery and Resilience Plan (hereinafter NRRP)[1] has led to a paradigm shift: from the automation of judicial offices to the overall reorganisation of their workflows.

The transformation of civil justice has taken place over time through a series of steps[2].

Firstly, the concept of transparency and accessibility was redefined. The introduction of the Electronic Civil Procedure (PCT) on 30 June 2014, i.e. a portal dedicated to tracking the judicial events of a case, has allowed defence lawyers and citizens to monitor the status of proceedings in real time, breaking down the physical barriers of court registries and drastically reducing communication downtime. With this advent, an initial transition had to be accepted: from 'digital document' to 'digital data'; information is no longer understood as a simple scanned image, but as structured information that is *digitally originated,* thus lending itself to being analysed, categorised and processed in an automated manner.

Subsequently, the pandemic emergency acted as a catalyst for the telematic management of hearings, consolidating the use of remote connections and written proceedings. The legislator has gradually introduced a series of exceptional provisions, which have had an impact on the ordinary conduct of civil proceedings[3]. These methods have demonstrated the effectiveness of adversarial proceedings not necessarily linked to physical presence, significantly speeding up the interlocutory stages of the proceedings.

Two years later, the *Riforma Cartabia*, implemented by Legislative Decree 149 of 2022[4], endorsed the measures tested during the emergency phase, laying the foundations for a civil process based on the digital paradigm. The legislator has carried out a complete codification of telematic practices, introducing crucial provisions into the Code of Civil Procedure, such as Articles

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[1] Recently, on the urgent measures introduced by Decree Law No. 117 of 8 August 2025, adopted in view of the final deadline of the National Recovery and Resilience Plan (hereinafter NRRP) scheduled for 30 June 2026, see Gentile, L. S. (2025). PNRR: Ancora misure straordinarie per l'organizzazione giudiziaria e la giustizia civile. *Foro italiano,* 150 (10), 431.

[2] In general, on the development of electronic proceedings, see in doctrine Carpi, F. (2000). Processo civile e telematica: Riflessioni di un profano. *Rivista trimestrale di diritto e procedura civile,* 54, 470-482; Costantino, G. (2004). Note sulla struttura della decisione nei processi a cognizione piena: Un modello per la consolle del giudice. *Tecnologia, organizzazione e giustizia*, 191-210; De Santis A. D., Poli, G. G. (2013). Il processo civile telematico alla prova dell'obbligatorietà: lo stato dell'arte agli inizi del 2013. *Foro italiano*, 138(5), 109-120; Fabbrini, F. (2013). Il processo civile telematico tra interpretazione del vigente e future evoluzioni. *Giusto processo civile,* 9, 271-285; Poli, G. G. (2014). Profili teorico-pratici del deposito degli atti nel processo civile telematico. *Foro italiano,* 137(5), 137-149.

[3] Fichera, G. — Escriva, E. (4 February 2021). Le quattro fasi del processo civile al tempo della pandemia. *Judicium. https://www.judicium.it/wp-content/uploads/2021/02/Fichera-Escriva.pdf*

[4] For a commentary on the *Riforma Cartabia*, *ex multis,* see Biavati, P. (2022). La riforma del processo civile: motivazioni e limiti. *Rivista trimestrale di diritto e procedura civile,* 45; Delle Donne, C. (2023). Art. 183 c.p.c. *La riforma Cartabia del processo civile.* In R. Tiscini (Eds.), *Commento al d.lgs. 10 ottobre 2022, n. 149.* Pacini giuridica, 298; Capponi, B. (2022). Note sulla fase introduttiva del nuovo rito di ordinaria cognizione. *Giustizia civile*, 2.

127-bis and *127-ter*, which regulate, respectively, hearings via audiovisual link and the replacement of hearings with the filing of written notes; the latter of which has since become the standard form for the management of interlocutory hearings and postponements. Furthermore, through the inclusion of Article *196-quater* of the implementing provisions of the Code of Civil Procedure, the mandatory nature of electronic filing for all procedural acts and documents was established, extending this requirement to proceedings before the Judge of the Peace and court-appointed technical consultants. Consistently, the new Article *196-quinquies* of the Italian Code of Civil Procedure establishes that the court file must be kept exclusively in electronic format, requiring that every court order be digitally signed. This framework has been completed with the strengthening of electronic notifications referred to in Articles 147 and *149-bis* of the Italian Code of Civil Procedure, which require defence lawyers to use certified email whenever the recipient can be found in public directories.

In the broader context of the reform of the Italian justice system, the NRRP programme was then forcefully introduced, which led to the strengthening of the *Ufficio per il Processo*[5]: an empowerment that involved not only an increase in staff, but also the creation of a 'digital operations centre' at the service of the judiciary, establishing itself as the 'pivot of the new organisation of justice'[6]. The basic idea was not to limit the reform of the *UpP* to a reform of rules, but to implement a reform of 'people and resources', investing heavily in human capital and digital infrastructure. The *UpP* has, in fact, taken on the functions of a support unit where young lawyers and economists (the so-called *UpP* staff) are responsible for managing electronic document flows, as well as performing clerical and support tasks for magistrates, including studying case files, researching legal precedents and preparing draft measures[7].

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[5] The *Ufficio per il processo'*(hereinafter referred to as *UpP*) was established by Article 50 of Decree Law No. 90 of 24 June 2014 (converted into Law No. 114 of 11 August 2014), which introduced Article *16-octies* of Decree Law No. 18 of 18 October 2012, No. 179 (converted by Law No. 221 of 17 December 2012), which at the time was intended to "(…) *ensure the reasonable duration of proceedings through the innovation of organisational models and ensuring a more efficient use of information and communication technologies".* For the early stages of the UpP, see Braccialini, R. (1 June 2020), L'ufficio per il processo tra storia, illusioni, delusioni e prospettive. *Questione giustizia.* However, the *UpP* was only fully implemented with Decree Law No. 80 of 9 June 2021, containing "*Misure urgenti per il rafforzamento della capacità amministrativa delle pubbliche amministrazioni nell'ottica di una pronta realizzazione del Piano nazionale di ripresa e resilienza per l'efficienza della giustizia*". On strengthening, see Civinini, M.G., (8 September 2021). Il "nuovo ufficio per il processo" tra riforma della giustizia e PNRR. Che sia la volta buona. *Questione Giustizia*, 3; Pagni, I. (17 November 2021). L'ufficio per il processo: l'occasione per una (ulteriore) osmosi virtuosa tra teoria e pratica, con uno sguardo alle riforme processuali in cantiere. *Questione Giustizia.*

[6] Ministry of Justice (19 January 2022). Relazione al Parlamento della Ministra della giustizia Marta Cartabia sull'amministrazione della giustizia. *Giustizia.it.* https://www.giustizia.it/giustizia/it/contentview.page?contentId=ART362932.

[7] The role of the *UpP* officer has a hybrid nature (see Ministry of Justice Circular No. 228522 of 3 November 2021), performing judicial support activities but also administrative support to the registries. Thus Alfieri, A. (2022). L'ufficio per il processo: una possibile rivoluzione culturale nell'organizzazione degli uffici giudiziari. *Giusto processo civile,* 1197; Barbieri, F. (2022, 14 June). Il "nuovo" ufficio per il processo: un modello organizzativo aperto all'intelligenza artificiale. *Giustizia insieme*; Caval-

Subsequently, the regulatory strengthening of the *UpP* was followed by a programme aimed at extending this institution to judicial offices where this tool was absent or little used. In this sense, digitisation and organisational efficiency have become the pillars of a unified strategy promoted by the Ministry of Justice through the '*Progetto unitario per la diffusione dell'Ufficio per il Processo e l'implementazione di modelli operativi innovativi negli Uffici giudiziari per lo smaltimento dell'arretrato' as part of the 'TASK FORCE per gli uffici per il processo'*. This initiative, created as part of the *PON Governance e Capacità Istituzionale* 2014-2020, has operated in close synergy with the structural interventions provided for in the NRRP. The primary objective of this project was to overcome the systemic critical issues that have historically plagued civil jurisdiction, identified mainly in the excessive length of proceedings and the accumulation of backlogs. Digitalisation has been elevated to a strategic driver for achieving a quantitative and qualitative objective: the elimination of the backlog and the reduction of the average duration of proceedings (*disposition time*)[8]. In line with this action, several projects have been launched by the Directorate-General for the Coordination of Cohesion Policies, in collaboration with 26 Court of Appeal Districts and 56 universities throughout the country. The universities participated in a consortium, divided into 6 macro territorial areas[9], but with a common goal: to spread the *UpP* with actions aimed both at managing the backlog in judicial offices and preventing its formation; prevention that took place through the training of *UpP* staff but also through a 'bottom up' approach, by adapting university education to the real needs of the justice system, with the aim of training lawyers prepared to face the future challenges of Italian justice.

2. DIGITISATION AND THE USE OF AI IN CIVIL PROCEEDINGS

Before looking at how digitisation and the use of AI systems in civil proceedings[10] , many of which were developed as part of the PON Governance

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lini, D. (2021). L'ufficio per il processo. *Rivista trimestrale di diritto e procedura civile,* 981 ff.; Gentile, S. L. (2022). Assunzione, inquadramento e mansioni degli addetti all'ufficio per il processo. *Foro italiano*, 5(9), 229-238; Ghirga, M. F. (2022). L'ufficio del processo: una sfida. *Rivista diritto processuale*, 177 ff.

[8] *Disposition Time* (DT) is an international statistical indicator developed by the CEPEJ (*European Commission for the Efficiency of Justice*) to measure the average expected duration of legal proceedings. Unlike the actual duration of an individual trial, DT represents the ratio between the number of cases pending at the end of a given period and the number of cases concluded during the same period, multiplied by the time unit (usually 365 days). It expresses the capacity of judicial offices to dispose of their workload: a high DT value is symptomatic of a structural problem in the system and a tendency for backlogs to accumulate.

[9] In particular, from north to south: Macroarea 1 — Next Generation UPP, Macroarea 2 — UNI 4 Justice, Macroarea 3 — *Giustizia Agile*, Macroarea 4 — MOD-UPP, Macroarea 5 — START UPP, Macroarea 6 — JUST-SMART.

[10] On the use of AI in the process, see, among others, Irti, N. (2018). Il tessitore di Goethe (per la decisione robotica). *Rivista di diritto processuale,* 1177; Gabellini, E. (2019). La «comodità nel giudicare»: la decisione robotica. *Rivista trimestrale di diritto e procedura civile,* 1305; Carratta, A. (2020).

programme, have proven to be able to intervene in a targeted manner at certain procedural junctures that characterise civil proceedings, it is necessary to observe how technology can become a catalyst capable of bringing about an overall improvement in the timing and effectiveness of the judicial response *as a whole*. Even before acting on specific procedural stages, the implementation of digital models makes it possible to re-engineer the way judicial offices work, reducing overall decision-making times and optimising the allocation of resources.

An initial example of possible digital implementation is represented by a case file weighting system, developed as part of the *Giustizia Agile* project conducted by Macro-area 3[11], led by the University of Tuscia, and not yet in use in Italian courts. This system should come into operation when cases are registered, allowing the human resource requirements within judicial offices to be objectively quantified from the outset. This calculation is based on a linear formula: the volume of proceedings is multiplied by a difficulty coefficient (the 'weight'), thus determining the total number of hours required to complete the case. This figure, relative to actual production capacity, by dividing the total hours worked by the product of the time each magistrate can devote to the jurisdiction and the number of judges actually in service, provides an accurate indication of the number of magistrates needed to meet the demand for justice in the period considered. This leads to a mathematical consequence: if the human resources available at a judicial office are fewer than the value obtained from the calculation, there will inevitably be a delay in resolution times and the formation of a new backlog. This means that this calculation would allow for an objective assessment of the overall workload of the judges in the judicial office (and consequently their numerical sufficiency or insufficiency) and also the workload of each individual judge. At present, however, the distribution of the workload of individuals is carried out using only macroscopic parameters, such as subject matter or procedure. The weakness of the current case allocation criterion is that it does not allow the real complexity of individual disputes to be taken into account. The assignment of cases is still based on criteria of automatic rotation and equal distribution, aimed at ensuring an identical number of cases for each magistrate. While this method guarantees numerical balance, it neglects the endogenous variables of each case, resulting in an unequal distribution of work in terms of the judicial effort required. For example, the simultaneous assign-

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Decisione robotica e valori del processo. *Rivista di diritto processuale,* 491; Santagada, F. (2020). Intelligenza artificiale e processo civile. *Judicium,* 467; Giabardo, C.V. (2023). Ancora su «il giudice e l'algoritmo». Riflessioni critiche su intelligenza artificiale e giustizia predittiva (occasionate da un contributo di Michele Taruffo). *Revista Ítalo-Española de derecho procesal,* 1 ff.

[11] The project was coordinated by the University of Tuscia as lead partner, in collaboration with the universities of Rome Sapienza, Tor Vergata, Roma Tre, Cassino, Perugia, Florence, Pisa, Siena, the IMT School of Lucca and the Sant'Anna School of Pisa. The activity also involved 24 judicial offices belonging to the districts of Rome, Florence and Perugia. All reports prepared by the universities involved in the project are available at the following link: https://www.giustizia.it/giustizia/page/it/upp_dettaglio_macroarea_3

ment of two cases with the same subject matter in family law to two different judges does not mathematically determine the same use of effort and time: the handling of a judicial separation compared to another separation of the same kind but with custody of minor children involves a radically different expenditure of energy for the magistrate. In this context, the development of AI-based systems would make it possible to overcome these limitations; through the processing of structured data, AI could determine in advance the complexity of each case and assign it to the magistrate who, at that moment, has a role with a lower 'weight'. The aim is to move from a distribution based on quantity to one based on the actual sustainability of the role of each individual judge.

A further example of the potential impact of new applications in the civil sector, and in particular in the commercial and bankruptcy sectors, was the experiment carried out by the Court of Catania, following the establishment by the Inspectorate of the Ministry of Justice of a technical committee tasked with implementing the Inspectors' Package for the extraction of data of interest for inspection from the SICID and SIECIC applications. This experiment demonstrated the usefulness of a 'management dashboard' in supporting the work of the Section President. In fact, the Sicilian court tested an application capable of providing a snapshot of ongoing proceedings, those most behind schedule, the average duration of trials, the time taken to file measures, data relating to assignments given to professionals, the productivity of judges and the detection of any false pending cases[12]. Such a tool can be useful in various ways and to various parties: firstly, for the section president himself, not so much as a means of control over other judges, but as a tool for *managing* the section; secondly, for individual judges in the section, in order to monitor the fair rotation of professional assignments, such as appointments as bankruptcy trustees or support administrators: assignments that involve significant burdens but are also sometimes very lucrative; thirdly, this tool could prove useful for the overall management of the entire office, acting as an accountability tool for the entire court[13].

Furthermore, with regard to the daily activities of each magistrate, the projects within the NRRP have highlighted that the work of judges could be organised more rationally through the creation of dedicated software. For example, a calendar of hearings could be created as a tool to rationalise postponements and organise the judicial activity of individual judges. In fact, although a trial calendar has been required by law since 2009, current practice tends towards the atomistic scheduling of individual hearings, which ends up postponing the resolution of more complex cases. On the contrary, the use of intelligent programming algorithms would make it possible to define the

[12] Sciacca, M. (2024). Sistema giudiziario e obiettivi PNRR: Il progetto cruscotto gestionale del presidente di sezione civile. *Foro italiano,* 5(1), 29-38.

[13] The trial involved organisational analysts selected by FormezPA as part of the project *Institutional Capacity Building of the Judicial Districts of the Sicilian Region*, promoted by the Sicilian Region as part of the POR Sicilia FSE 2014-2020 Axis IV—OT11—Specific Objective 11.4.

entire timeline of the proceedings from the moment of registration, satisfying the need for certainty of timing through a system calibrated to the actual times of civil proceedings operating according to a FIFO (*First In First Out*) logic, in which disputes are dealt with in sequence according to the order of registration[14].

Furthermore, with a view to reorganising the work of magistrates, a turning point could be represented by the use of software designed to perform repetitive calculations or draft standardised reports or procedural measures for the entire proceedings, which are currently entrusted to civil judges. An example of this is the calculation of the amount awarded for maintenance payments in separation and divorce cases. The use of AI, which must necessarily be coordinated with the provisions of the Civil Code and with the function of maintenance payments outlined by the most recent guidelines of the Court of Cassation[15], would respond to the need to relieve the judge of purely computational tasks. The use of dedicated prototypes, such as the one developed by the University of Florence, would make it possible to process data for the calculation of maintenance payments (such as net monthly income, any family or instalment expenses, the presence of children with disabilities and the allocation of the marital home)[16], significantly simplifying the time required to settle family law proceedings. Alternatively, AI could be used to create software integrated with the ministerial tables or those issued by the Milan Civil Justice Observatory[17] for calculating compensation for non-pecuniary damage pursuant to Article 1226 of the Italian Civil Code. It would be useful for magistrates to use such software, and it would be even more useful to access it through the magistrate's console application[18].

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[14] The report on the *Giustizia Agile* project, drawn up by the University of Florence, can be consulted at the following link: https://www.giustizia.it/cmsresources/cms/documents/3giusagile_unifi_modorgrepupp_gagile_dinfo.pdf

[15] The Court of Cassation, on the subject of separation between spouses, has ruled that the right to receive maintenance allowance pursuant to Article 156 of the Italian Civil Code is based on the persistence of the duty of material and moral assistance. It is therefore related to the standard of living maintained during the marriage and, unlike the divorce allowance, does not have any compensatory components. On the contrary, the divorce allowance has a welfare and compensatory nature due to the definitive termination of the bond. On this point, see Civil Cassation, 7 January 2025, no. 234; Civil Cassation, 18 September 2025, no. 25556.

[16] To understand how the mechanism for calculating the allowance developed during the *Giustizia Agile* project works, see the report published on the Ministry of Justice website, available at the following link: *https://www.giustizia.it/cmsresources/cms/documents/3giusagile_unipg_supdig_sup_tecnologico_causa.pdf*.

[17] The use of the Milan Tables as a criterion for calculating compensation for non-pecuniary damage was affirmed by the Supreme Court in its well-known ruling Civil Court, Section III, 6 May 2020, no. 8532.

[18] The *Consolle del Magistrato* is a Java application and is the only programme that allows judges and their assistants to manage the *Processo Civile Telematico* (*PCT*): through this programme, judges can view all their cases and the information and data for each procedure in the court registry, as well as draft orders using MS Windows Word, sign them digitally and send them to the registrar for publication in the electronic file. On this point, see Consiglio Superiore della Magistratura (2023, 26 October). Organizzazione innovazione e statistiche. Il processo civile telematico, applicativi, consolle del magistrato. *https://www.csm.it/web/csm-internet/il-processo-civile-telematico/consolle-del-magistrato*.

Furthermore, the implementation of specialised applications would prove useful not only for magistrates, but also for the tasks entrusted to *UpP* officials, who are *legally* responsible for supporting the judiciary by preparing draft measures. The use of advanced *legal research* tools by *UpP* officials would transform the drafting of documents from a manual and repetitive activity to a guided and structured process. AI could be used to draft the most frequently used procedural documents, such as the new parenting plan[19] pursuant to Article 473-bis 12 of the Italian Code of Civil Procedure used in separation or divorce disputes: AI could draft a prototype parenting plan ad hoc for each case, automatically entering data such as the children's daily commitments and activities, extracurricular activities, eating habits and medical expenses from the case file; or AI could draft and update settlement decrees for legal aid or even court hearing minutes. In these cases, the technological contribution would not be limited to the computational component, but would support the judge or court clerk in the preparation of procedural documents, which, although simpler than writing a ruling, still require a considerable amount of energy and resources.

2.1. Digitisation in the introductory phase

The specific procedural stages in which digitisation and the use of AI can help to reduce the time taken by the justice system can be identified by comparing the normal procedural timeframes of civil proceedings (and in particular ordinary proceedings) provided for by the Code of Civil Procedure and the abnormal ones, caused by staff shortages or the lack of effective applications in the judicial offices; an analysis which, for example, in the *Giustizia Agile* project conducted by Macro-area 3, was called 'mapping' of proceedings[20] and was carried out by creating flowcharts used to document the flow of a given process.

This activity, with regard to the introductory phase of the trial, demonstrated that digitisation and the implementation of AI would make it possible to transform the electronic file from a mere static container of documents into a dynamic information tool. Specifically, the application of algorithmic technologies in the timeframe between registration and the new preliminary checks referred to in Article *171-bis* of the Italian Code of Civil Procedure[21]

[19] The parenting plan is an example of an organisational model for the civil sector drawn up by the University of Tuscia and submitted to the Court of Viterbo as part of the *Giustizia Agile* project. To consult the model, see the following link: https://www.giustizia.it/cmsresources/cms/documents/3giusagile_unitus_modorgciv_piano_genitoriale.pdf

[20] This mapping was made possible through the use of the Inspectors Package, an application that includes a set of software developed by the Directorate-General for Automated Information Systems (D.G.S.I.A.) and which allowed the data contained in the civil sector's computerised registers to be extracted in real time.

[21] For the new structure of civil proceedings, see Capponi, B. (2023). Sulla fase introduttiva nel nuovo rito di ordinaria cognizione. *Giustizia civile*, 264; Consolo, C. (2025). Spiegazioni di diritto pro-

can enable the generation of a 'file identity card'. This tool, designed to evolve with each procedural event—such as the emergence of necessary co-defendants pursuant to Article 102 of the Italian Code of Civil Procedure or due to third-party proceedings pursuant to Article 106 of the Italian Code of Civil Procedure—extracts and summarises the identifying elements of the claim, such as the parties, the monies sought and the value of the dispute, providing the magistrate with an immediate and constantly updated overview of the case. This information sheet, in fact, could differ from the mere listing of "events" present in the application already used by judges, the *Consolle del Magistrato,* proving to be a useful tool for planning the trial calendar and for an initial prognosis of the case. It could also serve as a digital historical record: it could be a document that can be consulted at every stage of the trial, aggregating the history of the case, the magistrate's notes, the studies carried out by the *UpP* staff and the critical issues identified, accompanying the judge and his assistants towards an 'assisted decision'. In addition, this case file identity card could include a comparison of the different arguments put forward by the parties, extrapolated in turn from software capable of comparing the different reconstructions of the facts prepared by rival lawyers[22].

A further aspect that could be identified through the use of AI systems in the introductory phase of the trial, and which could be detected even more effectively thanks to the drafting of a case file summary, is the mediability index of the dispute[23].

Starting from the assumption that litigation should always be the last resort in conflict resolution[24], the creation of an indicator capable of assessing in advance the suitability of a dispute for *Alternative Dispute Resolution* (ADR) and, in particular, for mediation[25], appears to be a pioneering objective. This approach aims to reduce the abnormal recourse to trial, in accordance with the principles of efficiency and reasonable duration enshrined in Article 111, paragraph 2, of the Constitution. This objective was also pursued with the *Riforma Cartabia*, which gave mediation an unprecedented central role, strengthening the regime of Legislative Decree No. 28 of 4 March 2010. In light of the new regulatory landscape and building on the experiments already underway in Italy prior to the NRRP, the *Giustizia agile* project has continued its studies on the mediability index of disputes in civil and commercial cases.

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cessuale civile. Il processo di primo grado e l'impugnazione delle sentenze, II, Giappichelli, 228-230.

[22] This refers to the software developed as part of the 'Next Generation' project of Macroarea 1—North—West Italy and funded by *PON Governance e Capacità Istituzionale* 2014-2020.

[23] Testi, M. (2023). La mediabilità delle liti: Un modello operativo innovativo per l'efficienza della giustizia. In P. Lucarelli (Eds.), *Giustizia sostenibile: Sfide organizzative e tecnologiche per una nuova professionalità*. Firenze University Press, 245-259.

[24] Dalla Bontà, S. (2024). La cura delle parole tra processo e metodi consensuali: Per una gestione responsabile del conflitto. *Giustizia consensuale,* 1, 281-325.

[25] Lucarelli, P. (2015). *Mediazione su ordine del giudice a Firenze: Prassi, problemi e linee guida di un modello*. Utet giuridica; Lucarelli, P. (2019). *Mediazione dei conflitti: Una scelta condivisa*. UTET Giuridica; Dalla Bontà, S. (2024). Mediazione e processo: Note a margine di recenti pronunciamenti. *Judicium*.

The aim of the research was to identify a tool capable of highlighting not only the existence of a condition of admissibility that has not yet been fulfilled, i.e. the need to go through the mandatory mediation procedure pursuant to Article 5 of Legislative Decree No. 28 of 2010, but also to estimate the parties' propensity to settle in matters where mediation is optional and thus assess the possibility of resorting to referred mediation. For the latter, the judge must analyse, *pursuant to* Article *5-quater*, paragraph 1, of Legislative Decree No. 28 of 2010, the nature of the case (the case must in fact concern one of the matters provided for by the law, such as relations between neighbours, family or corporations), the behaviour of the parties (and therefore, for example, their willingness, even partial, to mediate), the status of the case (referral to mandatory mediation is possible for proceedings already pending on 28 February 2023 at the hearing under Article 183 of the Italian Code of Civil Procedure or after the taking of evidence; for proceedings initiated after the *Riforma Cartabia*. However, referral to mediation is also possible during the introductory phase of the proceedings, at the time of the preliminary checks *pursuant* to Article *171-bis* of the Italian Code of Civil Procedure and in any case until the case is referred for decision) and 'any other circumstances'. Following these parameters and using the practical tools created so far for the use of this operating model (i.e. the dispute form containing the factual and legal reconstruction of the case, the draft order for referral to mediation, the list containing the cases that may arise, such as participation or non-participation in mediation, and the Excel spreadsheet template for returns), it is possible to identify the dispute's mediability index[26]. This acts as an early screening tool: by identifying the characteristics of the matter in dispute and the history of the parties, this index, if obtained, can suggest to the judge and the *UpP* staff whether referral to mediation is appropriate. The advantage of the mediability index is clear: it optimises the use of judicial resources and promotes a faster, less costly resolution of social conflict that is more oriented towards the reconciliation of different interests. So much so that in the courts where it has been tested, it has yielded excellent results[27]; one could predict even better results if this operating model could also make use of AI in the near future.

2.2. Digitisation in the investigative phase

The area in which AI systems appear to be least developed is the preliminary investigation phase, i.e. the phase of civil proceedings that ranges from

[26] Testi, M. (2023). La mediabilità delle liti: Un modello operativo innovativo per l'efficienza della giustizia. In P. Lucarelli (Eds.), *Giustizia sostenibile: Sfide organizzative e tecnologiche per una nuova professionalità*, Firenze University Press, 245-259.

[27] More specifically, various projects have been carried out by the University of Florence in collaboration with the Umbrian and Tuscan judicial offices since 201: the 'Nausicaa' project and the 'Giustizia Semplice' project in the Court of Florence, the project in the Court, the 'Dike' project in the Court of Appeal of Florence, the 'Giustizia Condivisa' project in the Court of Perugia and the 'Jacobea' project (2020-2021) in the Court of Pistoia.

the briefs pursuant to Article 171-bis of the Italian Code of Civil Procedure to the hearing pursuant to Article 183 of the Italian Code of Civil Procedure. The preliminary investigation phase currently appears to be the least amenable to the use of AI, as it is based on qualitative and relational assessments that are difficult to automate without affecting the guarantees of a fair trial[28]. As a result, the statistical-probabilistic nature of AI systems encounters structural limitations with respect to principles such as the assessment of evidence[29]. AI cannot intervene in the ascertainment of facts[30] because it is the judge who must make a discretionary assessment of the cognitive effectiveness of evidence whose value is not strictly predetermined. So much so that even Article 15 of the new law no. 132 of 2025, which came into force at the same time as the adoption of the AI Act[31], reiterates this assumption. In fact, in order to limit the use of this tool in judicial proceedings, the law expressly states that any decision 'on the assessment of facts and evidence' is always reserved to the magistrate.

Yet AI systems could facilitate, if not the assessment of evidence, at least its formation or the categorisation of the evidence gathered, especially in certain matters subject to litigation.

AI could be helpful in activities leading up to the formation of evidence, such as choosing a court-appointed technical consultant[32]. This could contribute to the selection of the most suitable consultant, where suitability could be ensured by combining the highest level of expertise (to be examined through an analysis of the professional's qualifications and documented experience) with the principle of rotation in appointments, in order to minimise the risks involved in choosing consultants. In addition, with reference to the same means of evidence, AI could also be used to formulate questions for the preparation of the expert report or to evaluate the outcome of the consultancy at the end of the mandate[33]. Furthermore, AI could be used in witness testimony, first during the admission of evidence[34] to verify the relevance and

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[28] For an analysis of the relationship between AI and fair trial, see Gabellini, E. (2022), Algoritmi decisionali e processo civile: limiti e prospettive. *Rivista trimestrale di diritto e procedura civile,* 59.

[29] Gioia, G. (2025). Intelligenza artificiale e indipendenza della magistratura: Un equilibrio tra trasparenza e controllo. *Rivista di diritto processuale,* 4, 1338-1363.

[30] Fabiani, E. (2021). Intelligenza artificiale e accertamento dei fatti nel processo civile. *Il giusto processo civile*, 49.

[31] Lupoi, M. A. (1970), Giuscibernertica, informatica giuridica. Problema per il giurista. *Raccolta di saggi sulla giurisprudenza*, 32.

[32] On the general doctrine of court-appointed technical consultants in civil proceedings, see Ansanelli, V. (2014). Art. 191 c.p.c. In M. Taruffo *Istruzione Probatoria, Commentario del codice di procedura civile,* Zanichelli, 9. Sull'utilizzo di sistemi di IA nella nomina del consulente tecnico v. Nieva Fenoll J. (with Comoglio P.) (2019). *Intelligenza artificiale e processo.* Giappichelli, 66. (Original work published 2018); Fabiani, E. (2021), Intelligenza artificiale e accertamento dei fatti nel processo civile. *Il giusto processo civile*, 62; Fratini, F. (2024). Intelligenza artificiale e consulenza tecnica nel processo civile. *Actualidad Juridica Iberoamericana, (20),* 1200.

[33] Nieva Fenoll, J. (with Comoglio P.) (2019). *Intelligenza artificiale e processo.* Giappichelli, 66. (Original work published 2018).

[34] Nieva Fenoll, J. (with Comoglio P.) (2019). *Intelligenza artificiale e processo*. Giappichelli, 66. (Original work published 2018).

consistency between the evidence presented by the party and the subject matter of the dispute, and then to assess the reliability of the witness. In the context of documentary evidence, on the other hand, it could be used to identify the different types of documents (e.g. public deeds or private deeds) and also to verify their authorship[35].

Furthermore, in specific proceedings, such as those in the field of immigration law, AI could support judges in carrying out various investigative activities. For example, in the pilot project led by the University of Catania as part of the *Giustizia Smart: Strumenti e modelli per ottimizzare il lavoro dei giudici (JustSmart)* project carried out by macro-area 6, AI has proven to be a practical tool for organising preliminary investigations in international protection cases. An application has been created for this sector that allows information to be extracted regarding the outcome of previous investigations that have already been decided, in order to support the judge in another investigation. Thanks to the file matching function, which allows users to select from predefined fields those that reflect the migrant's situation in the specific case (e.g. country of origin, countries of transit, language, specific vulnerability), this application allows users to extract an ordered list of measures relating to 'similar' investigations, ranked in terms of correspondence to the case in question using a similarity score[36]. Furthermore, in the same sector, AI could assist judges in quickly finding Country of Origin Information (COI), facilitating the exercise of the unofficial investigative power that the judge assumes in this type of proceeding[37]. By entering a few keywords, the judge could learn about the current situation in the applicant's country of origin in a matter of seconds, provided that these databases are first created and then continuously updated.

With regard to the cataloguing of evidence, however, the use of AI could extend not only to the organisation of the evidence submitted by the parties, but even to the identification of only the evidence that is actually relevant to the decision, through the use of specific machine learning algorithms. Starting from the subject matter of the dispute, AI could be used to select documents relevant to the decision, excluding those that are irrelevant, given that, according to some[38], in most litigation, the relevant sources of evidence are already predetermined and limited on the basis of regulatory parameters, established interpretative criteria and procedural rules. However, such a perspective raises significant critical issues. In particular, there is the problem of identifying who is responsible for verifying, on a case-by-case basis, the correctness of the criteria adopted by the algorithm in selecting and categorising evidence for each case. Should judges limit themselves to checking the correctness of the cata-

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[35] Fabiani, E. (2021). Intelligenza artificiale e accertamento dei fatti nel processo civile. *Il giusto processo civile*, 49.

[36] To consult the report prepared by the University of Catania as part of the Project, please visit the following link: *https://www.giustizia.it/giustizia/page/it/upp_dettaglio_macroarea_6*

[37] Art. *35-bis* of Legislative Decree 25 of 28 January 2008.

[38] This is stated by Merone (2021). Le prove digitali e l'uso dell'intelligenza artificiale per finalità istruttorie. *Giusto processo civile,* 920, interpretando N. Picardi (with Martino, R. Panzarola, A., Picardi L. (2019). *Manuale del processo civile.* Giuffrè Francis Lefebvre, 128. (Original work published 1934).

loguing or are they also required to verify the correctness of the criteria used by the machine? Considering that ordinary judges do not, as a rule, have the technical expertise necessary to evaluate the functioning of complex algorithmic systems, it would seem necessary to introduce a technical support figure at this stage, similar to a court-appointed technical consultant, tasked with verifying the reliability of the selection criteria adopted by the AI[39]. The use of AI would therefore be useful for a more rapid selection of relevant evidence, but the need for an additional technical consultant would lead to a paradoxical effect: instead of simplifying the preliminary investigation phase, the use of AI in this case would risk adding a further element of complexity.

Finally, the use of AI in the preliminary investigation phase could also be applied in relation to operational needs that arise during this phase, in particular with regard to the automated transcription of hearings[40]. The use of voice recognition systems would make it possible to obtain, in a short time, a complete and structured transcription of the statements made in court, the questions asked by the judge and the observations of the parties, as is the case in criminal hearings. It could even be used to translate these statements. If used as mere technical aids, these tools would not directly affect the assessment of the evidence, but could help to strengthen the traceability of the investigation and the quality of the reasoning behind the judgment, providing the judge with a complete textual record of the proceedings, in addition to the minutes.

2.3. Digitisation in the decision-making phase

In the decision-making phase of civil proceedings[41], AI and legal analytics tools could primarily contribute to the drafting of judicial decisions. AI systems, currently being implemented, have proven capable of supporting judges in reconstructing the factual and legal aspects of a decision, identifying relevant regulatory provisions, and preparing clear and concise final decisions[42]. In this context, legal writing assistant projects such as *Cicero 43* developed by La Sapienza University are a concrete example of applications designed to contribute to the construction of the jurisprudence of the future[44]. *Fine-*

[39] Thus A. Merone (2021). Le prove digitali e l'uso dell'intelligenza artificiale per finalità istruttorie. *Giusto processo civile,* 920-921.

[40] As proposed in France by Information Report No. 216 (2024-2025) on AI and the legal professions.

[41] On the potential of using AI in the decision-making phase, see most recently Gioia, G. (2025). Intelligenza artificiale e indipendenza della magistratura: Un equilibrio tra trasparenza e controllo. *Rivista di diritto processuale,* 4, 1338-1363.

[42] On the requirement for conciseness in civil proceedings imposed by the *Riforma Cartabia*, see G. Gioia, G. (2024). *Chiari e sintetici: come scrivere in maniera efficace gli atti processuali secondo gli esperti.* Pacini Giuridica, 4 ff.

[43] Calamo, M., De Luzi, F., Macrì, M., Mencattini, T., Mecella, M. (2023). CICERO: A GPT2-based writing assistant to investigate the effectiveness of specialised LLMs' applications in e-Justice. *Frontiers in artificial intelligence and applications 372*, 3196-3203.

[44] For the report prepared by the University in the context of the *Giustizia Agile* project, please refer to the following link: https://www.giustizia.it/giustizia/page/it/upp_dettaglio_macroarea_3

tuned on approximately 20,000 civil judgments selected from a corpus of over one million decisions provided directly by the Ministry of Justice, the *Cicero* application has been programmed to enable the rapid and systematic integration of regulatory and jurisprudential references, offering standardised draft measures that replicate the style of the source documents and thus the style of the magistrates in order to facilitate their work. If one of the main critical issues of the justice system lies in the sluggishness caused by the many tasks weighing on magistrates, applications such as *Cicero* could make a difference. Although the judge would still have to intervene to verify the adherence of the general statements to the specific case[45], the drafting of the entire measure is one of the most time-consuming phases for the magistrate. As a result, this tool could provide concrete, albeit partial, assistance to Italian courts. This is also because *Cicero's* usability is not limited to magistrates alone, as it can be widely used by court clerks.

Secondly, following the adoption of the decision, AI can intervene in five main areas that are relevant for subsequent decisions.

Firstly, AI can be used to collect measures, aggregating judgements and orders to enable systematic analysis of rulings. Secondly, it can be used to 'chew' data through processes of anonymisation and maximisation of content (also under the supervision of dedicated task forces, *UpP* staff or students in agreement with universities), which allow the extraction of principles of law[46] from the measures issued by the courts of merit. The third area in which AI can be used is cataloguing, which allows maximised measures to be archived in easily accessible databases: whereas until a few years ago the only database was the CED of the Court of Cassation[47], today many judicial offices have begun to create their own databases, which are updated on a regular and continuous basis. AI can also be used to support any case law research in the databases, creating algorithms that can quickly identify precedents relevant to the case in question, thus enabling the sharing of knowledge between magistrates located throughout the country, but also between magistrates in the same judicial office. It seems illogical to allow law firms to be assisted by sentence search tools and, at the same time, prevent judges from the same judicial office from using systems that are specifically designed for the exercise of their functions and to assist them in their work[48]. Finally, in the medium to long term, given the rapid pace at which AI is advancing a database could be created that is accessible to the entire community, designed to discourage

[45] De Luzi, F., Macrì, M., Mecella, M., Mencattini, T. (2023). Cicero: An AI-based writing assistant for legal users. *Intelligent Information Systems (CAiSE 2023),* 477.

[46] Taruffo, M. (2018). Note sul precedente giudiziale. In A. Carleo, *Il vincolo giudiziale del passato*, Il Mulino, 109; Irti, N. (2017). Per un dialogo sulla calcolabilità giuridica. In A. Carleo, *Calcolabilità giuridica*. Il Mulino, 19.

[47] On the contribution of legal informatics to the nomophilic function of the Court of Cassation, see Di Cerbo, V. (2017). Banche dati di giurisprudenza, nomofilachia e trasparenza dell'attività giurisdizionale: L'esperienza del CED della Corte di cassazione. *Questione Giustizia, 3,* 93-98.

[48] Martínez Gutiérrez, R. (2021). Intelligenza artificiale, algoritmi e automazione nella giustizia. Proposte per una effettiva implementazione. *Il Processo,* 3, 437.

the most prudent citizens from bringing reckless civil lawsuits by allowing them to consult recent decisions issued by the court in their district on similar issues[49].

3. FROM *GIUSTIZIA AGILE* TO PREDICTIVE JUSTICE. PROSPECTS AND LIMITS IN THE USE OF AI

To date, the use of AI in Italian civil proceedings is still limited and mainly experimental. The tools introduced so far operate in a limited number of pilot judicial offices and have not yet been systematically rolled out. At this stage, technological innovation has mainly resulted in models of assistance to the justice system, designed as tools to support the work of judges, with limited impact on the decision-making aspects of the exercise of judicial power, which remains entirely the responsibility and autonomy of individual magistrates. This is also because Article 15(3) of the new law on AI, i.e. Law No 132 of 23 September 2025, provides that, until the full implementation of the AI Act, i.e. EU Regulation 2024/1689, the testing and use of AI systems in ordinary courts must be authorised by the Ministry of Justice after consultation with the Agency for Digital Italy (AgID) and the National Cybersecurity Agency (ACN). Although in recent weeks the Ministry itself seems to have opened up to the possible introduction of AI systems, at least in civil proceedings, preferring to provide its own system rather than authorise the use of others. In fact, it has been decided that, starting from 1 January 2026, the Office 365 package provided to magistrates will include a licence for Microsoft Copilot 365, a generative artificial intelligence system developed by Microsoft. Although this is currently an experiment for purely informational purposes, on a voluntary basis only, and "(…) without any impact on the decision-making aspects of the exercise of judicial power, which remains entirely the responsibility and autonomy of the individual magistrate, it falls within the scope of support for the magistrate's activity"[50]. According to As a consequence, the Ministry believes that AI cannot replace judges, but judges are granted the right to make use of this augmented intelligence[51]. This is also because the use of AI and jurimetrics[52] now seems unstoppable. Through the use of machine learning and cognitive analysis algorithms, it is not only possible to support magistrates in their work, but also to identify ex post recurrences in decision-making processes, prevailing jurisprudential trends and average

[49] On the importance of means of ascertaining the courts' positions before the start of proceedings, especially in labour matters D'Alessandro, E. (2025), Intelligenza artificiale generativa nel processo del lavoro: come cambia il rapporto tra avvocati e giudice. *Lavoro, diritti, Europa,* 1, 4.

[50] To consult the circular of 9 January 2025 that launched the Copilot system in judicial offices, see the link: h*ttps://pst.giustizia.it/PST/resources/cms/documents/Nota_informativa_sperimentazione_Copilot_signed.pdf*

[51] Fabiani, E. (2021). Intelligenza artificiale e accertamento dei fatti nel processo civile. *Il giusto processo civile*, 49.

[52] With regard to legal metrology, see the work of Magro Servet, V. (2018). The application of artificial intelligence in the administration of justice. *Diario La Ley, 9268*, 3-4.

times for the conclusion of proceedings, offering a statistical representation of the behaviour of the courts. The effect is that it is possible to estimate the probability of success of a given legal action, assess the advisability of appealing and guide litigation strategies on the basis of empirical indicators, marking the transition from supportive justice to progressively predictive justice[53].

Clearly, the question arises as to whether the use of such tools should really be a cause for concern and, if so, whether it can actually be prevented.

Firstly, it should be noted that using an artificial intelligence system does not mean delegating the entire management of the process to AI. The effectiveness of the digital ecosystem must be constantly monitored, even when AI is used for the simplest operations within the process: for example, it is necessary to ensure that the minutes and standards of the measures remain constantly aligned with sudden legislative changes or variations in the practices of individual judicial offices (e.g. in the event of a magistrate's holiday or maternity leave). Furthermore, the use of AI by civil judges does not mean delegating decisions to the system itself: the judge always remains the sole decision-maker. Each application remains a tool to aid calculation or writing, unable, at present, to replace the critical and evaluative judgement of the judge. We cannot entrust the decision to AI in the same way that Judge Brigliadoca in Rabelais delegated the decision to a roll of the dice. The decision of AI may not be the most "excellent, honest, useful and necessary" decision[54]; and this is true even if the AI has been perfectly programmed.

Furthermore, although the use of artificial intelligence raises concerns for some, it appears destined to become an unavoidable factor in our lives and therefore also in the pursuit of efficiency in civil justice. A change of perspective is therefore needed: given that the introduction of AI into the process is now a structural phenomenon, the question is not whether to fear its use, but how to govern its integration. This is also because it would be counterproductive for magistrates to renounce the use of such technologies, considering that lawyers already use them in defining defence strategies[55]. The main legal challenge will therefore lie not in limiting, or even demonising, the use of AI, but in putting in place adequate regulatory and operational mechanisms capable of ensuring the safe use of AI tools, imposing a prudent and adequately regulated approach in order to mitigate risks and potential distortive effects. In any case, where such adverse effects occur, they can never be attributed to the machine, but rather to those who designed and programmed it.

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[53] Shouldn't decisions always be predictable? Calamandrei, P. (2019). Giustizia e politica: sentenza e sentimento. *Opere giuridiche*, I, RomaTrE-Press, 646. On predictability, see Biavati, P. (2019), Elasticità e semplificazione: alcuni equivoci. *Rivista trimestrale di diritto e procedura civile,* 1163.

[54] Rabelais, F. (1994). *Le tiers livre des faicts et dicts héroïques du bon Pantagruel* (Chap. 39). In M. Huchon and and F. Moreau, *Œuvres complètes*. Éditions Gallimard.

[55] However, following events in the US where some lawyers cited non-existent judgments, they are now obliged to acknowledge that they used AI in drafting their documents. See the US case v. Merken S. (9 June 2023). Another US judge says lawyers must disclose AI use. *Reuters.com*, https://www.reuters.com/legal/transactional/another-us-judge-says-lawyers-must-disclose-ai-use-2023-06-08/

ChatGPT[56] agrees with this last sentence: when asked about it on the world's most famous chatbot, it replied, "Attributing the error to the machine would be incorrect because AI does not interpret, evaluate or motivate: at most, it influences the decision. But influencing is not the same as deciding".

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DIGITAL TECHNOLOGIES AND CIVIL PROCEDURE: A COMPARATIVE ANALYSIS BETWEEN EUROPE AND LATIN AMERICA

Francesco Olindo dal Maso
PhD Student in Civil Justice
University of Florence, Italy*

ABSTRACT: Civil justice is undergoing major transformations due to the progressive digitalization of legal proceedings. In this context, dialogue between Europe and Latin America is essential to foster a systemic and cultural analysis that may enhance cooperation. While Europe focuses on technological tools for proceedings, Latin America develops digital methods to improve dispute resolution and access to justice.

KEYWORDS: civil procedure; digital justice; Europe; Latin America; access to justice.

SUMMARY: 1. INTRODUCTION: TECHNOLOGY AND THE NEED FOR A COMPARATIVE REVIEW.— 2. TOWARDS THE DIGITALIZATION OF PROCEEDINGS IN THE EUROPEAN PERSPECTIVE: COMMON OBJECTIVES BUT DIFFERENTIATED WAYS?— 3. LATIN AMERICAN CIVIL PROCEEDINGS AND TECHNOLOGY AS A TOOL TO FOSTER THE ACCESS TO JUSTICE— 4. THE DIFFERENT APPROACHES TOWARDS THE SAME CHALLENGES: SOCIAL AND CULTURAL ANALYSIS AND A POSSIBLE CONVERGENCE— 5. CONCLUSION.— BIBLIOGRAPHY

1. INTRODUCTION: TECHNOLOGY AND THE NEED FOR A COMPARATIVE REVIEW

Over the past two decades, the growth of new technologies has influenced many fields of society bringing significant changes also in the administration

* PhD Student University of Florence, Italy. ORCID 0009-0002-1229-7852

of legal systems[1]. State bodies have started using digitalization to facilitate work, reduce administrative apparatus and improve the overall level of their services. In the justice sector, one major outcome of this trend has been the development of e-justice (or digital justice), understood as the broader process of digitising justice services through tools such as electronic documents and electronic communication between parties and courts[2]. More recently, some jurisdictions have also begun experimenting with artificial intelligence in selected stages of legal proceedings, which is moving the justice apparatus towards an "hybrid justice"[3]. Therefore, digitalization has generally been used by state authorities as an instrument to adapt the judiciary to the challenges of the digital age[4].

These developments have been particularly relevant for civil justice, which can be considered as a true example of a "common" good, given the high benefit that the community obtains from a well–functioning civil justice system, which is aimed at the correct application of legal norms and guaranteeing the protection of rights. Even when focusing narrowly on business-related disputes, the protection of property rights and the enforcement of contractual obligations are essential for the proper functioning of national economies[5]. Accordingly, many countries recognise the need to accelerate civil proceedings and increasingly rely on technological tools as one of the key actions to improve efficiency and performance[6]. Digitalisation can take different forms and reach different degrees: it may merely support traditional procedures, shift the dispute to a fully online environment, or—in more extreme scenarios—contribute to adjudication processes through AI-based systems[7].

At the same time, the concrete outcomes of digitalisation vary across regions and legal systems. In Europe, digital justice has often been promoted as a means to modernise court operations—especially in civil and administrative matters—through investments in ICT infrastructures and judicial applications[8]. In the following years, technology development increased its

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[1] Geurts and Teeuwen (2022) and Kryvosheina *et al.* (2022) discuss how new technologies have reshaped several sectors, including the administration of legal systems

[2] Palmirani *et al.* (2022) focus their approach on the different tool applied to civil justice by introducing the perspective of algorithm based applied to justice.

[3] This definition is recurrent in Martin Diz, (2024) and Sanchiz Crespo, (2023). On the introduction of the AI in the justice process see Nieva-Fenoll, (2022).

[4] Najafli *et al.* (2024) discuss the requirements for the implementation of technology in justice in the European framework.

[5] This approach is well designed by Ferrari & Mustari (2023, 124) that highlight the importance of civil jurisdiction as a fundamental part of the society.

[6] The other three are: the interaction between formal and informal justice; digitalization of consumer disputes; the collectivizing of civil litigation, Boniatti Feksa & Mello Correa de Barros Beuron (2021); Hoevenaars & Kas, (2021).

[7] The emphasis in this implementation of new tools in the civil justice is well made by Sinova & Hamulakova (2023).

[8] Fabri, (2024) tries to achieve an 'impossible mission' to track milestones and trends in the development and implementation of information and communication technology (ICT) in European judiciaries over the past twenty-five years and to summarize some lessons learned in the past quarter century and outline possible future trends.

role in civil procedure and raised more questions not only in juridical areas, but also in sociological, anthropological, and cultural trends. Concerns have been raised about the implications of digital tools for core procedural guarantees, including equality of arms, fairness, adversarial participation, and immediacy.

In the past decade, governments have invested in digitalising justice to strengthen Member States' justice systems and make them more accessible, efficient, resilient and ready to face current and future challenges. Efforts have therefore been also made by Institutions (such as the Unidroit that issued the Eli/Unidroit model European rules on civil procedure) to articulate common principles guiding the use of electronic means in civil justice. Nevertheless, the EU Justice Scoreboard 2025 indicates that the level of digitalisation still differs significantly among countries, suggesting that substantial space remains for coordination and improvement. According to the report of the European law institute on the digitalization of civil justice systems in Europe, this trend shows that even in a very complex and structured legal community like the Eu there is significant room for improvement and a better need for coordination, but matching technology to legal needs, including protection of fundamental rights, is always a complex and long pathway[9].

On the other side of the world, in Latin America, digital transformation has emerged as a potentially crucial instrument to address longstanding barriers to access to justice. According to the World Justice Project, the region records low average performance on the civil justice indicator related to unreasonable delays, and public confidence in the judiciary remains limited[10]. Considering these challenges, digital transformation emerges as a crucial tool to overcome the existing barriers towards the access to justice: the integration of ICT tools has been pursued not only to improve efficiency for internal users, but also—and especially—to expand access to justice for new and occasional users. The COVID-19 pandemic accelerated this trajectory and led to concrete measures such as interoperability among IT systems, digital case files and signatures, digital evidence submission, scheduling platforms, and remote (telematic) hearings[11]. However, rapid implementation has also exposed vulnerabilities: challenges have not concerned technology per se, but rather the conditions and rationale for its adoption, including improvisation, limited training, and other operational shortcomings that have contributed to further strain on already congested civil justice systems[12].

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[9] The main objective of the project is to provide an overarching framework to improve the use of digital technologies in the justice system, to pool dispersed knowledge and facilitate the digitalization of civil justice while ensuring the core values of civil justice.

[10] According to Latinobarómetro 2023, 68 por cien of the population has little or no confidence in the judiciary (Banco Interamericano de Desarrollo, 2025).

[11] Rua & Postigo (2021) introduce a special issue focused on the impact of Covid in South America as a chance to modernize the judicial system.

[12] This overview is well presented in Lillo & Vargas (2021) and Lillo (2023, 354) make their comparison between the implementation of ITC in various places of the South America with a complete overview of the effects of the pandemic in this framework.

Given the scope and complexity of these transformations, the study of contemporary civil procedure benefits from a comparative methodology aimed at understanding underlying drivers and systemic consequences rather than merely juxtaposing formal rules. The increasing globalisation of justice and the growth of cross-border interactions have highlighted meaningful procedural divergences, making comparison essential both to identify structural weaknesses and to assess possible paths toward convergence. Within this framework, scholarly debate increasingly refers to the concept of a "global civil procedure" aimed at harmonizing procedural rules, practices, and shared understandings governing transnational litigation and arbitration. This approach reflects the view that procedural systems are a faithful mirror of the conception of life that dominates in each place and at a given moment in history and establishes its boundaries beyond the simple collection of rules as contained in the codifications of the country. Instead, this complex and continuous transformation process should be analysed through a complex comparison that should involve a wide interpretation of the causes and consequences of any innovation for the purpose of elaborating new possible solution for a challenging reality. On this basis, a comparison between Europe and South America provides a useful lens through which to examine recent technological innovations in civil procedure and to evaluate how different legal environments integrate digital tools. Focusing on jurisdictions that appear particularly advanced within each region can offer a structured overview of key trends and enable well-grounded conclusions[13].

2. TOWARDS THE DIGITALIZATION OF PROCEEDINGS IN THE EUROPEAN PERSPECTIVE: COMMON OBJECTIVES BUT DIFFERENTIATED WAYS?

Across Europe, technology has primarily been used to digitise established procedural workflows rather than to redesign civil proceedings from scratch. In most EU Member States, digital justice is either completed or close to completion, particularly with respect to electronic filing, service, and document exchange, which have simplified users' interactions with courts and improved administrative efficiency[14]. According to the report on "Digitalising justice: a fundamental right based approach"[15], the European Union, the Council of

[13] The crucial importance of comparison is well noted in the overall works of Sacco. The necessity of integrating the international dimension of civil procedure – according to Cirillo, (2025) a real "global civil procedure) rather than studying the simple comparison between two systems is established by Cappelletti, (1969, 313) and Calamandrei (1956, 76). Therefore, "an insulated study of law and procedure, sealed within local and national boundaries, does not correspond to the growing international dimension of our epoch" (Cappelletti, 1971, 886).

[14] In addition, according to Donati (2024, 16) and Fabri (2021) the widespread use of remote hearings—especially during the COVID-19 pandemic—allowed proceedings to continue in oral form when physical access to courtrooms was restricted.

[15] A project of the European Union Agency for fundamental rights build upon the work of European and other international actors; the Council of Europe's European Commission for the Efficiency of

the European Union and the European Commission have worked together closely to establish several cross-border digital initiatives in the sector of justice, including work on multiannual e-justice strategies, specific action plans since 2009 and the development of the European e-Justice Portal. The latest digital justice strategy for 2025–2030 was published in November 2025 ("DigitalJustice@2030"), together with the European judicial training strategy (which has the express purpose of "Creating a supportive environment for DigitalJustice@2030") and aimed to support and strengthen Member States' capabilities to deploy and use digital technologies, including AI tools, in their judicial systems[16]. The Commission proposed "the digitalisation package" in 2021 and the EU adopted several secondary instruments, such as the AI Act (Regulation 2024/1689), seeking to guarantee a common approach to the use of modern technologies in cross-border judicial cooperation and access to justice. The package was adopted in December 2023 and included Regulation (EU) 2023/2844 on the digitalisation of judicial cooperation and access to justice in cross border civil, commercial and criminal matters (the EU Digitalisation Regulation) and Directive (EU) 2023/2843 as regards digitalisation of judicial cooperation[17].

In this framework, Italy, Spain, and Germany illustrate, through their systems, three distinct models that make easier to understand this overview. Italy has been starting a huge reform process in terms of digitalization of the civil proceedings, from the d.P.R. 13 february 2001 n. 123[18] that firstly theorized the digitalization of the judicial system starting with the civil process[19]. At the beginning of the digitalization of the civil process in Italy, technology used to be seen as a support to automatize some of the part of the process, like the judge agenda or the pre-determined structure of some parts of the minute of the hearing, without taking into account the possibility of radically substituting the human space of the audience with a "telematic audience". In 2011, following the successful completion of the experimental phase before the courts, was declared the activation of the electronic civil procedure[20],

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Justice (CEPEJ) and the Consultative Council of European Judges (CCJE), among others which provides empirical analysis and guidance for EU institutions and Member States on how to ensure that digitalised justice processes and systems facilitate and protect fundamental rights – such as access to justice.

[16] A key outcome of this initiative is that natural or legal persons and their legal representatives will be able to communicate electronically via a European electronic access point that will be operational as of 2028. Authorities will be able to exchange data on civil, commercial and criminal matters with cross-border implications relating to 24 judicial procedures through secure and reliable digital channels.

[17] For Fabri, (2024, p. 15) Despite these shared objectives, national implementation remains uneven, largely because the organisation and governance of judiciaries differ across countries.

[18] Actually, the very first normative legislation were dpr 59 of 1997 on the judicial validity of the digital document, the dpr 513 of 1997 on the digital document and digital signature but the very first discipline of the use of digital instrument in the civil process was the dpr of 2001 n. 123.

[19] Pisano (2021, 1) recalls the whole history of the implementation of the technology in the Italian civil proceeding. According to Buonomo (2004, 37) this first step could not be defined as the true "telematic civil process" since it did not bring substantial changes in the proceedings: digital instruments only intervened into the formation and delivery of documents in the through informatic means.

[20] Ministerial Decree of 21 February 2011, No. 44

which became mandatory for all courts starting from 30 June 2014, when all courts became subject to the exclusivity of electronic filing of pleadings and documents[21]. The pandemic brought the introduction of new form of audience[22], including the remote hearing and this shift also raised constitutional and fair-trial concerns—especially regarding immediacy, adversarial participation, and defence guarantees[23].

Spain followed a similar trajectory from a paper-based procedural culture to a progressive legal framework enabling ICT in the administration of justice. The transition, however, was operationally demanding for courts and practitioners after a long tradition of physical and paper-oriented formalities: after the Organic Law of the Judiciary (LOPJ) of 1985, and the Civil Procedure Act (LEC, 2000), where judicial proceedings were the need for physical presence in virtually all judicial acts was still a sine qua non condition[24]. Law 18/2011 of 5 July regulated the use of information and communication technologies within the Administration of Justice with the purpose to establish a technological framework for the functioning of the public justice service, while the following act 42/2015 introduced the mandatory it application for all documents of the civil process[25]. Royal Decree-Law 16/2020 of 28 April, on procedural and organisational measures to address COVID-19 in the sphere of the Administration of Justice, and introduced virtual hearings and Royal Decree-Law 6/2023 took a further step by seeking to adapt the Spanish judicial system of the twenty-first century to the contemporary technological framework and to promote digital interaction between citizens, professionals, and judicial bodies in order to enhance efficiency[26]. This project resulted in the Ley Organànica 1/2025 where the Iberian government attempted to pursue the efficiency of justice through the implementation of Adequate Dispute Resolution Mechanisms ("MASC") and a decisive application of technology to such methods by integrating the crucial role of the online platform where to settle out of courts disputes, like online mediation in certain small-value claims.

Germany, by contrast, reflects a more instrumental and continuity-oriented approach. Digital tools—such as electronic filing and video hearings—have been legally available for years within the ZPO framework (e.g., §§ 128a, 130a–130e), yet were used cautiously in practice until the pandemic increased

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[21] Article 16-bis of Decree-Law No. 179 of 18 October 2012 and the following law decree 90 of 2014.

[22] Decree law n. 18 of 2020

[23] Mancuso (2023, pp. 606–608) shows how those international courts to rely on interpretive solutions and "good practices" in implementation.

[24] Tomàs Lòpez, (2025) emphasizes how the country is currently experiencing a process of transformation.

[25] According to Montero, (2023) the implementation of this law in practice was not at all easy but such 'practice' was very useful when the spread of coronavirus in 2020 forced many measures to turn the civil process only electronical.

[26] Alvarez (2024) points out that by the implementation of the strategic plan Justicia 2030 the country tried to pursue the digital efficiency of the legal proceedings in civil matters without losing the efficacy thanks to the implementation of technology.

their operational relevance. From a theoretical standpoint, German civil procedure is traditionally grounded in formal rationality, judicial control over the proceedings and a highly structured sequence of procedural acts. Within this framework, digitalisation has not been understood as an opportunity to reshape participatory dynamics or redefine access to justice, but rather as a technical support mechanism serving the existing procedural order[27]. This conceptual orientation is reflected in the normative framework governing digital justice. Already with the 2002 reform of the ZPO, the German legislator introduced provisions allowing electronic communication and the use of videoconferencing in civil proceedings, notably through Articles 128a and 130a–130e ZPO. These rules enable courts to conduct hearings and take evidence by audiovisual means and permit the electronic filing and transmission of procedural documents. However, for almost two decades, these provisions remained largely underutilised in practice given the discrepancy between the advanced legal framework and its limited application caused by insufficient technical infrastructure, uneven digital equipment among courts and a certain degree of judicial scepticism towards remote proceedings contributed to the marginal use of these instruments. Section 128a ZPO, despite its long-standing availability, was perceived as an exceptional option and applied sparingly, confirming the reluctance to depart from traditional in-person hearings till the pandemic that brought substantial changes in the legal framework and in the reforms implemented[28]. Nonetheless, digitalisation was still deployed as a contingent solution to an exceptional situation, not as a means of structural reform: the reforms introduced in 2024 seek to consolidate the use of videoconferencing by facilitating its application, while preserving broad judicial discretion to refuse remote hearings when deemed unsuitable due to the complexity of the case, evidentiary needs or technical constraints.

Overall, Europe shows a clear commitment to digital justice, but progress remains differentiated. The EU can promote shared tools and minimum standards in areas within its competence, yet it cannot impose a fully uniform procedural model across Member States. As a result, European digitalisation continues to evolve through a combination of common objectives and nationally specific implementation paths.

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[27] Hess, 2024 presents the possible overview of the German system where technology tends to be subordinated to procedural dogmatics and must operate within the limits imposed by principles such as orality, immediacy and judicial discretion. The author describes the German experience can be described as a model of digitalisation oriented towards administrative efficiency rather than participatory enhancement since the core elements of the civil process—judicial authority, professional legal representation and the structured sequence of procedural acts—remain unchanged

[28] According to Stadler (2025) the pandemic marked a decisive moment when German judiciary faced with the necessity of ensuring procedural continuity under conditions of restricted physical access to courts, videoconferencing and electronic communication became indispensable and enhanced procedural efficiency by reducing delays and organisational burdens.

3. LATIN AMERICAN CIVIL PROCEEDINGS AND TECHNOLOGY AS A TOOL TO FOSTER THE ACCESS TO JUSTICE

Beyond the European dimension—where the deployment of technology in civil justice has been guided by shared objectives, albeit implemented through different national models—Latin America has experienced more uneven outcomes in the use of technology within the justice sector. Within this broader reform agenda, the incorporation of information and communication technologies (ICT) became increasingly relevant, as new procedural designs required more effective case-file management, reliable scheduling, recording of hearings, and, more generally, a more efficient judicial "back office" in order to function properly[29]. Unlike several European models that mainly digitise existing workflows, South American jurisdictions have frequently framed technology as a "democratic" tool, closely connected to access-to-justice policies and broader institutional modernisation[30].

Among all Latin American countries, Brazil has achieved one of the most sensational results by creating a long-lasting pathway that reached the almost complete digitalization of the justice: in 2001, Federal Statute n. 10.259 foresaw the possibility of online communication and electronic exchange of documents in court proceedings and courts began to digitalize their dockets. A few years later, in 2003, many courts across the country started to implement digital platforms for a fully electronic court procedure, from filing until sentencing. In 2006, the digitalization of judicial processes (Law No. 11.419), addressed three main objectives of judicial court procedures digitization: (i) virtual processing, from e-filing through hearings, decision-making, appeals and enforcement; (ii) communication between parties and the court; and (iii) transmission and storage of pleadings and documents[31].

The Code of Civil Procedure of 2015, Law No. 13.105/2015, also provided for the adaptation of the law to regulate procedures related to electronic processes including the recorded hearing which replaces the previously used written documentation[32]. Such reforms made the way for the implementation of the programme Justice 4.0 launched in 2021 with the support of the

[29] Gargarella, (2004) describes how, in practical terms, the major difficult that south American countries tried to address through their reforms in terms of technology was the delay of proceedings, their formalism and the geographic location of the courts as factors influencing the lack of access to justice in this region.

[30] As a matter of fact, in the second half of the twentieth century, many Latin American countries launched wide-ranging judicial reforms aimed at aligning their justice systems with "modern" and "democratic" standards, with a particular focus on improving access to justice (Soleto & Fandiño, 2017)

[31] While Cabral, (2024, 243) underlines the innovation of that legislation, Miguel (2017) says that progress was not linear: despite these advancements, implementation was often slow, gradual, and fragmented, largely because courts lacked a unified integration method and many relied on separate systems developed by private providers, creating costs and licensing constraints.

[32] Particularly in Articles 193 to 199 that directly address electronic practices and procedural acts

United Nations development programme (UNDP) that serves as a catalyst for digital transformation within the Brazilian Judiciary. By fostering the development and use of new technologies the initiative aims to guarantee more agile and effective services, ultimately simplifying access to justice for all and ultimately led to the launch of the Jus.br portal in 2024, the National Council of Justice (CNJ), with UNDP's support through the project, has digitally transformed 365 million judicial cases. This shift is key to building a justice system that is more efficient, transparent, and closer to people (UNDP, 2025). In parallel, Brazil has actively explored the use of AI in the administration of justice: in August 2020, the National Council of Justice issued Resolution No. 332, addressing key issues such as ethics, governance, and regulatory safeguards for AI systems in the judiciary (CNJ, 2020).

Colombia offers a different picture, where ambitious legislative and policy initiatives have intersected with persistent infrastructure constraints. Although the country launched a comprehensive Programme for the Digital Transformation of Justice in 2021 to increase transparency and efficiency, it continues to face significant "digital divides", particularly affecting rural areas. For instance, internet penetration remains difficult in vast areas, and the state's average download speeds are among the lowest in the region, although there is a high level of satisfaction with the digital public services provided by national level public institutions linked to culture, commerce, foreign affairs and communication, satisfaction with public institutions in justice, where especially the interior and environment sectors lag (Oecd, 2019). The Program for the Digital Transformation of Justice in Colombia was therefore launched to increase the effectiveness, efficiency and transparency of the Justice System (Programa para la Transformación Digital de la Justicia en Colombia) to resolve judicial processes and improve the attention to the legal needs satisfied with the citizens. Even with some problems in its implementation[33], Colombia has been notably bold in its legal framework for technology in civil justice. Law No. 2213/2022—adopted in the wake of the pandemic—encouraged the use of technological innovations to make procedures "nimbler" and to improve access to justice, granting broad discretion as to the tools and methods that may be used, provided that core procedural safeguards are respected.

This trend has produced high-profile developments in the debate on AI in adjudication. In particular, two cases drew attention to the use of generative AI tools in judicial decision-making. On 30 January 2023, in Salvador Espitia Chávez v. Salud Total EPS (2023), the judge acknowledged using ChatGPT to support his reasoning and disclosed the questions and answers produced by the system. Subsequently, the Constitutional Court of Colombia decided

[33] As pointed out by Zia & Acosta, (2001) this technological improvement still crashes into structural problems of the general access to justice: the speed of the download is one of the lowest in the all area of Latin America and, even if in the cities they are experiencing project of diffusion of internet thought computers in public spaces libraries, the penetration of the internet in the state is still difficult in the vast rural areas of the country.

on the constitutionality of a second instance ruling involving a minor's fundamental right to health. The Court examined whether the second-instance judge had breached the fundamental due process right by incorporating text produced with ChatGPT in his ruling. The content created with the chatbot consisted of answers to four legal questions that the judge transcribed as part of the motivation of his ruling. In its ruling, the Court cited UNESCO's Recommendation on the Ethics of Artificial Intelligence (August 2024 ruling (T-323/2024), that AI tools cannot substitute judicial reasoning and must not undermine these protections. The Court required that whenever AI is employed in adjudication, its use requires disclosure, transparency, and human accountability. With the law 422/2025, Colombia regulated AI development, use, and governance to ensure safety and ethics, drawing on EU-style risk classification (prohibited, high, limited, minimal legislation of the country focused on the great innovation of the AI by integrating in its becoming the first country to adapt UNESCO's Guidelines for AI Use in Judicial Systems, a framework designed to help judiciaries integrate artificial intelligence (AI) while safeguarding ethics and human rights[34].

Finally, the Chilean experience represents one of the most advanced examples of a transformative and participation-oriented model of digital justice in the South American context[35]. In Chile, digitalisation is not merely an upgrade: it is part of a longer reform strategy aimed at addressing excessive formalism, delays, and geographic barriers. Law No. 20.886/2015 (the Electronic Litigation Act) marked a decisive turning point by establishing mandatory electronic case files and the exclusive use of digital means for filing, storing, and managing procedural documents. These reforms were characterised by a clear policy objective: to redesign judicial procedures in a manner consistent with constitutional principles of due process, equality of arms and effective judicial protection, while responding to the concrete needs of users of the justice system (Lillo, 2023). Law No. 20.886 marked a decisive turning point by establishing the mandatory electronic case file and the exclusive use of digital means for the submission, storage and management of procedural documents. This reform did not simply dematerialise paper files; it reorganised procedural interaction around a single digital environment, the Oficina Judicial Virtual (OJV), enabling continuous, remote, and transparent access for parties, lawyers, and courts[36]. In this respect, digitalisation directly inter-

[34] Which were redacted by Juan David Gutiérrez, PhD, Associate Professor, University of Los Andes, Colombia.

[35] The difference with the European systems—where digitalisation has often been conceived primarily as a technical optimisation of pre-existing structures—is underlined by Riego & Lillo (2015) as the Chilean approach is embedded in a broader trajectory of procedural reform that explicitly targets access to justice, procedural guarantees, and the role of parties within civil proceedings.

[36] According to Miralles & García, 2024 in this model the electronic case file also has a procedural significance: by ensuring real-time access to acts and decisions, it enhances transparency and strengthens parties' capacity to monitor and participate in proceedings, reducing information asymmetries and mitigating disadvantages linked to distance from judicial centres.

sects with the right of access to justice, understood not merely as access to courts, but as effective participation in the adjudicatory process.

Chile has also adopted a comparatively open approach to remote procedural acts, including hearings, which expanded significantly during the COVID-19 pandemic but were already conceptually compatible with the broader reform framework. Remote hearings have been treated not only as emergency measures, but also as stable mechanisms to facilitate participation in a country characterised by wide territorial extension and marked disparities[37]. In this context, the digital environment is seen as capable of strengthening, rather than weakening, procedural guarantees, provided that it is accompanied by adequate institutional design and judicial oversight. At the same time, the Chilean experience also acknowledges relevant risks, especially those related to the digital divide and unequal access to technological resources. Yet, in a rights-oriented model, these risks are treated as central normative challenges rather than peripheral side effects, prompting policies focused on user-oriented design, training, and support mechanisms. In comparative perspective, Chile thus offers a counter-model to the predominantly instrumental European paradigm: while systems such as Germany's trend to integrate digital tools to streamline existing procedures, Chile employs technology as a means of procedural reconfiguration, explicitly connected to access-to-justice objectives and to the practical exercise of procedural rights.

4. THE DIFFERENT APPROACHES TOWARDS THE SAME CHALLENGES: SOCIAL AND CULTURAL ANALYSIS AND A POSSIBLE CONVERGENCE

The comparative analysis of European and South American experiences demonstrates that the digitalisation of civil proceedings cannot be adequately explained as a purely technical or regulatory phenomenon. Rather, it reflects distinct socio-cultural conceptions of civil justice, which shape both the objectives attributed to technology and the procedural roles it is allowed to play. The divergence between the two regions does not lie primarily in the level of technological sophistication, since both continents seems to reflect some issues in the digital divide: the European countries have a slightly higher percentage of citizens using ICT, while Latin America is highly diversified in this regard[38]. Instead, the main difference is the function assigned to digital tools within the civil process. In the European context, digitalisation has predominantly evolved as a process of instrumental adaptation of pre-existing pro-

[37] As the Chilean scholarship also Lillo (2023) emphasised that digitalisation should be assessed primarily through the lens of fundamental procedural rights: technology is not neutral, because it reshapes the ways in which adversarial participation, equality of arms, and effective defence are realised in practice.

[38] The digital divide is characterized by the place of residence (rural areas), low income and low level of education. Itis the common framework of most countries and according to Sanchez-Castillo *et al.*, (2019) represents a struggle to their progress in technology.

cedural frameworks to the new facilities to make proceedings faster and to enhance the cooperation between countries. Civil procedure continues to be understood as a structured sequence of legally predetermined acts, governed by judicial control, professional representation and procedural formalism. Within this paradigm, technology is expected to enhance efficiency, speed and administrative coordination, while preserving the normative stability of the process. Digital filing systems, electronic service of documents and remote hearings therefore operate as digital equivalents of traditional procedural acts, rather than as mechanisms capable of reshaping participation or access to justice.

This instrumental approach reflects a broader European legal culture characterised by relatively consolidated judicial infrastructures and a high level of institutional trust[39]. European reforms thus tend to privilege incremental change, judicial discretion and continuity of procedural roles, resulting in a model of digital justice focused on administrative rationalisation rather than structural transformation. By contrast, South American jurisdictions have approached digitalisation from a fundamentally different starting point. In a context marked by structural barriers to access to justice—such as geographic distance, procedural formalism, excessive delays and limited institutional capacity—technology has been mobilised as a strategic instrument of reform, closely intertwined with access-to-justice policies. Digitalisation is therefore conceived not merely as a means of improving efficiency, but as a tool capable of reconfiguring procedural participation and expanding the reach of civil justice.

This transformative orientation is particularly evident in the adoption of mandatory electronic case files, centralised digital platforms and extensive use of remote procedural interaction, as exemplified by the Chilean experience. In these systems, digitalisation alters the spatial and temporal dimensions of litigation, reduces informational asymmetries and enables more continuous and transparent engagement by parties, thereby directly affecting the practical operation of procedural guarantees. The South American model further distinguishes itself through the creation of new digital instruments, rather than the mere digitisation of existing ones. This has led to the fact that, by now, the region is experiencing the phenomenon of the so-called "digital inequality." Some countries are far ahead of their neighbours, who previously neglected digital development[40]. The development of Online Dispute Resolution (ODR) mechanisms, which is continuously expanding as a set of tool that is creating a new dimension for the dispute settlement[41], and the early

[39] Therefore, for Onțanu, (2023), digitalisation is often framed as a risk-sensitive innovation, requiring careful calibration to avoid undermining fundamental procedural guarantees such as equality of arms, immediacy and the right to be heard.

[40] For Galvez *et al.*, (2025) this situation further exacerbates economic inequality in the region, the problem of which is quite acute in Latin America.

[41] That is well described by Felicetti, (2023) that underlines the different levels in which the Odr are constanly evolving and how institutions are approaching these new tools.

integration of artificial intelligence into judicial and quasi-judicial activities illustrate a willingness to experiment with alternative forms of dispute resolution aimed at addressing unmet legal needs. These innovations have triggered intense doctrinal and institutional debates—particularly in relation to AI—concerning transparency, accountability and the preservation of human decision-making, as shown by recent Colombian case law and scholarship.

From a socio-cultural perspective, these differences reflect two competing conceptions of civil justice. The European model prioritises procedural continuity and risk control, embedding technology within a stable normative framework. The South American model, by contrast, accepts a higher degree of experimentation and regulatory uncertainty in order to pursue broader goals of inclusion and accessibility[42]. Neither approach is normatively superior per se, but both reveal structural limits: the European model risks under-utilising the participatory potential of technology, while the South American model faces significant challenges in ensuring equality, procedural safeguards and technological inclusiveness. This tension prepares the ground for the conclusions that follow, in which the comparative implications of instrumental and transformative digitalisation are further developed.

5. CONCLUSION

The comparative analysis conducted in this study reveals two distinct yet complementary approaches to the digitalisation of civil justice in Europe and South America, each shaped by specific institutional, socio-cultural and structural conditions. In line with Cappelletti's comparative methodology, the findings confirm that procedural innovation cannot be assessed solely through normative convergence but must be understood in relation to the social functions that civil justice is expected to fulfil. European experiences demonstrate a predominantly instrumental model of digitalisation, focused on the progressive digital translation of procedural tools already embedded in the civil process. Electronic filing, digital case management and remote hearings operate as efficiency-enhancing mechanisms that preserve the traditional architecture of civil procedure[43].

By contrast, South American experiences illustrate a more transformative and interventionist model, in which technology is deployed to address structural access-to-justice deficits and to create new procedural pathways. Initiatives such as Brazil's Justice 4.0 programme, Chile's fully electronic litigation framework and Colombia's early engagement with AI exemplify an approach in which digital tools are explicitly linked to inclusion, participation and the

[42] But, in this framework, for Albornoz & Martìn, (2012), it experiences some inequalities, with the same instruments trying to address such differences.

[43] For Inchausti, (2024) at both national and EU level, digitalisation policies aim to improve administrative coordination, interoperability and resilience, while respecting Member States' procedural autonomy and safeguarding established guarantees.

expansion of dispute-resolution capacity. In this context, ODR mechanisms and AI-assisted tools are not merely ancillary technologies, but components of broader strategies aimed at rethinking how civil justice is delivered. Both models confront the challenge of the digital divide, albeit in different forms. In Europe, disparities primarily concern digital literacy and uneven technological uptake across jurisdictions, while in South America infrastructural and socio-economic inequalities pose more acute risks of exclusion. These challenges highlight that digitalisation, if not carefully governed, may reproduce or even exacerbate existing inequalities. The comparative lesson emerging from this study is therefore not a call for uniform digitalisation strategies, but for context-sensitive approaches that align technological innovation with procedural values and access-to-justice objectives. European systems may benefit from engaging more explicitly with the participatory potential of digital tools, while South American reforms underline the importance of embedding technological experimentation within robust safeguards for procedural fairness and accountability.

In conclusion, the dialogue between European and South American experiences demonstrates that digitalisation is not an end, but a means whose procedural significance depends on the goals it is designed to serve. Effective digital justice requires balancing efficiency with participation, innovation with guarantees, and technological ambition with institutional capacity. Yet these trade-offs are shaped by context: funding levels, court culture, connectivity, and public trust influence whether platforms expand access or merely accelerate exclusion. Design choices such as default online filing, remote hearings, automated scheduling, and data-driven case management must therefore be accompanied by transparency, judicial oversight, and robust remedies for technical failure. Training for judges, lawyers, and clerks, alongside cybersecurity and interoperable standards, is equally decisive. Pilot projects and independent evaluations can prevent costly lock-in and reveal unintended distributive effects early. Comparative analysis thus remains essential for identifying both the promises and the limits of digital transformation in civil procedure, and for translating lessons into realistic, rights-respecting reforms.

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ALGORITHMIC NEUTRALITY OR DIGITAL INEQUALITY? AI AND THE LESSONS FROM ISDS

Dr. Esma Yağmur Sönmez*
Senior Expert
Turkish Radio Television Corporation

ABSTRACT: The article argues that AI-driven judicial reform initiatives within civil justice systems repeat an established pattern in which critique is absorbed into procedure. Using Investor–State Dispute Settlement (ISDS) as a cautionary mirror, it shows how managerial legality performs neutrality while reproducing inequality. It then outlines a human-centred alternative grounded in participation, accountability, and contestability, calling for a shift from design-led legitimacy to democratic oversight.

KEYWORDS: AI; Legitimacy; Accountability; ISDS; TWAIL

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* ORCID: 0000-0002-3898-0505

1. INTRODUCTION. LAW'S NEW TECHNICAL TURN

Artificial intelligence (AI) has entered legal discourse with striking ease. Across jurisdictions, courts are experimenting with automated filing, digital case management, and predictive analytics. Governments present these systems as pathways to efficiency and access to justice, while private vendors market them as tools of modernisation. The vocabulary—transparency, objectivity, neutrality—echoes earlier moments when law sought to renew its legitimacy through technical improvement rather than political reform (Kennedy, 2016, pp. 93–100, 106–107; Koskenniemi, 2005, pp. 589–596).

Yet this technical turn also redefines what fairness means. When procedures become automated, judgment does not disappear—it moves into design. How datasets are constructed, optimisation goals defined, and acceptable margins of error determined all shape decisions that are not purely technical. In practice, these choices often reflect underlying political judgments (Crawford, 2021, pp. 134–136; Eubanks, 2018, pp. 43–47). What looks like neutrality is already an act of governance.

This article offers a conceptual comparison between the reform discourse of Investor–State Dispute Settlement (ISDS) and contemporary AI-driven judicial reform initiatives within civil justice systems. Both, it argues, perform legitimacy through the language of expertise and neutrality. The comparison is not intended to suggest institutional equivalence between ISDS and civil justice systems. Rather, it operates at the level of governance rationalities, focusing specifically on how AI-driven judicial reform initiatives translate legitimacy concerns into managerial and technical solutions. ISDS once presented arbitral professionalism as a guarantee of fairness; digital justice initiatives now present algorithmic precision in much the same way. In each case, reform transforms critique into management—what Koskenniemi (2005, pp. 589–596) describes as the technical management of political conflict.

Arbitration was often presented as a way to depoliticize economic relations. In practice, however, it has been associated with constraints on states' regulatory autonomy and with reinforcing existing North–South asymmetries (Anghie, 2005, pp. 245–251; Miles, 2013, pp. 112–118; Van Harten, 2007, pp. 28–31). Reform projects that equate fairness with efficiency risk missing the point. *Access and participation are not by-products of good design; they are its test*. When they disappear, reform turns into performance. Authority is increasingly exercised through technical systems that structure and shape behaviour, often in ways that remain difficult to interrogate or contest (Yeung, 2018, pp. 507–510).

Digitalization in civil justice is taking shape within societies already marked by a deep digital divide. If these realities are ignored, technology will not close the gap—it will widen it in quieter ways. The critical traditions of international law help to name what is happening.

Koskenniemi reminds us that law often swings between moral hope and political compromise, and TWAIL asks whose history and experience are hidden when neutrality is taken for granted. Read together, they show that good intentions easily turn into management routines: reform begins to look like change, even when the structure stays the same.

Seen through this lens, the promise of human-centred AI reflects the same optimism that once surrounded ISDS reform—the belief that fairness can be engineered. The challenge, however, is not to perfect design but to recover accountability, to ensure that the authority law exercises through technology remains open to question.

This article proceeds as follows. Part II develops the theoretical frame drawing on Koskenniemi and TWAIL; Part III examines how managerial legality shaped ISDS and its reforms; Part IV analyses how similar logics appear in digital justice architectures; Part V outlines a human-centred alternative grounded in participation and rights; and the conclusion argues that neutrality must give way to accountability if legitimacy is to endure in the age of AI.

2. THEORETICAL FRAME. LEGITIMACY AND NEUTRALITY IN LAW

Legitimacy is never something law can simply rely on; it has to be rebuilt through rules, procedure, and the promise of fairness. Legal orders sustain authority by managing conflict through neutrality and expertise. This is the core of Martti Koskenniemi's account of international law, where argument moves endlessly between *utopia* and *apology*—between moral hope and political compromise (Koskenniemi, 2005, pp. 589–596). When law is accused of bias, it retreats into technical form; when charged with rigidity, it borrows the language of justice. Each move repairs legitimacy for a moment, yet the tension remains. Law often manages conflict by translating it into the language of principle rather than resolving it outright.

In the digital age, this oscillation returns in technological form. AI tools in courts transform moral questions into design choices: accuracy rates, optimisation goals, explainability standards. The result is a restatement of Koskenniemi's account of how legal reasoning manages political conflict through technical form. The promise of human-centred AI, much like the older faith in "rules-based adjudication," performs impartiality while keeping disagreement manageable. What matters is not only the outcome but the image of method: a system that looks consistent is presumed legitimate even when its foundations remain opaque (Kennedy, 2016, pp. 93–100).

Third World Approaches to International Law (TWAIL) bring a second strand to this argument. TWAIL scholars remind us that neutrality has a history. What claims to be universal often carries the marks of hierarchy — for instance, colonial investment protections once framed as "development". Emerging in response to colonial legal order, TWAIL shows how doctrines

such as civilization or development masked domination behind legal reason (Anghie, 2005, pp. 245–251; Mutua, 2000, p. 32). In this light, neutrality is not an escape from politics but its continuation in another language. The same logic now risks reappearing in digital justice reform, where inequality is reframed as a technical flaw in data or design rather than as a question of power (Gathii, 2011, pp. 27–29).

Koskenniemi and TWAIL converge on a shared insight: law's authority depends less on its content than on how it performs neutrality. As Koskenniemi's analysis (2005, pp. 589–596) shows, legal reasoning often hides political choices beneath technical language. TWAIL adds that this habit is not innocent—it helps keep global hierarchies intact. Together, they give us a language to read today's fascination with AI in justice as part of a longer story about law's search for neutral authority. When policymakers describe algorithmic tools as objective or data-driven, they repeat a familiar gesture—translating political judgment into technical form. What looks like innovation may therefore be understood as a continuation of earlier patterns of depoliticisation.

The way data are collected and how categories are set up has a real effect on whose experiences end up being reflected in the system. TWAIL scholars have long pointed this out: what is described as neutral often reflects existing inequalities rather than moving beyond them. Consider an automated case-management system that prizes speed: it rewards those fluent in digital tools while pushing others to the margins (Eubanks, 2018, pp. 43–45). Predictive-analytics programs trained on old court records repeat the same pattern, reproducing bias under a new technical name. Calling such outcomes "neutral" does not make them fair—it only hides old hierarchies behind the authority of code.

This cycle mirrors Koskenniemi's oscillation. When AI systems face moral critique—bias or opacity—reformers respond with audits, ethics charters, or impact assessments. When these are called symbolic, the defence shifts to pragmatism: efficiency and cost. The movement from moral to technical and back again reproduces the same managerial pattern that has long sustained international law (Kennedy, 2016, pp. 93–100, 106–107). Institutions appear self-correcting while leaving the structure intact—the politics of expertise under another name.

TWAIL situates this pattern within the global political economy of knowledge and production. Many judicial-AI systems are developed by private firms in the Global North, reflecting its managerial ideals of transparency and control. The result is a new form of dependency: jurisdictions in the South become users of technologies whose standards they do not shape. In this sense, what appears as universal design reproduces existing hierarchies of authority and distribution (Pahuja, 2011, pp. 365–367).

Both frameworks open a wider question about what makes authority legitimate. When expertise becomes the only ground for trust, it soon turns into power that answers to no one. Real legitimacy needs room for disagree-

ment—moments when people can ask why the system works the way it does and who it truly serves. As Koskenniemi (2005, pp. 560–563) argues, disagreement is not law's flaw but its condition of life. TWAIL turns this into a normative demand: participation and redistribution must replace the rhetoric of neutrality (Mutua, 2000, p. 32; Gathii, 2011, pp. 27–29). In digital justice, this suggests that systems should be open to challenge, rather than relying only on technical forms of review. Accountability concerns are addressed mainly through procedural and compliance-oriented mechanisms (Veale & Borgesius, 2021, pp. 99–105). The theoretical frame developed here thus calls for a shift from trust in systems to trust through scrutiny. AI does not escape law's older dilemmas; it gives them a new technical form. Recognizing this continuity allows reformers to move past procedural optimism and engage technology as a political question. Addressing the histories of inequality that sit behind claims of neutrality is likely to be important if law is to sustain its legitimacy in the digital age.

3. THE LESSONS OF ISDS. MANAGERIAL LEGALITY IN PRACTICE

3.1. The Promise of Neutral Expertise

When ISDS began to take shape in the 1950s and 1960s, many portrayed it as law's victory over politics — a way to replace diplomatic bargaining with legal reasoning. As investment disputes moved from diplomacy into arbitration, this shift was described as progress toward neutral, rules-based judgment—one supposedly untouched by ideology. Supporters believed arbitration could deliver decisions grounded in expertise rather than influence — a forum where knowledge, not power, would decide.

Neutral expertise became the system's moral vocabulary, with efficiency, predictability, and legal certainty treated as guarantees of fairness (Van Harten, 2007, pp. 28–31; Miles, 2013, pp. 112–118). In this framing, law's legitimacy was equated with its distance from politics, and technical form became a surrogate for justice.

ISDS institutionalised this aspiration. Panels composed mostly of commercial lawyers were assumed to deliver neutral judgments by applying treaty standards such as *fair and equitable treatment* or *legitimate expectations*. The World Bank's International Centre for Settlement of Investment Disputes (ICSID) and a growing network of bilateral investment treaties were framed as neutral instruments of global economic governance (Sornarajah, 2015, pp. 78–84). Their language was managerial rather than political—investor confidence, stability, transparency. Yet what disappeared behind that vocabulary was the asymmetry of the system itself: only investors could bring claims, and states could only defend. The professional idiom of expertise gave the appearance of even-handedness, turning structural bias into procedural order.

Critical scholarship has since shown that this self-image of neutrality was less an empirical fact than a performance sustained by institutional design and discourse. As Koskenniemi (2005, pp. 560–563) argued in another context, the claim to neutrality often masks an underlying politics of management. In ISDS, legal reasoning became a tool of economic governance, translating distributive questions into legal formulae and moral tensions into technical interpretation. To challenge that system was to question a specific mode of legitimacy—one that stabilized authority not through consent or equality but through the appearance of expertise. The early promise of neutral adjudication thus reveals itself, in retrospect, as a defining gesture of managerial legality: law's claim to autonomy, sustained by absorbing conflict into procedural form.

3.2. The Reality of Asymmetry

Beneath its talk of neutrality, the practice of ISDS worked in one direction. Investors could initiate claims; states could only answer them. The design created what looked like parity but in practice locked public authority into a defensive posture. On paper, this was meant to balance the protection of capital with the sovereign right to regulate. In reality, it produced a very different result: it turned public-policy choices into private legal claims. As Sornarajah (2015, pp. 112–118) notes, the supposed equality between investors and states was always a myth of neutrality. What looked like procedural parity concealed a material gap—favouring those with the means to litigate, hire experts, and translate political harm into legal language.

This comes through quite clearly in the case law. In *CMS v. Argentina* (2005), the tribunal held Argentina liable for failing to meet investor expectations, even though the measures were taken during a serious economic crisis. In *Tecmed v. Mexico* (2003), a dispute that arose in an environmental context was treated as an issue of expropriation, with the tribunal focusing on the impact on the investor. The two *Vattenfall v. Germany* proceedings went further, turning energy and environmental policy into grounds for corporate compensation. Together, these decisions illustrated what TWAIL scholars call the structural bias of international economic law: a regime that treats investor security as universal while confining state responsibility to the local level (Titi, 2014, pp. 146–152; Anghie, 2005, pp. 245–251). The outcome was not only distributive; it reshaped how legitimacy itself was understood. States were encouraged to appear modern and predictable—to manage rather than contest the imbalance of power.

Reform efforts did little to change that script. Under UNCITRAL Working Group III and in the debates over a Multilateral Investment Court (MIC), reformers adjusted procedures while leaving the architecture intact. New transparency provisions and appellate mechanisms were introduced as improvements, yet they did not significantly alter the underlying asymmetry. More broadly,

this points to a recurring tendency to address legitimacy concerns through procedural adjustments, rather than by engaging with the structural inequalities of the system (Kennedy, 2016, pp. 106–107; Sornarajah, 2021, p. 48).

From a critical-legal perspective, this asymmetry is not a flaw but a condition of the system's legitimacy. The performance of neutrality—through procedure, expertise, and precedent—did not eliminate conflict; it domesticated it. ISDS thus perfected a form of managerial legality where disputes survive only as things to be managed. That remains its most enduring legacy—and the warning that digital justice reform should take most seriously.

3.3. The Managerial Turn and Its Afterlife in AI

If the history of ISDS shows how central expertise has been to the system, its reform trajectory suggests a more subtle pattern: criticism is rarely rejected, but often absorbed and reshaped. Concerns about bias, inconsistency, and opacity have been widely acknowledged, yet they have not led to a sustained engagement with the system's distributive foundations. Instead, reform has mainly focused on how the system works in practice. This is most visible in efforts to introduce arbitrator codes of conduct, expand transparency, and refine procedural frameworks, particularly in discussions within UNCITRAL Working Group III (Atanasova *et al.*, 2024, p. 1).

These initiatives tend to prioritize issues such as consistency, correctness, and the calculation of damages. At the same time, more fundamental questions about structural asymmetries remain in the background (Atanasova *et al.*, 2024, p. 1; Sornarajah, 2021, p. 48). The effect is a gradual shift in how the problem itself is understood: what might appear as a question of inequality is recast as a matter of institutional design.

This shift is not unique to ISDS. As Kennedy (2016, pp. 2–4) observes, political disagreement is often translated into the language of technical reasoning and expert management. Once the issue is framed in these terms, legitimacy is judged more by procedural improvements than by substantive outcomes. Reform then takes the form of ongoing adjustments. It may signal progress, but it does not necessarily address the distributional structure that underlies these concerns.

Over time, this managerial logic changed how legitimacy was understood. Reform was increasingly seen as a sign of self-correction, with fairness tied to improved procedure. The dominant vocabulary—efficiency, consistency, accountability—began to resemble that of corporate governance more than public law. As Koskenniemi (2005, pp. 600–605) notes, legal arrangements may stabilise existing distributions of power, often "end[ing] up always on the side of the status quo" (p. 605).

A similar tendency is visible in current debates on digital justice. Recent European and comparative policy documents present AI tools in courts as

ways to improve efficiency, accessibility, and transparency. They also link these tools to broader objectives such as legal certainty and, in some contexts, predictability (CEPEJ-AIAB, 2025, pp. 3–4; CEPEJ, 2025, pp. 3, 13–15; OECD, 2025, pp. 275–277; Cascone, 2025, p. 4). When concerns arise about bias or opacity, the proposed response tends to remain managerial: impact assessments, documentation requirements, transparency obligations, human oversight, traceability, and technical audits (CEPEJ, 2025, pp. 3, 14–15; OECD, 2025, pp. 275–277; Cascone, 2025, pp. 1–2, 7). The emphasis, in other words, shifts from the social consequences of automation to the conditions under which it may be safely administered.

In practice, opacity often remains. Making systems more visible does not necessarily make them easier to understand. AI systems often operate through multiple layers that are difficult to follow in practice (Crawford, 2021, pp. 20–22). What initially appears as a project of widening access to justice risks becoming a framework of procedural supervision. Taken together, these examples show that reform discourse consistently redirects normative concerns into questions of technical administration. This supports the broader claim advanced in this article: legitimacy is often pursued through managerial procedures rather than through more substantive shifts in authority or distribution.

The resemblance to ISDS is therefore not merely rhetorical. In both settings, appeals to neutrality leave basic questions unresolved: who benefits, how authority is distributed, and whose interests remain privileged. ISDS sought legitimacy through arbitral professionalism; digital justice does so through design ethics, auditability, and procedural safeguards. In both cases, political disagreement is translated into a technical problem to be managed by experts. What recedes from view is not procedure itself, but the distributive choices embedded in the system.

Recognising this continuity does not require rejecting technology. It requires treating the rise of AI in adjudication as a moment that reshapes the terms of legal authority. The comparison between ISDS and digital justice is not about institutional similarity, but about a shared way of responding to critique. In both settings, legitimacy crises are addressed not by redistributing authority, but by reorganising how decisions are produced and justified. In ISDS, this took the form of procedural reform—transparency rules, appellate mechanisms, and codes of conduct. In digital justice, it appears through auditability, risk classification, human oversight, and technical standards. What links the two is a common logic: political disagreement is translated into questions of design and administration. It is this continuity of managerial response that makes the comparison analytically meaningful—and that raises a further question: whether justice can remain accountable, contestable, and publicly intelligible when legitimacy is increasingly measured through managerial control.

4. THE RISE OF DIGITAL JUSTICE. EFFICIENCY, ACCESS, AND ASYMMETRY

4.1. Reform as Continuity

4.1.1. Reform as Performance

What passes for reform in international law rarely breaks with the past; it usually rearranges it. As Koskenniemi (2005, p. 605) suggests, because legal meaning depends on practice rather than inherent structure, legal arrangements do not necessarily transform underlying relations of power and may instead stabilize them. Reform is not the opposite of continuity but one of the ways it is maintained.

The ISDS experience shows this quite clearly. As criticism of arbitral practice intensified—especially around bias, inconsistency, and transparency—the response was not to question the system itself. It was to modify how it operates. The European Union's Investment Court System (ICS), and later the Multilateral Investment Court (MIC) proposal, were introduced in this vein: standing adjudicators, an appellate mechanism, and additional procedural safeguards (Titi, 2022, pp. 84–88).

But these changes do not really take the system outside its original logic. They reorganize it. The underlying commitment to investment protection — and to a depoliticized, rule-based framework — remains intact. In that sense, what is presented as reform looks more like adjustment. This becomes even clearer when one considers that the IIA regime is still largely shaped by old-generation treaties, which continue to define the basic terms of the relationship between investors and host states (UNCTAD, 2023, p. 71).

This pattern reveals a deeper grammar of legitimacy. The call for reform becomes a way of staging responsiveness while avoiding redistribution. Technical improvement substitutes for political debate. Once more, transparency and efficiency take the place of justice itself. In this sense, reform often functions as a way of signalling responsiveness: it suggests that international law can learn, adapt, and self-correct. Yet the object of correction is almost always procedural form, not structural hierarchy. The process becomes the proof.

4.1.2. The Continuity of Managerial Legality

The reform projects that followed the ISDS crisis did not replace managerial legality; if anything, they reinforced it. The European Union's ICS and the proposed MIC were introduced as correctives to arbitral practice. But they did not move the system outside its existing logic. What shifted was not the distribution of authority, but the way the system justified itself.

This reflects a broader tendency identified by Kennedy: problems of global governance are often approached as matters of technical management and expert intervention (Kennedy, 2016, pp. 106–107). Reform, in this setting, tends to take the form of institutional design rather than political choice. Independence, transparency, predictability—these are treated as obvious goods. But they also narrow the space of disagreement by relocating it into procedure. Once the process appears orderly, the harder questions tend to recede.

From a critical perspective, this does not resolve conflict so much as displace it. Koskenniemi's account of indeterminacy is useful here. Legal reasoning does not eliminate underlying tensions; it works through them. Any resolution depends on choices that remain open to contestation (Koskenniemi, 2005, pp. 589–596). Reform, then, stays within those limits. A similar point appears in TWAIL scholarship. As Pahuja shows, claims to universality often present particular arrangements as general and necessary, extending their reach while masking their uneven effects (Pahuja, 2011, pp. 365–367). Seen from this angle, the move from ISDS to ICS or MIC does not amount to a break. The structure largely remains; what changes is how it is described and defended.

4.1.3. The Discourse of Innovation

The language of reform has long been tied to promises of innovation. In recent years, that promise has shifted from investment law to debates on civil justice and digital governance. The vocabulary has changed—AI, automation, data-driven efficiency—but the underlying logic is familiar. Much of the current policy and academic discussion presents AI in fairly practical terms: as a way to make systems run faster, handle growing caseloads, and improve administrative performance (OECD, 2025, p. 5; Guitton *et al.*, 2025, p. 1; Skutele, 2025, p. 167). It is often introduced as a response to pressure on institutions rather than as a reason to question how they are structured. In that sense, legitimacy becomes tied to improvement, not transformation.

The appeal of innovation rests on an older assumption—that better design can fix what governance struggles to handle. Terms such as transparency, accountability, or human-centred AI appear again and again in policy texts. They are rarely contested; they tend to be taken for granted. But this also shifts the discussion. Questions that might once have been argued in political terms start to look like matters of implementation and technical adjustment.

The same pattern is visible in current reform agendas. Discussions on digital courts and AI-assisted adjudication tend to revolve around modernisation, with efficiency, case management, and procedural optimisation coming to the fore (CEPEJ, 2025, p. 3). This does not remove disagreement so much as change the way it appears. Legal reasoning still has to deal with underlying tensions. As Koskenniemi shows, those tensions are not resolved but worked through, often in a more technical language that makes the choices involved

seem less visible (Koskenniemi, 2005, pp. 589–596). Innovation, in this sense, does not simply transform the system. It reshapes the way it is justified.

This pattern becomes clearer when policy discourse is read alongside institutional practice. Recent CEPEJ findings identify over one hundred AI and cyberjustice tools already in use across European judicial systems, primarily designed to improve efficiency and accessibility (CEPEJ, 2025, pp. 3–4). These tools support functions such as document processing, case management, information services, and decision support, with increasing reliance on machine learning and natural language processing (CEPEJ, 2025, pp. 13–15). At the same time, guidance continues to frame their use in terms of operational gains while emphasising safeguards such as human oversight, transparency, and traceability (CEPEJ, 2025, pp. 3, 13–14).

A similar dynamic appears beyond the judicial field. OECD (2025, pp. 275–277) shows that public-sector AI deployments are primarily oriented toward administrative optimisation tasks, such as workflow automation and decision support, while concerns about transparency, trust, and accountability persist. The regulatory response often follows the same logic. The EU AI Act, for instance, structures governance around risk classification, documentation, and compliance, aiming to make AI "trustworthy," while leaving existing distributions of authority largely intact (European Commission, 2021, pp. 2–3, 12–14; Veale & Borgesius, 2021, pp. 99–102).

Taken together, these developments suggest that digital justice reform, much like earlier ISDS reform, addresses legitimacy concerns primarily through the refinement of process. What appears as technical improvement is also a redistribution of authority into design choices, metrics, and institutional infrastructures, rather than a transformation of underlying structures.

In some contexts, these dynamics become more visible at the level of individual experience. Studies of automated welfare and administrative systems show how efficiency-oriented tools can produce outcomes that are difficult to contest, particularly for those already in vulnerable positions (Eubanks, 2018, pp. 43–47). What appears as neutral categorization can translate into concrete disadvantages when individuals are unable to understand or challenge how decisions are made. This illustrates how technical systems do not simply improve administration; they also reshape how authority is experienced in practice. Such dynamics have already been observed in systems such as automated welfare allocation and risk-scoring tools, where efficiency gains often come at the cost of contestability and transparency (Yeung, 2018, pp. 507–510).

4.1.4. Critical Re-reading. Reform as Continuity

For Koskenniemi (2005, pp. 589–596), this dynamic reflects law's constant movement between utopia and apology: moments of critique invite moral language—fairness, transparency, participation—only to be stabilised

through technical forms of governance. Kennedy (2016, pp. 12–14) similarly describes a managerial politics of expertise, in which disagreement is reframed as a problem of design and administration.

TWAIL scholarship grounds this pattern in global inequality. As Pahuja (2011, pp. 365–367) shows, claims to universality often extend particular arrangements while at the same time masking their uneven effects. From this perspective, digital justice reforms, like earlier investment-law reforms, risk reproducing existing hierarchies—modernising institutional form while leaving underlying distributions of authority largely intact.

4.2. Legitimacy, Authority, and the Politics of Reform

4.2.1. Law's Double Claim. Authority and Legitimacy

Modern legal systems live with a built-in tension. They must compel obedience, yet also persuade that such power is justified. As Koskenniemi (2005, pp. 560–563) notes, legality shifts constantly between two registers—technical authority and moral aspiration. When power begins to look like domination, law borrows the language of justice; when justice provokes disagreement, it retreats to the safety of rules. Authority often depends on being perceived as legitimate, and this legitimacy is frequently maintained through procedures that recast political conflict in technical terms.

This tension tends to surface most clearly at moments of reform. As Kennedy (2016, pp. 1–3) notes, expertise does not resolve conflict so much as change how it is articulated and handled. In both investment arbitration and digital justice, reform efforts often recast broader normative concerns in procedural terms. Oversight mechanisms, ethics codes, and transparency tools can give the impression that authority regulates itself, even as they help sustain it in practice.

A TWAIL perspective adds an important spatial dimension to this picture. What counts as legitimate authority does not emerge in a vacuum but reflects the material and epistemic hierarchies of the international order. As Anghie (2005, pp. 245–251) and Pahuja (2011, pp. 365–367) show, claims to universality can obscure these hierarchies, presenting particular governance practices as generally applicable. Seen in this context, reform projects are closely tied to the settings from which they emerge. When improvement is defined through benchmarks such as efficiency, predictability, and managerial control, there is a risk that existing asymmetries are carried forward rather than addressed.

AI-driven reform illustrates this pattern with particular clarity. Automated systems are often presented as neutral because they reduce human discretion. In practice, they shift interpretive authority away from judges and toward designers, engineers, and private actors. Judges and litigants become users of systems they cannot fully contest. What appears as technological progress

becomes, in Koskenniemi's terms (2005, pp. 589–596), a familiar apologetic move—reaffirming existing power through the language of innovation.

Seen in this light, digital reform does not resolve the tension between authority and legitimacy; it reorganises how that tension is managed.

4.2.2. The Politics of Authority

If legitimacy is the story law tells about itself, authority refers to the practices through which that claim is sustained. The distinction matters because, in periods of reform, legitimacy is often framed in normative terms, while authority is reorganized at the level of technique.

In the digital age, much of this reorganization unfolds through technical systems. AI in civil justice is often introduced as a way to reduce bias and improve consistency. Whether such claims hold empirically is less important here than the role they play within reform discourse: they present technical intervention as a response to concerns about fairness.

As Cohen (2019, pp. 232–234) shows, when governance becomes embedded in technical infrastructures, decision-making processes tend to grow less accessible to external scrutiny. The capacity to question outcomes is correspondingly reduced. Authority does not disappear; it shifts location—from courtroom reasoning to system design. What matters is no longer only how decisions are made, but how systems are constructed and what they allow or exclude.

This shift is also visible in how expertise is distributed. Authority increasingly moves toward programmers, data scientists, and private vendors. Benjamin (2019, pp. 89–92) describes this as the "New Jim Code," where inequalities are reproduced through technological design rather than formal rules.

Empirical studies illustrate how these dynamics unfold in practice. Eubanks (2018, pp. 43–47) documents how automated welfare systems categorize vulnerable populations in ways that are difficult to contest. What appears as neutral classification can translate into concrete disadvantage. In similar ways, court technologies that prioritize efficiency—such as automated triage or predictive tools—may narrow the space for interpretation and challenge.

From a broader perspective, Zuboff (2019, pp. 111–115) describes how data-driven systems extend forms of control through prediction and behavioural steering. Comparable dynamics are now visible in digital justice, where private infrastructures shape how authority is exercised. As Veale and Borgesius (2021, pp. 99–105) note, transparency alone does not ensure accountability; systems may be partially visible yet remain difficult to challenge in practice.

Together, these developments point to a shift in how authority operates: increasingly embedded in technical systems, less visible, and harder to contest.

4.2.3. Algorithmic Legality and the Politics of Expertise

AI extends law's longstanding reliance on technical expertise, but does so in ways that further obscure how decisions are shaped. As Kennedy (2016, pp. 6–8) suggests, governance often recasts political disagreement as technical problem-solving. The digital turn intensifies this tendency. Algorithms do not simply apply legal reasoning; they also shape what counts as a reasonable decision.

Koskenniemi's (2005, pp. 560–563) work helps situate this shift. Legal argument has long moved between normative aspiration and technical form, and moments of contestation tend to push institutions toward the latter. When legitimacy is questioned, institutions respond by adding procedures—audits, guidelines, reporting frameworks. AI fits easily into this pattern, presenting fairness as something that can be secured through calculation, while the assumptions embedded in the system become less visible.

From a TWAIL perspective, this shift is easier to see in its global context. As Anghie (2005, pp. 245–251) and Pahuja (2011, pp. 365–367) have shown, what is presented as universal often reflects particular configurations of power, even when it appears neutral. Many of the tools now shaping legal decision-making—programming languages, data models, and measures of transparency—are developed in the Global North and carry with them certain assumptions about order and rationality. When these systems are adopted elsewhere, they do not simply transfer technology; they also carry those underlying assumptions, which can, in practice, reinforce existing dependencies.

Seen this way, the limits of transparency become clearer. As Crawford (2021, pp. 20–22) notes, visibility is often mistaken for understanding. Complex systems may reveal parts of their operation while obscuring their overall logic. The criteria that shape outcomes—what is counted, weighted, or ignored—remain difficult to access or interpret. As more decisions are mediated through such systems, expertise becomes both the medium and, at times, a shield for power.

Algorithmic legality does not remove politics; it reshapes how it operates through technical systems. The question is not only how such systems operate, but whether those affected can meaningfully challenge them.

4.3. Beyond Reform. Critical Perspectives

Across critical scholarship, a common concern is that reform may fall short of justice if the structures sustaining inequality are left intact. Koskenniemi (2005, pp. 589–596) points out that law's legitimacy often rests on its capacity to render conflict into forms that appear ordered. Yet when the grammar of order itself sustains exclusion, refinement cannot deliver renewal. Post-Koskenniemi scholars argue, following Orford (2011), Pahuja (2011), and Jo-

hns (2013), that reform becomes meaningful only when it breaks with law's technocratic habits— habits that Koskenniemi (2005, pp. 589–596) associates with the stabilizing pull of technical reasoning.

Across these critical traditions, the call is similar: reform must open itself to plurality and to the voices it has long disciplined. Marks (2000, pp. 24–26) suggests that treating reform as a technical exercise misses something more fundamental—how authority is organised in the first place. Krisch (2010, pp. 31–34) picks up on this by describing a pluralist order in which authority is not concentrated in a single centre but spread across different sites. Rajagopal (2003, pp. 79–83) brings this perspective into a postcolonial setting, showing how reform efforts can end up reproducing the very hierarchies they aim to overcome.

TWAIL extends this critique by restoring history and geography to the debate. Building on Rajagopal (2003, pp. 79–83) and Pahuja (2011, pp. 365–367), TWAIL scholars and critical international lawyers show how claims to global reform often reproduce the hierarchies they seek to address. Digital justice initiatives, like investment-law reforms before them, carry traces of this universalism, privileging particular forms of expertise while presenting them as neutral. A genuine alternative would start from those most affected by these arrangements—communities in the Global South and others positioned at the receiving end of legal and technological interventions, where law's effects are felt most sharply and its authorship least visible. If reform is to matter, it must remain open to such perspectives, treating critique not only as correction but as a source of alternative legal imaginaries.

Taken together, these perspectives shift the focus from efficiency to accountability, from performance to participation. Kennedy (2016, pp. 4–7) shows how expertise speaks in the name of neutrality and universal reason, even as it helps translate political conflict into technical disagreement. For both TWAIL and post-Koskenniemi thinkers, critique is not an act of refusal but a form of creation—it keeps law open, unfinished, and answerable. Feminist critiques add another dimension by showing how law's universal language can obscure gendered and embodied experiences of inequality. As Charlesworth (1999, pp. 381–382) argues, attending to plurality in international law also requires exposing the silences that sustain it.

For reform to matter, it must take this openness seriously. The next section turns from critique to construction: how civil justice reform might reclaim legitimacy through rights, participation, and democratic oversight—what this paper calls a human-centred justice.

5. A HUMAN-CENTRED CIVIL JUSTICE

5.1. From System Trust to Human Trust

If legitimacy lives through practice, then justice itself must remain recognizably human. Automation speaks the language of confidence—promising reliability, speed, and accuracy as substitutes for trust. Yet people trust law not because it is flawless but because it listens, explains, and recognizes them. Fuller (1969, pp. 39–42) suggests that legality carries moral force only when rules remain intelligible to those subject to them. An algorithm may follow rules perfectly and still fail this test: such a system obeys without understanding.

Human-centred justice turns that logic around. It asks how institutions can keep space for judgment, story, and empathy inside digital infrastructures. Cappelletti and Garth (1978, pp. 203–208) emphasize that access to justice involves meaningful participation, not merely formal access to courts. When design takes the place of dialogue, legitimacy shrinks into procedure. What gives justice its meaning is not seamless process but the act of being heard.

Europe's new policy experiments capture both the promise and the limits of this turn. The CEPEJ Ethical Charter and recent OECD work on AI governance emphasize principles such as user-centred design, transparency, and trustworthy automation (CEPEJ, 2018; OECD, 2025). As Floridi and Cowls (2019, pp. 690–694) propose in their unified framework for AI ethics, trustworthiness depends not only on technical reliability but also on principles of justice, accountability, and human oversight. Crawford (2021, pp. 134–136) shows that focusing on technical fixes can obscure deeper structural questions about how AI systems reproduce inequality. Principles are adopted, reports are published—yet few spaces exist where those affected can shape decisions. Dialogue becomes consultation; accountability turns into documentation. Trust built on paperwork seldom endures.

The European Commission's Proposal for an Artificial Intelligence Act (COM/2021/206) and the CEPEJ (2018) Ethical Charter share the same aspiration: to embed accountability into the architecture of automation while preserving the legitimacy of judicial authority.

TWAIL scholarship widens the view. Technologies, like laws, are never neutral; they inherit the geography and bias of their makers. Santos (2014, pp. 16–18) calls this the struggle for epistemic justice—the right to define what counts as knowledge. A genuinely human-centred digital justice must open design itself to plural voices. Otherwise, digitalization will repeat the hierarchies it claims to correct.

Such justice does not reject technology; it reclaims it as a medium of encounter. Explainability becomes more than a software function—it becomes

a civic right: the right to know how one is judged and to question it. In that sense, legitimacy moves from system trust to human trust—from belief in code to belief in conversation.

5.2. A Brief Analogy: Climate Justice and Digital Governance

This brief analogy situates the argument within a broader governance context. It does not extend the ISDS–AI comparison developed in this article, but illustrates how similar managerial logics appear beyond the field of judicial reform.

Recent debates on climate justice offer a useful parallel. Much like digital justice initiatives, climate governance is often framed through technical solutions—efficiency improvements, carbon metrics, and data-driven monitoring—presented as neutral responses to complex global problems. In practice, attention often shifts from distribution to management, with a focus on measurement and optimisation while underlying inequalities persist (Crawford, 2021, pp. 8–12).

This dynamic becomes visible in the infrastructures that sustain digital systems. The environmental costs of data infrastructures—from energy-intensive data centres to the extraction of rare-earth minerals—are often treated as external technical concerns rather than as questions of justice. Similarly, in both climate governance and digital justice, evidence increasingly takes technical form: datasets, indicators, and predictive models shape what counts as harm and how it is recognized. As Crawford (2021, pp. 20–22) shows, such systems do not merely represent reality; they structure how it is perceived and acted upon.

What links these domains is not their subject matter, but a shared tendency to manage legitimacy through technical means. In both cases, contestability becomes limited not by the absence of rules, but by the way problems are framed. When decisions are mediated through systems that are difficult to interrogate in practice, they often come to be seen as objective (Veale & Borgesius, 2021, pp. 99–105).

The point of this analogy is not to expand the scope of the article, but to underline a recurring pattern: across domains, legitimacy is often pursued through technical responses, while underlying inequalities tend to persist.

6. CONCLUSION. FROM NEUTRALITY TO ACCOUNTABILITY

This article has argued that the rise of digital justice does not mark a break from earlier forms of legal governance. Rather, it extends a familiar pattern in which legitimacy crises are addressed through managerial reform. The comparison with ISDS shows how such reforms operate: not by redistributing authority, but by reorganising how it is exercised and justified.

In digital justice, this shift shows up in fairly practical ways. AI tools are often introduced to make processes faster and more consistent, and to reduce pressure on courts. At the same time, parts of legal decision-making shift into less visible domains, such as system design, data selection, and technical infrastructure. Improvements at this level can make systems work but may also carry forward existing imbalances.

This is why the question is not only how AI should be regulated. It also concerns how authority is exercised when decisions increasingly rely on technical systems. Measures such as transparency requirements, audits, and human oversight matter, but on their own they do not settle the question. Much depends on whether people can understand how decisions are made and, where necessary, question them.

This concern extends beyond design to how these systems are defined in practice and who has a say in that process. It raises fairly direct questions: what criteria are used, whether they can be challenged, and whose perspectives are actually taken into account. Dealing with this means putting in place arrangements that allow decisions to be examined and, where necessary, questioned and revised.

As AI becomes more embedded in legal processes, questions of legitimacy are likely to turn on these practical conditions: not simply on whether systems are described as neutral, but on whether those affected can still engage with and challenge the outcomes. In that sense, the direction of digital justice will depend on how far legal systems remain open to scrutiny and change, rather than on how far they can be optimised. What is at stake is not only the efficiency of legal systems, but the conditions under which authority can remain accountable and open to contestation. This is not offered as a guaranteed solution, but as a minimal condition for avoiding the repetition of the same managerial patterns of legitimacy.

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AI IN JUSTICE: BALANCING EFFICIENCY AND EXPLICABILITY*

Renzo Cavani
Pontificia Universidad Católica del Perú**

ABSTRACT: AI systems intended for use in judicial procedure carry a significant commitment to efficiency—understood from an instrumental perspective—for which accurate predictions are paramount. However, if an AI system has this objective, it is inevitable that explicability will decrease. This means that the program's algorithms are not comprehensible to humans, and often, neither is its output. From an AI ethics standpoint, AI systems applied in the field of justice should possess a significant degree of explicability, yet this compromises efficiency. Therefore, this paper aims to 1) highlight the tension between efficiency and explicability; and 2) argue that, even adopting an AI human-centred approach, opaque systems prioritizing efficiency could be justified, depending on the specific function of the system; specifically, in the greater or lesser degree of interference with the judicial decision that must be justified.

KEYWORDS: Artificial intelligence; judicial process; efficiency; explicability; algorithmic transparency.

SUMARIO: 1. INTRODUCTION.— 2. EFFICIENCY AND PREDICTIVE ACCURACY IN AI SYSTEMS.— 3. THE TENSION BETWEEN EFFICIENCY AND EXPLICABILITY.— 4. RESOLVING THE TENSION? THE CRITERION OF THE SYSTEM'S FUNCTION.— 5. CONCLUSIONS.— 6. REFERENCES

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** Associate Professor at PUCP. Holds a PhD by Universitat de Girona (Spain) and a LLM degree by Universidade Federal do Rio Grande do Sul (Brazil). Ordinary Member of PRODEJUS-PUCP. CEO and cofounder of Evidence Lab.

1. INTRODUCTION

AI systems in general, and those used in justice in particular, are committed to efficiency, understood from an instrumental perspective (for instance, as a means to an end, but without being qualified as good per se). For this, having the most accurate and precise predictions possible is crucial. However, if this objective is pursued, a reduction in explicability is inevitable: the program's algorithmic functioning is not comprehensible to humans, and often, neither is the output itself.

From an ethical perspective it is said that AI systems applied in justice, given its public relevance, should have a significant degree of transparency to allow for the greatest possible explicability; although this would compromise efficiency.

Therefore, this paper aims to demonstrate two very specific points: 1) the existence of a deep tension between efficiency and explicability (identifying the latter as an end-value of AI, and distinguishing it from other values such as transparency, traceability or accountability); and 2) that, even adopting a human-centred approach to AI, there is justification for AI systems in the realm of justice that prioritize efficiency, sacrificing explicability. However, this will depend on the system's function; specifically, on the greater or lesser degree of interference with the judicial decision that must be justified. Finally, some conclusions are offered.

2. EFFICIENCY AND PREDICTIVE ACCURACY IN AI SYSTEMS

One of the main objectives of current AI systems is to offer increasingly accurate predictions. Generally, these systems are characterized by carrying out machine learning, which involves various techniques, such as decision trees, statistical regression, support vector machines, evolutionary algorithms, neural networks (deep, in the case of large language models, which are a subspecies of generative AI), etc. However, "the activation of these models involves complex calculations, intended to reproduce the correlations between input features and the results to be predicted"; and, while not all these techniques entail the same complexity, "today, the most influential model among those used in machine learning is the neural network. These are computer systems consisting of nodes (so-called neurons) connected by links (also known as parameters) to which numerical weights are assigned (…)"[1].

In other words, the very structure of such systems and the use of big data[2] mean that, as complexity increases, they become more opaque, less com-

[1] Santosuosso & Sartor (2022, p. 1770; 2024, p. 42).

[2] This term refers to "large datasets that are too complex and voluminous to be processed and analysed by traditional data-processing methods" (Khan, 2025, p. 25). Data comes from organizations

prehensible to the human mind, and therefore, less able to clarify their reasoning, whether by explaining or justifying their decisions. These are the so-called black box systems. This is further magnified when the material the models work with consists of unstructured data; that is, data for whose prior processing no human has intervened in classifying the material to be processed by the system[3].

Thus, while there are predictive AI systems in general that offer a fairly clear sequence of steps expressing premises and conclusions (such as the decision tree technique or the rule-based system), the most influential models require more complex calculations to better reproduce the statistical correlations between the input and the result. These calculations are usually expressed in numerical values that determine the system's operation and even serve to train it, as seen when discussing ML. All this leads to the conclusion that if one wanted to institutionally implement an AI system based on statistical frequencies capable of yielding good predictions, the comprehension of that system would necessarily have to be sacrificed.

One of the most important values behind these systems that seek predictive accuracy is *efficiency*. Here, an instrumental sense of the concept of efficiency is assumed; that is, an alignment between the stated goals or objectives and the means to achieve them. There is no intrinsic commitment to the *correctness* of a certain value or objective to be achieved, but rather, with the *best way* to achieve it[4]. So, we can assume that a more accurate prediction generates savings in time, money, and effort, and better results for certain human activities, thereby creating value and ultimately achieving benefits for human beings (beneficence is one of the final values of AI according to various ethical stances). Thus, understood in this way, efficiency would present itself as the best path to well-being; but, by itself, it does not commit to well-being being a correct value: for that, a certain moral philosophy or political theory would be required[5].

(costumer information, transactions), humans (social networks, media, photos, internet searches, e-mail, etc) and, above all, machines (sensors, video cameras video, satellites, etc) (Gupta & Mamta, 2024, pp. 3 ss.). Data can arrive in various forms: structured, semi-structured, or unstructured. The latter two forms are the most prevalent, and their processing requires highly specialized techniques (see EMC2, 2015, p. 5). This led to the creation of a multidisciplinary field aimed at using big data to extract information and influence decisions: big data analytics. Several techniques were developed in this area, the most common of which include data mining, machine learning, natural language processing, data visualization, predictive analytics, statistical analysis, and real-time analytics, among others (see Demirbaga *et al.*, 2024, pp. 3-4). Therefore, *big data analytics* and IA are closely connected.

[3] Gioia (2025) argues that *big data* would be a "condition of possibility for the use of IA in judicial system" (p. 1354), but this is not entirely accurate. Indeed, if the goal is to achieve a high degree of efficiency, more sophisticated programs requiring the processing of large amounts of data will be necessary. Nevertheless, there are systems that do not necessarily rely on big data and can still provide satisfactory results, as exist and are applied in several judicial systems.

[4] See Giabardo (2022).

[5] See Giabardo (2022, pp. 57-58).

3. THE TENSION BETWEEN EFFICIENCY AND EXPLICABILITY

In the framework of developing AI systems, at a general level, it is often stated that there is a tension between two objectives to be pursued: a) providing more accurate predictions (for instance, efficiency, as we have just seen); and b) providing better explanations for said predictions. As mentioned, if one wishes to prioritize the first objective, the second will necessarily be sacrificed[6]; and, conversely, if the aim is to have systems that can provide more and better explanations, the accuracy of the predictions could end up being sacrificed, thereby compromising efficiency. For its part, choosing *how opaque* —or, also, *how transparent*—a system should be involves various ethical considerations. It is certainly not easy to strike a balance between efficiency and explicability[7].

Explicability is seen as a core principle of AI ethics[8]. Luciano Floridi, from a bioethics perspective[9], proposes that the central ethical principles of AI (which are often heralded in various declarations of principles[10]) be beneficence, non-maleficence, autonomy, and justice, to which, precisely, explicability is added[11]. According to the author,

> explicability is understood as incorporating both the *epistemological* sense of *intelligibility* —as an answer to the question "how does it work?"—and in the

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[6] Santosuosso and Sartor (2022, pp. 1770 ss.).

[7] Sartor and Santosuosso (2022, p. 1771; 2024, p. 47). A similar, although not identical, tension is argued by Floridi (2025). The author asserts that there is a trade-off between certainty or accuracy and scope, in the sense that no AI system can simultaneously maximize epistemic certainty (i.e., error reduction) and the scope of the system's mapping. Thus, he considers that while symbolic AI has high certainty but low scope, generative AI has high scope but low certainty. This leads him to conclude that generative AI hallucinations are not "errors" of the system, but rather an inherent feature resulting from having such a broad scope. Therefore, seeking an "error-free" system of this kind is impossible, which is why a hybrid system would be recommended.

For her part, Smuha (2025) recently has presented a tension between the efficiency or optimization sought by AI systems used by state entities and fundamental rights, whose protection is a duty of the very State that employs these systems. Thus, according to the author, algorithmic regulation can erode legality (opacity of norms), hinder the citizen's ability to understand and challenge decisions, and affect legitimacy, in the sense that the moral authority of the law is perverted, turning it into an efficient yet arbitrary tool of social control (here lies the wordplay: the law viewed in this way would no longer be a *Rule of Law*, but a *Rule By Law*). Hence, according to Smuha, it is necessary to set strict limits to continue preserving freedom and restraining state power. See also, Smuha (in press). However, in neither of those important contributions the author stresses any distinction between AI systems according to its functions. This is important because, as we will see, the impact is not the same: the risk of a "Rule by Law" might be overcome if we solve correctly the tension between efficiency and explicability, as I will try to show.

[8] Analyzing several opposite views on this point, see Buijsman, Klenk & Van Den Hoven (2025, p. 63).

[9] Floridi cites Beauchamp and Childress (2013). See also the later edition: Beauchamp and Childress (2019).

[10] See Asilomar principles (Future of Life Institute, 2017), Montreal Declaration (Université de Montreal, 2017), among others.

[11] Floridi (2023, pp. 57 ss.)

ethical sense of *accountability*—as an answer to the question "who is responsible for the way it works?" The extra principle is required by the fact that AI is a *new* form of agency[12].

The goal of achieving explicability can be approached from two different perspectives: the explicability of the system's functioning and, on the other hand, the explicability of the output[13]. On one hand, there is the algorithmic functioning, which is not only limited to indicating the type of inputs fed to the system, but also the statistical and mathematical models effectively employed. While achieving this is possible in low-complexity systems (such as those based on decision trees), it is no longer the case in high-complexity systems, like those being implemented in recent years, many of them based on unsupervised machine learning or on neural networks and other complex statistical techniques, with results that not even the designer can understand or explain. And all this is more complex considering those systems whose training is protected by trade secrets, as is the case of ChatGPT, that belongs to the company OpenAI[14].

Thus, faced with a reality in which AI systems necessarily have a high degree of opacity, various efforts have been made seeking greater understanding and transparency—and, hence, explicability—of the system. This is the field of Explainable AI or "XAI"[15]. The importance of systems providing an explanation or interpretation of their results in a way that generates user understanding is problematized by XAI[16]; but it is not about the systems themselves offering explanations of how that result was reached, nor the reasons for the system's decision. It is the human developers of the system themselves

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[12] Floridi (2023, p. 57). For a taxonomy of ethical principles (with special attention to AI systems in the sphere of justice), see Simón Castellano (2023, pp. 179 ss.), although the author refers to them, not without some imprecision, as "legal guarantees." This point is further developed in Simón Castellano (2023a).

On the other hand, it is possible to distinguish the concept of an agent (agency) discussed in the philosophy of mind and in psychology, from a more minimalist concept used in computer science. In this field, according to Floridi (2023) " [it] requires that a system satisfies only three basic conditions: it can a) receive and use data from the environment, through sensors or other forms of data input; b) take actions based on the input data, autonomously, to achieve goals, through actuators or other forms of output, and c) improve its performance by learning from its interactions" (p. 10).

Therefore, it is possible to speak of *biological* agents (a human or a dog), *social* agents (a company or a government), and *artificial* agents (a bot). Thus, artificial intelligence (in the weak sense) is not about creating or reproducing human intelligence, but rather about generating results *without it*, in an ever-increasing number of activities. AI would thus be a *new form of agent, but not a new form of intelligence* (p. 20 ss.). The impact of this new agent in the society, and its 'normative power' precisely justifies the shaping of ethical principles that regulate that impact. See Lupo (2022).

[13] Páez (in press).

[14] Páez (in press).

[15] Strictly speaking, XAI is a branch of computer science that aims to make opaque models —specifically their outputs—more explainable, interpretable, and transparent for users. The literature on this topic has been growing considerably: See Gunning *et al.* (2019); Páez (2019, pp. 444 ss.; Paéz, in press); Barredo Arrieta *et al.* (2020); Casacuberta *et al.* (2024); Buijsman (2022); Boge & Mosig (2025).

[16] The various types of XAI models are critically addressed by Páez (2019). Meanwhile, Meert *et al.* (2025, pp. 37 ss.) discuss AI systems designed to bring explicability to otherwise opaque AI systems.

who must explain (or, if appropriate, justify) to other humans (the users of the technology) what they do and have decided to do with the AI[17].

One way to "make explicit" is for the reasons to be contained in statements that are part of the system's output, so that they allow for a proper understanding of the reasoning carried out by the system. Take, for example, of AI systems that work with precedents, serving as a guide for judges to make decisions[18]. Here it is not enough for the statement to simply say "The case should be decided in favour of the plaintiff; to do so, follow precedent X". It must indicate *to what extent* precedent X justifies deciding the current case in favour of the plaintiff, just as a human judge would be expected to do.

It is often said that explicability includes other concepts such as transparency, interpretability, intelligibility, or even accountability. It would ultimately be another way of expressing all of them[19]. However, it is possible to distinguish at least two different problems surrounding explicability: a) the first consisting of accounting for the functioning of a system, which includes offering enough information to users, accountability mechanisms, ensuring there is no algorithmic discrimination, etc.; and b) the second, regarding the possibility of understanding the system's functioning, the inputs entered, and the outputs obtained (which, of course, will be a matter of degree[20]). It could be said, then, that explaining the system's functioning, understanding it as much as possible, and interpreting it in a sound manner *contributes* ultimately to achieve explicability. From this perspective, transparency, intelligibility, and accountability might be understood as instrumental values that aim for explicability, with the latter being understood as an end-value. However, a conceptual precision is mandatory.

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[17] As Coeckelbergh (2020) stressed: "Yet if the goal is not to have *machines* explain, but rather demand this from *human beings* who are able to explain things to other human beings, then there is a chance that explainable AI may work. Responsibility then does not mean that one explains *everything* that contributed to the action or decision, but rather that one can know and select what is relevant to what the other (human being) wants and needs to know. In the case of AI and other advanced automation systems, this *can* be done by humans if and only if (a) those humans are sufficiently supported by technical systems that are transparent *enough* for the (primary) purpose of humans explaining things to other humans (there is no demand for absolute transparency here), and (b) those humans are sufficiently willing, capable, and educated to imagine and understand what those affected by the technology may ask and demand from them. This can be supported by actually asking stakeholders what kind of explanations they actually want and need. The assumption is then that only humans can really explain and *should* explain what they decide and do, and that explanation itself is deeply social and relational (p. 2054; the italics are from the author)".

The author later notes that, in addition to explanations, users would also need *reasons*, and that, in terms of the comprehension requirement, these would function in the same way as explanations.

[18] These are systems that have been under development since the late 1980s. For an overview, see Bench-Capon (2017); Bench-Capon *et al.* (2024). For the most recent studies, see Gray, Šavelka, Oliver & Ashley (2022, 2023, 2023a, 2024, 2024a); Gray, Li and Ashley (2025); Li, Gray, Šavelka and Ashley (2025). These models were the focus of my doctoral thesis, defended at the University of Girona: Cavani (2025). See also Cavani (in press).

[19] See Floridi (2023, p. 63). In later works the author changed its conceptual view, as we will see later.

[20] Páez (in press).

In the case of transparency, understood as the "accessibility of information about an IA system's components and architecture"[21] at the level of broader discussions on information ethics, it is seen as a condition for achieving other values such as accountability, security, well-being, or informed consent[22]. In fact, in the field of AI, transparency is a typical case of a condition of possibility for other ethical principles; however, complete and total transparency could also be problematic: while it would give users critical information about the system's functioning, it could also overwhelm them, thereby generating an unintentional opacity of the system[23], and even increase costs, or allow the system to be tricked, generating inequities[24]. Therefore, if on one hand explicability is an end-value, seen from this perspective, transparency could not be. In this view, a certain *degree* of transparency is a necessary, but not sufficient, condition for explicability[25].

There are some AI systems that not only allow the user to understand the why of the output's meaning but also offer *justifications*; that is, reasons or guides employed to reach a certain decision. However, as previously noted, it is important to bear in mind that not all explicability is directed at the end-user, nor is it reduced to offering only justifications.

In fact, explicability can be directed at certain operators who can technically understand the system's functioning, and is not limited merely to the output itself[26]. On the other hand, due to the system's particularities, there will not always be justifications but rather genuine predictions. In fact, not every output yields a decision based on reasons[27]; it can also provide information so that the recipient can make a decision. This is the case with legal assistants such as SCOTUS or Lex Machina which, by working with periphe-

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[21] Buttaboni & Floridi (2026, p. 3). For example, the Asilomar AI Principles, under the heading of Ethics and Values, expressly include judicial transparency: "Any involvement by an autonomous system in judicial decision-making should provide a satisfactory explanation auditable by a competent human authority". However, here is a conceptual confusion between transparency and explicability, as it is common in other legislations, both soft and hard law, and in the scholar literature.

[22] Turilli and Floridi (2009, p. 107). More deeply, see Floridi (2012, 2013).

[23] Floridi (2023, pp. 98-99).

[24] Floridi (2023, p. 99).

[25] For Buttaboni & Floridi (2026), transparency and traceability must be distinguished: whilst the former means the access to information about the system, the latter presupposes the former, in order to *understand*, from a causal perspective, the system's processes. According to the authors, "traceability presupposes a degree of transparency —namely, access to relevant training data and system architecture—but introduces a temporal and procedural dimension: the capacity to track and reconstruct what the system did, when, and why. It transforms static access into dynamic reconstruction, making it indispensable for auditability and effective risk management" (p. 5).

[26] This is what Buttaboni & Floridi (2026) name *interpretability* (p. 6).

[27] As it seems to be understood by Buttaboni & Floridi (2026), to whom explicability is the capacity of justifying an specific outcome to an affected user, allowing her to control and question that assessment or decision. Explicability is, thus, a teleological concept. According to the authors, "a system becomes explainable only when it can provide justifications at the appropriate level of abstraction for a specific user's needs and capabilities"; "AIS [artificial intelligence system] is explainable when a system provider (e.g., the model developer) generates a justification of the output that provide epistemically adequate grounds for the recipient (e.g., the client, regulator, or affected party) to assess, act upon, and crucially, challenge that given output" (p. 7).

ral elements of a case (for example: the name of the judge, the parties, the law firms involved, the judicial district where the claim was filed, whether there was a settlement and its value), offer information so that a lawyer can strategically decide the course of their client's future case.

In any case, values such as transparency, traceability, or the understanding of algorithmic processes by developers do not necessarily lead to explicability on the part of the user; that is, they are not sufficient conditions. What is required is to promote an understanding of the system that allows the user to challenge, in a relevant way, the decision that ultimately affects them[28].

It is difficult to achieve a general ethical theory for all systems that use AI. As we have seen, there will be some AI systems (at a general level, not restricted to legal field) that, due to their own algorithmic design characteristics, will intrinsically generate problems of a lack of transparency and explicability. The influencing factors are the human cognitive impossibility of interpreting algorithmic models and databases; the lack of tools to visualize and understand codes and data; data whose structure does not allow them to be read; updates to the models and human influence; the fact that the lack of transparency is intrinsic to the system given its self-learning process; and the malleability of algorithms due to their reprogramming, which is fundamental for the improvement of their results, among others[29]. And if it is possible to know and describe the algorithmic design, considering the technical and complexity level with which they are designed, it is also a matter of deciding whether the public whose legal sphere will be affected by the AI should know and understand the algorithmic design[30]. If the answer is affirmative, the additional problem of the *degree of knowledge* to be promoted among the users arises; that is, whether to promote a broad knowledge of the design, development, and implementation of the algorithms, or rather a more limited knowledge (always based on the premise that transparency, at the level of AI ethics, is not an end-value to be achieved in itself[31]). Also, it will be influential whether such programs are public or private (for the purposes of commercial or industrial secrets) and what the specific use of said program would be. This point is particularly relevant for what I will argue later.

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[28] According to Buttaboni & Floridi (2026), this presupposes an epistemic dimension of explicability (pp. 7, 10).

[29] Floridi (2023, pp. 97-98).

[30] Gina Gioia's proposal seems somewhat excessive in asserting that the only way to preserve judicial independence is for the judge to exercise "constant control over all phases of the process: from data collection, to algorithm programming, up to operational management" (2024, p. 1354). The judge is neither a technician nor a software engineer and, as I have been arguing, not even someone with deep technical knowledge could comprehend all the phases of an algorithmic process.

[31] From a broader perspective, Floridi (2023, pp. 94-95) identifies six ethical concerns in the design, development, and implementation of AI algorithms. They can be grouped into two domains: epistemic factors and normative factors. The first includes problems related to inconclusive evidence, inscrutable evidence, and misguided evidence; the second includes unfair outcomes and unintended consequences. These five factors lead to hindering "the possibility of identifying a cause for an outcome and thus attributing moral responsibility for it" (p. 95). This specific issue constitutes the sixth concern: traceability. According to Floridi, opacity or lack of transparency is linked to both normative factors.

But alongside transparency, it is possible to identify another value linked to explicability: *controllability*. This is particularly relevant when we talk about AI systems applied in the field of justice. Controllability requires that the reasons for a certain AI-based decision or action must be understandable so that they, in turn, can be challenged by the users or citizens who will suffer their effects. Consider the case of a judicial decision. If the judge adopts (or rejects) as a premise the reasons offered by the system about the correct outcome of the ruling based on comparisons with past cases, then this reason must also be subject to control. Although, it is not only a control by the general public given the public nature of judicial decisions (which could be resolved through periodic audits by the programmers), but also the control through the appeal mechanisms made available to the parties who suffer the consequences of the said decision. Therefore, controllability is also an instrumental value: the understanding and control of judicial decisions serve, in turn, to make decisions regarding the calculability of the responses of the judges who use the system, so that the affected party can achieve a lawful decision through the appeal[32].

4. RESOLVING THE TENSION? THE CRITERION OF THE SYSTEM'S FUNCTION

When it comes to public decisions, as Santosuosso and Sartor indicate, it is generally preferable "a system that commits fewer errors versus a more fallible system that is capable of providing reasons for its choices". However, as the authors continue,

> The requirement to provide explanations is, however, fundamental when the system is used for the exercise of functions of public relevance, especially when conflicting interests are at stake and the needs for control are preeminent, as is the case with administrative action and even more so in the sphere of jurisdiction[33].

It is true that AI systems in the field of justice are inserted into a public sphere and, therefore, to a greater or lesser extent, have a great impact on citizens. However, to resolve the tension between explicability and efficiency, it seems to me that the criterion of whether the system is (or not) used to exercise a public function is not sufficient. The reason for this is that it does not tell us *how explainable* the system should be or, which is the same, *what degree of opacity* we should be willing to tolerate for efficiency to prevail. Likewise, it does not seem to distinguish between systems applied in bureaucratic procedures of justice system management and those used in the judicial process; and, in this context, there is no distinction between systems applied to procedural or bureaucratic aspects and those that affect the decisional sphere, that is, the judge's own decision-making processes.

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[32] This is problematized by Bujosa Vadell (2022, pp. 751 ss.).

[33] Santosuosso & Sartor (2022, p. 1771). See also Santosuosso & Sartor (2024, p. 47). Later on, the authors clarify better their argument concerning the tension between explicability and efficiency.

Take, for example, AI tools that allow building statistics and predictions from the measurement of data collected from various courts and tribunals, or instruments that contributes to the selection of personnel to be hired. On the other hand, consider systems that help manage cases, that summarize hearings, that draft judicial resolutions, those that propose certain measures based on a risk assessment, and also legal assistants that offer reasons for deciding. All of them have a more direct or indirect influence on judicial decisions that, in the end, will ascertain the legal situation of the parties and guide social behaviour.

I think it is of little use to argue, without further ado, that an AI system must be transparent or explainable if it is to be used in the field of justice. Actually, a more precise question is the following: *How transparent/explainable should that system be?* Or, also: *To what extent should efficiency be prioritized over the possibility of achieving greater explicability?* The reason for this is that, in general, there is an underlying purpose regarding efficiency in any AI system, from a general point of view, and also in any AI system applied to the field of justice. No AI system is designed or implemented to increase the costs or time dedicated to producing the expected result, nor to generate greater effort, for example, by having to review or control everything the system does. If a system has any of these effects, it should be discarded.

Nevertheless, this does not mean that, because every AI system has a purpose oriented towards efficiency, the tension between it and explicability must be resolved in favour of the former. Like intelligibility or understanding regarding the system's functioning, *the achievement of efficiency is also gradual*. It is possible, therefore, that this tension might be oriented towards explicability, restraining efficiency, but without completely renouncing to it. [34] It is also possible to give up explicability to a certain extent, with a greater margin of opacity, in order to favour efficiency; but, in the same way, without discarding any type of explanation, including the possibility of a general description of the system's functioning [35].

But, what would be the criterion for opting for one alternative or the other? My proposal is to assume the criterion of the system's function (that is: what is it for?). In general, it is about *ascertain the degree of interference* that the system's results have on the judge's decisions throughout the process (and not just the final ruling). Thus, the lower the interference, the more efficiency can prevail; in contrast, the more direct the interference, the greater the explicability that should be promoted. This lies not necessarily in any risk prevention according to the harm the system could cause (although this

[34] Conversely, Gioia (2024, p. 1356) argues: "every system intended to assist judicial activity must have a clear and transparent origin, structure, and functioning, and be approved by law in a specific rather than generic manner". Here, the author makes no distinction between systems with greater or lesser interference and, in my view, neither does she base her conclusion on the European Regulation, which would indeed allow for such a differentiation in terms of high-risk or acceptable-risk systems, as we will see later.

[35] Santosuosso & Sartor (2024, pp. 132-133).

could exist); in fact, it has more to do with the duty to provide reasons, that is, to justify decisions. This is an activity entrusted to the judge due to a series of political agreements on the organization of the system and legal and social rules[36]. If we have an AI system that facilitates or contributes with information, predictions, or reasons so that the judge can fulfil their job of deciding, it becomes necessary for the public and the parties to know enough about said system. Note that this is even more necessary when an AI system is capable (partially or totally) automating some reasoning processes that the judge executes to shape the justification of their decision, given that the judge could confer some *auctoritas* to the machine or develop a passive submission to it[37].

Once this is defined, it would be appropriate to ascertain the degree of explicability that should be achieved: whether of the algorithmic functioning itself or of the output; whether a general or an individualized description is sufficient; whether it is about an explicability focused on the user of the system or if it focuses more specifically on the parties, etc. Likewise, two subcriteria for deciding on the degree of explicability could be not to excessively compromise the system's effectiveness nor generate unsustainable costs; that is, that they are "compatible with the available resources and with commercialization requirements"[38]

An example of systems that are far from conditioning the direction of a decision or being, in any way, decisive in the decision-making processes, are those intended to improve bureaucratic procedures of the judiciary, to manage and classify files according to efficiency criteria, distribute workload, transcribe hearings, etc[39].

Now take as an example an AI system that reasons based on precedents, offering the judge reasons to decide new cases based on factors found in previous cases[40]. Here, undoubtedly, the degree of the system's explicability will depend on the complexity of the technique used, the amount of data involved, and the desirable knowledge depending on the target audience (namely, judges, system users, lawyers, and litigants). This is even more complex given that legal knowledge and reasoning itself can become so sophisticated that it is not something that can be easily grasped by subjects who are not legal operators.

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[36] Santosuosso & Sartor (2024, p. 143).

[37] Santosuosso & Sartor (2024, p. 143).

[38] Santosuosso & Sartor (2024, p. 136). The authors also understand the duty of explicability as a *best-effort* duty.

[39] The European AI Regulation is in this same vein: "the final decision-making must remain a human-driven activity. The classification of AI systems as high-risk should not, however, extend to AI systems intended for purely ancillary administrative activities that do not affect the actual administration of justice in individual cases, such as anonymisation or pseudonymisation of judicial decisions, documents or data, communication between personnel, administrative tasks" (paragraph 61).

This is also remarked by Ariza Colmenarejo (2023, p. 34). Thus, contrary to what Nieva Fenoll stresses (2025, p. 13), in this point it is not mandatory to have a "white box", because of the diminishing of the system's efficiency.

[40] As previously remarked, this was my main concern in Cavani (2025). See also Cavani (in press).

Notwithstanding this, if we are faced with this type of AI system, committed to providing reasons for a judge to decide, it is necessary to provide sufficient information about the algorithmic functioning of the system as part of the public policy for using said model. In my opinion, in terms of explicability, the sufficiency of this knowledge requires that it be rather broad[41]. It must be explained how the algorithms have been trained; under what criteria the dataset has been built; which cases compose it; what factors have been designed to represent the cases; the computer science techniques that were used must be detailed; and what type of statements the system is capable of offering as output. Likewise, it must be made transparent what the user judge will do, that is, what type of input she will enter into the system; how she will be able to control the reasoning operations executed by the system; and, above all, how she would incorporate its reasons into her decisions. For this, of course, many protocols and regulations designed primarily for the litigants will be required[42].

Concerning this requirement of sufficient explicability, AI-based assistants that, although capable of offering much more precise and refined reasons, are fundamentally opaque and do not allow a reasonable degree of understanding, should be excluded. In fact, just as it is beneficial that more sophisticated techniques be implemented for the algorithm training and the handling of data (for example: standardizing the language of decisions for an automated representation of factors), it is also necessary to develop techniques that point towards a high degree of explicability[43].

Thus, faced with an eventual implementation of an AI system that serves as a judge's legal assistant, a necessary requirement to achieve the greatest possible transparency and controllability is that the explanation of reasons be

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[41] According to Santosuosso & Sartor (2024): "A prediction unaccompanied by an explanation may perhaps be sufficient for a party interested in establishing whether it is worth suing or defending in court, but not for the judge, who has the duty to decide based on the facts and the law, and to justify their decision. However, even for the party, relying on an oracular judgment without being able to know and evaluate the reasons supporting one alternative or the other can be quite reckless. At most, it can be an input for further consideration. On the other hand, a proposed outcome accompanied by reasons, and indeed the identification of multiple alternative outcomes —each accompanied by an assessment of its plausibility, probability, and coherence with past decisions—can be useful to both the parties and the judge" (p. 130).

[42] This is not to say that knowledge regarding the system's technical functioning—that is, the kind understood by specialized developers—should be of secondary importance. This information can readily be presented in a manual or guide designed for non-specialists in computer science, even highlighting certain areas of the system's opacity.

[43] Although this is currently very difficult, it is not impossible (Floridi 2023, pp. 100 ss.). However, it must always be considered that "since an ML algorithm learns rules based on statistical regularities that may surprise humans, its rules may not necessarily seem reasonable to humans. ML predictions are data-driven. Sometimes the data contain features that, for spurious reasons such as coincidence or biased selection, happen to be associated with the outcomes of cases in a particular collection. Although the machine-induced rules may lead to accurate predictions, they do not refer to human expertise and may not be as intelligible to humans as an expert's manually constructed rules. Since the rules the ML algorithm infers do not necessarily reflect explicit legal knowledge or expertise, they may not correspond to a human expert's criteria of reasonableness". (Ashley, 2017, p. 111).

made by the system itself[44]. At this point an issue of efficiency comes into play. It would not be enough for these justifying reasons to be freely reconstructed by each of the users, as this would lose the real utility of the computerized assistant. The reasons must be contained in the system's own statements, be incorporated (or not) as a premise of the judicial decision when the judge constructs the reasoning, motivating why they follow (or not) the system, and must be made known to the parties. Thus, without prejudice to the knowledge of the system's algorithmic functioning, it is necessary to know how the system has reasoned in each specific case, being able to access, literally, the statements produced as output. This will allow for control over, also: a) the type of input introduced by the judge to activate the system; b) the database with which the system works; and c) the type of reasoning operations carried out by the system for the specific case (specifically: the comparisons and distinctions made between the current case and the preceding cases).

Finally, a different problem will be the degree of sufficiency of the explication of reasons in the output. The purpose is to generate a greater understanding for the user who makes the decision (that is, the judge), the legal operator or legal expert, the citizens whose cases will be resolved based on decisional premises placed by this system, and also, the general public who will evaluate the use and functioning of the system.

5. CONCLUSIONS

Even if a human-centred AI approach is assumed and we agree on certain core principles or values that should guide the design and use of AI systems, the demands for efficiency and explicability in the context of justice must depend on the program's function. In this way, systems with more accurate predictions that bring greater efficiency could be justified, even if there is some sacrifice of transparency and explicability, as could be the case with systems that organize and classify processes according to certain characteristics or that prepare decision templates. As has been seen, this would not apply to AI systems that have a more direct impact on the decision because the need for justification requires that the functioning of these systems be explained to a sufficient degree to understand it and be able to perform control actions.

It is true that so far there is nothing similar to an "automated decision" or a "robotic decision" that implies a total replacement of the judge by AI[45]; but

[44] This proposal (which cannot be fully developed here) is in line with the Montreal Declaration for a Responsible Development of AI (Université de Montréal, 2018), specifically its principle of democratic participation.

[45] For instance, Luís Greco (2020) argues that the "robot judge" is factually feasible but ethically indefensible. The problem with this perspective is that the very concept of a "robot judge" remains unclear. Are we referring to a machine capable of completely replacing the human judge? If this is the premise, it seems highly unlikely to be achieved given how AI has been structured thus far. To give just one example: an AI capable of assessing evidence as we do would need to possess the capacity of repre-

some reasoning processes can be verified that could be carried out entirely by the machine, even if they are under the supervision of the judge. Precisely for this reason, it could be said that there is not yet a genuine revolution in legal practice; although this does not mean that technology is not advancing and, eventually, that AI systems powerful enough to transform the way judicial decisions are justified will be developed. There is no doubt that this will increase the tension between explicability and efficiency (which, in this hypothesis, will be enhanced). Faced with this, in my opinion, it is very important to be clear about the end-values that AI as a discipline should pursue and, regardless of the complexity of the computerized model to be implemented, to try to resolve the tension based on the interference it has in the making of the judicial decision.

Last but not least, the criterion proposed here—that is, resolving the tension based on the system's degree of interference with the judicial decision—broadly aligns with the risk-based approach adopted by the European Artificial Intelligence Act (AIA)[46]. While the AIA generally classifies AI systems intended to assist judicial authorities in interpreting facts and the law as "high-risk" (Annex III, point 8), Article 6(3) introduces an exception for systems that do not "substantially influence the outcome of decision making" (such as those performing narrow procedural or preparatory tasks). Thus, under the AIA framework, AI tools with a lower degree of interference in the judge's reasoning would pose a more limited risk, justifying a greater allowance for efficiency over strict explicability, whereas systems that directly shape the substantive decision would demand maximum transparency and human oversight[47].

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senting the world in order to apply rules of experience, and be designed not merely to find correlations, but also to establish causalities and formulate inferences.

Regarding the latter Greco's argument, it overlooks several important aspects. Indeed, if we are not dealing with a truly intelligent agent (and, therefore, one lacking both authorship over the decision and responsibility for it), it would be a mistake to accept a complete replacement as appropriate. But what about procedural or simple interlocutory decisions? For instance, could there be a replacement coupled with human oversight? Ultimately, I believe the real ethical issues lie not so much in a complete substitution, but rather in "partial substitution"—that is, in AI systems functioning as decision-making assistants and, therefore, capable of replacing certain reasoning processes that serve as premises for constructing the final decision.

[46] For a comprehensive analysis of the AIA's scope and impact assessment, see Van Dijck (2022); Mökander *et al.* (2022); Floridi (2023, pp. 85 ss.); Laux (2023); Novelli *et al.* (2024); Walters *et al.* (2024); Hupont *et al.* (2024); Gatt *et al.* (2025); Finck (2026).

[47] I will try to delve more on this argument in a future work.

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HUMAN-CENTRIC OR EFFICIENCY-DRIVEN? COMPARATIVE LESSONS FROM AI IN CIVIL JUSTICE ACROSS THE EU, CHINA, AND SINGAPORE

Nguyen Luu Lan Phuong*
University of Law, Hue University, Vietnam

ABSTRACT: Artificial intelligence is rapidly reshaping civil justice systems worldwide. While digital technologies have long been used to enhance court efficiency, the integration of AI into judicial decision-making and case management raises persistent concerns regarding transparency, procedural fairness, and judicial accountability. Existing scholarship, however, broadly examines AI governance within individual jurisdictions, often focusing on regulatory frameworks or specific institutional experiments, without systematically comparing how different civil justice systems embed AI within their procedural and governance structures. This article addresses this gap through a comparative analysis of AI-enabled civil justice in three contrasting jurisdictions: the European Union, China, and Singapore. Rather than assuming convergence toward a standard model of AI-driven justice, the article conceptualizes AI integration as an institutional design problem shaped by procedural values, governance arrangements, and capacity constraints. Methodologically, the study adopts a qualitative comparative approach, drawing on legislative texts, institutional reports, and existing empirical evaluations. The analysis reveals three distinct institutional logics. The EU prioritizes human-centric procedural safeguards and accountability, often constraining the scale and speed of AI adoption. China adopts an efficiency-first model of judicial modernization, embedding AI deeply into court infrastructure to enhance capacity and consistency, while narrowing opportunities for procedural contestation. Singapore occupies an intermediate position, pursuing pragmatic, governance-driven innovation grounded in professional responsibility and incremental adoption. Sum, the article demonstrates that there is no one-size-fits-all model and that AI redistributes procedural risk across participation, accountability, and efficiency in institutionally path-dependent ways.

KEYWORDS: AI in civil justice; Human-centric AI; efficiency-driven justice; EU; China; Singapore.

* PhD Candidate and Lecturer, University of Law, Hue University, Vietnam. Email: nllphuong.hul@hueuni.edu.vn / phuongnll@hul.edu.vn. ORCID: *https://orcid.org/0000-0001-5456-8521*

SUMMARY: 1. INTRODUCTION.— 2. THE DUAL IMPERATIVES OF HUMAN-CENTRIC AND EFFICIENCY-DRIVEN AI IN CIVIL JUSTICE: 2.1. Why civil justice systems must balance between procedural rights and systemic efficiency; 2.2. Human-centric AI: core procedural safeguards and due process requirements; 2.3. Efficiency-driven AI: systemic benefits and procedural risks.— 3. THREE INSTITUTIONAL LOGICS IN PRACTICE: EU, CHINA, SINGAPORE: 3.1. EU: rights-first proceduralism; 3.2. China: efficiency-first judicial modernisation; 3.3. Singapore: pragmatic hybrid governance in civil justice innovation.— 4. COMPARATIVE EVALUATION: MAPPING THE HUMAN-CENTRIC AND EFFICIENCY SPECTRUM: 4.1. Comparing procedural value priorities and regulatory orientations; 4.2. Comparing procedural safeguards and risk mitigation; 4.3. Comparing systemic efficiency and innovation capacity.— 5. BROADER INSIGHTS FOR AI-ENABLED CIVIL JUSTICE REFORM.— 6. CONCLUSION.— BIBLIOGRAPHY

1. INTRODUCTION

Artificial intelligence (AI) is increasingly being introduced into civil justice systems to address mounting pressures from delays, costs, and expanding caseloads. Courts across jurisdictions are experimenting with algorithmic tools to support core judicial functions, including case management, procedural standardization, judicial drafting, and outcome prediction (Úlehlová, 2025, p. 540). These developments have generated sustained debate. Proponents highlight efficiency gains, consistency, and improved access to justice (Masoudi & Yarahmadi, 2024, p. 204), while critics warn that automation may erode foundational procedural values such as participation, transparency, and judicial accountability (Hendrickx, 2025, p. 2). Much of the existing literature frames this tension as a choice between human-centric justice and efficiency-driven reform. This binary framing, however, obscures how AI is actually embedded within civil justice institutions.

A growing body of scholarship addresses AI in courts through ethical principles, regulatory safeguards, and technical design requirements, particularly focusing on transparency, explainability, and human oversight (Kim & Durrie, 2025, p. 2). While these approaches offer important normative guidance, they often assume that AI operates within a largely neutral procedural environment in which risks can be mitigated through better rules or system design. This assumption overlooks the fact that civil justice systems are profoundly shaped by legal traditions and governance structures that condition how adjudication is organized, how authority is exercised, and how procedural risks are distributed.

This article proceeds from the premise that AI does not merely assist adjudication but also interacts with existing institutional arrangements, shaping both its effects and its limits. Identical or similar AI tools may therefore function very differently across jurisdictions, even where normative commitments appear comparable. Variations in AI governance should not be understood simply as differences in regulatory maturity or policy preference, but as reflections of deeper institutional constraints that define how far efficiency can be pursued without altering the character of civil justice.

Despite this, much comparative literature implicitly assumes convergence toward a shared model of AI-enabled justice, differing mainly in speed or intensity of adoption. Reform debates also frequently suggest that tensions between efficiency and procedural fairness can be resolved through increasingly refined safeguards. Both assumptions are problematic: they underestimate institutional constraints and overstate safeguards' capacity to neutralize the trade-offs inherent in automation.

To address these issues, this article undertakes a comparative analysis of AI-enabled civil justice in three contrasting jurisdictions: the European Union (EU), China, and Singapore. These systems are often portrayed as representing distinct approaches to judicial digitalization. Rather than treating them as points on a linear trajectory, this article analyses them as distinct institutional configurations shaped by different conceptions of adjudication and governance.

Adopting a comparative institutional perspective, the analysis focuses on how AI is embedded within civil justice systems, with particular attention to underlying values, procedural risk-management mechanisms, and the relationship between efficiency gains and institutional capacity. This approach enables the identification of recurring patterns and trade-offs without presuming convergence or normative hierarchy.

2. THE DUAL IMPERATIVES OF HUMAN-CENTRIC AND EFFICIENCY-DRIVEN AI IN CIVIL JUSTICE

2.1. Why civil justice systems must balance between procedural rights and systemic efficiency

Civil justice systems are structured around a fundamental duality between procedural rights and systemic efficiency. Courts must safeguard core procedural rights because these rights underpin fairness and legitimacy (Quintanilla, 2018, p. 115), while also ensuring that dispute resolution remains timely, affordable, and institutionally sustainable (Hylton, 2023, p. 408). This tension is not ideological but structural: adjudication must simultaneously justify authority through participation and manage disputes at scale. The integration of AI into civil justice sharpens this inherent tension, exposing the limits of reforms that privilege either human-centric safeguards or efficiency-driven design alone.

Procedural theory explains why rights-based guarantees are central to adjudication. Courts derive legitimacy from participation, reason-giving, and the opportunity to contest outcomes (Solum, 2004, p. 190). Fuller's conception of adjudication as governance through argument and justification shows why civil justice cannot be reduced to technical problem-solving (Balganesh, 2024, p. 222). Similarly, Bone argues that because courts exist to resolve disputes fairly rather than to implement policy goals, procedural rights, such as

the right to be heard and to challenge evidence, constitute the core of adjudication itself (Bone, 2010, p. 1011). Within this tradition, human oversight and explanation are indispensable because they ensure that litigants can meaningfully influence outcomes and that judicial authority remains publicly accountable.

These commitments are reflected across diverse legal systems. In Europe, Articles 6 of the European Convention on Human Rights and 47 of the EU Charter of Fundamental Rights constitutionalize the right to a fair hearing and to reasoned decisions. Singapore's common-law tradition similarly grounds adjudication in natural justice, with fair-hearing principles remaining binding even in digitalized proceedings (Ling, 2013, p. 1434). China's Civil Procedure Law codifies litigants' participatory rights and requires reasoned judgments, while the Supreme People's Court has reaffirmed that digital tools cannot displace judges' independent evaluation of evidence (Wong, 2025, p. 9). Despite differing institutional contexts, these systems converge on the view that procedural safeguards are the foundation of judicial legitimacy.

At the same time, civil justice faces mounting systemic pressures that make efficiency unavoidable. Growing caseloads, increasing complexity, and limited judicial resources threaten access to justice if procedures become overly slow or costly. In the EU, persistent delays and administrative burdens have driven the adoption of automation and digital case management reforms (Fabri, 2024, p. 2). In China, the nationwide Smart Justice initiative, centered on the Smart Court system deployed across more than 3,000 courts and supported by large-scale AI infrastructure, illustrates how such infrastructure is used to manage massive caseloads and reduce non-judicial burdens (Tang, 2021). Singapore has long prioritized efficiency through comprehensive e-filing and online case management to maintain a lean justice system (Remolina, 2025, p. 8). These examples underscore a shared structural condition rather than a comparative hierarchy.

AI sits at the intersection of these imperatives. While efficiency-oriented tools promise to alleviate backlog and resource constraints, scholarship on automated decision-making warns of procedural risks. Automated systems may undermine participation and transparency, transforming individual errors into systemic ones (Danielle Keats Citron, 2008, p. 1249). Their opacity often prevents meaningful scrutiny by parties or courts (Brauneis & Goodman, 2018, p. 103), and legitimacy depends not only on accuracy but also on the ability to understand and challenge decisions (Krištofík, 2025, p. 2).

Civil justice, therefore, cannot resolve this tension by privileging either rights or efficiency alone. Fairness without functionality renders justice inaccessible, while efficiency without procedural safeguards erodes trust and legitimacy. AI does not dissolve this duality; it magnifies it. Recognizing this structural balance is essential for evaluating how jurisdictions integrate AI into civil justice and for assessing the normative stakes of technological reform.

2.2. Human-centric AI: core procedural safeguards and due process requirements

A rights-first approach to AI in civil justice requires more than abstract commitments to fairness. It demands concrete procedural safeguards capable of preserving the defining features of adjudication in an environment shaped by automation. In this context, human-centric AI refers to systems designed to support, rather than displace, core adjudicative values such as participation, transparency, contestability, judicial accountability, and equality (Pirozzoli, 2024, p. 114). These requirements do not derive from any single regulatory model but from the constitutive logic of adjudication itself. While Section 2.1 explains why civil justice must balance fairness and efficiency, this section identifies the safeguards that become indispensable when fairness is treated as the primary constraint on integrating AI.

The first cluster of safeguards concerns interpretability, contestability, and transparency. Because adjudication depends on publicly accessible reasoning, AI systems that influence judicial determinations must be intelligible to litigants (David Mhlanga, 2023, p. 92). Parties must understand how automated outputs affect fact-finding or legal reasoning; otherwise, courts cannot provide meaningful justification for their decisions. Contestability is equally central. Litigants must be able to challenge automated outputs, identify errors, and present counter-arguments capable of influencing judicial reasoning (Tihomir Katulić, 2023, p. 64). Procedural legitimacy depends not only on correct outcomes but on the ability to question the basis on which those outcomes are produced. Transparency regarding the use, purpose, and limitations of AI tools is therefore essential, as undisclosed automation can shape procedural steps or outcomes in ways that parties cannot detect or contest (Tatiana Dancy & Monika Zalnieriute, 2025, p. 29).

A second cluster addresses human oversight, participation, and proportionality. A rights-first framework requires that human judges retain final decision-making authority and the capacity to critically evaluate AI-generated recommendations (Tumanov, 2025, p. 13). Judicial accountability presupposes independent judgment and cannot be delegated to automated systems. At the same time, AI must not erode parties' opportunities to present arguments, challenge evidence, or participate in hearings, even when automation streamlines procedures (Selçuk *et al.*, 2025, p. 10). To preserve this balance, AI deployment must be proportionate: technological intervention should not weaken procedural rights or exceed what is justified by the complexity or sensitivity of the dispute (Garrett, 2025, p. 933).

The third cluster comprises equality, privacy, and institutional accountability. Because AI systems rely on historical data, they risk reproducing or amplifying existing inequalities (Hanna *et al.*, 2025, pp. 3-4). Human-centric adjudication, therefore, requires ongoing monitoring, auditing, and bias-mitigation mechanisms (Quintanilla, 2018). Privacy protection is equally

integral, as AI tools often involve extensive data processing that can expand surveillance or compromise confidentiality (Hakeemat Ijaiya, 2024, p. 2879). Finally, accountability depends on auditability: courts must be able to trace how AI influenced decisions, identify errors, and assign responsibility (Anna Blackburne-Rigsby *et al.*, 2024).

These three clusters of safeguards form the procedural architecture of human-centric AI in civil justice, providing a common evaluative framework for assessing whether technological integration remains compatible with procedural fairness across jurisdictions.

2.3. Efficiency-driven AI: systemic benefits and procedural risks

Civil justice systems increasingly adopt AI not because of its theoretical promise, but because institutional pressures render automation seemingly unavoidable. Rising caseloads, administrative congestion, judicial staff shortages, and chronic delays threaten access to justice across jurisdictions. In this context, efficiency-driven AI primarily functions as a managerial response: an institutional mechanism designed to accelerate case processing, streamline workflow, and expand system capacity without proportional increases in labor (Victoria Hendrickx, 2025). Its rationale lies in system sustainability rather than the normative enrichment of adjudication. The benefits of efficiency-driven AI can be grouped into three analytical dimensions.

First, AI substantially enhances speed and processing capacity. Automated triage systems allocate cases to procedural tracks within seconds; natural language processing tools extract relevant information from filings; and scheduling algorithms coordinate hearings more efficiently than manual systems. Empirical evidence from platforms such as Canada's Solution Explorer, the UK's Automated Traffic Appeals, and the US Matterhorn ODR system demonstrates significant reductions in early-stage congestion through automation (Cashman & Ginnivan, 2019).

Second, efficiency-oriented AI promotes uniformity and standardization. Pattern-recognition tools cluster cases with similar characteristics, while automated document-generation systems produce standardized orders for routine matters (Mizaras *et al.*, 2025, p. 14). In Brazil, Word2Vec-based models have been used to automate precedent discovery through textual similarity, thereby enhancing both efficiency and consistency in judicial processing (Mentzingen *et al.*, 2024, p. 13).

Third, AI enables resource optimization and scalability. Automated document review, evidence classification, and notification systems reduce clerical burdens, allowing human judges to focus on substantively complex disputes. German courts have employed AI-assisted categorization and draft judgments, while a Colombian pilot reported a fivefold increase in judicial output following AI integration (Nikola L. Datzov, 2025, pp. 25-26).

However, these efficiency gains generate corresponding procedural risks when speed becomes the dominant objective. A first category concerns judicial behavior and decision dynamics. Automation bias may emerge when judges or administrators rely on AI outputs to expedite their workflow (Krištofík, 2025, p. 6). Standardized templates and summaries may also encourage formulaic reasoning, subtly shifting judges from interpretive decision-makers to reviewers of automated suggestions (Antonio Lopo Martinez, 2025, p. 6).

A second category concerns procedural transparency and participation. Workflow opacity occurs when AI is used in tasks such as routing, filtering, or prioritizing cases without informing the parties, leaving them unaware that automation has influenced the progression of their case through the system. Participation may also be compressed: courts adopting streamlined digital procedures frequently reduce oral hearings, rely more heavily on automated document review, or shift toward asynchronous interactions, thereby diminishing litigants' opportunities to directly influence outcomes (Hendrickx, 2025, p. 7). These problems are amplified by digital inequality, as parties with limited internet access, technological literacy, or language support face practical disadvantage in systems designed around digital efficiency.

A third category concerns accountability and institutional integrity. Automation diffuses responsibility across judges, administrators, vendors, and systems, complicating error attribution (MacKenzie, 2025). Moreover, efficiency-oriented systems tend to be brittle: while effective for routine cases, they struggle with atypical or complex disputes, risking error amplification without adequate review (Alessa, 2022, p. 331).

In summary, efficiency-driven AI reveals a structural trade-off: the attributes that enable speed and scalability may also shape decision-making, narrow participation, and obscure responsibility. These vulnerabilities do not negate the value of efficiency, but they underscore the need for deliberate institutional governance and oversight. Understanding how efficiency-based designs reshape civil justice provides the foundation for the comparative analysis that follows, in which the EU, China, and Singapore are shown to adopt distinct strategies for balancing automation with procedural integrity.

3. THREE INSTITUTIONAL LOGICS IN PRACTICE: EU, CHINA, SINGAPORE

3.1. EU: rights-first proceduralism

In the EU, the deployment of artificial intelligence in civil justice is shaped by a rights-first procedural logic grounded in fair-trial guarantees, judicial independence, and contestability, rather than a primary commitment to efficiency maximization (Bamdad Shams, 2025). Although AI is already used in several EU civil justice systems, for example, in case triage, anonymisation, drafting assistance, and limited outcome prediction, its deployment is sys-

tematically constrained by procedural safeguards derived from Article 6 of the European Convention on Human Rights (ECHR), Article 47 of the EU Charter of Fundamental Rights, EU data-protection law, and pan-European judicial ethics frameworks (Deputat, 2025, p. 20). As a result, AI is not treated as a neutral efficiency tool but rather as a technology capable of reshaping judicial procedures and affecting parties' rights (Schmauder *et al.*, 2023, p. 803). The defining feature of the EU approach is therefore not the absence of AI in courts, but the deliberate confinement of AI to supportive functions that do not exercise adjudicative authority or alter procedural power relations between judges and litigants.

Empirical evidence confirms this pattern. According to the CEPEJ Artificial Intelligence Advisory Board's First Annual Report, by the end of 2024 approximately 125 AI and "*cyberjustice*" tools were in use across European judicial systems, the vast majority performing administrative, informational, or drafting-support functions rather than binding decision-making (CEPEJ, 2025, para. 8). These tools include document analysis, anonymisation of judgments, transcription, workflow automation, and legal research assistance. The CEPEJ Ethical Charter explicitly cautions against systems that standardize judicial outcomes through "pure statistical calculation" or interfere with judicial discretion, emphasizing that AI must remain a support instrument rather than a substitute for adjudication (CEPEJ, 2018, p. 5, 15). Procedural legitimacy, rather than performance optimization, thus functions as the primary design constraint for judicial AI in the EU.

This rights-first logic becomes particularly visible under conditions of efficiency pressure. Germany's use of the OLGA system in Dieselgate-related mass litigation illustrates this dynamic. OLGA clusters similar cases, assists with scheduling, and generates draft templates, significantly improving the management of large caseloads (Antonia Hösch *et al.*, 2025). Nevertheless, the system is explicitly designed not to draw binding legal conclusions. Judges retain responsibility for fact-finding, legal qualification, and the adaptation of templates to individual cases, a separation justified as necessary to preserve judicial independence and ensure that judgments remain individually reasoned and contestable (CEPEJ, 2025, para. 46). A similar boundary exists in the Netherlands with the LEXIQ Case Law Engine, which applies machine learning to analyse case-law patterns and generate outcome assessments for use by public authorities. Classified as a decision-support tool, LEXIQ facilitates strategic planning without substituting judicial reasoning or binding decision-making (CEPEJ, 2025, para. 28.3; John Zeleznikow & Fernando Esteban de la Rosa, 2021, p. 62). At the same time, digital and AI-enabled tools may exacerbate information asymmetries where access to or effective use is limited to one party, thereby weakening the procedural position of the other and undermining equality of arms, a core element of the right to a fair trial (Simona Úlehlová, 2025, p. 547).

The EU's procedural boundaries are most explicit where AI threatens to reconfigure adjudicative power relations. France's legislative prohibition on judicial analytics tools that predict or rank individual judges' behavior ex-

emplifies this limit (Cesta, 2024, p. 72). The prohibition rests not on doubts about accuracy. However, there are concerns that predictive tools could undermine judicial independence, facilitate forum shopping, and erode equality of arms (CEPEJ, 2018, para. 46). This episode functions as a paradigmatic boundary case: AI is rejected not because it fails to deliver efficiency, but because it alters the procedural architecture through which judicial authority is exercised and contested.

Experiments that move closer to decisional automation are therefore tightly circumscribed. In Estonia, AI may issue initial decisions in tiny civil claims (up to EUR 7,000), provided that such decisions are subject to full human judicial review and can be replaced on appeal (Tara Vasdani, 2019). Academic commentary has noted that such experiments raise fair-trial concerns where automated outcomes are insufficiently reasoned or difficult for parties to understand and challenge (Andrea Maria Garofalo, 2023, p. 77). Accordingly, automation is considered compatible with EU fundamental rights only where effective human review and correction are guaranteed (Tommaso De Mari Casareto dal Verme, 2023, p. 146).

Within this institutional context, the EU Artificial Intelligence Act plays a reinforcing rather than constitutive role. By classifying AI systems used in the administration of justice as high-risk, the Act embeds requirements of human oversight, transparency, robustness, and risk management into system design, effectively consolidating existing reluctance to delegate decisional authority to algorithms (JURI, 2025). At the same time, the EU's rights-first proceduralism is not without institutional costs. By prioritizing ex ante safeguards and strict limits on decisional automation, EU civil justice systems constrain the speed, scale, and scope of AI deployment, particularly in jurisdictions facing chronic backlogs and resource constraints (CEPEJ, 2025, para. 50). Moreover, safeguards implemented through formal compliance mechanisms, such as documentation, auditability, and human-in-the-loop requirements, risk becoming symbolic where institutional capacity or user understanding is limited (Dinesh Deckker & Subhashini Sumanasekara, 2025, pp. 249, 255). The EU model thus reveals a structural paradox: procedural protections designed to secure fairness may, under systemic strain, also limit timely access to justice.

3.2. China: efficiency-first judicial modernisation

In China, the integration of artificial intelligence into civil justice reflects an efficiency-first model of judicial modernization that is institutionally deliberate rather than technologically incidental (Chen & Li, 2020, p. 57). Judicial AI is introduced as part of a top-down reform strategy to help courts handle large caseloads and maintain consistent practices within a centrally organized judicial system. This logic is articulated most clearly in the Supreme People's Court's Smart Court reform agenda. The *Opinions on Accelerating*

the Construction of Smart Courts define smart courts as a comprehensive institutional framework in which judicial activities are handled online, procedural stages are integrated across platforms, and intelligent services support adjudication and enforcement throughout the process (SPC, 2017, para. I(1)). The document explicitly links informatization and artificial intelligence to improvements in adjudicative efficiency, administrative coordination, and workload management. AI is framed as part of judicial infrastructure, supporting filing, trial management, judgment drafting, and enforcement, rather than as a discretionary or experimental tool (Tahura & Selvadurai, 2023).

The efficiency-first orientation is further operationalized through the establishment of Internet Courts and nationwide online litigation platforms. According to the White Paper on the Application of Internet Technology in Judicial Practice, Internet Courts were established to address the rapid growth of online disputes, particularly in areas such as e-commerce, online services, and digital contracts, by channeling them into standardized, platform-based procedures (SPC, 2019, pp. 12-15). These courts rely on full-process online litigation, encompassing filing, evidence exchange, hearings, judgment issuance, and enforcement. Central to this model is case classification and diversion, in which intelligent systems distinguish high-frequency, low-value disputes from more complex cases and channel them to Internet Courts in Hangzhou, Beijing, and Guangzhou, enabling strategic, scaleable allocation of judicial resources (Shi *et al.*, 2021, p. 11). These mechanisms enable courts to process substantially larger volumes of routine cases through online channels, contributing to shorter average processing times and reduced administrative burdens for judges. For example, the Beijing Internet Court has reported using AI-assisted tools to process copyright disputes in bulk, resulting in a 40% reduction in average case processing time (Zeng Chenyi *et al.*, 2025, p. 76).

Efficiency-oriented digitalization has also been consolidated through the Rules of Online Litigation of People's Courts, which extend online procedures across civil, administrative, special procedure, and enforcement cases (SPC, 2021). By institutionalizing online handling as a default procedural pathway rather than an exception, the Rules embed efficiency, convenience, and scalability into the legal framework governing civil adjudication. Judicial AI operates at scale through centralized data infrastructures. Nationwide platforms, such as China Judgments Online and inter-court data networks, enable courts to manage rapidly expanding civil caseloads while maintaining standardization and coordination across jurisdictions (Z. Wang, 2021). These infrastructures support real-time data aggregation and monitoring, allowing higher judicial authorities to observe procedural patterns and adjudicative outputs across courts. In 2024, the Supreme People's Court launched a national legal AI platform built on hundreds of millions of judicial records, designed to assist judges in extracting key issues, generating outlines, and reviewing materials more efficiently (SPC, 2024).

Official descriptions emphasize that the platform is intended to accelerate routine judicial tasks, such as issue identification and document review,

across courts nationwide, thereby increasing throughput in standard cases without proportional increases in judicial staffing. Its reliance on centralized, authoritative datasets highlights how China's institutional structure enables the rapid, coordinated deployment of AI technologies without the fragmentation risks associated with decentralized experimentation.

At the same time, efficiency-first judicial modernization entails institutional trade-offs that merit careful acknowledgment. While human judges formally make the final decisions, AI systems increasingly shape the information presented to judges and the way cases are processed prior to adjudication (Tahura & Selvadurai, 2023, p. 15). Through mechanisms such as algorithmic case profiling and template-based drafting, these systems standardize the categorization, prioritization, and resolution of disputes, thereby narrowing the range of procedural and substantive discretion exercised in routine cases.

Some scholars characterize this mode of automation as creating a form of "*digital iron cage*" (*shuju tielong*), in which procedural standardization is closely aligned with broader governance objectives of the party-state, giving rise to conditions of heightened supervisory or "*panoptic*" control (Papagianneas & Junius, 2023, pp. 6, 11). Within this framework, judges may increasingly function as implementers of pre-structured digital workflows rather than as autonomous adjudicators, particularly in high-volume, low-value disputes. Efficiency-oriented design thus tends to deprioritize individualized reasoning, procedural contestation, and transparency regarding algorithmic influence. These effects do not negate the model's rationality, but they underscore the institutional costs associated with large-scale automation.

3.3. Singapore: pragmatic hybrid governance in civil justice innovation

Singapore's integration of artificial intelligence into civil justice reflects a pragmatic hybrid governance strategy that is governance-first and human-centric (Nydia Remolina, 2025, p. 5). AI is deliberately deployed to augment, rather than replace, human judgment, and is embedded within existing procedural, ethical, and professional frameworks rather than used to automate adjudicative functions. At the regulatory level, Singapore has adopted a deliberate "*wait-and-see*" approach, often described as "*masterly inactivity*", that defers binding AI-specific legislation in favor of soft-law guidance and institutional learning (Pang Cheng Kit Kit, 2025, pp. 224-225). This combination of assistive technology use and regulatory restraint enables efficiency gains while mitigating the risks that premature automation or rigid regulation could undermine judicial discretion, procedural fairness, and public trust in the courts.

This orientation is most clearly articulated in the Supreme Court of Singapore's Guide on the Use of Generative Artificial Intelligence Tools by Court Users, issued through Registrar's Circular No. 1 of 2024 and parallel circulars

for the State Courts and Family Justice Courts. The Guide explicitly frames generative AI as a support tool whose outputs remain the responsibility of the human user. Court users are required to verify the accuracy of their submissions, avoid fabrication, and be prepared to disclose their use of AI when directed, underscoring the continued centrality of human judgment and accountability in judicial processes (Supreme Court of Singapore, 2024, para. 5(1)). In this framework, "*human-in-the-loop*" oversight operates not merely as a formal safeguard, but as a practical constraint on how AI may be used: AI can assist with drafting, research, and information organization, but it cannot substitute for legal judgment or determine procedural or substantive outcomes (Enarsson *et al.*, 2022, p. 133).

This cautious, governance-first approach is reinforced by sector-wide guidance issued by the Ministry of Law. The Guide for Using Generative AI in the Legal Sector emphasizes the importance of diagnosing institutional needs, assessing risks, training users, and continuously reviewing AI deployment (Singapore Ministry of Law, 2025). AI adoption is thus treated as an ongoing governance process rather than a one-time technological upgrade, reflecting a preference for incremental integration and institutional learning over rapid or comprehensive automation.

At the institutional level, Singapore's courts have prioritized digital infrastructure that improves workflow efficiency while explicitly preserving conventional adjudicative roles. This approach is reflected in the use of a range of assistive AI tools, including Harvey AI for multilingual document translation, case summarisation, and document analysis; a neural-network-based Speech Translation System for real-time transcription of hearings; Pair Search, developed by the Government Technology Agency, to support research across legislation, judgments, and parliamentary materials; AI-enhanced features in LawNet and the GPT-Legal Q&A tool for legal research; Microsoft Copilot for administrative tasks; and controlled drafting and "*red-teaming*" experiments (Oxford, 2025). These tools streamline procedural administration and reduce transaction costs. However, they are deliberately designed as workflow supports rather than decision-making systems, ensuring that judicial discretion over case management, evidence assessment, and legal reasoning remains intact (Lim Chong Kin *et al.*, 2025).

Judicial innovation in Singapore is pursued through a phased and strategic approach under the Technology & Innovation Roadmap (TIR), which sets out a sector-wide plan for legal and judicial technology development through 2030. Rather than relying on ad hoc experimentation, new technologies, such as E-Courts, expanded video conferencing for hearings, and advanced digital presentation tools, including virtual reality-based witness visualization, progressively integrate into the civil justice system. This process is accompanied by regular reviews of the regulatory and legislative framework conducted by the Ministry of Law to ensure that it remains sufficiently flexible to accommodate technological change (MinLaw, 2020, p. 30). Supported by governance instruments such as the Model AI Governance Framework, this structured

methodology enables courts and legal institutions to test and adopt new tools responsibly while maintaining transparency, enhancing access to justice, and safeguarding the interests of court users.

At the policy level, Singapore's National AI Strategy 2.0 situates judicial AI within a broader vision of a *"trusted ecosystem"* for AI deployment (Jason Grant Allen & Jane Loo, 2025, p. 158). The Strategy emphasizes explainability, risk-based oversight, and sector-specific governance mechanisms, highlighting the importance of maintaining public confidence in AI-enabled systems (Singapore Ministry of Law, 2025). Within the justice sector, these principles are operationalized through an explicit reluctance to delegate normative or discretionary functions to AI, even where efficiency gains might be achievable. AI is framed as a means of supporting access to justice and administrative effectiveness, not as a substitute for human adjudication.

4. COMPARATIVE EVALUATION: MAPPING THE HUMAN-CENTRIC AND EFFICIENCY SPECTRUM

4.1. Comparing procedural value priorities and regulatory orientations

This subsection compares the EU, China, and Singapore at the most fundamental comparative level: what each system prioritizes when AI is introduced into the adjudication process. Rather than examining specific technologies or procedural mechanisms, the analysis focuses on the dominant procedural value that anchors regulatory orientation in each system, as reflected in existing legal frameworks, policy documents, and scholarly assessments discussed earlier.

In the EU, the central priority is the protection of litigants' procedural rights and adjudicative integrity. Core principles such as the right to be heard, equality of arms, judicial independence, and reasoned decision-making function as baseline constraints on the permissible use of AI in judicial processes. As reflected in the EU's rights-based regulatory discourse and fundamental rights-oriented AI governance framework, AI is approached with caution and framed primarily as a potential source of procedural risk rather than as a neutral efficiency-enhancing tool (Selçuk *et al.*, 2025, p. 5). The regulatory emphasis, therefore, lies in preserving the procedural relationship between judges and parties, even where this limits the scope of automation or slows technological uptake.

China adopts a contrasting value orientation, in which system capacity, consistency, and administrative coordination are treated as paramount. Judicial AI is embedded within a broader court modernization agenda led by the Supreme People's Court, which emphasizes standardization, caseload management, and the use of technology to enhance the overall functioning of the judicial system (N. Wang & Tian, 2023, p. 350). Procedural rights and human

adjudication remain formally acknowledged, but they are situated within a governance model that prioritizes maintaining system stability and throughput across a large, centralized court structure. The guiding regulatory question, therefore, is how AI can enhance system-wide performance, rather than how it might alter individual procedural interactions.

Singapore occupies an intermediate position, characterized by a priority on maintaining institutional trust through responsible human control. Scholarly analysis highlights Singapore's light-touch regulatory approach, which relies on voluntary frameworks and existing statutory controls rather than AI-specific procedural codes (Tristan Toh, 2025). Within this model, AI is framed as assistive and conditional, acceptable so long as judges and legal professionals remain accountable for outcomes (Jason Grant Allen & Jane Loo, 2025, pp. 1-2). The regulatory emphasis is not on elevating either procedural rights or efficiency as absolute constraints, but on preserving confidence in judicial decision-making through professional responsibility and incremental governance.

Comparatively, these value priorities establish three distinct starting points for AI governance in civil justice: rights-anchored legitimacy in the EU, system-anchored capacity in China, and trust-anchored responsibility in Singapore. These orientations do not yet determine how safeguards are implemented or how efficiency is realized. However, they shape the regulatory logic that informs those subsequent choices, providing the baseline for the analyses in Sections 4.2 and 4.3.

4.2. Comparing procedural safeguards and risk mitigation

Building on Section 4.1, this subsection compares how procedural risks created by AI-assisted adjudication are managed in practice across the EU, China, and Singapore. Rather than revisiting underlying value priorities, the analysis focuses on three recurring risk points—excessive deference to automated outputs, reduced opportunities for party participation, and accountability gaps—and examines the institutional channels through which these risks are addressed. The comparison concentrates on human oversight, transparency, contestability, and mechanisms for error correction.

Human oversight is preserved in all three systems, but it is exercised through distinct governance channels. In the EU, oversight is structured around requirements for meaningful human review of AI-assisted outputs and limits on automation where it could displace judicial assessment (Corrêa *et al.*, 2025). Judges are expected to evaluate AI-generated recommendations rather than rely on them mechanically. In practice, however, the effectiveness of this safeguard is uneven. Time pressure and disparities in technical expertise can limit the depth of scrutiny judges apply to AI-supported materials, thereby weakening oversight in routine or high-volume cases (Fine *et al.*, 2025, p. 491). In China, human oversight operates primarily through admin-

istrative hierarchies rather than case-by-case judicial reassessment. Judges remain formally responsible for outcomes, but AI systems structure case processing and drafting in standardized ways. Safeguards, therefore, function mainly through system design and centralized supervision, rather than through individualized judicial intervention (Ji, 2020, pp. 519, 526; Papagianneas & Junius, 2023, p. 6). Singapore adopts a governance-based approach in which human control is maintained through professional responsibility and user accountability, rather than through detailed AI-specific procedural mandates (Lim Chong Kin *et al.*, 2025).

Transparency and contestability highlight a sharper divergence in how risks to party participation are addressed. In the EU, transparency is treated as a procedural requirement: parties should be able to understand how AI influences proceedings and to challenge its use where appropriate (Shams, 2025). This strengthens equality of arms but increases procedural complexity and compliance burdens. In China, AI often operates within internal judicial workflows that are neither fully transparent nor easily challengeable by litigants, thereby limiting the effective contestation of algorithmic influence on procedural outcomes (Ji, 2020, p. 526). Singapore occupies an intermediate position in terms of contestability. While AI use is disclosed and framed as assistive, parties do not enjoy explicit procedural rights to contest its influence; instead, challenges depend on judicial discretion and the professional responsibilities of legal actors within existing legal frameworks (Tristan Toh, 2025).

Accountability and error correction further differentiate the systems. The EU emphasizes traceability and legal responsibility, seeking to ensure that AI-related errors can be identified and remedied through established legal channels, although this depends on litigants' capacity to activate available remedies (Socol De La Osa & Remolina, 2024, pp. 7, 24, 26). China prioritizes system stability and correction through administrative supervision rather than litigant-initiated procedural challenges, enabling rapid internal adjustment at scale while narrowing opportunities for individual review (Peng & Xiang, 2019, pp. 358, 365). Singapore places responsibility squarely on human users rather than AI systems, ensuring clear accountability (Jason Grant Allen & Jane Loo, 2025, p. 16). However, this approach remains vulnerable to failures of professional compliance or institutional oversight.

4.3. Comparing systemic efficiency and innovation capacity

This subsection compares the effectiveness of each system in utilizing AI to enhance systemic efficiency and sustain institutional innovation capacity in civil justice over time. Efficiency refers to throughput, consistency, and cost control at scale (Ashish Prasad *et al.*, 2024). In contrast, innovation capacity concerns the ability to experiment, adapt, and upgrade AI tools without disrupting institutional stability or coordination (Arbel, 2025, p. 581).

China demonstrates the highest level of system-wide efficiency and a strong capacity for centralized innovation. AI is deeply embedded in judicial workflows, enabling courts to process enormous caseloads with speed and consistency. This approach is reinforced by policy mandates requiring courts to develop advanced AI systems by 2025 to support judicial operations and legal services (SPC, 2022). Over time, this model generates rapid diffusion and coordinated upgrading across jurisdictions. The trade-off is reduced adaptability at the individual court level: efficiency gains rely on standardized processes applied across courts, limiting opportunities for localized experimentation and case-specific adjustments (Ji, 2020, p. 521). Innovation, therefore, follows a centralized, top-down trajectory, prioritizing scalability over decentralized learning.

The EU exhibits a more constrained efficiency profile and fragmented innovation capacity. AI adoption proceeds cautiously and unevenly, often concentrated in administrative support and case management functions (JURI, 2025, p. 25). While this slows system-wide efficiency gains, it allows experimentation to remain localized within national or institutional boundaries. Innovation thus advances incrementally, shaped by jurisdictional diversity and compliance requirements that raise coordination costs (Bertolini, 2025, p. 9). Over time, this produces a pattern of responsible piloting but limited translation of successful initiatives into uniform efficiency improvements across courts.

Singapore occupies an intermediate position characterized by selective efficiency gains and staged innovation (Shaun Lim, 2021, pp. 281, 288). AI is deployed in targeted domains to streamline workflow and reduce delay, particularly in standardized procedural contexts. Innovation is pursued through pilots and feedback-driven adjustment, enabling learning without large-scale disruption. However, efficiency gains remain bounded by system size and institutional resources, and innovation advances in carefully sequenced steps rather than through rapid expansion. This produces a stable but relatively low-ceiling trajectory of innovation.

Compared with one another, the three systems display distinct institutional trajectories. China emphasizes scale and speed through centralized rollout; the EU advances through cautious, fragmented experimentation; and Singapore balances selective efficiency with controlled learning. These differences reflect path-dependent governance choices that shape the evolution of efficiency and innovation, rather than differences in technical capacity alone.

5. BROADER INSIGHTS FOR AI-ENABLED CIVIL JUSTICE REFORM

This section distills broader insights from the comparative framework developed in Section 4. Rather than restating jurisdictional descriptions or advancing a universal reform model, it uses the spectrum to clarify why di-

vergence persists, which procedural safeguards emerge comparatively, and how reform pathways can be calibrated to institutional capacity.

The analysis shows that divergent approaches to AI-assisted civil justice in the EU, China, and Singapore are neither transitional nor accidental. They reflect structurally embedded differences in legal culture, institutional capacity, and the political economy of judicial governance. These differences shape not only how AI is deployed, but also which procedural risks are considered acceptable and which are treated as system-threatening. As a result, convergence toward a single AI governance model would require not merely regulatory alignment, but structural reconfiguration of judicial roles and governance arrangements—an option that most systems are institutionally unwilling or unable to pursue. Accordingly, the comparison suggests that differences across systems reflect incompatible institutional logics rather than temporary regulatory gaps, underscoring the need to reject one-size-fits-all reform approaches.

Within these constraints, it nonetheless allows the identification of a limited set of procedural safeguards that recur across systems. These safeguards do not emerge from abstract normative catalogs, but from recurring patterns of procedural trade-offs observable across different institutional approaches.

First, baseline transparency of AI involvement emerges as a functional requirement. While the EU treats transparency as a procedural entitlement, Singapore approaches it through disclosure embedded in professional governance, and China largely confines it to internal administrative processes. Despite these differences, the absence of visibility consistently weakens oversight and accountability, regardless of governance model.

Second, graduated contestability appears as a recurring procedural safeguard across different governance models. Contestation is strongest in rights-oriented systems, moderated through discretion and professional responsibility in intermediate systems, and limited in efficiency-driven systems. The comparative insight is not that full contestability must exist everywhere, but that some channel for challenging AI influence is necessary to prevent unchecked automation.

Third, proportional deployment of automation recurs across systems. Across systems, AI is more deeply embedded in standardized, low-discretion tasks and more constrained in high-stakes or complex adjudication. This proportionality is not imposed uniformly, but it reflects a shared sensitivity to the relationship between automation intensity and procedural risk.

The comparison also highlights how AI reform must be adapted to differing institutional capacities and procedural priorities. Systems positioned toward the human-centric end face the challenge of adopting AI technologies without undermining procedural legitimacy; therefore, reform pathways emphasize incremental adoption, domain restriction, and reinforcement of human oversight. Absent such calibration, AI integration risks either symbolic adoption or procedural backlash that undermines trust in the adjudication

process. Systems positioned toward the efficiency-driven end confront the opposite challenge of sustaining legitimacy as AI becomes structurally embedded; here, reform pathways focus on enhancing transparency, clarifying responsibility, and introducing limited channels of contestation that do not compromise throughput. Without such adjustments, efficiency gains risk accumulating legitimacy deficits over time. Intermediate systems benefit from flexibility but face ceiling effects, as reliance on professional responsibility and discretion becomes increasingly fragile under the pressures of scale and complexity.

These insights reinforce that AI-enabled civil justice reform does not eliminate procedural risk but redistributes it across participation, accountability, and efficiency. The comparative developed in this study functions not as a blueprint for reform, but as a diagnostic tool for identifying institutional constraints and acceptable risk trade-offs. It thus serves not to prescribe convergence, but to discipline reform debates by clarifying what different systems can realistically achieve—and what risks they must consciously accept.

6. CONCLUSION

This study examined how different institutional contexts shape the integration of artificial intelligence into civil justice across the EU, China, and Singapore. The findings show that AI-enabled adjudication is best understood as an institutional design problem rather than merely a question of technological adoption or regulatory readiness. How AI reshapes adjudication depends fundamentally on legal culture, governance structures, and capacity constraints, which determine what forms of automation are procedurally acceptable and practically feasible.

Three distinct approaches to AI-enabled civil justice emerge from the comparison. The EU adopts a rights-first model that constrains automation through procedural safeguards and judicial oversight. China integrates AI into a broader, efficiency-oriented strategy of judicial modernization, centered on scalability, coordination, and standardized adjudication. Singapore occupies an intermediate position, pursuing incremental and governance-based AI integration while maintaining human accountability and professional responsibility. These approaches demonstrate that AI governance in civil justice does not converge toward a single model, but instead reflects divergent procedural priorities and governance structures.

Furthermore, safeguards such as transparency, contestability, and human oversight cannot be evaluated independently from the environments in which they operate. In rights-oriented systems, these safeguards serve as formal procedural guarantees that can constrain the use of automation. In efficiency-oriented systems, they are more limited and often subordinated to coordination and throughput. Intermediate models rely more heavily on professional responsibility and discretionary governance. Similar safeguards

may therefore produce different practical effects depending on procedural design, administrative capacity, and institutional context.

Several practical considerations follow from this comparison. *First*, AI deployment should remain proportionate to the procedural sensitivity of the judicial function involved, with stronger human oversight preserved in adjudicative processes directly affecting procedural rights, evidentiary evaluation, or judicial discretion. *Second*, safeguards such as transparency and contestability should be adapted to institutional conditions rather than transplanted uniformly across jurisdictions. *Third*, systems pursuing efficiency-oriented judicial digitalization should incorporate mechanisms that preserve accountability and meaningful opportunities for procedural challenge as automation becomes more deeply embedded in court operations.

The comparison reveals that significant limitations remain across existing approaches. Rights-oriented systems may struggle to expand automation without increasing administrative burdens and implementation delays that may ultimately undermine access to justice. Efficiency-oriented models achieve greater scalability but risk weakening transparency, individualized reasoning, and meaningful contestation as automation deepens. Intermediate approaches offer flexibility, yet their reliance on professional responsibility and discretionary oversight may become increasingly fragile as technological scale expands. These tensions suggest that no existing model fully resolves the structural trade-offs between efficiency, accountability, and procedural legitimacy in AI-assisted adjudication. Future research could therefore examine how rights-oriented systems can expand automation without undermining access to justice, whether efficiency-oriented models can incorporate stronger contestability mechanisms without sacrificing scalability, and whether intermediate governance approaches remain viable as generative AI becomes more deeply embedded in judicial workflows.

Ultimately, the comparison demonstrates that AI integration in civil justice inevitably reshapes the balance between participation, oversight, and efficiency within adjudication. These risks cannot be eliminated solely through technological refinement, but must instead be managed in ways consistent with institutional capacity, procedural expectations, and broader governance objectives. AI-enabled civil justice reform should therefore be approached in a diagnostic rather than purely prescriptive manner, recognizing that different systems have distinct procedural traditions, governance structures, and tolerance for automation-related risks. Reform efforts that ignore these structural differences are likely to reproduce familiar tensions without addressing their underlying causes. By clarifying these trade-offs and institutional constraints, this study contributes to a more realistic and comparatively grounded understanding of how civil justice systems can adapt to accelerating technological change while preserving procedural legitimacy and public confidence in adjudication.

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CIVIL DISPUTE RESOLUTION IN THE AGE OF ALGORITHMS: AN EMPIRICAL STUDY OF AI IN LABOUR LAW COURTS

Esra Palit
Marco Giacalone*
Vrije Universiteit Brussel

ABSTRACT: This article examines whether digitalisation and artificial intelligence (AI) can improve access to justice in labour law disputes without undermining fundamental rights and the rule of law. Methodologically, it combines EU legal analysis with qualitative interviews and focus groups across six Member States. It shows that these tools can reduce burdens and information gaps only when reliable infrastructure, coherent governance, specific training, and meaningful human oversight are in place.

KEYWORDS: access to justice; digital justice; civil dispute resolution; artificial intelligence; empirical study.

SUMMARY: 1. INTRODUCTION.— 2. EU REGULATORY FRAMEWORK ON DIGITALISATION AND AI IN JUSTICE: 2.1. Access to justice: a fundamental right in four waves: 2.2. Digitalisation of justice in the EU: 2.3. Enabling AI in justice: from soft law to hard law.— 3. RESEARCH DESIGN AND METHODOLOGY.— 4. DIGITAL MATURITY OF LABOUR LAW COURTS IN EUROPE.— 5. AI AND PREDICTIVE ALGORITHMS TO SUPPORT ACCESS TO JUSTICE.— 6. DISCUSSION: 6.1. AI, predictive algorithms and their limits: 6.2. Reframing human oversight as a structural capacity issue: 6.3. AI as an access-enabling tool with clear limits; 6.4. Governance implications at multiple levels— 7. LIMITATIONS AND FUTURE RESEARCH SUGGESTIONS— 8. CONCLUSION.— 9. FUNDING ACKNOWLEDGEMENT.— 10. BIBLIOGRAPHY

* Esra Palit is a PhD fellow at the Digitalisation and Access to Justice Research Group (DIKE), Vrije Universiteit Brussel (VUB), ORCID ID: 0009-0001-9333-2594. Marco Giacalone is a Research Professor and Co-Director of the DIKE Research Group, Vrije Universiteit Brussel (VUB), ORCID ID: 0000-0001-7097-4394

1. INTRODUCTION

Access to justice remains a central concern in contemporary civil justice systems. Although formally recognised as a fundamental right and a cornerstone of democratic governance, in practice it is often undermined by cost, delay, procedural complexity, and information asymmetries. Against this background, policymakers and scholars increasingly present digitalisation and artificial intelligence as potential responses to persistent deficits in access to justice. At the EU level, this ambition is reflected in the e-Justice Action Plans, Regulation (EU) 2023/2844 on the digitalisation of cross-border judicial cooperation, and Regulation (EU) 2024/1689 on Artificial Intelligence, which treats AI in the administration of justice as high-risk, reflecting the human-centric and rights-sensitive nature of the field.

However, the access-enhancing promise of technology remains conditional. While e-filing, remote hearings, electronic case management, AI-supported legal research, and predictive algorithms may reduce friction and improve orientation, poorly designed or governed systems may also marginalise digitally vulnerable users, increase dependence on professionals, or compromise the quality and contestability of adjudication. Empirical evidence on how these dynamics operate in labour law courts across EU Member States remains limited. This article addresses that gap through a legal-empirical study of labour law courts in six EU Member States: Belgium, Croatia, Czechia, Estonia, Italy, and Lithuania. Labour law is particularly relevant because disputes often involve structural power imbalances, high caseloads, and direct implications for employment and social rights. The central research question is: can digitalisation and AI-based tools improve access to justice in labour law disputes without undermining fundamental rights and the rule of law? To answer this question, the article pursues three objectives: first, to assess the perceived digital maturity of labour law courts in the six jurisdictions; second, to examine how justice professionals perceive administrative, research-oriented, and predictive uses of AI; and third, to identify the governance, training, and oversight conditions under which such tools may support, rather than weaken, access to justice.

The findings reveal a differentiated landscape in the digital transformation of labour law courts. Digital tools are generally valued for improving document access, case management, remote participation, and procedural transparency, although their implementation and effects remain uneven across jurisdictions. Attitudes towards AI are similarly nuanced. Participants were more receptive to administrative and research-oriented AI than to predictive AI that could influence adjudicative outcomes. Respondents also emphasised that digital and AI-based tools can support access to justice if adequate governance, role-specific training, and meaningful human oversight are in place.

The article proceeds as follows. Section 2 outlines the EU regulatory framework governing digitalisation and AI in justice, with particular attention to

guarantees of access to justice and human-centric AI governance. Section 3 explains the research design and methodology. Sections 4 and 5 present empirical findings on digital maturity and attitudes towards AI and predictive algorithms in labour law courts. Section 6 discusses these findings in light of the doctrinal framework, highlighting structural tensions between regulatory ambition and institutional reality. Finally, before concluding, we outline the study's limitations and propose directions for future research.

2. EU REGULATORY FRAMEWORK ON DIGITALISATION AND AI IN JUSTICE

2.1. Access to justice: a fundamental right in four waves

In EU law, access to justice is anchored in Articles 67(4) and 81(2)(e) TFEU, Article 47 of the CFR, and Articles 6 and 13 of the ECHR. These provisions frame access to justice not merely as formal access to a court, but as the effective ability to enforce rights, obtain an effective remedy, and participate in fair proceedings (FRA, 2016). From this perspective, digitalisation must be assessed by asking whether it makes justice more practically accessible or instead introduces new barriers linked to digital capacity, infrastructure, and institutional design.

Access to justice in civil proceedings, however, remains structurally deficient. Civil courts are widely characterised by an enduring access to justice gap, driven by the cumulative effects of high costs, lengthy delays, and procedural complexity. These barriers disproportionately affect ordinary litigants and are compounded by "legal poverty". This term refers to the inability to recognise justiciable problems, navigate procedural pathways, or engage with a system perceived as formalistic and biased towards well-resourced actors (Reiling, 2009). Empirical studies of European judicial systems confirm that complexity, lack of transparency, and limited procedural guidance continue to deter litigants from pursuing claims, particularly in cross-border disputes (Velicogna *et al.*, 2020). As a result, a substantial proportion of legal problems remain unresolved, as individuals "lump" claims because pursuing justice is perceived as intimidating, futile, or prohibitively expensive (Sorabji, 2021).

Furthermore, sociolegal scholarship has long framed access to justice as requiring more than the formal availability of courts. To begin with, Cappelletti and Garth (1978) famously characterised access to justice as the "most basic human right" of a modern legal system. Subsequent scholarship, such as Lord Woolf's work (1996), argued that a legitimate justice system must deliver just outcomes through procedures that are fair, timely, intelligible, and proportionate (Sackville, 2004). Similarly, Galanter's (1981) notion of justice in "many rooms" underscores that access must extend beyond traditional court proceedings to encompass simplified, alternative, and increasingly digital forms of dispute resolution capable of responding to contemporary societal needs.

Notably, Cappelletti and Garth introduced the idea of conceptualising access to justice in three waves. The first wave focused on providing legal aid to the poor, seeking to overcome economic barriers by funding legal representation. The second wave addressed the representation of collective interests, such as consumer protection, by facilitating collective representation through class actions and public interest law. The third wave moved beyond mere representation towards systemic reform, prioritising the simplification of procedures and the mainstreaming of alternative dispute resolution.

Subsequent scholarship suggests that a fourth wave of access to justice is already underway, although its defining characteristics remain contested. Since the 1990s, scholars have advanced divergent conceptions of what this fourth wave comprises. Early contributions, most notably Parker (1999), linked it to reforms in legal services markets centred on competition and cost reduction, while cautioning that market-driven approaches may deepen exclusion for individuals who lack adequate financial resources. Economides linked the fourth wave to enduring justice deficits affecting remote and geographically marginalised communities, whereas Harvey (2016) emphasised the expanding role of voluntary and alternative dispute resolution mechanisms. Pablo Cortés (2010), in particular, associates the fourth wave with the emergence of online courts and digital procedural environments. Taken together, these perspectives suggest that the fourth wave is best understood as a broad transition towards technology-driven, and in some cases fully online, forms of dispute resolution that extend beyond traditional court processes (Giacalone *et al.*, 2025a).

Against this backdrop, digitalisation has emerged as a central policy response to the access to justice gap within the broader fourth wave of access to justice reforms. The premise is that technology may reduce administrative burdens, shorten procedures, lower transaction costs, and support "swift and certain justice" (Sorabji, 2021). Yet this premise should not be treated as self-executing. Whether digitalisation improves access depends on institutional design, governance, usability, training, and the availability of non-digital alternatives for users who are digitally illiterate. This article, therefore, adopts a functional understanding of the fourth wave as a transition towards technology-driven dispute resolution, while rejecting the assumption that technological change automatically produces better access to justice.

2.2. Digitalisation of justice in the EU

Since the late 2000s, the EU has pursued a progressive strategy for judicial digitalisation, initially focused on coordination, access to information, and technical interoperability in cross-border cases. The first e-Justice Action Plan (2009-2013) marked the start of this approach and coincided with the launch of two foundational components of the EU digital justice ecosystem: the European e-Justice Portal and e-CODEX.

The e-Justice Portal was conceived as a multilingual "one-stop shop" to reduce informational asymmetries in cross-border litigation by providing multilingual legal information, procedural guidance, and standardised forms. The Portal addresses a core barrier for unrepresented and cross-border litigants: the inability to identify procedural pathways, understand formal requirements, or assess available remedies. Over time, it has evolved from a primarily informational tool into a prospective interface for direct interaction with judicial authorities.

In parallel, e-CODEX (formalised in Regulation (EU) 2022/850) was developed as a decentralised interoperability framework that enables secure electronic communication between national judicial authorities (Recital 8). Instead of functioning as a centralised database, the platform comprises software components that facilitate interoperability among national systems, with data remaining at the national level and under the control of competent authorities. Management is entrusted to EU-LISA (Articles 7 and 10(4)), while the authorisation, supervision, and operation of e-CODEX access points remain the responsibility of the Member States and other authorised entities (Articles 8 and 9). At the same time, the Regulation expressly safeguards judicial independence, both by requiring all relevant entities to respect that principle (Article 14) and by embedding it in the system's governance structure (Recitals 14, 16 and 38). Accordingly, the platform's decentralised design leaves procedural implementation and data handling to the Member States and does not impose mandatory use (Recital 10). This approach aims to preserve procedural autonomy while respecting the diversity of national legal traditions in judicial cooperation (Ontanu, 2024).

Subsequent e-Justice Action Plans (2014-2018; 2019-2023) consolidated these infrastructures and shifted the EU's ambition from improving access to information to enabling direct electronic interaction in cross-border proceedings. This transition culminated in the EU Digitalisation Package adopted in 2023, notably Regulation (EU) 2023/2844 on the digitalisation of judicial cooperation and access to justice in cross-border civil, commercial, and criminal matters. This Regulation marks a decisive shift from policy coordination to binding procedural obligations. It requires secure electronic communication between competent authorities and, under specific conditions, allows two-way electronic interaction between individuals, legal representatives, and authorities (Article 3(1)). This is facilitated via electronic access points on the e-Justice Portal connected to the decentralised infrastructure, including e-CODEX (Article 4(1-4)). Crucially, the Regulation provides that documents transmitted through electronic communication may not be denied legal effect or deemed inadmissible in cross-border judicial procedures solely because they are in electronic form (Article 8). Therefore, the Regulation requires competent authorities to accept communications submitted via the European electronic access point in cases covered by the Regulation (Article 4(5)), provided that they meet relevant Union and national procedural rules (Velicogna *et al.*, 2020).

At the same time, the Regulation explicitly acknowledges the risk of digital exclusion. Recital 29 embeds safeguards to ensure that digitalisation facilitates access to justice rather than making it conditional on digital skills, equipment, or connectivity. This reflects a core tension in EU digital justice policy: promoting "digital by default" pathways while avoiding a shift to "digital only" procedures that could marginalise digitally vulnerable users. Scientific analyses also emphasise that digital access must be supplemented with effective non-digital alternatives where necessary to prevent formal rights from becoming inaccessible in practice (Inchausti, 2024). While these Regulations primarily address cross-border cooperation, they increasingly shape national practices indirectly by setting technical standards[1].

2.3. Enabling AI in justice: from soft law to hard law

Within the broader digitalisation agenda, the EU has progressively opened the door to the use of AI in the justice sector, while framing this development through a strong human-centric narrative. Early EU scholarship framed AI primarily as a tool to support case management, information retrieval, document processing, and procedural guidance. These applications are seen as potentially reducing backlogs and improving user navigation through complex systems (Koulu, 2020; Kramer *et al.*, 2021; Velicogna, 2007).

From 2017 onwards, AI increasingly became an explicit focus of regulatory and policy attention at the EU level. For example, the European Ethical Charter on the Use of AI in Judicial Systems (CEPEJ[2], 2018) articulated core principles, including respect for fundamental rights, non-discrimination, transparency, quality, and the requirement that AI systems remain "under user control". The EU's ethical consolidation continued with the High-Level Expert Group's Ethics Guidelines for Trustworthy AI (2019), which defined trustworthy AI as lawful, ethical, and robust, and set out operational requirements, including human oversight, transparency, fairness, and accountability. These ethical frameworks did not resolve legal questions; they provided vocabulary and expectations that would later be imperfectly translated into enforceable obligations.

Subsequently, the conversion from soft law to hard law culminated in the AI Act (Regulation (EU) 2024/1689). The AI Act establishes a horizontal, risk-based framework for AI governance and classifies many AI systems used in the administration of justice as high-risk systems (Article 6(2) in conjunction with Annex III). This classification is normatively significant because it recognises that AI in justice is not merely a tool for improving efficiency, but one

[1] Recent policy instruments reinforce this access-oriented framing: The European e-Justice Strategy 2024-2028, the Commission's DigitalJustice@2030 and the European Judicial Training Strategy (2025-2030).

[2] European Commission for the Efficiency of Justice (Council of Europe)

capable of affecting individual rights and institutional legitimacy (Enqvist, 2023; Koulu, 2020).

The AI Act operationalises this recognition through a comprehensive set of ex ante and ex post legal obligations applicable throughout the AI system's life cycle. These include mandatory risk management systems (Article 9), strict requirements for training, validation and testing data to mitigate bias and ensure representativeness (Article 10), extensive technical documentation and record-keeping obligations enabling traceability and auditability (Articles 11-12), and enhanced transparency requirements to ensure users are informed of the system's capabilities and limitations (Article 13). Most notably, the Regulation imposes a binding human oversight requirement (Article 14), obliging providers and deployers to design and organise AI systems so that natural persons can effectively interpret, contextualise, and, where necessary, override system outputs. Finally, these obligations are reinforced by accountability and enforcement mechanisms, including conformity assessments, post-market monitoring, and corrective measures (Articles 16-17 and 61), underscoring that human-centric AI in justice is conceived as a legally enforceable standard rather than a purely ethical aspiration.

From an access to justice perspective, two aspects of the AI Act are particularly important. First, transparency and traceability obligations support contestability: parties and professionals must be able to understand the role, limits, and influence of AI tools in judicial processes, and institutions must retain the capacity to audit and correct risks. Second, the human oversight requirement serves as the legal mechanism intended to prevent de facto delegation of normative judgment to automated systems.

However, human oversight is also where regulatory ambition meets institutional reality. The empirical and theoretical literature highlights the risks of automation bias and the "sheep effect", in which decision-makers over-rely on algorithmic outputs, particularly under workload pressure or when they lack the expertise or authority to challenge them (Busuioc, 2020). In judicial contexts, this raises fundamental concerns: even where responsibility formally remains with humans, AI may become practically determinative, thereby weakening judicial independence and reason-giving (Koulu, 2020; Greenstein, 2022).

A rights-compliant approach, therefore, requires human oversight to be genuinely meaningful rather than symbolic. This depends on adequate training, organisational authority, and sufficient time and resources to assess, challenge, and override algorithmic outputs when necessary (Constantino, 2022; Fink, 2026). These safeguards and policies set the stage for our empirical investigation into how they operate in national civil labour law courts.

3. RESEARCH DESIGN AND METHODOLOGY

This article presents the results of empirical research conducted between April and June 2025 as part of the EU-funded IDEA[3] project. IDEA aims to analyse how digitalisation and emerging AI-based tools are currently embedded in labour law proceedings and how they may affect access to justice and professional practices. The analysis underpinning this article draws on Work Package 2 of the IDEA Project, which comprises three deliverables[4].

Across the six Member States, 57 respondents participated in semi-structured interviews or focus groups: Belgium (n = 11), Croatia (n = 8), Czechia (n = 10), Estonia (n = 11), Italy (n = 5), and Lithuania (n = 12). The selection of countries is consortium-based rather than statistically representative: the jurisdictions correspond to the Member States represented in the IDEA project and were chosen to reflect different levels of judicial digitalisation, procedural traditions, and institutional settings. This variation enables the article to compare perceptions of digital and AI-supported justice reforms across more digitally mature, partially digitalised, and fragmented institutional environments[5]. Participants were identified through professional networks, referrals, and publicly available contact details on the official websites of courts, tribunals, professional associations, and public authorities. Judges and court staff were approached through labour law courts; lawyers, mediators, and policymakers were identified through bar associations, mediator associations, Supreme Courts, Ministries of Justice, Judicial Administrations, and Labour Inspection Authorities. Participation was voluntary, based on informed consent, and conducted in compliance with GDPR requirements. The sample deliberately included professionals at different career stages, from early-career practitioners to senior experts, to capture a broad range of institutional and professional perspectives on technological change in labour law justice. Most participants took part in individual interviews, while focus groups were used where organisational or logistical constraints made this more appropriate.

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[3] I-tools to Design and Enhance Access to justice (IDEA) EU-funded research (JUST-2023-JACC-EJUSTICE) grant agreement no. 101160528; IDEA aims to develop a digital procedure and platform to harmonise digitalisation and predictive algorithms in access to justice. The ultimate goal of the IDEA consortium is to analyse three legal systems and identify best practices; Design a pilot project for a digitalised court in three EU Member States; Develop a chatbot that suggests the best course of action for parties: automated negotiation, online mediation or regular dispute resolution via an online court. By combining predictive algorithms with legal analysis, the project explores how technology can improve access to justice, simplify access to legal documents and reduce the costs of justice.

[4] The first deliverable 2.1 presents six national reports regarding justice digitalisation initiatives. The second deliverable 2.2, presents a comparative study of the national reports from the previous deliverable. The third and last deliverable 2.3, is published in the Zenodo repository and contains the qualitative empirical material collected through interviews and focus groups.

[5] The selection brings together countries with more advanced or reform-oriented digital justice systems, such as Estonia, Italy and Lithuania, and countries where digital transformation is more uneven, such as Belgium, Croatia and Czechia. This combination is important for the project: the more advanced systems can help identify good practices, while the others offer concrete contexts in which to assess the practical value, limits and transferability of the IDEA tools.

The interview and focus group questions were identical across all participating countries. They were initially developed in English and then translated into each country's national language to ensure conceptual consistency while remaining sensitive to national legal and institutional contexts. The questions were organised around four core thematic areas: (i) perceptions of technological development within the judiciary; (ii) the level and adequacy of training received for the use of such technologies; (iii) attitudes towards artificial intelligence and predictive justice, including any direct experience with AI-based systems; and (iv) perceived ethical, legal, and operational risks associated with AI, together with potential mitigation measures. Following data collection, each national research team translated relevant excerpts and findings into English and completed a standardised reporting template. These templates organised pseudonymised responses by respondent group and interview question, thereby facilitating systematic comparison across jurisdictions. The analysis presented in this article draws on these national reports.

The qualitative material was analysed using a thematic approach. The four thematic areas embedded in the interview and focus group guide provided an initial analytical framework, while the standardised reporting templates enabled comparisons across jurisdictions, professional groups, and research questions. The analysis combined deductive and inductive elements. Deductively, the material was examined in light of the study's research objectives and interview structure. Inductively, recurring patterns and themes emerging from the national reports were identified and refined through iterative review.

Sections 4 and 5 present empirical findings on perceived digital maturity and attitudes towards AI and predictive algorithms. Section 6 then interprets these findings against the doctrinal benchmark developed in Section 2, asking whether EU human-centric digital justice ambitions can be realised under the institutional conditions identified across the six Member States. The combination of doctrinal legal analysis and qualitative empirical material makes this a legal-empirical mixed-methods study (Ferraris *et al.*, in press). Its purpose is not to measure technological impact statistically, but to examine how justice professionals perceive, negotiate, and condition the use of digital and AI-supported tools in labour law adjudication (Giacalone *et al.*, 2025b).

4. DIGITAL MATURITY OF LABOUR LAW COURTS IN EUROPE

The empirical material reveals pronounced cross-national differences in how participants perceive and experience the integration of digital technologies. For this article, digital maturity is not used as a quantitative index but as a qualitative assessment of perceived integration, reliability, usability, interoperability, professional support, and practical effects on access to justice. This definition matters because the mere availability of digital tools does not

necessarily mean that courts, professionals, or litigants experience them as access-enhancing.

Country	Digital maturity	Strengths	Challenges
Estonia	High	Fully digital proceedings; intuitive and reliable; efficient access to case files; procedural transparency; routine use of electronic signatures; availability of remote hearings.	Limited perceived impact on case duration despite extensive digitalisation.
Lithuania	High but uneven	Extensive electronic case handling; perceived gains in efficiency, speed and accessibility because of e-filing and remote hearings.	Outdated and complex software and uncertainty regarding future system upgrades; internal usability challenges.
Italy	Functional but complex	Clear legal framework; improved case management; reduced procedural barriers regarding paper filing, physical presence, and information retrieval.	Technical malfunctions; growing procedural complexity; increased technical expertise requirements; concerns regarding reduced oral participation.
Croatia	Uneven	Improved case management, oversight, transparency, and procedural efficiency.	Regional infrastructure disparities; inconsistent implementation; security and infrastructural concerns; uneven benefits across user groups.
Czechia	Partial and fragmented	Effective electronic filing; reduction of some procedural barriers.	Outdated case management systems; fragmentation; insufficient support for substantive legal work; limited interoperability.
Belgium	Formal rather than functional	Improved document transmission and communication.	Fragmentation; outdated platforms; usability, governance, and security concerns; duplication of work; reliance on individual initiative; limited coordination across institutions.

Table 1: Perceived digital maturity

As Table 1 also indicates, among the six jurisdictions examined, Estonian stakeholders emphasise that digital technologies are not only widely adopted but also deeply integrated into daily judicial practice. They highlight features such as fully digital proceedings, the routine use of electronic signatures, and the availability of remote hearings. Stakeholders across professional groups

describe existing digital tools as intuitive and reliable, enabling swift access to case files, efficient communication, and procedural transparency. Yet judges were cautious about equating digital maturity with faster justice, noting that "statistics show that the average duration of civil cases in country courts has increased in recent years".

Similarly, Lithuanian respondents report that the vast majority of labour law cases are handled electronically. Lawyers and policymakers associate e-filing and remote hearings with greater efficiency, fewer errors, and faster procedures. Judges and court staff, however, were more critical of the LITEKO case-management system, which they describe as "outdated" and "overly complex", requiring "numerous technical steps and workarounds". Therefore, respondents generally associated digital tools with improved accessibility, while reporting internal usability challenges and uncertainty about future system upgrades, indicating an uneven experience of digital integration.

Italian respondents view their digital system as relatively mature and stable, centred on the *Processo Civile Telematico* and underpinned by a clear legal framework. Judges and lawyers frequently associate digitalisation with easier filing, reduced reliance on paper, improved access to information, and more efficient case management. An Italian policymaker noted that digital tools have "radically transformed the day-to-day management of cases". However, respondents also identified technical malfunctions, increasing procedural complexity, and higher demands for technical expertise. The same policymaker cautioned that "digitalisation has significantly weakened the value of oral proceedings and the active participation of lawyers in court", adding that "platforms are often designed by technicians rather than jurists".

The Croatian sample describes a more uneven pattern of digitalisation. Policymakers and judges view e-Spis as an important improvement in case management, oversight, and procedural efficiency. They associate digital tools with strengthened institutional capacity and greater transparency. Lawyers, however, are more critical, describing the systems as insufficiently developed, inconsistently implemented, and vulnerable to security and infrastructure weaknesses. These concerns were particularly evident outside larger urban centres, where a Croatian policymaker notes, "although infrastructure is relatively satisfactory in large population and regional centres, it can be completely abysmal in courts situated on remote islands or in sparsely populated regions (such as Lika)".

Czech respondents describe a mixed experience of digitalisation, marked by partial integration and fragmentation. Electronic filing via data boxes is widely regarded as effective and beneficial, but core case management systems are perceived as outdated and misaligned with judicial workflows. Judges and court staff often characterise digital tools as administratively functional yet insufficiently supportive of substantive legal work. They report that the information system "serves essentially as a filing service for storing documents without actively supporting decision-making or procedural activities".

Lawyers similarly emphasise the gap between technological potential and actual use, particularly where parallel systems and limited interoperability persist.

Finally, despite the availability of multiple digital tools, Belgian stakeholders hold more critical views of their jurisdiction's digital maturity. Across all professional groups, respondents acknowledged improvements in document transmission and communication, but described fragmented platforms, outdated tools, usability problems, governance concerns, and security risks. Digital systems often required parallel manual processes, duplicating work and undermining efficiency and legal certainty. A policymaker linked this fragmentation to reliance on "individual initiative", suggesting that many digital improvements depend on the voluntary efforts of a small number of motivated individuals rather than on a coherent and well-resourced national digitalisation strategy. The policymaker further observed that courts have traditionally operated as isolated "islands", with limited coordination, information-sharing, and technological integration across institutions. In Belgium, digital maturity is therefore perceived as more formal than functional.

5. AI AND PREDICTIVE ALGORITHMS TO SUPPORT ACCESS TO JUSTICE

The empirical materi+al suggests a stable distinction between three forms of AI use in justice: *administrative or ancillary AI*, such as pseudonymisation, document handling, translation, and workflow support; *cognitive-professional support tools*, such as legal research, summarisation, drafting, and information retrieval; and *predictive or outcome-oriented systems* that identify patterns in legal data to support case assessment or decision-making. The first two categories are generally accepted, provided their outputs remain subject to professional verification. Predictive tools generate substantially stronger resistance, especially where they may influence adjudicative reasoning or undermine judicial independence. Attitudes are shaped by national digital maturity, prior experience with digital tools, institutional trust, and the availability of role-specific training. Judges are the most sceptical group regarding predictive algorithms. They tend to accept AI in narrow supportive functions (such as case-law retrieval, file summarisation, and pseudonymisation) but resist any framing of AI as outcome guidance. Their concerns focus on automation bias, loss of discretion, accountability, and the fact-sensitive nature of labour disputes. As an Italian respondent stressed, "judicial decision-making cannot be reduced to numbers and legal provisions, because each dispute requires a contextual assessment that 'can only be made by people'". This resistance reflects concern that predictive tools may oversimplify sensitive labour disputes, disadvantage weaker parties, standardise outcomes, and stifle legal creativity. A Czech respondent similarly warned that "AI-based decision-making could trap the judiciary in rigid patterns of 'runaway logic' detached from social change".

Court staff are generally receptive to administrative AI, including document handling, pseudonymisation of case law, and workflow support. However, they report limited direct use and emphasise the need for clear governance frameworks, training, and transparency, particularly to avoid liability for unverified AI-supported outputs. Resistance arises when systems are unreliable, poorly integrated, or increase manual work rather than reducing it. Belgian court staff, for example, report that the existing AI-based pseudonymisation tool, JustMask, still requires significant human correction and manual input. Lawyers are generally the most experimental group. They use AI for drafting, translation, and legal research, while also warning of hallucinations, breaches of professional secrecy, confidentiality risks, and client-side misuse, such as clients generating documents and expecting lawyers merely to "validate" them. While AI-supported research can improve access to legal information, uneven uptake risks widening informational asymmetries between well-resourced parties and those without professional representation.

Mediators view AI as a logistical or communicative aid, for example, in translation, editing, scheduling, or exploring communication styles. They rejected predictive justice more firmly, emphasising that mediation depends on interpersonal dynamics, trust, and contextual sensitivity that algorithmic models cannot capture. As a Belgian mediator put it, "AI must not fill users' knowledge gaps" and "AI may support professional work, but should not displace competence, judgment, or responsibility".

Policymakers adopt a cautious yet forward-looking stance. They recognise AI's potential systemic benefits, particularly in efficiency and consistency, but emphasise the need for clear legal frameworks, controlled pilot projects, and robust safeguards before deployment. This stance reflects heightened concern for institutional risk, public trust, and compliance with fundamental rights.

Country differences broadly mirrored earlier digital-maturity findings. In Estonia, stakeholders report limited experimentation with AI and predictive algorithms, coupled with strict expectations for human review due to hallucination risks. Although Estonia is described as having mature everyday digital literacy and user-friendly digital infrastructure, respondents emphasise the lack of structured AI-specific training. They instead rely largely on self-directed learning, which risks reinforcing internal inequalities and may particularly disadvantage older professionals. Lithuanian respondents are similarly cautious, with experimentation largely confined to data management and processing tasks. Training is described as fragmented and reactive, often reaching only a small group of professionals who then cascade knowledge informally, producing uneven competence across professionals and institutions. Participants also highlight the growing need for cybersecurity and digital forensics skills to assess AI-generated or manipulated outputs.

Italian respondents generally acknowledge that AI and predictive tools may improve access to legal information by helping practitioners identify recurring patterns in case law, assess litigation risks, guide parties towards

more informed decisions, and produce outcomes broadly consistent with established case law. They nevertheless stress that labour disputes require personal, social, and contextual assessment that algorithmic models cannot fully capture. This position reflects a broader concern among Italian respondents that excessive reliance on predictive models could undermine judicial autonomy, standardise legal reasoning, and weaken the qualitative and equitable dimension of labour adjudication.

Belgian respondents express some of the most sceptical views towards AI and predictive algorithms. This scepticism is closely linked to broader experiences of fragmented digital infrastructure and weak AI governance. Training is insufficiently aligned with the evolving demands of practitioners' roles. Judges call for advanced training in AI and predictive algorithms, rather than training limited to office software or basic system use. Court staff report a lack of deep technical knowledge and on-site support, while lawyers and mediators describe digital upskilling as largely self-driven or provided by professional associations, with limited structured institutional support. Czech respondents express similar caution, largely because they do not feel sufficiently familiar with AI or predictive algorithms. AI experimentation remains informal and unsystematic, with learning often occurring through trial and error. Respondents therefore call for practice-oriented training aligned with everyday professional tasks, moving beyond general principles towards the safe, context-aware use of AI tools. Finally, Croatian respondents also report low familiarity with AI and predictive algorithms, with scepticism shaped by prior implementation failures, including voice-to-text difficulties with dialects and connectivity deficits in remote areas. Respondents often discuss predictive algorithms in abstract terms, and their acceptance is conditional on limiting AI use to low-risk or low-value procedures. Resistance is framed as a precaution against undermining adjudicative authority. Training is described as uneven and dependent on personal initiative.

Taken together, these findings show that attitudes towards AI in labour law courts are shaped not only by the type of tool under consideration but also by the institutional conditions in which it would be used. The following discussion, therefore, examines how these empirical findings relate to the EU's human-centric digital justice framework and what they reveal about the conditions under which digitalisation and AI can support access to justice.

6. DISCUSSION

The doctrinal and empirical analysis suggests a conditional answer to the article's central research question: whether digitalisation and AI can improve access to justice in labour law disputes without undermining fundamental rights and the rule of law. These tools can support access to justice when they reduce administrative burdens, improve access to legal information, and remain embedded in professional judgement. They can also weaken access to justice when deployed through fragmented infrastructure, opaque

governance, insufficient training, or predictive tools that exert pressure on adjudicative reasoning. From a doctrinal perspective, EU digital justice policy is explicitly anchored in fundamental rights guarantees. Article 47 CFR, read together with Articles 67(4) and 81(2)(e) TFEU, frames access to justice as both an individual right and a systemic obligation. The EU digitalisation agenda—through the e-Justice Action Plans and, most recently, Regulation (EU) 2023/2844—reflects a conscious attempt to operationalise this obligation by reducing informational asymmetries, procedural friction, and cross-border barriers. Importantly, EU law consistently resists a "digital-only"model, embedding safeguards against digital exclusion and recognising that effective access cannot be conditioned on digital capacity. At the same time, EU digital justice policy presupposes the existence of mature digital infrastructures, coherent governance structures, and professionals with the competence, authority, and resources to operate and oversee digital systems. In practice, these conditions are unevenly met across Member States.

In *more digitally mature systems*—such as Estonia and, to a lesser extent, Lithuania and Italy—digital tools appear to reduce logistical and procedural barriers: remote hearings, e-filing, and electronic access to case files are linked to greater transparency, predictability, and user convenience. However, even in these systems, infrastructural sophistication does not automatically translate into faster proceedings or greater systemic efficiency.

In *less digitally mature systems*, such as Belgium, Czechia and Croatia, the access-enhancing promise of digitalisation is far more fragile. Fragmentation, outdated systems, and the persistence of parallel paper and digital workflows lead to duplication of work and exacerbate infrastructural inequalities, often neutralising or even reversing expected gains. Here, digital tools may introduce new barriers—such as technical complexity, unreliability, or uneven access—particularly affecting unrepresented parties and practitioners. These insights underscore that digitalisation alone does not constitute a fourth-wave solution to access to justice; rather, it may reproduce or exacerbate existing inequalities when integration and governance lag behind adoption.

6.1. AI, predictive algorithms and their limits

Doctrinally, the AI Act marks a decisive shift: by classifying many justice-related AI systems as high risk, EU law acknowledges that algorithmic tools can affect rights, institutional legitimacy, and public trust. Empirical findings confirm and qualify this regulatory logic. Across jurisdictions and professional groups, respondents accept AI when it remains supportive but resist predictive algorithms that might influence adjudicative outcomes. This boundary is particularly important in labour law, where disputes are fact-sensitive, context-dependent, and often marked by power asymmetries between the parties. In practice, the acceptable limit of AI assistance is therefore set before algorithmic outputs begin to exert normative pressure on judicial rea-

soning. Yet drawing this boundary does not guarantee that it can be maintained in practice. Whether algorithmic outputs are kept from exerting normative pressure on judicial reasoning ultimately depends on professionals' capacity to interpret, contest, and override them, which shifts the question from permissible AI use to human oversight.

6.2. Reframing human oversight as a structural capacity issue

The AI Act assumes that legal professionals can critically assess, contextualise, and override algorithmic outputs. However, the empirical material shows that this assumption is only partially met. This article, therefore, reframes human oversight not as an individual responsibility but as a structural capacity issue.

Across jurisdictions, the recurring problem is not the complete absence of training but a systematic mismatch between what is offered and what professionals perceive as necessary. Training is often basic, voluntary, or demonstrative, whereas meaningful oversight requires advanced, role-specific competence. Professionals emphasised that effective oversight requires legal expertise, data transparency, and bias detection. Without such competence, formal oversight rights cannot be exercised effectively.

As a result, responsibility for human-centric AI is delegated to individual initiative rather than institutional support. Digitally confident professionals become de facto "oversight-capable actors", while others remain excluded, making equality before the law increasingly dependent on individual capacity. Professionals may be formally responsible for decisions without being practically empowered to supervise the tools that increasingly shape legal reasoning. Under such conditions, human oversight risks becoming symbolic compliance rather than a substantive safeguard.

Time constraints, unclear organisational authority, and limited transparency about system design further constrain critical engagement. When AI outputs begin to influence legal reasoning and decision-making under these conditions, access to justice is strained rather than improved.

6.3. AI as an access-enabling tool with clear limits

The empirical material does not support a blanket rejection of AI. These tools may contribute positively to access to justice when they remain ancillary or cognitive-supportive and are embedded within professional judgement and institutional safeguards. They can reduce information asymmetries by supporting legal research, identifying relevant case law, and structuring large volumes of legal material; they can also accelerate administrative tasks such as document handling, summarisation, and anonymisation. However, these benefits are not automatic. They depend on reliable infrastructure, transparent data sources, professional verification, and the ability to chal-

lenge or disregard AI-generated outputs. By contrast, respondents expressed strong reservations about predictive AI, citing concerns about standardisation, the reinforcement of dominant lines of case law, and more subtle normative effects on legal reasoning. The concern is not that AI will formally replace decision-makers, but that it may gradually shape their behaviour, particularly under conditions of heavy workload or limited capacity to scrutinise algorithmic outputs critically. In labour law, where disputes are highly context-dependent and often involve significant power imbalances, such influence risks undermining procedural fairness, judicial independence, and sensitivity to the circumstances of individual cases.

6.4. Governance implications at multiple levels

At the *EU level*, existing regulatory frameworks would benefit from greater attention to implementation conditions, particularly training, organisational capacity, and evaluation mechanisms. Human oversight obligations cannot be effective if treated as abstract requirements detached from institutional realities. Without sustained investment in these conditions, the AI Act's human-centric ambition risks remaining aspirational. At the *national level*, judicial systems face the challenge of investing in technology without parallel investment in training and organisational design. As a result, digitalisation risks remaining superficial and delivering only limited improvements in access to justice. Rights-compliant use of AI, therefore, requires not only integrated digital systems but also clear governance frameworks and role-specific training for legal professionals. At *professional and court levels*, training cannot rely solely on individual initiative. Effective oversight requires structured training programmes, opportunities for peer learning, and clear lines of accountability. Without these safeguards, disparities in competence may undermine the quality and legitimacy of AI-enhanced justice.

7. LIMITATIONS AND FUTURE RESEARCH SUGGESTIONS

This study offers qualitative insights into how labour law professionals perceive and experience digitalisation and AI. However, it does not provide statistically generalisable findings or macro-level evidence of technological impact. Given the purposive, consortium-based sample, the findings should be understood as an exploratory comparative account of professional perspectives and institutional conditions rather than a representative assessment of EU labour courts. Another limitation is that discussions of AI and predictive algorithms remain inherently exploratory. In most of the jurisdictions examined, these instruments are lacking, limited to pilot projects, or known mainly through indirect experience. As a result, stakeholder perceptions are often anticipatory or speculative, shaped by expectations, concerns, and limited experimentation rather than by sustained practical use. Finally,

practitioner perceptions do not provide direct evidence of technological impact on judicial outcomes. Yet they remain valuable sociolegal data because they reveal how legal actors interpret, negotiate, resist, and legitimise technological change. These perceptions are especially important in justice systems, where professional trust, organisational readiness, and perceived legitimacy shape whether digital and AI-supported tools are adopted responsibly.

Future research should move beyond perception-based analysis and examine the operational effects of digital and AI-supported tools on labour law adjudication. Longitudinal and mixed-methods studies could assess how specific technologies affect case duration, settlement rates, reasoning quality, procedural participation, and litigant experience. Future work should also include litigants' perspectives, since access to justice cannot be fully assessed from professional viewpoints alone.

8. CONCLUSION

This article has argued that digitalisation and artificial intelligence can enhance access to justice in labour law disputes, but only under specific institutional conditions. Reliable, integrated, user-oriented systems, supported by training and organisational support, may reduce administrative burdens and information asymmetries. By contrast, fragmented, opaque, or poorly governed systems may reproduce or amplify existing barriers.

The empirical findings support a human-centric approach while revealing its practical fragility. Across jurisdictions and professional groups, participants welcomed digital tools and AI for assistive functions that reduce administrative burdens, improve access to information, and facilitate procedural navigation. At the same time, they resisted predictive algorithms that could influence adjudicative outcomes, particularly in labour law disputes where factual context, discretion, and power asymmetries are central. This resistance should not be read as technophobia but as a principled defence of qualitative reasoning, contestability, judicial independence, and substantive equality. Participants also noted a gap between EU ambitions and national-level realities, as many labour law courts struggle with fragmented systems, inconsistent digital practices, and insufficient technical support. In these settings, AI-enhanced justice remains a distant prospect. Even in advanced digital systems (e.g. Estonia), respondents did not observe automatic improvements in speed or outcomes, suggesting that technology alone is not a cure for deeper structural issues.

The article's main contribution is to show that human oversight is, in practice, a matter of capacity. Oversight feels meaningless when legal professionals lack training, time, institutional support, and a sufficient understanding of how AI systems operate. When responsibility is left to individual initiative, access to justice becomes uneven: digitally confident professionals and parties can use innovation strategically, while others may be disadvantaged,

disempowered, or mistrustful. For policymakers, the implication is clear: AI implementation in justice should be paired with integrated infrastructure, role-specific training, transparent governance, and mechanisms that ensure human professionals retain effective control over system outputs. For court administrations, investment in technology must be matched by investment in people, procedures, and accountability. For scholarship, the article shows the value of connecting doctrinal analysis with empirical inquiry into everyday judicial practice. In this sense, the fourth wave of access to justice cannot be realised through technology alone. It requires sustained institutional commitment to ensure that digital and AI-enabled justice remains accessible, contestable, transparent, and firmly under meaningful human control.

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DECENTRALISED JUSTICE: HOW KLEROS EMPOWERS JURORS IN ONLINE DISPUTE RESOLUTION

Nicolas Kyriakides*
Assistant Professor, Director of the Procedural Law Unit, University of Nicosia

Eva Manolova**
Research Associate, Procedural Law Unit, University of Nicosia

Nicoletta Zacharopoulos***
Research Associate, Procedural Law Unit, University of Nicosia

ABSTRACT: This paper argues that decentralised justice, as exemplified by Kleros, offers complementary model to judicial AI by combining partial automation with transparent, human-centred decision-making. While not a substitute for courts, decentralised systems highlight how transparency, proportionality, and visible human oversight can mitigate risks of opacity, bias and legitimacy loss in digitally enabled justice.

KEYWORDS: decentralised justice; kleros; judicial artificial intelligence; digital dispute resolution.

SUMMARY: 1. INTRODUCTION.— 2. LITERATURE REVIEW: DIGITAL JUSTICE AND AI IN COURTS: 2.1. Digital Justice as Institutional Modernisation and Access-to-Justice Reform; 2.2. Artificial Intelligence in Courts: Efficiency Gains and Structural Constraints; 2.3. Risks of Automation: Bias, Opacity, and Accountability Deficits; 2.4. The EU AI Act: High-Risk Classification and Unresolved Normative Gaps.— 3. THEORETICAL FRAMEWORK: CENTRALISED *VERSUS* DECENTRALISED JUSTICE: 3.1. Centralised Justice and Institutional Control: Lex Informatica; 3.2. Decentralised Justice and Blockchain-Based Enforcement: Lex Cryptographia; 3.3. Situating Kleros within the Centralised–Decentralised Spectrum; 3.4. Conceptual Bridge: Decentralisation, Opacity, and Legitimacy.— 4. CASE STUDY: THE

* ORCID ID: 0000-0001-9885-516X
** ORCID ID: 0009-0004-3703-5714
*** ORCID ID: 0009-0008-8736-3272

KLEROS MODEL: 4.1. Origins and Purpose: Building Trust in Online Transactions; 4.2. Technical Operation: Smart Contracts, Token Staking, and Juror Selection; 4.3. Use Cases and Jurisdictional Expansion; 4.4. Empirical Observations: Participation Patterns and Behavioural Dynamics; 4.5. Identified Issues: Speculation, Bias, and Strategic Behaviour; 4.6. Accessibility Barriers and Usability Constraints.— 5. BALANCING FAIRNESS, EFFICIENCY, AND OVERSIGHT: 5.1. Kleros and Judicial AI as Competing and Complementary Models; 5.2. Transparency and Explainability; 5.3. Fairness, Bias, and Representativeness; 5.4. Accountability and Oversight; 5.5. Efficiency and Procedural Proportionality; 5.6. Normative Lessons for Judicial Systems.— 6. POLICY IMPLICATIONS AND RECOMMENDATIONS: 6.1. Synthesising Lessons from Decentralised Justice; 6.2. Implications for the EU AI Act and Judicial Governance; 6.3. Recommendations for Judicial AI Design and Deployment; 6.5. Ethical and Practical Considerations.— 7. CONCLUSION.— 8. BIBLIOGRAPHY.

1. INTRODUCTION

In recent years, judicial systems worldwide have undergone an unprecedented transformation driven by advances in digital technology[1]. Courts have increasingly embraced remote hearings, e-filing systems, and digital case management tools to streamline proceedings and improve accessibility[2]. This shift, often referred to as *digital justice*, represents both a pragmatic response to long-standing inefficiencies and a broader movement toward modernising public institutions[3]. The COVID-19 pandemic accelerated these developments[4], compelling even the most traditional jurisdictions to adopt online platforms to ensure continuity of justice. Beyond convenience, digitalisation has been heralded as a means of reducing procedural delays[5], minimising administrative costs, and expanding access to justice, particularly for low-income and self-represented litigants who often find traditional processes costly, opaque, and intimidating[6].

Yet, this transformation also exposes profound tensions at the intersection of technological innovation, judicial legitimacy, and fairness[7]. While digitalisation promises efficiency and inclusion, the automation of judicial functions introduces novel risks that may erode public trust in the courts. The deployment of algorithms to assist or, in some cases, replace human decision-

[1] Henckel, K. (2023). Issues of conflicting laws – a closer look at the EU's approach to artificial intelligence. *Nederlands Internationaal Privaatrecht*, *2023*(2), 199-226. Article NIPR 2023-12.

[2] Donoghue, J. (2017). The rise of digital justice: Courtroom technology, public participation and access to justice. *The Modern Law Review*, *80*(6), 995-1025.

[3] Sela, A. (2019). e-Nudging justice: the role of digital choice architecture in online courts. *J. Disp. Resol.*, 127.

[4] Bannon, A. L., & Keith, D. (2020). Remote court: principles for virtual proceedings during the COVID-19 pandemic and beyond. *Nw. UL REv.*, *115*, 1875.

[5] Waseem; Sharma, Anupam; Kumar, Akhil. (2023). Transforming Access to Justice in the Digital Age: The Role of E-Courts. *NUJS J. Regul. Stud.*, *8*, 43.

[6] Prescott, J. J. (2024). Next Steps in Online Courts: Accelerating Access to Justice Through Court Technology. *Alaska L. Rev.*, *41*, 93.

[7] Kozlova, M. Y., & Davydova, M. L. (2024). Digital Technology in Courts as a Tool for Smart Regulation: Opportunities and Risks. In *Ecological Footprint of the Modern Economy and the Ways to Reduce It: The Role of Leading Technologies and Responsible Innovations* (pp. 207-211). Cham: Springer Nature Switzerland.

makers raises concerns of *algorithmic opacity*, bias replication, and accountability gaps[8]. When litigants cannot understand how a digital system reached a conclusion, or when proprietary algorithms conceal their decision-making logic, the fundamental principle of transparency is undermined[9]. Similarly, automated systems trained on historical data may perpetuate existing structural inequalities, disadvantaging groups already marginalised within legal systems. These issues are compounded by uneven levels of digital literacy among citizens and practitioners, creating new forms of inequality in access to justice. Thus, the digital turn in judicial governance, while promising greater efficiency, simultaneously threatens core values of fairness, equality before the law, and due process.

Artificial intelligence (AI) has become the most consequential frontier of this digital justice transformation. Judicial and administrative bodies have begun experimenting with AI tools to predict case outcomes, assess sentencing consistency, and support judges in decision-making[10]. In Europe, several pilot initiatives in Germany[11] and Spain[12] have explored how AI might be used to reduce backlogs and assist judges in routine procedural tasks. The European Union's *Artificial Intelligence Act* (EU AI Act) acknowledges both the promise and peril of such applications, classifying AI systems used in the administration of justice as "high-risk" technologies. This designation reflects a cautious recognition that the judicial sphere occupies a unique ethical and constitutional position—one where the legitimacy of decisions depends not only on accuracy and efficiency but also on perceived fairness, impartiality, and human oversight[13]. As empirical evidence from European jurisdictions suggests, AI tends to perform best when used as a *supporting instrument* for judges rather than as a replacement for them[14]. Human judgment, interpretive reasoning, and moral accountability remain indispensable components of adjudication that no algorithm can replicate.

Against this backdrop, a new paradigm is emerging: decentralised justice. Built upon blockchain technology, decentralised dispute resolution (DDR) mechanisms propose an alternative approach to the centralisation and opacity of traditional judicial and algorithmic systems[15]. Instead of concentrating authority in a single institution or algorithm, decentralised justice dis-

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[8] Engstrom, D. F. (2021). Digital civil procedure. *U. Pa. J. Const. L.*, *23*, 2178.

[9] [*ibid*.] p. 2189

[10] McKay, C. (2020). Predicting risk in criminal procedure: actuarial tools, algorithms, AI and judicial decision-making. *Current Issues in Criminal Justice*, *32*(1), 22-39.

[11] Dhungel, A. K., & Beute, E. (2024). AI systems in the judiciary: amicus curiae? Interviews with judges on acceptance and potential use of intelligent algorithms.

[12] Capasso, V. (2024). For an…«Artificially Intelligent» Process: When Access to Justice and Efficient Court Management go Hand in Hand. *International Journal of Procedural Law*, *14*(2), 245-272.

[13] Langbroek, P. M. (2019). Why judges should be in control: IT's and Artificial Intelligence may improve courts services but are no panacea for backlogs and speeding up proceedings. *The Court Administrator*, *5*, 22-25.

[14] [*ibid*.] pp.23-25

[15] Poncibò, C., Gangemi, A., & Ravot, G. S. (2024). Blockchain justice: Exploring decentralising dispute resolution across borders. *JL, Mkt. & Innovation*, 14.

tributes decision-making across a community of participants governed by transparent, code-based rules. These systems—sometimes referred to as *Lex Cryptographia*, in contrast to the state-centric *Lex Informatica*—employ smart contracts to enforce outcomes automatically and immutably. The most prominent example of such an approach is *Kleros,* an open-source platform that leverages blockchain and crowd-sourced jurors to adjudicate online disputes[16]. Through a system of token-based incentives and random selection, Kleros enables ordinary users to serve as jurors in resolving small claims, digital commerce conflicts, and token certification disputes. Its model exemplifies a form of *partial automation* that combines algorithmic coordination with human judgment, aiming to enhance transparency, efficiency, and accessibility while maintaining fairness and oversight.

Kleros thus offers a compelling case study in the evolving landscape of digital justice. It demonstrates how decentralised technologies can complement, rather than replace, traditional judicial systems by fostering trust, procedural integrity, and inclusiveness. Unlike fully automated AI models, Kleros retains a human element at its core—jurors whose collective reasoning forms the basis of each decision, guided but not dictated by technology[17]. In doing so, it provides valuable lessons for courts seeking to integrate digital tools responsibly, without compromising the principles that underpin the rule of law. At the same time, Kleros's experience exposes new challenges, including potential biases in juror selection, speculative participation driven by financial incentives, and accessibility barriers arising from technical complexity and cryptocurrency volatility. These limitations underscore that technological innovation in justice must always be accompanied by careful design, human oversight, and ethical reflection[18].

This paper argues that decentralised justice, as embodied by Kleros, represents a complementary model to judicial AI—one that balances efficiency and innovation with fairness, accountability, and public confidence. By examining Kleros as both a technological and socio-legal experiment, the paper seeks to illuminate how decentralised systems can mitigate the risks associated with judicial automation while expanding the possibilities for accessible, legitimate, and transparent dispute resolution. The goal is not to propose a wholesale replacement of courts, but to explore how decentralised governance models can inform the responsible digital transformation of justice systems worldwide.

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[16] Zhuk, A. (2023). Applying blockchain to the modern legal system: Kleros as a decentralised dispute resolution system. *International Cybersecurity Law Review*, *4*(3), 351-364.

[17] [*ibid*.] pp.355-360

[18] Gabuthy, Y. (2023). Blockchain-based dispute resolution: insights and challenges. *Games*, *14*(3), 34.

2. LITERATURE REVIEW: DIGITAL JUSTICE AND AI IN COURTS

2.1. Digital Justice as Institutional Modernisation and Access-to-Justice Reform

The digital transformation of courts has been widely analysed in the literature as both an efficiency-driven reform and a normative project aimed at improving access to justice. Early scholarship conceptualised judicial digitalisation primarily as an administrative modernisation effort, focusing on electronic filing systems, digital case management, and the online publication of judgments[19]. More recent work, however, situates these initiatives within broader concerns about procedural proportionality, affordability, and inclusiveness, particularly for low-income and self-represented litigants[20].

International and European policy frameworks have strongly influenced this shift. The Council of Europe's work through CEPEJ frames digital tools as instruments for reducing backlogs, increasing transparency, and strengthening public trust, provided that they respect fair trial guarantees and judicial independence[21]. Similarly, EU-level initiatives on e-Justice and cross-border digital procedures emphasise the potential of technology to lower transaction costs and facilitate access to courts, especially in small claims and uncontested matters. The COVID-19 pandemic is widely identified as a critical accelerant, transforming optional digital tools into systemic necessities and embedding remote hearings and online procedures into mainstream judicial practice[22].

At the same time, socio-legal scholarship cautions that digital justice cannot be assessed solely through metrics of speed or cost reduction[23]. Courts are not neutral service providers but constitutional institutions whose legitimacy depends on participation, transparency, and perceived fairness[24]. Empirical studies indicate that digitalisation can unintentionally exclude users lacking technological resources or digital literacy, thereby reproducing inequalities under the guise of efficiency[25]. As a result, the literature increasingly frames digital justice as a governance challenge requiring careful institutional design rather than a purely technical upgrade.

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[19] Contini, F., & Lanzara, G. F. (2014). The circulation of agency in e-justice. *Interoperability and Infrastructures for European*.

[20] Assy, R., & Higgins, A. (Eds.). (2020). *Principles, Procedure, and Justice: Essays in Honour of Adrian Zuckerman*. Oxford University Press.

[21] Novaković, M. (2022). A review of the efficiency of justice and other elements of the 2022–2025 CEPEJ action plan:"Digitalisation for a better justice".

[22] Fabri, M. (2021). Will COVID-19 accelerate implementation of ICT in courts? In *IJCA* (Vol. 12, p.1).

[23] Reiling, D., & Contini, F. (2022). E-justice platforms: Challenges for judicial governance. In *IJCA* (Vol. 13, p. 1).

[24] [*ibid*.] pp.1-5

[25] Ilchyshyn, N. (2025). Impact of digitalisation on the justice system: Challenges of administrative justice. *Social and Legal Studios*, *2*(8), 238-247.

2.2. Artificial Intelligence in Courts: Efficiency Gains and Structural Constraints

Artificial intelligence occupies a central place within contemporary debates on digital justice. Legal scholarship distinguishes between relatively uncontroversial applications—such as document classification, legal research assistance, and workflow optimisation—and more contentious uses involving predictive analytics or decision-support in adjudication[26]. Proponents argue that AI can enhance consistency, reduce human error, and assist courts in managing growing caseloads, particularly in routine or repetitive tasks[27].

European experiences, particularly in Germany and Spain, are frequently cited as illustrative of a cautious, incremental approach. In Germany, doctrinal and constitutional scholarship strongly resists automated adjudication, emphasising that judicial decision-making is inseparable from interpretive reasoning, discretion, and constitutional accountability[28]. Consequently, AI initiatives have focused on supporting judges through research tools, case allocation systems, and administrative optimisation, rather than attempting to replace human judgment.

Spanish literature reflects a similar orientation. While policy initiatives have explored algorithmic tools to streamline judicial administration and reduce delays, scholars consistently stress the need to preserve judicial autonomy and ensure that AI outputs remain advisory rather than determinative[29]. Across both jurisdictions, empirical assessments suggest that AI delivers its greatest value when embedded within a "human-in-the-loop" model, reinforcing rather than displacing judicial responsibility[30].

These findings support a broader consensus in the literature: while AI may contribute to procedural efficiency, it cannot replicate the normative and relational dimensions of adjudication. Judicial legitimacy derives not only from accurate outcomes but from the manner in which decisions are reached, explained, and contested – features that remain fundamentally human.

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[26] Surden, H. (2022). Values embedded in legal artificial intelligence. *IEEE Technology and Society Magazine*, *41*(1), 66-74.

[27] Costabel, A. M. (2023). The Future of Online Justice According to Susskind: From COVID-19 Emergencies to Global Platforms. *Journal of Multidisciplinary Research*, *15*(1), 79-86.

[28] Landfried, C. (1992). Judicial policymaking in Germany: The federal constitutional court. *West European Politics*, *15*(3), 50-67.

[29] Galindo Ayuda, F. (2025). Literacy, Judicial Justice and Artificial Intelligence. *Revista Democracia Digital e Governo Eletrônico, Florianópolis*, *1*(24), 2-30.

[30] Toohey, L., Moore, M., Dart, K., & Toohey, D. (2019). Meeting the access to civil justice challenge: Digital inclusion, algorithmic justice, and human-centred design. *Macquarie LJ*, *19*, 133.

2.3. Risks of Automation: Bias, Opacity, and Accountability Deficits

Despite its potential benefits, the literature identifies significant risks associated with the automation of judicial functions. Algorithmic bias is among the most extensively documented concerns. Scholars have demonstrated that AI systems trained on historical legal data may encode and amplify existing structural inequalities, particularly where past practices reflect discriminatory patterns[31]. In the judicial context, such bias directly threatens equality before the law and non-discrimination.

Many AI systems, particularly those based on machine learning, operate as "black boxes", producing outputs without intelligible explanations[32]. This poses a direct challenge to core procedural principles, including the right to a reasoned decision and effective appellate review. When litigants cannot understand how a conclusion was reached, transparency and trust are undermined, regardless of the system's technical accuracy.

Accountability represents a further unresolved issue. Hybrid decision-making environments, where judges rely on algorithmic recommendations, complicate traditional responsibility structures. Scholars question who bears legal and moral accountability when AI-informed decisions produce harm: the judge, the court administration, the software developer, or the state[33]. These concerns are amplified by the use of proprietary systems that are shielded by trade secrecy, limiting scrutiny by litigants, lawyers, and the public.

Importantly, legitimacy emerges as a unifying theme in this critical literature. Studies in procedural justice demonstrate that perceptions of fairness and participation are central to public acceptance of legal decisions. Automation that appears opaque, impersonal, or unchallengeable risks provoking resistance from legal professionals, civil society, and citizens alike, thereby gradually eroding confidence in judicial institutions.

2.4. The EU AI Act: High-Risk Classification and Unresolved Normative Gaps

By AI systems used in the administration of justice as "high-risk", the EU AI Act acknowledges the unique constitutional and ethical stakes of judicial decision-making. It imposes obligations relating to data quality, transparen-

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[31] Barocas, S., & Selbst, A. D. (2016). Big data's disparate impact. *Calif. L. Rev.*, *104*, 671.

[32] Fomin, V. V., & Astromskis, P. (2023). The Black Box Problem. *Future Law, Ethics, and Smart Technologies*, 112-125.

[33] Von Eschenbach, W. J. (2021). Transparency and the black box problem: Why we do not trust AI. *Philosophy & technology*, *34*(4), 1607-1622.

cy, human oversight, and risk management, reflecting a clear preference for supportive rather than substitutive uses of AI in courts.

Scholarly assessments generally welcome this approach as an important safeguard for fundamental rights and the rule of law[34]. The emphasis on human oversight aligns with empirical findings from European jurisdictions and reinforces the normative consensus that adjudication cannot be fully automated. However, the literature also highlights significant limitations. The AI Act's horizontal, technology-neutral design limits its capacity to address the institutional particularities of courts, such as judicial independence, procedural autonomy, and constitutional traditions[35].

Moreover, the regulatory framework focuses primarily on risk mitigation rather than on alternative institutional models for digital justice. It does not engage with questions of legitimacy, participation, or trust beyond compliance requirements, nor does it address decentralised or non-state dispute resolution mechanisms. As a result, scholars argue that the EU AI Act, while necessary, is insufficient to resolve the deeper normative tensions highlighted by judicial automation[36].

This regulatory and conceptual gap has prompted increasing scholarly interest in experimental models of dispute resolution that seek to combine technological efficiency with transparency and human judgment. It is within this context that decentralised justice mechanisms—such as blockchain-based dispute resolution platforms—have begun to attract attention as potential complements to both traditional courts and centralised AI-driven systems. Against this backdrop of efficiency-driven reform, technological risks, and unresolved normative gaps, the analysis now turns to a conceptual framework that understands digital justice through two competing paradigms: centralised models grounded in institutional control and optimisation, and decentralised approaches emphasising transparency, participation, and distributed trust.

3. THEORETICAL FRAMEWORK: CENTRALISED *VERSUS* DECENTRALISED JUSTICE

3.1. Centralised Justice and Institutional Control: Lex Informatica

The dominant model of digital justice adopted by states and judicial institutions can be conceptualised through the lens of *Lex Informatica*[37]. Applied

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[34] Greenstein, S. (2022). Preserving the rule of law in the era of artificial intelligence (AI). *Artificial Intelligence and Law*, *30*(3), 291-323.

[35] Carnat, I. (2024). Addressing the risks of generative AI for the judiciary: The accountability framework (s) under the EU AI Act. *Computer Law & Security Review*, *55*, 106067.

[36] Wachter, S. (2023). Limitations and loopholes in the EU AI Act and AI Liability Directives: what this means for the European Union, the United States, and beyond. *Yale JL & Tech.*, *26*, 671.

[37] Mefford, A. (1997). Lex informatica: Foundations of Law on the Internet. *Ind. J. Global Legal Stud.*, *5*, 211.

by J Reidenberg, the term refers to regulation through code, or "the formulation of information policy rules through technology", whereby behaviour is constrained not by legal norms applied ex post, but by technical architectures that shape permissible actions ex ante[38]. In the judicial context, *Lex Informatica* manifests in centrally designed and administered digital systems, such as AI-assisted case management, predictive analytics, and decision-support tools, embedded within existing court hierarchies and governance structures.

This model preserves institutional control by locating authority within courts, ministries of justice, or court administrations, which are responsible for selecting, deploying, and overseeing technological tools. AI systems operating under *Lex Informatica* are typically proprietary, developed by private vendors, and integrated into judicial workflows through administrative decisions rather than through democratic or participatory processes. Accountability is therefore channelled through traditional institutional mechanisms: judicial review, administrative oversight, and compliance with regulatory frameworks such as the EU AI Act.

While this centralised approach offers advantages in terms of standardisation, scalability, and alignment with constitutional structures, it also reproduces the structural vulnerabilities identified in the literature. Algorithmic opacity is exacerbated when proprietary systems limit transparency. Accountability becomes diffuse in hybrid human–machine decision-making, and public trust may erode where technological authority appears detached from human judgment. Importantly, *Lex Informatica* tends to reinforce hierarchical governance, positioning judges and institutions as passive recipients of technological "solutions" rather than as active participants in their design or evolution[39].

From a legitimacy perspective, centralised digital justice remains anchored in Weberian rational-legal authority. Decisions derive their authority from institutional position and formal legality, even when mediated by complex technological systems. As a result, *Lex Informatica* is normatively dependent on trust in institutions—a condition that is increasingly fragile in many jurisdictions.

3.2. Decentralised Justice and Blockchain-Based Enforcement: Lex Cryptographia

In contrast, *Lex Cryptographia* describes a regulatory paradigm in which rules are encoded and enforced through decentralised technological infrastructures, most notably blockchain and smart contracts[40]. Rather than relying

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[38] Reidenberg, J. R. (1997). Lex informatica: The formulation of information policy rules through technology. *Tex. L. Rev.*, *76*, 553.

[39] Cohen, J. E. (2021). From lex informatica to the control revolution. *Berkeley Technology Law Journal*, *36*(3), 1017-1050.

[40] Wright, A., & De Filippi, P. (2015). Decentralized blockchain technology and the rise of lex cryptographia. *Available at SSRN 2580664*.

on central authorities to interpret and apply rules, *Lex Cryptographia* distributes enforcement across a network of participants, using cryptographic verification and consensus mechanisms to ensure compliance. Legal theorists such as De Filippi and Wright[41] conceptualise this model as a shift from institutional trust to "trustless" or trust-minimised systems, where confidence is placed in transparent code rather than hierarchical authority.

In the context of dispute resolution, decentralised justice systems operationalise *Lex Cryptographia* by embedding procedural rules directly into smart contracts[42]. Jurisdiction, evidence submission, adjudication, and enforcement are governed by code that is publicly auditable and executed automatically once predefined conditions are met. Authority is no longer concentrated in a single institution but is dispersed among network participants, who collectively uphold the system's integrity.

This decentralisation introduces a fundamentally different governance logic. Decision-making power is distributed, participation is open (subject to technical and economic constraints), and legitimacy is derived from transparency, replicability, and community validation rather than from institutional pedigree. Enforcement is immediate and automatic, reducing reliance on coercive state power but also narrowing opportunities for discretion, mercy, or contextual adjustment.

Importantly, decentralised justice does not eliminate human judgment; rather, it reconfigures it. Human actors—jurors, validators, or arbitrators—operate within algorithmically structured environments that constrain behaviour while preserving deliberation. The system's normative commitments are thus embedded at the design stage, shifting regulatory power upstream from adjudication to architecture.

3.3. Situating Kleros within the Centralised–Decentralised Spectrum

Kleros occupies an intermediate position between fully centralised judicial AI and fully automated enforcement. It exemplifies a hybrid decentralised model in which algorithmic coordination facilitates, rather than replaces, human adjudication[43]. Smart contracts govern procedural aspects, such as juror selection, staking, and enforcement, while substantive decision-making remains in the hands of human jurors incentivised to reach what the system defines as the "coherent" outcome.

Unlike *Lex Informatica*, where AI tools are subordinate to institutional hierarchies, Kleros operates without a central adjudicatory authority. Governan-

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[41] [*ibid*.] 18-35.

[42] Rodríguez, A. M. L. (2021). Applicable law to smart contracts and lex cryptographia. *Cuadernos Derecho Transnacional*, *13*, 441.

[43] Desai, A. (2024). Integrating Smart Contracts with Hybrid Online Dispute Resolution Mechanisms in Cross-Border Commercial Transactions. *Jus Corpus LJ*, *5*, 194.

ce is distributed across token holders, developers, and users, with protocol changes subject to community mechanisms rather than administrative fiat[44]. Discretion is thus relocated from institutionally constrained AI systems to a socially distributed body of human jurors coordinated by code rather than command. At the same time, Kleros differs from purely automated systems in that it explicitly preserves deliberation, disagreement, and interpretation as core components of dispute resolution.

This positioning makes Kleros particularly valuable as a theoretical counterpoint to judicial AI. It demonstrates that automation need not imply centralisation, and that efficiency gains can be achieved without surrendering transparency or human involvement. However, it also exposes the trade-offs inherent in decentralisation, including reliance on economic incentives, susceptibility to strategic behaviour, and exclusionary technical barriers[45].

3.4. Conceptual Bridge: Decentralisation, Opacity, and Legitimacy

The central theoretical claim emerging from this contrast is that decentralisation offers an alternative pathway to legitimacy in digital justice, particularly in contexts where trust in institutions or opaque algorithms is low. Decentralised justice makes rules transparent, auditable, and collectively enforced. In doing so, it directly addresses concerns of algorithmic secrecy. Code is not hidden behind proprietary walls but open to inspection, critique, and modification.

Moreover, decentralised justice redistributes accountability[46]. While responsibility is diffused rather than concentrated, it is also more visible: participants understand the rules, the incentives, and the consequences of decisions. This can enhance perceived fairness, particularly in low-value or cross-border disputes where access to state courts is limited or impractical.

At the same time, decentralisation does not eliminate normative risk. Bias may still emerge through juror selection mechanisms, economic incentives may distort participation, and the absence of institutional safeguards may undermine procedural protections[47]. Legitimacy, therefore, is not guaranteed by decentralisation per se but depends on careful system design and continuous governance.

This theoretical framework provides the basis for analysing Kleros not as a substitute for courts, but as a complementary governance expe-

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[44] [*ibid*] pp.194-197

[45] In the absence of institutional authority, legitimacy is grounded less in heirarchical mandate than in predictability, incentive alignment, and the capacity of participants to exit the system.

[46] Zeggari, M., Lambiotte, R., Abadi, A., & Kassab, M. (2023, March). An efficient and decentralized blockchain-based commercial alternative. In *2023 IEEE 20th International Conference on Software Architecture Companion (ICSA-C)* (pp. 231-238). IEEE.

[47] [*ibid*.] pp. 231-239

riment[48]. By comparing *Lex Informatica* and *Lex Cryptographia*, the paper situates decentralised justice within broader debates on automation, legitimacy, and access to justice, setting the stage for a detailed examination of Kleros's practical operation and normative implications.

4. CASE STUDY: THE KLEROS MODEL

4.1. Origins and Purpose: Building Trust in Online Transactions

Kleros emerged in response to a structural deficit in online commerce and digital interactions: the absence of affordable, neutral, and enforceable dispute resolution for low-value, cross-border transactions[49]. Traditional courts are often inaccessible or disproportionate for such disputes[50]. Private platforms, by contrast, tend to rely on unilateral enforcement mechanisms that prioritise efficiency over fairness. Kleros was conceived as a decentralised alternative capable of resolving disputes without reliance on state courts or centralised intermediaries[51].

Launched in 2018, Kleros positions itself as an "on-chain court" designed to adjudicate disputes arising from smart contracts and online interactions. Its founding premise is that trust in digital environments can be reconstructed through transparent procedures, economic incentives, and distributed human judgment. Rather than eliminating adjudication, Kleros seeks to reconfigure it by embedding procedural rules into blockchain infrastructure and distributing decision-making authority among a pool of incentivised jurors, thereby operationalising decentralised legitimacy in practice[52].

The platform's initial use cases focused on simple disputes—such as escrow disagreements and digital service contracts where factual complexity is limited and enforcement through smart contracts is feasible[53]. Over time, Kleros expanded into more specialised domains, including token curation registries, decentralised autonomous organisation (DAO) governance, and online content moderation. This evolution reflects both the flexibility of decentralised dispute resolution and the growing demand for governance mechanisms within blockchain ecosystems.

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[48] Jaodun, M., & Bouafia, K. (2025). Analysis and Evaluation of a Blockchain-Based Framework for Decentralized Rental Agreements and Dispute Resolution. *Blockchains*, *3*(2), 8.

[49] Zhuk, A. (2023). Applying blockchain to the modern legal system: Kleros as a decentralised dispute resolution system. *International Cybersecurity Law Review*, *4*(3), 351-364.

[50] Bergolla, L., Seif, K.& Eken, C. 37 (2022). Kleros: A Socio-Legal Case Study of Decentralized Justice & Blockchain Arbitration. Ohio State Journal on Dispute Resolution 55-98

[51] [*ibid*.] 65-71

[52] Zhuk, pp. 356-361

[53] Bergolla, 68-75

4.2. Technical Operation: Smart Contracts, Token Staking, and Juror Selection

Kleros operates through a system of interconnected smart contracts deployed on a public blockchain. These contracts govern jurisdiction selection, evidence submission, juror appointment, voting, and enforcement. Parties agree ex ante—often through an arbitration clause embedded in a smart contract—that disputes will be resolved by Kleros, thereby substituting traditional enforcement with automatic execution of outcomes[54].

Central to the system is the Pinakion (PNK) token, which functions as both a governance and incentive mechanism. Individuals wishing to serve as jurors must stake PNK tokens in specific jurisdictions, signalling their availability and expertise. Jurors are selected pseudo-randomly from the relevant pool, with selection weighted by the number of tokens staked[55]. This mechanism aims to balance decentralisation with competence, while deterring frivolous participation through financial exposure.

Once selected, jurors review submitted evidence and vote on the dispute outcome. Votes are confidential during the deliberation phase, and jurors are economically rewarded or penalised based on alignment with the majority decision. The incentive structure is designed to promote what Kleros terms "Schelling-point behaviour": jurors are encouraged to vote for the outcome they believe other reasonable jurors will select, which is assumed to approximate the objectively fair or legally correct result[56].

Appeals are possible through a hierarchical mechanism in which subsequent rounds involve a larger number of jurors and higher stakes. This process mirrors, in abstract form, appellate review, while remaining fully automated and decentralised. Once the final decision is reached, enforcement occurs automatically through smart contracts, transferring funds or updating registries without reliance on external authorities.

4.3. Use Cases and Jurisdictional Expansion

Kleros's application across diverse domains illustrates both its adaptability and its limitations. In small-claims-style disputes, such as escrow disagreements or freelance contract conflicts, the platform offers a rapid and relatively low-cost alternative to traditional litigation. Resolution times are

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[54] Aditya, A., & Kumar, H. THE SYMPHONY OF SMART CONTRACTS & BLOCKCHAIN ARBITRATION: AUTOMATING JUSTICE IN DECENTRALIZED SYSTEMS. *Indian Journal of Integrated Research in Law Volume V Issue III| ISSN*, *2583*, 0538.

[55] Piers, M. (2025). ADR in the Age of NFTs: Smart Disputes, Smarter Justice!. In *Routledge Handbook of NFT Law* (pp. 318-341). Routledge.

[56] Zhuk, A. (2023). pp. 360-364.

typically measured in days or weeks rather than months, and enforcement is immediate where assets are held on chain.

More complex use cases include token curation registries, where jurors decide whether digital assets, service providers, or content meet predefined criteria[57]. In these contexts, Kleros functions less as a dispute resolver and more as a governance mechanism, arbitrating inclusion or exclusion decisions that carry economic and reputational consequences. Similarly, some decentralised organisations rely on Kleros to resolve internal governance disputes[58]. effectively outsourcing conflict resolution to an external, decentralised adjudicatory layer.

This expansion raises important questions about the boundaries of decentralised justice. As disputes increase in normative complexity, interpretation, proportionality, or competing values, the limits of economically incentivised adjudication become more apparent. Kleros's architecture assumes that disputes can be resolved through majority consensus guided by incentives, an assumption that holds more readily in factual or rule-based conflicts than in value-laden or rights-sensitive cases.

4.4. Empirical Observations: Participation Patterns and Behavioural Dynamics

Empirical observations of Kleros usage reveal asymmetries between disputants and jurors. Juror participation is often motivated primarily by economic incentives rather than civic or adjudicative principles, with some participants treating juror service as a yield-generating activity. This dynamic raises concerns about whether economic incentives alone can sustain fair and principled decision-making over time[59].

Disputants, by contrast, are typically motivated by cost and enforceability rather than ideological commitment to decentralisation[60]. Many users engage with Kleros indirectly through platforms that integrate it as a backend dispute resolution mechanism, suggesting that decentralised justice may function most effectively when abstracted from direct user interaction.

Participation patterns also indicate concentration risks. Although Kleros is formally open, juror pools are frequently dominated by participants with greater financial capacity to stake tokens, potentially undermining representativeness. While random selection mitigates some risks, the weighting mechanism introduces structural biases linked to wealth and risk tolerance[61].

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[57] Piers, M. (2025). pp 323-333.

[58] Jaodun, M., & Bouafia, K. (2025). Analysis and Evaluation of a Blockchain-Based Framework for Decentralized Rental Agreements and Dispute Resolution. *Blockchains*, *3*(2), 8.

[59] Maag, L., Jagielski, B., Pyers, Z., & Steele, K. (2022). The Use of Crowdsource Funding and Game Theory in the Decentralized Arbitration Process. *Int'l. In-House Counsel J.*, *15*, 7917.

[60] Zhuk, A. (2023). pp. 357-367

[61] [*ibid*.] 7917

4.5. Identified Issues: Speculation, Bias, and Strategic Behaviour

Several challenges emerge from Kleros's incentive-driven design. First, speculative engagement may distort juror behaviour, particularly where token price volatility influences participation. Jurors may prioritise short-term gains over deliberative accuracy, especially in low-stakes disputes where penalties are limited.

Second, bias remains a persistent concern. While Kleros avoids algorithmic bias in the traditional sense, it introduces new forms of systemic bias through self-selection and staking mechanisms. Juror pools may skew toward technologically literate, crypto-native participants, potentially disadvantaging disputants unfamiliar with blockchain norms or evidentiary expectations[62].

Third, strategic behaviour poses a structural risk. Coordinated voting, information asymmetries, or exploitation of predictable incentive structures may undermine fairness, particularly in niche jurisdictions with small juror pools. Although Kleros incorporates safeguards such as appeals and increased juror numbers, these mechanisms raise costs and complexity, potentially deterring legitimate claims[63].

4.6. Accessibility Barriers and Usability Constraints

Despite its stated commitment to access to justice, Kleros faces significant accessibility challenges. Participation requires familiarity with blockchain wallets, cryptocurrency transactions, and platform-specific interfaces. Gas fees, token volatility, and technical errors may deter or disadvantage users, particularly those from non-technical backgrounds or low-income contexts[64].

Language barriers and the absence of legal assistance further compound these issues. Unlike courts, Kleros does not provide institutional support structures such as legal aid, procedural guidance, or judicial discretion to accommodate vulnerable users. As a result, accessibility gains achieved through cost reduction may be offset by technical and cognitive barriers[65].

These limitations underscore a broader insight: decentralisation shifts, rather than eliminates, barriers to justice. While it removes institutional gatekeepers, it introduces technical and economic thresholds that shape who can effectively participate.

Kleros illustrates both the promise and the fragility of decentralised justice. It demonstrates that dispute resolution can be coordinated without cen-

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[62] Kamalova, J. (2024). Exploring Blockchain-Based Alternative Dispute Resolution: Limitations of Traditional Methods and Prospects for Further Research. *Harv. Negot. L. Rev.*, *29*, 87.

[63] [*ibid*.] 87-90

[64] Maag, L., Jagielski, B., Pyers, Z., & Steele, K. (2022). 7919.

[65] Zhuk, A. (2023). pp. 360-364.

tral authority, relying instead on transparent rules, economic incentives, and distributed human judgment. At the same time, it exposes the normative and practical challenges of translating adjudication into code. As a case study, Kleros does not offer a blueprint for replacing courts. Rather, it provides a testing ground for alternative governance logics that prioritise transparency and participation over hierarchy and institutional control. These insights are particularly valuable when evaluating how traditional judicial systems might integrate AI and digital tools without reproducing the opacity and legitimacy deficits associated with centralised automation.

5. BALANCING FAIRNESS, EFFICIENCY, AND OVERSIGHT

5.1. Kleros and Judicial AI as Competing and Complementary Models

Judicial AI tools and decentralised dispute resolution systems such as Kleros are often discussed as distinct or even competing paradigms of digital justice[66]. In practice, however, they address overlapping problems—judicial inefficiency, access barriers, and legitimacy deficits—through fundamentally different governance logics. Judicial AI operates within centralised institutional frameworks, augmenting existing courts with data-driven tools designed to optimise workflow, consistency, or decision-support. Kleros, by contrast, externalises dispute resolution from state institutions altogether, relying on decentralised coordination and economic incentives to produce enforceable outcomes.

From a functional perspective, both models aim to reduce transaction costs and procedural delay, particularly in low-value or routine disputes. However, their normative foundations diverge. Judicial AI derives legitimacy from institutional authority and regulatory compliance, whereas Kleros relies on procedural transparency and collective participation[67]. This distinction is critical when assessing how each model balances fairness, efficiency, and oversight.

Rather than viewing decentralised justice as an alternative to judicial AI, this analysis treats Kleros as a complementary experiment that exposes the strengths and weaknesses of centralised automation. In doing so, it offers insights into how courts might integrate digital tools without replicating the opacity and accountability gaps associated with algorithmic decision-making.

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[66] Zhuk, A. (2023). pp. 360-370.

[67] Aljinović, N. (2024). Artificial intelligence in judicial decision-making: challenges of bias and lack of transparency of predictive algorithms. *ORGANIZER*, 782.

5.2. Transparency and Explainability

Transparency constitutes one of the most frequently cited deficits of judicial AI[68]. Even where AI systems are formally advisory, their influence on judicial reasoning may be difficult to detect or contest, particularly when proprietary models limit explainability. The literature consistently identifies this opacity as a threat to procedural justice, undermining litigants' ability to understand and challenge decisions. Kleros addresses transparency through architectural design rather than post hoc explanation. Its procedural rules, juror selection mechanisms, and incentive structures are publicly auditable on the blockchain[69]. Decisions are the product of identifiable voting processes rather than opaque algorithmic outputs. While individual juror reasoning is not always articulated in detailed written form, the process by which outcomes are generated is visible and replicable. This form of transparency differs from traditional judicial reasoning but may nevertheless enhance perceived legitimacy in certain contexts. For low-stakes disputes, the ability to observe how a decision was reached, even without extensive legal justification, may be sufficient to satisfy procedural expectations. By contrast, AI-supported judicial decisions may appear inscrutable even when formally reasoned, if litigants suspect that unseen algorithmic recommendations shaped the outcome[70].

However, Kleros's transparency is not absolute. Technical complexity, blockchain illiteracy, and the abstraction of governance mechanisms may limit meaningful understanding for non-expert users[71]. Transparency in code does not automatically translate into accessibility in practice. This highlights an important lesson for judicial AI: explainability must be user-centred rather than merely technical.

5.3. Fairness, Bias, and Representativeness

Concerns about bias feature prominently in critiques of both judicial AI and decentralised justice. In AI systems, bias is typically framed as a data problem: algorithms trained on historical judicial decisions risk reproducing systemic inequalities[72]. Mitigation strategies focus on dataset curation, auditing, and human oversight, but empirical evidence suggests that eliminating bias entirely remains elusive[73].

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[68] [*ibid*.] 782-784

[69] De Filippi, P., Wray, C., & Sileno, G. (2021). Smart contracts. Internet Policy Review, 10(2). *https://doi.org/10.14763/2021.2.1549*

[70] Gabuthy, Y. (2023). Blockchain-based dispute resolution: insights and challenges. *Games*, *14*(3), 34.

[71] [*ibid*.] 34-37.

[72] Barocas, S., & Selbst, A. D. (2016). 671.

[73] Greenstein, S. (2022). 291-323.

Kleros avoids algorithmic bias in the conventional sense by relying on human jurors rather than predictive models. Yet it introduces alternative sources of bias rooted in participation dynamics. Juror pools are shaped by self-selection, token staking capacity, and technical literacy, which may skew representation toward economically privileged or technologically adept users[74]. These structural biases are less visible than algorithmic ones but equally significant. Moreover, incentive-based voting raises questions about normative fairness[75]. The assumption that majority consensus approximates correctness may hold in factual disputes but becomes problematic in value-laden or legally complex cases. While appeals mechanisms mitigate some risks, they do so at the cost of increased expense and procedural complexity.

Comparatively, judicial AI retains the normative advantage of professional adjudication, where judges are trained, accountable, and bound by ethical duties[76]. However, decentralised justice demonstrates that fairness need not be monopolised by institutions. Distributed decision-making can, under certain conditions, approximate fairness through collective judgment—particularly where disputes are narrow in scope and consequences.

5.4. Accountability and Oversight

Accountability is one of the most challenging dimensions of digital justice[77]. In judicial AI systems, responsibility is diffused across judges, administrators, developers, and regulators. Even where human oversight is formally preserved, the epistemic authority of algorithmic recommendations may subtly shift responsibility away from individual decision-makers.

Kleros adopts a radically different accountability model. There is no single authority responsible for outcomes; instead, responsibility is distributed across protocol designers, jurors, and users[78]. Enforcement is automatic, leaving little room for discretionary correction once a decision is final. This raises concerns about error correction, proportionality, and procedural justice, particularly where outcomes have significant consequences[79]. Nevertheless, decentralised accountability has distinctive advantages. Rules are known in advance, enforcement is predictable, and discretionary abuse is limited by design. For certain categories of disputes—especially those involving digital assets held on-chain—this predictability may be preferable to opaque institutional discretion.

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[74] Zhuk, A. (2025). Enhancing online dispute resolution through natural language processing: a case study of kleros. *International Cybersecurity Law Review*, *6*(4), 599-625.

[75] [*ibid*.] 607-619.

[76] Sourdin, T. (2018). Judge v Robot?: Artificial intelligence and judicial decision-making. *University of New South Wales Law Journal, The*, *41*(4), 1114-1133.

[77] Dancy, T., & Zalnieriute, M. (2025). AI and Transparency in Judicial Decision Making. *Oxford Journal of Legal Studies*, gqaf030.

[78] Zhuk, A. (2025). 599-604.

[79] [*ibid*.] 600-605.

The comparison suggests that neither centralised nor decentralised models offer a complete solution to accountability challenges. Judicial AI struggles with hidden influence and responsibility gaps, while Kleros faces risks of rigidity and irreversibility. Hybrid approaches that combine decentralised transparency with institutional safeguards may offer a more balanced path forward.

5.5. Efficiency and Procedural Proportionality

Efficiency is often invoked as the primary justification for both judicial AI and decentralised dispute resolution[80]. Courts deploy AI to manage caseloads and reduce delays, while Kleros promises rapid, low-cost resolution without jurisdictional barriers. Empirical observations suggest that Kleros performs well in delivering timely outcomes for simple disputes, often at a fraction of the cost of traditional litigation[81].

However, efficiency gains must be assessed through the lens of procedural proportionality. For low-value disputes, the streamlined procedures of Kleros may be normatively appropriate, even if they sacrifice some procedural formalities. In contrast, applying similar mechanisms to high-stakes disputes would risk undermining due process[82]. Judicial AI, operating within formal procedural frameworks, retains the capacity to scale safeguards according to case complexity. Yet this scalability often comes at the cost of speed and accessibility. The comparison underscores the importance of context-sensitive design: digital justice tools should be matched to dispute type rather than applied uniformly.

5.6. Normative Lessons for Judicial Systems

The Kleros case study offers several normative lessons for courts considering AI or hybrid digital reforms. First, transparency should be embedded in system architecture rather than retrofitted through disclosure obligations. Second, human oversight is not merely a safeguard but a source of legitimacy that must remain visible and meaningful. Third, participation and accessibility should be treated as core design objectives rather than secondary considerations.

At the same time, decentralised justice highlights the limits of market-based governance in adjudication[83]. Economic incentives can support participation but cannot substitute for ethical commitments or institutional res-

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[80] Dancy, T., & Zalnieriute, M. (2025).

[81] Aljinović, N. (2024).

[82] Zhuk, A. (2023). pp. 360-364.

[83] Moyaux, T., & McBurney, P. (2012). Centralized vs. market-based and decentralized decision making: A review. *Cybernetics and Systems*, *43*(7), 567-622.

ponsibility. Courts should therefore resist wholesale decentralisation while remaining open to adopting modular elements—such as transparent rule encoding or collective decision mechanisms—in appropriate contexts.

Ultimately, decentralised justice does not resolve the tensions inherent in digital adjudication; it reframes them. By shifting authority from institutions to architecture, it forces explicit choices about values, trade-offs, and design priorities. This reframing is perhaps its most significant contribution to debates on judicial AI.

6. POLICY IMPLICATIONS AND RECOMMENDATIONS

6.1. Synthesising Lessons from Decentralised Justice

The analysis of Kleros demonstrates that decentralised justice does not offer a wholesale alternative to state courts, but it does provide valuable insights into how digital dispute resolution can be designed to enhance transparency, efficiency, and legitimacy. In particular, Kleros illustrates that automation need not entail opacity, and that human judgment can be preserved within technologically mediated systems through carefully structured incentives and procedural rules.

At the same time, the limitations identified, speculative participation, representational bias, technical barriers, and limited procedural safeguards, underscore that decentralisation alone is not a panacea. Rather, its value lies in revealing design choices that are often obscured in centralised judicial AI systems. These insights can inform both regulatory approaches and institutional reform efforts within traditional judicial frameworks.

6.2. Implications for the EU AI Act and Judicial Governance

The EU AI Act establishes a foundational regulatory framework by classifying AI systems used in the administration of justice as high-risk technologies. This classification appropriately reflects the constitutional sensitivity of adjudication and reinforces the requirement of meaningful human oversight. However, as demonstrated by the comparative analysis with decentralised justice, compliance-based regulation alone is insufficient to address deeper legitimacy concerns[84].

First, the AI Act focuses primarily on risk mitigation rather than institutional design. It mandates transparency and oversight but does not specify how AI systems should be integrated into judicial workflows in ways that preserve trust and accountability. Lessons from decentralised justice suggest that transparency must be architectural and procedural, not merely informa-

[84] Kozlova, M. Y., & Davydova, M. L. (2024). pp.207-208.

tional. Courts should therefore be encouraged to adopt design standards that make the influence of AI tools visible and contestable within proceedings [85].

Second, the Act does not adequately address participatory dimensions of digital justice. Decentralised systems highlight the importance of user engagement and collective validation in fostering legitimacy. While courts cannot replicate open participation models, they can incorporate participatory safeguards, such as clearer explanations of AI-assisted processes, opportunities for challenge, and enhanced procedural dialogue [86].

Finally, the AI Act remains largely silent on non-state or hybrid dispute resolution mechanisms. As decentralised platforms increasingly resolve disputes with real economic and social consequences, regulatory clarity is needed to delineate their relationship with judicial systems, particularly regarding enforceability, consumer protection, and fundamental rights.

6.3. Recommendations for Judicial AI Design and Deployment

Drawing on the comparative insights of this study, several policy recommendations emerge for courts and regulators:

Judicial AI systems should be developed with transparency as a core architectural principle. This includes clear documentation of system functions, decision-support logic, and data sources, as well as mechanisms that allow judges and litigants to understand when and how AI tools influence outcomes. Merely disclosing the existence of AI is insufficient; its role must be intelligible and procedurally relevant. Furthermore, human oversight should not be symbolic or residual. Judges must retain meaningful discretion and be required to articulate independent reasoning, particularly where AI recommendations are involved. This visibility reinforces accountability and counters the perception that decisions are outsourced to machines.

Not all disputes require the same level of procedural formality. Courts should adopt proportional digital procedures that align technological intensity with dispute value and complexity. Lessons from Kleros suggest that streamlined, semi-automated processes may be appropriate for low-value claims, while high-stakes disputes demand robust safeguards. Both judicial AI and decentralised platforms risk excluding users with limited digital literacy. Courts and policymakers should invest in user-centred design, procedural guidance, and support mechanisms to ensure that digital justice reforms enhance rather than undermine access to justice.

While courts cannot adopt decentralised justice wholesale, they can integrate selective elements that enhance legitimacy. These include greater pro-

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[85] Fine, A., Berthelot, E. R., & Marsh, S. (2025). Public Perceptions of Judges' Use of AI Tools in Courtroom Decision-Making: An Examination of Legitimacy, Fairness, Trust, and Procedural Justice. *Behavioral Sciences*, *15*(4), 476.

[86] [*ibid*.] pp. 476-477.

cedural transparency, clearer rule encoding, and mechanisms that distribute epistemic authority without sacrificing accountability. For example, collective decision-support tools or peer-based review mechanisms could complement judicial reasoning in appropriate contexts. At the same time, regulators should approach decentralised dispute resolution with cautious engagement rather than prohibition. Clear standards on disclosure, consumer protection, and appealability could mitigate risks without stifling innovation. Experimental regulatory sandboxes may offer a controlled environment for testing hybrid models that combine decentralised governance with public oversight.

6.5. Ethical and Practical Considerations

Finally, ethical considerations must remain central to digital justice reform. Efficiency gains should not come at the expense of fairness, dignity, or trust. Both centralised AI systems and decentralised platforms encode normative assumptions that shape outcomes. Making these assumptions explicit is a prerequisite for responsible governance. Decentralised justice reminds policymakers that legitimacy cannot be engineered solely through compliance or technical performance[87]. It emerges from procedural fairness, transparency, and meaningful human involvement. Judicial reform efforts that ignore these dimensions risk deepening public scepticism toward digital adjudication[88].

7. CONCLUSION

This paper has examined the evolving relationship between digital justice, artificial intelligence, and decentralised dispute resolution through the lens of judicial legitimacy, fairness, and efficiency. As courts worldwide increasingly rely on digital technologies to address systemic pressures of cost, delay, and accessibility, the automation of judicial functions raises fundamental questions about transparency, accountability, and public trust. While AI-driven tools offer tangible efficiency gains, their deployment within centralised institutional frameworks risks exacerbating concerns of opacity, bias, and diluted responsibility if not carefully designed and governed.

Against this backdrop, the paper has argued that decentralised justice, exemplified by the Kleros platform, offers a valuable complementary perspective on digital adjudication. Rather than replacing courts or eliminating human judgment, Kleros demonstrates how partial automation, combined with transparent rule encoding and distributed human decision-making, can resolve certain categories of disputes efficiently while preserving procedural visibility. By situating Kleros within the theoretical contrast between Lex In-

[87] Fine, A., Berthelot, E. R., & Marsh, S. (2025). pp. 476-479.

[88] van Domselaar, I. (2022). Inquiry and Imagination in Adjudication: The Case of Digitalisation. *Neth. J. Legal. Phil.*, *51*, 187.

formatica and Lex Cryptographia, the analysis has shown that automation does not inevitably entail centralisation or algorithmic secrecy.

The case study of Kleros highlights both the promise and the limitations of decentralised justice. On the one hand, its architecture mitigates several risks associated with judicial AI by making procedural rules auditable, enforcement predictable, and human participation central to decision-making. On the other hand, it introduces new challenges, including speculative juror behaviour, representational bias, technical complexity, and limited procedural safeguards. These findings underscore that decentralisation is not inherently more legitimate than institutional adjudication; rather, legitimacy depends on design choices, governance structures, and the proportionality of procedures to dispute type.

The comparative analysis suggests that the most productive path forward lies not in choosing between centralised judicial AI and decentralised justice, but in learning from their respective strengths and weaknesses. Courts can draw on insights from decentralised systems to embed transparency by design, preserve visible human oversight, and adopt proportionate digital procedures, particularly for low-value or high-volume disputes. At the same time, the safeguards of institutional adjudication, professional ethics, appellate review, and constitutional accountability, remain indispensable for disputes implicating fundamental rights or significant public interests.

From a regulatory perspective, the EU AI Act provides an essential baseline by recognising judicial AI as high-risk technology and mandating human oversight. However, this paper has shown that compliance-oriented regulation alone cannot resolve the deeper legitimacy challenges posed by digital adjudication. Complementary governance approaches, informed by decentralised justice experiments, are necessary to ensure that technological innovation in the judiciary enhances rather than undermines public confidence.

Ultimately, the central question is not whether justice should be digital, but which model of digital justice should be built. The tension identified at the outset, between efficiency-driven automation and the preservation of legitimacy, transparency, and accountability, has become increasingly urgent as courts move from experimentation to systemic digital integration. For practitioners, this shift requires a more critical engagement with the tools shaping adjudication, including their evidentiary, procedural, and ethical implications. For policymakers, it underscores the need to move beyond compliance-based regulation towards institutional design choices that embed transparency, human oversight, and proportionality from the outset. In this sense, decentralised justice should not be viewed merely as a technological curiosity, but as a timely intervention that exposes the limits of current models and offers concrete insights for the future architecture of judicial systems. As digitalisation accelerates, the choices made today will determine not only how justice is delivered, but whether it continues to be perceived as legitimate.

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BEYOND LOGISTICS: VIDEO-BASED WITNESS EXAMINATIONS IN GERMAN AND U.S. CIVIL PROCEEDINGS

Victoria Jürgensen*

ABSTRACT: This paper explores how the common law tradition of the U.S. and the civil law system of Germany regulate and assess video-based witness examinations in civil proceedings. By examining Rule 43(a) FRCP (Federal Rules of Civil Procedure) and Sections 284 (2) and (3) ZPO (German Code of Civil Procedure), the study identifies critical differences in legal prerequisites and judicial practice. Ultimately, it demonstrates that technical adoption remains constrained by a shared skepticism toward the evidentiary value of digital testimony.

KEYWORDS: remote testimony; demeanor evidence; video-based witness examinations; digitalization in civil proceedings.

SUMMARY: 1. INTRODUCTION 2. THE LEGAL FRAMEWORK FOR VIDEO-BASED WITNESS EXAMINATIONS IN THE UNITED STATES: 2.1 The Prerequisites: 2.1.1 Motion 2.1.2 Good Cause in Compelling Circumstances; 2.1.3 Appropriate Safeguards; 2.1.4 Court's Discretion 2.2 Practical Implementation; 2.3 Reception of Video-based Witness Examinations.— 3. THE LEGAL FRAMEWORK FOR VIDEO-BASED WITNESS EXAMINATIONS IN GERMANY: 3.1 The Prerequisites; 3.1.1 Initiation: Upon Request or Ex Officio; 3.1.2 Suitability of the Video-Based Examination for the Specific Taking of Evidence; 3.1.3 Availability of Sufficient Capacities for the Video-Based Examination; 3.1.4 Court's discretion; 3.2 Practical Implementation; 3.3 Reception of Video-based Witness Examinations.— 4. DIFFERENCES AND SIMILARITIES: 4.1 The Prerequisites; 4.2 Judicial Practice; 4.3 Reception of Video-based Witness Examinations.— 5. CONCLUSION.— BIBLIOGRAPHY

* Victoria Jürgensen is a fully qualified lawyer from Germany. She studied law at Bucerius Law School in Hamburg, Germany, and Chicago-Kent College of Law, Chicago, U.S., where she was also a Visiting Scholar during her doctoral studies. After having completed her legal clerkship (*Referendariat*) at the Hanseatic Higher Regional Court in Hamburg, she is currently a doctoral candidate awarded with a PhD Scholarship by the German Academic Scholarship Foundation (*Studienstiftung des deutschen Volkes*) and works as research assistant at Kiel University, Germany.

1. INTRODUCTION

Propelled by the pandemic, digital communication has reshaped judicial procedures worldwide. A particularly significant development is the examination of witnesses via live video transmission in civil proceedings. By removing the need for travel, this approach streamlines the legal process and allows for more adaptable scheduling that offers considerable potential benefits—particularly relating to judicial efficiency—such as time savings[1]. Nevertheless, these gains in efficiency are often offset by concerns over the integrity and value of the evidence—specifically the judge's capacity to gauge witness sincerity and the potential for outside interference[2]. While seemingly a global remedy for logistical constraints, the implementation of video-based witness examinations is deeply shaped by contrasting legal traditions and procedural norms. The following analysis examines the use of video-based witness testimony in the courts of the United States of America and Germany. By comparing the common law tradition of the U.S. and the civil law tradition of Germany, this study seeks to uncover how these two major legal systems approach, regulate, and assess witness evidence taken via live-video.

This paper begins by outlining the distinct legal frameworks governing video testimony in the United States and Germany respectively. The analysis then identifies critical differences and similarities in how each jurisdiction handles such evidence. Ultimately, the central contention is that the legal treatment of video-based witness examinations transcends technical concerns, arguing that adoption remains constrained by a shared skepticism toward the evidentiary value of digital testimony.

2. THE LEGAL FRAMEWORK FOR VIDEO-BASED WITNESS EXAMINATIONS IN THE UNITED STATES

Remote testimony—the examination of a witness via simultaneous transmission from another location—has been possible in US civil proceedings on the basis of Rule 43(a) of the Federal Rules of Civil Procedure ("FRCP") since its revision in 1996[3]. Rule 43(a) FRCP was amended in 2007 as part of

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[1] Hemler, A. (2022). Virtuelle Verfahrensteilnahme aus dem Ausland und Souveränität des fremden Aufenthaltsstaats. *Rabels Zeitschrift für ausländisches und internationales Privatrecht*, 906; Lafontaine, C. (2020). Die Beweisaufnahme über den EU-Auslandssachverhalt. *Deutsches Autorecht*, 541; Voß, W. (2022). Grenzüberschreitende Videoverhandlungen jenseits des Rechtshilfewegs – Wunsch oder Wirklichkeit?. In B. Windau and P. Reuß (Eds), *Göttinger Kolloquien zur Digitalisierung des Zivilverfahrensrechts, Kolloquien im Sommersemester 2021*, 1st edn, 43.

[2] Mantz, R. & and Spoenle, J. (2020). Corona-Pandemie: Die Verhandlung per Videokonferenz nach § 128a ZPO als Alternative zur Präsenzverhandlung. *Monatsschrift für Deutsches Recht*, 641; Reuß, P. (2020). Die digitale Verhandlung im deutschen Zivilprozessrecht. *JuristenZeitung,* 1136.

[3] This analysis will focus on the federal legal provisions laid down in the Federal Rules of Civil Procedure (FRCP). In many respects, however, the comments on federal regulations can be applied to the legal situation in individual states, as federal regulations have served and continue to serve as

a general reform of the FRCP, but the content of the provision has remained essentially the same since the 1996 revision[4]

> "Taking Testimony. (a) In Open Court. At trial, the witnesses' testimony must be taken in open court unless a federal statute, the Federal Rules of Evidence, these rules, or other rules adopted by the Supreme Court provide otherwise. For good cause in compelling circumstances and with appropriate safeguards, the court may permit testimony in open court by contemporaneous transmission from a different location. [...]"

Most state court rules on the possibility of remote testimony are modelled after this provision[5].

2.1 The Prerequisites

Overall, in accordance with Rule 43(a) FRCP, it is necessary to submit a motion, that there be a good cause in compelling circumstances, and that appropriate safeguards be in place. The court then exercises its discretion. The individual requirements set forth by the provision are brought to life by the relevant case law. The following section takes a closer look at the individual requirements.

2.1.1. Motion

To initiate a video-based examination, a motion must be filed as soon as the necessity for remote testimony becomes known[6]. While the court may consider mutual consent between the parties, such consent is not a legal requirement[7]. The right to file this motion lies with the parties in dispute. Since witnesses are typically associated with one party, the relevant party usually files the motion on the witness's behalf; even for neutral witnesses, a party must initiate the request[8].

2.1.2. Good Cause in Compelling Circumstances

The central requirement for remote testimony is the existence of "good cause in compelling circumstances". The term is left undefined by the provision.

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a model for many state procedural codes., see Burnham, W. (2016). Introduction to the law and legal system of the United States, 246.

[4] Fobes, C. (2020). Rule 43(A): Remote Witness Testimony and a Judiciary Resistant to Change, *Lewis & Clark Law Review*, 24 (1), 305 Fn. 40; Rule 43 (a) FRCP advisory committee's note (2007).

[5] Harris, R. (2022). Behind the Screen: The Constitutionality of Remote Testimony for Survivors of Domestic Violence, *Hastings Constitutional Law Quarterly*, 49 (2), 211.

[6] See Rule 43 (a) FRCP advisory committee's note (1996).

[7] Rule 43 (a) FRCP advisory committee's note (1996); see also Gensler, S. & Mulligan, L. (2025). Federal Rules of Civil Procedure, Rules and Commentary, Rule 43.

[8] See for instance *VMX-Global USA, LLC v. Noble Environmental Tech*, 339 F.R.D. 690 (S.D.Fla., 2021).

However, the legislative intent—as set out in the advisory notes—suggests a restrictive application[9]. According to the advisory committee[10], remote testimony is not justified merely because on-site attendance is "inconvenient" for the witness[11]. Instead, these circumstances are generally intended to be limited to exceptional, unexpected events—such as sudden illness or an accident—where the witness remains capable of testifying remotely[12]. The committee maintains this cautious approach for two primary reasons. First, the formal and solemn environment of the courtroom is believed to encourage truthful testimony, as the presence of the fact-finder underscores the gravity of the proceedings[13]. Second, the committee prioritizes the fact-finder's ability to evaluate a witness's demeanor through direct, face-to-face observation, which is considered essential for accurately assessing credibility[14].

Decisions interpreting Rule 43(a) FRCP reflect uncertainty and inconsistency in defining "good cause in compelling circumstances". They offer no consistent guidance on when the circumstances in a specific case meet the necessary threshold. Because the U.S. Supreme Court has not addressed the limits of Rule 43(a) FRCP, case law is shaped by varying decisions across circuit and district courts. The inconsistency of the cases decided illustrates, on the one hand, the leeway granted to judges in applying the rule and, on the other hand, the inconsistency that this creates for the parties[15]. Ultimately, the application of Rule 43(a) FRCP remains highly dependent on the unique facts of each individual case.

There are a number of courts that are more inclined to allow video examinations and approve them more frequently in a more generous interpretation

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[9] See Glunz, B. (2012). Psychologische Effekte beim gerichtlichen Einsatz von Videotechnik: eine empirische und rechtsvergleichende Untersuchung zum US-amerikanischen, australischen und deutschen Zivilprozess, 221.

[10] The advisory committee is a key player in the U.S. legislative process. Although the Supreme Court has original jurisdiction over amendments to the FRCP, it has delegated the drafting of the rules to the Judicial Conference of the United States. Generally, the U.S. Supreme Court enacts the proposed amendments without influencing their content. Within the Judicial Conference, an advisory committee and a standing committee are responsible for drafting reform proposals. Both committees are composed of judges, practitioners, and legal scholars, so that the different interests of the parties involved are reflected in the legislative process. In addition, various interest groups, including lawyers and bar associations, are involved in the so-called committee hearings. As a result, lawyers' interests have a considerable influence on legislation. The advisory committee attaches its proposed amendments and additions to so-called notes, which have gained in importance over time and now play a key role in the regulatory process. These notes generally explain the purpose of the amendment and the systematic classification of the amended regulation, and in some cases also contain practical information for lawyers and judges. The courts do not provide a uniform answer as to whether the notes provide binding guidance for the application of the rule by the courts. It is striking that the Supreme Court avoids assigning binding character to the notes and resorts to ambiguous wording, but at the same time regularly uses them for the interpretation of the FRCP and emphasizes their importance; see Struve, C. T. (2002). The paradox of delegation: interpreting the federal rules of civil procedure, *University of Pennsylvania Law Review*, 150 (4), 1167.

[11] Rule 43 (a) FRCP advisory committee's note (1996).

[12] *Ibid*.

[13] *Ibid*.

[14] *Ibid*.

[15] Fobes (n 4), 309.

of the rule. These courts adopt a more expansive interpretation of Rule 43(a) FRCP, arguing that modern technology provides a comprehensive view of a witness's behavior[16]. Decisions like *In re RFC & RES-CAP* and *Aoki v. Gilbert* maintain that video links allow fact-finders to observe nuances—such as hesitation or confidence—effectively preserving the integrity of cross-examination[17]. In *F.T.C. v. Swedish Match*, the court went further, labeling the preference for in-person testimony over equivalent video transmission as "irrational", since these two modes of examination were deemed equivalent[18].

In contrast, many courts strictly follow the advisory committee's restrictive view, prioritizing the traditional courtroom setting. In *In re Kirkland*, the Ninth Circuit reaffirmed that live testimony is superior for observing witness behavior and determining the truth[19]. Under this standard, video testimony is reserved for exceptional, unexpected circumstances like sudden illness or accidents[20]. Similarly, the courts *in J.D. v. Price, Julian Liu v. State Farm Mutual Automobile Insurance Company*, and *Herrmann v. United States* consistently denied requests based on distance, inconvenience, or foreseeable personal commitments[21]. These rulings indicate that "good cause" requires a genuine emergency rather than mere logistical difficulty, maintaining a high threshold for deviating from in-person examination.

Judicial discrepancies are particularly sharp regarding travel-based requests, a common reason for requesting remote testimony. While some courts view long-distance or international travel as "good cause" due to associated costs and burdens[22], others remain unmoved unless additional obstacles are present[23]. Ultimately, these decisions are highly fact-specific. For instance, in *Matovski v. Matovski,* the court granted remote testimony by considering multiple factors: the witness's location in Australia, financial constraints, and visa issues[24]. However, the court also noted a significant caveat: highly con-

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[16] See *In re RFC & RESCAP Liquidating Tr. Action*, 444 F. Supp. 3d 967, 971 (D. Minn. 2020); *In re Vioxx Prods. Litig*., 439 F. Supp. 2d 640, 644 (E.D. La. 2006); *Aoki v. Gilbert*, No. 2:11-cv-02797, 2019 WL 1243719, at *1 (E.D. Cal. Mar. 18, 2019); *F.T.C. v. Swedish Match North America, Inc*., 197 F.R.D. 1, 2, 48 Fed. R. Serv. 3d 144 (D.D.C. 2000).

[17] *In re RFC & RESCAP Liquidating Tr. Action*, 444 F. Supp. 3d 967, 971 (D. Minn. 2020); *Aoki v. Gilbert*, No. 2:11-cv-02797, 2019 WL 1243719, at *1 (E.D. Cal. Mar. 18, 2019).

[18] *F.T.C. v. Swedish Match North America, Inc*., 197 F.R.D. 1, 2, 48 Fed. R. Serv. 3d 144 (D.D.C. 2000).

[19] *In re Kirkland,* 75 F.4th 1030 (2023).

[20] *Ibid*.

[21] *J.D. v. Price,* 619 F.Supp.3d 523 (2022); *Julian Liu v. State Farm Mutual Automobile Insurance Company*, 507 F.Supp.3d 1262 (2020); *Herrmann v. United States*, 129 Fed.Cl. 780 (2017).

[22] *Flores v. Alvarado,* 2018 WL 1697314, at *1-2 (W.D. N.C. 2018); *Vite-Cruz v. Sanchez,* 2018 WL 4359217, *1 (D.S.C. 2018); *Junjiang Ji v. Jling Inc*., 2017 WL 6501865, *2–3 (E.D. N.Y. 2017); *Virtual Architecture, Ltd. v. Rick,* 2012 WL 388507, *2 (S.D. N.Y. 2012); *Lopez v. NTI, LLC*, 748 F. Supp. 2d 471, 480 (D. Md. 2010).

[23] *Gil-Leyva v. Leslie*, 780 Fed. Appx. 580, 2019 WL 2651093, *3 (10th Cir. 2019); *U.S. v. Kivanc,* 714 F.3d 782, 791, 85 Fed. R. Serv. 3d 863 (4th Cir. 2013); *Kraan Investments (USA) LLC v. Tarpenning, 2022 WL 843491,*

[24] *Matovski v. Matovski,* No. 06 Civ. 4259(PKC), 2007 WL 1575253 (S.D.N.Y May 31, 2007).

troversial testimony typically requires a physical presence to ensure the most rigorous possible assessment of witness credibility[25].

The COVID-19 pandemic in particular has led to increased use of remote testimony in recent years. In principle, the federal courts were inclined to approve the use of video testimony during this period—the reasoning varied depending on the respective phase of the pandemic and the restrictions to which the courts were subject[26]. In the pandemic's early stages, courts like those in *In re RFC and ResCap Liquidating Trust Action* allowed video testimony to prevent transmission during travel, treating the outbreak as an "unexpected event" that prioritized health and safety over physical presence. Legitimate interests, such as protecting vulnerable family members, were also recognized as grounds for remote testimony[27]. During peak phases when courthouses were closed, the unpredictability of reopening and the prioritization of criminal backlogs led judges to favor remote civil proceedings to avoid indefinite delays. In *Flores v. Town of Islip*, the court cited the plaintiffs argument regarding COVID-19 as "perhaps the most compelling circumstances in history in favor of conducting this trial remotely"[28]. As courthouses reopened, courts continued to approve video testimony for high-risk individuals or those facing hazardous travel conditions, solidifying the pandemic's role in normalizing remote alternatives to in-person testimony[29].

2.1.3. Appropriate Safeguards

In addition, remote testimony requires that appropriate safeguards be observed to ensure the integrity of legal proceedings, in particular protecting against misidentification, external influence, or faulty transmissions. While the rules lack a formal definition, courts in cases like *Julian Liu v. State Farm* hold that modern video technology generally fulfills these needs by enabling immediate cross-examination and credibility assessments[30]. However, *Martinez v. Continental Tire* emphasizes that the technology must remain reliable and that the proceedings must maintain a formal, ceremonial tone[31]. Because these safeguards are often presumed satisfied when "good cause" is shown, specific case law is sparse; however, standard requirements include simulta-

[25] *Ibid*.

[26] See for example *Gould Elec. Inc. v. Livingston Cty. Road Comm'n*, 470 F.Supp.3d 735, 740-741 (E.D. Mich. 2020; *In re RFC and ResCap Liquidating Trust Action*, 444 F. Supp.3d 967, 969-71 (D. Minn. 2020); *Argonaut Ins. Co. v. Manetta Enters*., Inc., No. 19-000482, 2020 WL 3104033, at *2-3 (E.D.N.Y. June 11, 2020)); *Whitt v. K-Va T Food Stores*, No. 3-17-cv-254, 2021 WL 5234967, at *1 (E.D. Tenn. 2021).

[27] *In re RFC & ResCap Liquidating Trust Action*, 444 F.Supp. 3d 967, 970, (D. Minn. Mar. 13, 2020).

[28] *Flores v. Town of Islip*, 18-CV-3549 (GRB)(ST) 2 (E.D.N.Y. Sep. 1, 2020): "In terms of good cause, plaintiffs argue that "COVID-19 creates perhaps the most compelling circumstances in history in favor of conducting this trial remotely."

[29] See *Sherrod, Teed, Vanderhagen & Ware v. VNA & LAN*, 5:17-cv-10164-JEL-KGA, (E.D. Mich. Mar. 30, 2022); *In re Junior Larry Hillbroom Litig*., 1:10-CV-00009, 15 (D.N. Mar. I. May. 26, 2022).

[30] *Julian Liu v. State Farm Mutual Automobile Insurance Company*, 507 F.Supp.3d 1262 (2020).

[31] *Martinez v. Continental Tire the Americas, LLC*, Not Reported in Fed. Supp. (2022): "maintaining decorum".

neous testimony under oath, a private setting free from distractions—unlike the moving vehicles or break rooms warned against in *McNeese v. United States*—and a reliable channel for sharing trial materials[32]. Ultimately, as seen in *McNeese*, the responsibility for technical preparation often falls on counsel, and judges retain the authority to revoke remote testimony permissions mid-trial if the technology fails or the witness behaves inappropriately[33].

2.1.4. Court's Discretion

Even if the requirements for remote testimony are met, the final decision remains within the court's discretion. This authority is further bolstered by the broad power judges hold under the Federal Rules of Evidence to determine how evidence is presented[34]. While mutual agreement between parties is a factor the court may consider, it does not dictate approval[35]. Appellate courts, such as the Tenth Circuit in *Eller v. Trans Union, LLC*, have consistently upheld these trial-level decisions, noting that Rule 43(a) FRCP represents a possibility for admission rather than an obligation[36]. Consequently, there are currently no appellate rulings suggesting that a court abuses its discretion by denying a request for video testimony.

2.2. Practical implementation

The court may issue an order setting out the logistics for the video hearing, including the time, platform, and any additional requirements to ensure fairness and reliability[37]. If a request for remote testimony is denied, the decision is typically categorized as an interlocutory order, meaning it is not a final judgment and cannot be immediately appealed under 28 U.S.C. § 1291. While limited exceptions exist, such as 28 U.S.C. § 1292(b) or the collateral order doctrine, they are rarely applied to procedural matters[38]. The collateral order doctrine specifically requires that the issue be conclusively resolved, independent of the case's merits, and effectively unreviewable later; however, judges are generally reluctant to use this for video hearings unless the denial causes significant, irreparable harm that a final appeal could not remedy[39].

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[32] *McNeese v. United States*, No. 1:17-CV-01164 MIS/KK, 2022 WL 194392 (D.N.M. Jan. 21, 2022).

[33] *Ibid*.

[34] *In re RFC & RESCAP Liquidating Tr. Action*, 444 F. Supp. 3d 967, 971 (D. Minn. 2020) with reference to *Parkhurst v. Belt*, 567 F.3d 995, 1002 (8th Cir. 2009): "Moreover, the Court's discretion on this question is supplemented by its "wide latitude in determining the manner in which evidence is to be presented" under the Federal Rules of Evidence."

[35] *Gensler/Mulligan,* FRCP Commentary, Rule 43.

[36] *Eller v. Trans Union, LLC,* 739 F.3d 467 (2013).

[37] Vgl. *VMX-Global USA, LLC v. Noble Environmental Tech,* 339 F.R.D. 690 (2021).

[38] See *Leonard v. Martin*, 38 F.4th 481 (2022).

[39] See *Coopers & Lybrand v. Livesay,* 437 U.S. 463, 468, 98 S.Ct. 2454, 57 L.Ed.2d 351 (1978) (with reference to *Abney v. United States,* 431 U.S. 651, 658, 97 S.Ct. 2034, 52 L.Ed.2d 651 (1977); *United States v. MacDonald,* 435 U.S. 850, 855, 98 S.Ct. 1547, 56 L.Ed.2d 18 (1978).

2.3. Reception of Video-based Witness Examinations

Since its inception, remote testimony has been the subject of extensive debate in US legal scholarship, characterized by a fundamental tension. While the resulting procedural flexibility is widely welcomed, significant apprehension persists regarding the impact of 'digital distance' on the evaluation of witness testimony. Central to this controversy is the concept of demeanor evidence—a concept based on the premise that a fact-finder can assess a witness's veracity through non-verbal cues—such as facial expressions, gestures, and vocal inflection—exhibited during testimony[40]. Historically, the observation of demeanor has been regarded as a primary method for verifying the accuracy and truthfulness of witness account[41]. Courts mostly still view these cues as essential to determining credibility[42]. Regarding remote testimony scholars continue to question whether the psychological nuances of credibility can be accurately captured via video, or if the lack of physical presence inherently undermines the court's truth-seeking function[43]. Scholars point out possible changes in witness behavior due to difficulties in communicating with the court or manipulation of the witness by third parties[44]. On the other hand, the discussion highlights the weakness of video questioning with regard to the changed or more difficult assessment of the truthfulness of the statement[45]. Various contributions argue that video interrogations lead to a distortion of perception and that, overall, witnesses who testify via video are considered less credible and/or are generally evaluated more negatively than witnesses who testify in the courtroom[46]. Only rarely is credibility assumed to be assessable to a similar degree[47].

3. THE LEGAL FRAMEWORK FOR VIDEO-BASED WITNESS EXAMINATIONS IN GERMANY

In Germany, the taking of evidence, including witness examination, by means of video communication is permitted under Sections 284(2) and (3) of the German Code of Civil Procedure (*Zivilprozessordnung,* "ZPO").

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[40] Burnham (n 3), 90.

[41] *Ibid*.

[42] *Ibid*.

[43] See Fobes (n 4), 311f.

[44] Bandes, S. & Feigenson, N. (2020). Virtual Trials: Necessity, Invention, and the Evolution of the Courtroom, Buffalo Law Review, 68 (5), 1298; King, G. (2022). Testimony in Open Court: The Case for a Traditional Application of a Cornerstone of the American Civil Trial Tradition, Federal Rule of Civil Procedure 43(a), *American Journal of Trial Advocacy*, 45 (2), 418.

[45] Bandes & Feigenson (n 44), 1298; Feigenson, N. (2023). Adjudication on Zoom and beyond: Human Interaction in Virtual Courts, *Washburn Law Journal*, 62 (3), 476; King (n 41), 418.

[46] Bandes & Feigenson (n 44), 1295; Feigenson (n 45), 476.

[47] See for instance Fobes (n 4), 324.

The legislator views expanded videoconferencing as a cornerstone for modernizing and digitalizing the justice system, aiming for more citizen-friendly, resource-saving, and efficient proceedings[48]. Beyond general efficiency, this technology improves access to justice for persons with disabilities in alignment with Article 13 of the UN Convention on the Rights of Persons with Disabilities[49]. More specifically, video-based witness examinations are intended to accelerate proceedings by providing flexibility and overcoming geographical barriers[50]. By facilitating the remote testimony of witnesses who live far away or face travel difficulties, the new legal framework streamlines scheduling and reduces resource consumption[51]. Ultimately, these reforms are designed to encourage more frequent use of video technology in evidence-taking, whether initiated by the court, the parties, or the witnesses themselves[52].

3.1. The Prerequisites

In order to analyze the legal framework, it is necessary to examine the requirements and modalities that must be met for a court to schedule a video-based witness examination—namely, the court's authority to order such measures, the criteria for determining suitability, the prerequisite of sufficient capacities, the scope of judicial discretion, the designation of the witness's location, the procedural steps for ordering or authorizing video-based testimony, and the legal remedies available against such decisions.

3.1.1. Initiation: Upon Request or Ex Officio

Under Section 284(2) sentence 1 ZPO, video-based witness examinations can now be initiated either upon request or *ex officio*. This new judicial authority to act *ex officio* allows courts to proactively manage proceedings, enhancing planning certainty and minimizing delays. According to Section 284(2) sentence 2 ZPO, the right to request a video link extends to all participants and the witnesses themselves. This is particularly beneficial for witnesses seeking to testify from convenient locations to reduce travel costs[53]. Additionally, it allows participants to request remote testimony in sensitive cases involving safety concerns, emotional strain, or difficult personal relationships[54].

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[48] See Explanatory Memorandum, Bundestags-Drucksache 20/8095, p. 23.
[49] *Ibid*.
[50] *Ibid*, p. 23, 59.
[51] *Ibid*, p. 59.
[52] *Ibid*.
[53] Foerste, U. (2025). In H-J Musielak & Voit, W (Eds.), Zivilprozessordnung (ZPO), Kommentar (22nd Edn.), 284 para 29.
[54] Müller, H. In S. Ory & S. Weth (Eds.), Juris-Praxiskommentar Elektronischer Rechtsverkehr (2nd Edn.), § 284 ZPO para 117.

3.1.2. Suitability of the Video-Based Examination for the Specific Taking of Evidence

Pursuant to Section 284(2) sentence 3 in conjunction with Section 128a(1) sentence 1 ZPO, the video-based examination must be deemed "suitable" for the specific evidentiary purpose. This requirement formalizes part of the previous judicial discretion into a standardized statutory mandate[55]. A video hearing is appropriate only when no significant loss of information or impairment of evidentiary value is expected[56]. In its assessment, the court must weigh the benefits of remote testimony—such as cost reduction, travel ease, and procedural acceleration—against the value of direct physical observation[57]. Among other things, the court evaluates whether the reduced perception of facial expressions and gestures constitutes an acceptable risk given the testimony's importance[58].

3.1.3. Availability of Sufficient Capacities for the Video-Based Examination

Pursuant to Section 284(2) sentence 3 in conjunction with Section 128a(1) sentence 1 ZPO, "sufficient capacities" must exist before a video-based examination can be scheduled. This so-called "equipment proviso[59] ensures that the new statutes do not create enforceable claims against judicial administrations for additional resources[60]. It requires that courts possess the technical and spatial conditions necessary to conduct the examination properly[61]. The fundamental technical standard is "mutual visual and acoustic perceptibility[62], ensuring the right to be heard and procedural fairness remain equivalent to in-person examinations[63]. Both the witness and the courtroom must have the infrastructure for reliable two-way transmissions[64]. If a witness lacks the necessary equipment or technical competence, the court may, under Section 284(3) ZPO, order them to appear at a nearby court facility to participate.

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[55] Von Selle, D. (2022). In V. Vorwerk & C. Wolf (Eds), Beck'scher Online-Kommentar Zivilprozessordnung (47th Edn), § 128a para 8.

[56] Von Selle (n 64), § 128a para 8; Foerste (n 62) § 284 para 29.

[57] Bacher, K. (2022). In V. Vorwerk & C. Wolf (Eds), Beck'scher Online-Kommentar Zivilprozessordnung (47th Edn), § 284 para 63c; Foerste (n 62) § 284 para 29.

[58] Foerste (n 62) § 284 para 27; Greger, R. (2022). In R. Zöller (Ed.), Zivilprozessordnung, Kommentar (34th Edn.), § 128a para 8.

[59] Rebehn, S. (2024). Ausbau von Videoverhandlungen: Es geht doch!, *Deutsche Richterzeitung*, 170.

[60] Rebehn (n 68), 170; Greger (n 67), § 128a para 9.

[61] Stadler, A. (2025). In H-J Musielak & Voit, W (Eds.), Zivilprozessordnung (ZPO), Kommentar (22nd Edn.), § 128a para 8.

[62] *Ibid*.

[63] Greger (n 67), § 128a para 10.

[64] Von Selle (n 64), § 128a para 11; Stadler (n 70), § 128a para 8.

3.1.4. Court's Discretion

The court decides whether to permit a video-based witness examination via a formal order (*Beschluss*), exercising judicial discretion. Notably, the law does not include a presumption in favor of remote evidence-taking, unlike the rules for oral hearings under Section 128a(3) ZPO. This exclusion reflects the judiciary's successful effort to maintain autonomy over evidentiary procedures. In exercising this discretion, courts must prioritize procedural economy, though the exact scope of relevant factors remains debated[65]. While some scholars advocate for a balancing test[66] —weighing applicant motives, efficiency, and testimony significance—others argue these elements are now largely covered by the "suitability" and "capacity" prerequisites[67]. This lack of clear demarcation creates practical uncertainty. Furthermore, monitoring how courts apply these rules is challenging, as judges are not strictly required to provide detailed reasoning, and such decisions are rarely published.

3.2. Practical Implementation

When a video-based examination is permitted or ordered, the witness generally retains the freedom to choose their location—provided it is within the territory of Germany—including participation from private premises or their workplace[68]. However, under Section 284(3) ZPO, the court may now mandate that the witness appear at an alternative court location. By exercising this authority, the court ensures the testimony occurs in a neutral, controlled environment, preventing third-party interference or witness manipulation[69]. Additionally, this provision supports witnesses who lack the technical expertise or equipment required to participate from a private setting, ensuring they can still provide evidence remotely via the court's infrastructure[70].

When a video-based examination is permitted by formal court order (*Beschluss*), the witness is summoned and informed that physical attendance at the court house is not required. However, in accordance with Section 377(2) No. 3 and Section 402 ZPO the summons must warn the witness that failing to establish a functional, timely video connection carries the same legal consequences as failing to appear in person. The court may also impose technical requirements or order attendance at a designated court location under Section 284(3) ZPO in the summons. If the examination was granted upon request, the witness retains the right to appear in person instead. If ordered

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[65] Spoenle (n 51), 2649; Greger (n 67), § 128a para 12.
[66] Bacher (n 66), § 284 para 63c; Müller (n 63), § 284 ZPO para 123; Foerste (n 62) § 284 para 31.
[67] Von Selle (n 64), § 128a para 13.
[68] Müller (n 63), § 284 para 32.
[69] See Explanatory Memorandum, Bundestags-Drucksache 20/8095, p. 61.
[70] Bacher (n 66), § 284 para 63c.

ex officio, the witness is not summoned to the court premises at all. In either case, in accordance with Section 284(2) sentence 3 in conjunction with Section 128a(2) sentence 3 ZPO witnesses must be informed of their right to lodge an objection within two weeks. Notably, while the court must issue a formal order to reject a request for video examination, it is not legally obligated to provide reasons for the rejection—a distinct difference from the rules governing requests for oral hearings.

Under Section 284(2) sentence 3 and Section 128a(7) ZPO, court orders permitting, ordering or rejecting video-based examinations are not subject to appeal. However, parties and witnesses may lodge an objection (*Einspruch*) against the decision of the court within two weeks without providing reasons. This mechanism safeguards the fundamental right to be heard, ensuring no participant is forced into remote testimony against their will[71]. If a witness or a party objects to a mandatory order, the court's order is automatically converted into mere permission. Crucially, if any party to the proceedings objects, the court is precluded from allowing video testimony altogether. This reflects the legislative position that video-based evidence-taking cannot occur against a party's will, as they have a vested interest in the witness's physical presence before the court[72]. While the orders themselves are not immediately appealable, procedural errors may still be challenged during an appeal of the final judgment.

3.3. Reception of Video-based Witness Examinations

Before the COVID-19 pandemic, the then-applicable Section 128a ZPO was rarely utilized, but the crisis acted as a "technology driver" that catalyzed a widespread "technical upgrade" of German courtroom infrastructure[73]. While remote participation for parties and legal counsel has since become routine, video-based witness examinations have not seen a similar revival and remain the exception[74]. Significant judicial reservations persist, particularly when assessing witness credibility is pivotal, as courts continue to prioritize the perceived reliability of in-person testimony. [75]

Similarly, scholars question the evidential value of video examinations—focusing on two core questions: firstly, what impact does the video transmission have on the court's ability to assess the credibility of the testimony and the witness, and secondly, what consequences does the unusual testi-

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[71] See Explanatory Memorandum, Bundestags-Drucksache 20/8095, p. 61.

[72] See Recommended resolution and report of the Legal Affairs Committee, Federal Law Gazette, Bundestags-Drucksache 20/9354, p. 39.

[73] Greger, R. (2024). Videokonferenz im Zivilprozess? Ja, aber…, *Deutsche Richterzeitung*, 26.

[74] Stadler, A. (2022). Digitale Gerichtsverhandlungen im Zivilprozess. In B. Windau & P. Reuß (eds), *Göttinger Kolloquien zur Digitalisierung des Zivilverfahrensrechts, Kolloquien im Sommersemester 2021*, 1st Edn., 8.

[75] *Ibid*, 8f.

mony situation have on the witness's testimony behavior[76] Overall, legal literature on video interrogations focuses heavily on the weaknesses of witness testimony via video interrogation and thus on its tendency to have reduced evidentiary value. In particular, the weaknesses in the court's assessment of credibility and plausibility are widely emphasized[77]. Only rarely is the fundamental evidentiary value of witness testimony in general also considered in greater depth or criticized in connection with the debate on the evidentiary value of video interrogations[78].

Consequently, despite legislative efforts and a shift in general mindset, the deep-rooted concerns regarding the integrity of remote assessments make it uncertain whether the new Section 284(2) ZPO will successfully normalize video-based witness examinations.

4. DIFFERENCES AND SIMILARITIES

In recent years, video-based examinations have become a relevant topic in legal practice and literature in both jurisdictions, accelerated in particular by the COVID-19 pandemic. While both Germany and the U.S. allow witness examinations via live video-conferencing in their civil proceedings, the regulations are based on different procedural law principles and understandings of the process. These differences, but also similarities, shape the reception and application of this form of testimony in both legal systems.

4.1. The Prerequisites

The requirements under German and U.S. law have been brought closer together by the German legislative reform enacted in July 2024. Prior to the reform, German law did not make the admission of video testimony subject to any special requirements apart from a motion, leaving it to the discretion of the court. After the reform German law now, like U.S. law, links video testimony to special circumstances. However, at first glance, the German requirements—a suitable case and sufficient capacity—represent a lower threshold than the U.S. requirements—good cause in compelling circumstances and appropriate safeguards. The decisive difference is that in U.S. law, the circumstances of the witness are decisive and whether these can justify a video hearing as an exception to testimony in the courtroom. In German law, on the other hand, the circumstances of the witness can only play a role only in the court's discretionary considerations. U.S. law makes it particularly clear

[76] Irskens, G. (2023), Die digitale Beweisaufnahme. In T. Riehm & S. Dörr (Eds.), *Digitalisierung und Zivilverfahren,* 1st Edn., 426.

[77] See for instance Mantz/Spoenle (n 2), 641; Reuß, P. (2020). Die digitale Verhandlung im deutschen Zivilprozessrecht, *JuristenZeitung*, 1136.

[78] See for instance Stürner, M. & Stürner, J. (2023). Videoverhandlung im zivilprozessualen Erkenntnisverfahren, *JuristenZeitung,* 347.

that the special circumstances must outweigh the benefits of the witness testimony on site, which are lost through video examination. In this respect, U.S. law reflects a different basic attitude towards video examination than is the case in German law. Furthermore, U.S. law does not contain any requirements stipulating that a case must be suitable for video examinations, as is the case in German law. Of course, this question is left to court's discretion in the U.S.—as was also the case in German law under the old legal situation.

However, the harmonization of the legal frameworks through the German reform is particularly interesting in that both legal systems now consider certain safeguards to be important. While U.S. Rule 43 (a) FRCP uses appropriate safeguards as a prerequisite for admission, German law now offers the possibility of ensuring that the witness is not subject to any influence by summoning them to another court location. According to Section 284 (3) ZPO. Through these safeguards, both legal systems make it clear that there is a risk of abuse and influence in video hearings that must be countered.

The capacity requirement stipulated by German law since the reform has no direct counterpart in U.S. statutes. However, the rigorous "compelling circumstances" test in the U.S. suggests that the fundamental premise of the German rule is already well-established: that video testimony is a privilege rather than a right. Because U.S. courts guard the tradition of on-site presence rather closely, the idea of an entitlement to video examinations remains foreign to both systems.

In the U.S., the regulations governing video testimony also show that witnesses are generally connected to one of the parties. Under U.S. law, only the parties can submit a request, which they then make on behalf of "their" witnesses. The situation is different in Germany, where witnesses can also submit a request for video testimony on their own behalf. At the same time, in Germany, a party can also file such a request for a witness in order to avoid a confrontation with the witness. This is hardly conceivable in the U.S., especially since it concerns the circumstances of the witness that prevent them from coming to the courtroom. In this respect, the German regulatory regime offers more comprehensive protection than its U.S. counterpart. In the U.S., video testimony is essentially based on the witness's actual inability to travel to the court location and less on other situations or circumstances that may make video testimony appropriate.

4.2. Judicial practice

A look at judicial practice reveals differences. While in Germany the practice of using video examinations is generally very limited, judicial practice in the U.S. is divided. There are courts that are clearly in favor of video hearings on the one hand, and very skeptical courts on the other.

The German skepticism can be explained by the rather rigid structure and lack of flexibility of civil proceedings. Added to this is the rather rigid as-

sumption that witness statements made in person in the courtroom are of particular value and significance and that their veracity cannot be reliably assessed via video transmission. This also clearly shows the difference in the perception of video hearings, which are perceived differently in Germany and used much more frequently than video examinations. All of this leads to an adherence to traditional in-court witness examinations—at least in proceedings where witness testimony plays a decisive role.

The inconsistent U.S. court practice is complex in its entirety. Broken down into its constituent parts, it shows above all that there is essentially a progressive camp of judges in the US judiciary who attest to the high reliability and integrity of this type of technology, while on the other hand there is a camp of traditionalist judges who attribute primary importance in interpreting of the provision to the cautious genesis of the advisory committee and thus to witness statements testimony in the courtroom.

This traditionalist view is bolstered by the adversarial nature of U.S. proceedings, where the presentation of evidence is an act of storytelling frequently aimed at a jury. Since litigation strategy often relies on the emotional and visual impact of an in-person witness, part of the legal culture continues to resist the transition from the courtroom to the screen. Lawyers must spin a compelling narrative of their own side in the form of a consistently credible story—with the focus on presenting a comprehensible narrative to the jury—in the form of staging, visualization, and presentation—including the show of emotion[79]. Given the importance of this presentation of evidence for U.S. lawyers, it is coherent to rely on witnesses testifying in the courtroom. Although this type of presentation primarily stems from the interests of the lawyers, this type of court procedure is also anchored in the culture of court proceedings—not least because of the adversary system.

Both countries share the commonality that the COVID-19 pandemic acted as a major catalyst for the adoption of video examinations. Observers were largely surprised by the speed with which the legal profession and judiciary adapted to these shifting circumstances. This rapid transition was significantly bolstered by the existing legal frameworks for remote testimony in both nations, a factor that distinguishes them from many other jurisdictions.

4.3. Reception of Video-based Witness Examinations

The intensity of legal discourse regarding video witness examinations differs notably between the U.S. and Germany. In the U.S., the discussion is more prominent and holistic, driven by a larger scholarly community and the heightened importance of fact-presentation in jury trials. Conversely, German discourse focuses primarily on general video hearings, leaving witness questioning as a peripheral topic. Despite these different levels of engagement,

[79] Bandes & Feigenson (n 44), 1327.

both countries share a fundamental skepticism concerning the evidential value of remote testimony and the court's ability to assess witness credibility effectively. On both sides of the Atlantic, the question of the extent to which the evidential value of witness testimony obtained in a video hearing changes plays a special role. The U.S. scholarly skepticism can be traced back—similarly to the judicial skepticism—to the significance of the presentation of evidence and the theatrical nature of civil proceedings due to jury participation.

5. CONCLUSION

The evolution of video-based witness examinations in German and U.S. civil proceedings reveals a shared tension between the pursuit of judicial efficiency and the preservation of evidentiary integrity. While the COVID-19 pandemic served as a global catalyst for digital adoption, the legal frameworks in both nations as well as their judicial and scholarly reception remain deeply rooted in their respective procedural philosophies. The U.S. courts continue to treat remote testimony inconsistently—either as an exceptional measure or in a more generous approach. While Germany's recent 2024 legislative reform signals a shift toward normalizing video technology by empowering courts to order remote evidence-taking *ex officio* based on suitability and technical capacity, the judicial practice remains skeptical. Overall, both systems struggle with the "digital distance" that complicates a judge's ability to gauge sincerity and protect against external interference.

Ultimately, the successful integration of video examinations depends less on technical logistics and more on overcoming deep-seated judicial and scholarly skepticism. In the U.S., the adversarial nature of proceedings and the importance of "storytelling" for jury impact partly create a cultural preference for in-person presence that resists digitization. Meanwhile, the German judiciary remains cautious, often viewing personal presence as essential for high-stakes credibility assessments. As both legal systems continue to refine their safeguards—such as requiring neutral testimony locations—it becomes clear that video-based examinations are not yet viewed as fully equivalent to in-person examinations in the courtroom. While technology offers a path toward more accessible and resource-saving justice, the transition from the physical courtroom to the digital screen remains a work in progress, shaped by a persistent commitment to the traditional values of face-to-face testimony.

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NOTARIES IN THE ERA OF AI

Ekaterine Shengelia*
Professor at the Faculty of Law
Ivane Javakhishvili Tbilisi State University

Irakli Leonidze**
Doctoral Candidate at the Faculty of Law
Ivane Javakhishvili Tbilisi State University

ABSTRACT: In the modern world, technological innovation is advancing at an unprecedented pace and artificial intelligence (AI) stands out as a transformative set of technologies with profound social and economic implications. AI is not a single invention, but a cluster of rapidly developing tools that increasingly affect all areas of professional and social life. Its functional nature—fast, widely accessible and highly adaptable—suggests that its impact on legal relations will only intensify over time, whether in routine tasks or complex processes.

The aim of this research is to analyze the potential and challenges of integrating AI into the Latin-based notary system. While several European notary chambers have already adopted new applications—such as chatbots for client communication, automated drafting tools, data-verification systems, videoconferencing platforms and electronic notarial acts—Georgia remains in the early stages of technological adaptation. This study seeks to identify best practices from the European experience and propose strategies to ensure that Georgian notaries can deliver services that are efficient, secure and user-oriented.

Methodologically, the research employs a doctrinal and comparative approach. Legislative frameworks, professional guidelines and existing technological infrastructures in European notary systems are examined, alongside an evaluation of risks linked to automation, data protection and reliability. The analysis is complemented by practical assessments of how such technologies could be introduced, considering both institutional capacity and public trust. The expected contribution of this research is twofold. First, it provides a systematic overview of how innovative services can be responsibly implemented in the Latin-based notary systems. Second, it highlights the risks of technological integration and offers recommendations to mitigate them.

* Professor, Faculty of Law, Ivane Javakhishvili Tbilisi State University; Director of the Scientific Institute of Notary Law; Notary of Georgia, *Ekaterine.shengelia@tsu.ge,* ORCHID 0009-0001-2475-761X.

** Doctoral Candidate, Faculty of Law, Ivane Javakhishvili Tbilisi State University; Mediator, *Irakli.leonidze@tsu.ge,* ORCHID ID 0009-0002-6116-7878.

The study underscores that the modernization of the notarial profession is inseparable from technological development and is vital for maintaining the relevance, accessibility and credibility of notarial services in the digital age. Notaries should not be replaced by AI, it must be guided by notaries—We should overcome this fear together.

KEYWORDS: notary service; artificial intelligence; digitalization; implementation.

SUMMARY: 1. INTRODUCTION.— 2. DIGITAL TRANSFORMATION AND MODERNIZATION OF NOTARIAL SERVICES.— 3. DIGITALIZATION OF NOTARIAL ACTS: 3.1. Estonia's experience; 3.2. Latvia's experience; 3.3. Hungary's experience; 3.4. Benelux countries' experience.— 4. CURRENT SITUATION REGARDING ELECTRONIC SIGNATURES IN GEORGIA.— 5. DIGITAL INNOVATIONS AND AI IN NOTARIAL PRACTICE.— 6. CONCLUSION.— 7. BIBLIOGRAPHY

1. INTRODUCTION

It was once truly unimaginable for notaries to use computers or register notarial acts electronically—paper was long considered the main source of validity and credibility. Before the era of paper, there were other forms of record-keeping, but the introduction of paper transformed the notarial understanding of authenticity and trust.

Now, in the age of artificial intelligence, paper is no longer the only foundation of professional services. A new digital world has emerged, where AI offers unprecedented opportunities for efficiency and innovation. Yet, alongside these possibilities comes fear of replacement, irrelevance, mistakes and misunderstanding. This fear is deeply felt among notaries and it is crucial to engage in open discussions about what we expect from AI and what we do not.

The advancement of technology has become a topic of broad discussion and debate over the past decade. Across Europe, both at the level of the Council of Notaries of the European Union and within individual notary chambers, there is a clear direction toward the technological development of notarial services. This involves, on the one hand, the introduction of technological innovations into notarial acts and on the other hand, the digitalization of notarial acts. In the case of Georgia, this issue is also on the agenda and it is desirable to pursue consistent measures to establish the legal and software frameworks necessary for the use of new technologies.

Ensuring legal support is crucial so that notaries have the authority to perform specific actions using new technology. Primarily, this involves establishing relevant provisions within the instructions for performing notarial acts, which ensures the uninterrupted execution of notarial actions remotely. The software aspect is expressed through providing notaries with access to AIs. This could take the form of a package of applications offered to notaries.

The development of the notarial registry and the provision of digital services form the starting point and should functionally become a leading priority, given current challenges. Notaries require additional digital services to carry

out remote notarial actions or to draft electronic notarial acts. This means that, for performing a specific action, a notary cannot rely on a single technology, application, or artificial intelligence tool alone; rather, all elements must be integrated within the notarial registry or a multifunctional web-based platform in compliance with security rules. This approach was adopted by the notariates of Latvia and Estonia when planning electronic notarial acts and remote notarial actions. The notarial registry, as a database, must be systematically, programmatically and legally organized. Issues such as access control and functional organization may need to be reviewed. The development of the registry is linked to the functional alignment with the databases of other related institutions. Restricting notaries' access to other institutional registries would have a significant impact on their activities.

The modern digital era is significantly transforming the notarial profession. The integration of new technologies into notarial activities not only increases the efficiency of services but also ensures the accessibility, transparency and reliability of notarial services.

2. DIGITAL TRANSFORMATION AND MODERNIZATION OF NOTARIAL SERVICES

On September 5, 2024, at the Conference of Ministers of Justice of the Council of Europe, representatives from the European Union, the United Kingdom, the United States, Israel, Andorra, Iceland, Norway, Moldova, San Marino and Georgia signed the Council of Europe Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law. This Convention is the first legally binding international instrument to regulate the use of AI in a way that protects human rights, democracy and the rule of law[1].

The Convention sets out a clear framework and fundamental principles for AI deployment, emphasizing that AI systems must respect human dignity and autonomy, promote equality, protect privacy and personal data, ensure transparency and oversight and remain accountable, reliable and safe[2]. States are required to implement these principles through appropriate legislation, administrative measures and risk assessments when deploying AI systems. Key protections for individuals include access to information about AI systems, the ability to challenge AI-driven decisions, mechanisms to submit complaints, procedural guarantees for safeguarding rights and notifications when AI is used in decision-making[3]. Ratifying the Convention will directly affect state institutions, including notary chambers. The integration of ar-

[1] Council of Europe. (2024). *Framework convention on artificial intelligence and human rights, democracy and the rule of law (CETS No. 225).*

[2] Council of Europe. (2024). *Framework convention on artificial intelligence and human rights, democracy and the rule of law (CETS No. 225)* (Part III).

[3] Council of Europe. (2024). *Framework convention on artificial intelligence and human rights, democracy and the rule of law (CETS No. 225)* (Part IV).

tificial intelligence into the regulatory framework of the Chamber of Notaries must fully comply with both international and national human rights standards. This underscores the need for notaries to adopt AI responsibly, ensuring that technological advancements enhance legal processes without undermining ethical principles or professional integrity.

Also, The EU "Artificial Intelligence Act" establishes the rules for the use of artificial intelligence systems within the territory of the European Union. According to this Act, AI technology must be based on respect for human rights. The Act is legally binding and aims to regulate the processes of creating, developing and using artificial intelligence systems[4].

A Latin notary is a legal professional operating within civil law jurisdictions, particularly in countries influenced by Roman law traditions[5]. Unlike notaries in common law countries, who primarily witness signatures and administer oaths, a Latin notary plays a much broader and more formal role. Latin notaries are legally trained and usually must pass rigorous examinations to practice. They act as public officers, appointed by the state to draft, authenticate and preserve certain legal documents. Their work carries significant legal weight, as documents executed by a Latin notary are presumed to be accurate and legally enforceable. This preventive function ensures that transactions are correctly executed according to the law and reduces the likelihood of future disputes[6].

The scope of a Latin notary's work is extensive. They handle matters such as real estate transfers, wills and inheritance, marriage contracts and commercial agreements, including company incorporations. Their role is characterized by both expertise and impartiality, guaranteeing that all parties involved in a transaction understand the legal implications of their actions. In civil law systems, documents produced by Latin notaries often have probative force, meaning they are presumed correct and usually do not require further validation in court. This contrasts sharply with the role of notaries in common law countries, where the notary's authority is limited primarily to witnessing signatures and verifying identities. The Latin notary is a state-appointed legal expert whose primary function is to ensure the legality, authenticity and security of legal documents, providing parties with certainty and protection in their transactions[7].

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[4] European Parliament and Council of the European Union. (2024). *Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act)*. *Official Journal of the European Union*.

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[6] Zeng, R. (2012). Real estate operations and notary system in civil law legal systems. *US-China Law Review, 9*, 547.

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We cannot improve AI as a standalone project; we need to integrate it into our everyday processes. This means we must enhance notary databases and start considering improvements to electronic notarial acts.

The Council of Notaries of the European Union comprises representatives from the notary chambers of 22 member countries. In 2024, the Notary Chamber of Georgia joined the Council as an observer. Among the primary objectives of the Council's member states is the enhancement of notarial databases for automated data processing and the integration of updated information technologies and artificial intelligence[8].

Certain member countries have started to create new tools and AI-based systems within their notarial organizations. It's interesting to review how they introduce these tools to their citizens.

In Italy, an electronic model of the notarial deed has been in use since 2013, eliminating the need for a printed counterpart. Users input their personal data into the notary electronic registry template, which then generates an electronic notarial deed. The document is reviewed by an on-duty notary, selected by the user from within the system. This service is praised for its speed and reliability[9].

In the Czech Republic, the notary registry is integrated with the court register, allowing notaries access to both the notarial and judicial stages of user applications and their supporting documents. Certain functions are delegated to notaries, enabling them to process data stored in the court database according to predetermined criteria. In probate proceedings, both notarial and judicial actions are conducted electronically, with only the final outcome printed[10].

Austria has maintained an electronic working document integrated with the notary registry since 2000, which also includes an archiving function. Notaries can execute any notarial act within this document and once completed, the notarial deed is automatically recorded in the performed actions field. The system is known for its high capacity, security and flexible sharing functionality, allowing efficient management of both current and archived notarial acts[11].

Since 2014, Romania has implemented an electronic platform consolidating various types of notary registers. Managed by the Center for the Mana-

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[8] European Commission for the Efficiency of Justice (CEPEJ). (2018). *Specific study of the CEPEJ on the legal professions: Notaries*. Working Group on the Evaluation of Judicial Systems, Notaries of Europe (CNUE), 7–10.

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[10] European Commission for the Efficiency of Justice (CEPEJ). (2018). *Specific study of the CEPEJ on the legal professions: Notaries*. Working Group on the Evaluation of Judicial Systems, Notaries of Europe (CNUE), 10.

[11] Hall, E. G. (2015). *The common law and civil law notary in the European Union: A shared heritage and an influential future* (p. 15).

gement of Notary Registries, the system enables real-time document generation by inputting the user's personal data, the content and the responsible notary[12].

The Belgian Notary has developed an electronic platform for public real estate auctions, allowing users to participate remotely. Notaries review the auction results and prepare the notarial deed, enabling the winner to request property registration. Additionally, Belgium has established a citizen-oriented communication system, allowing users to submit inquiries and receive real-time responses, while notaries perform requested actions electronically[13].

In Estonia, Lithuania and Latvia, all notaries utilize a secure electronic information system with cross-border functionality among the three countries' notary offices. This system integrates registers that establish rights and provides open access to participating notaries[14].

Germany has introduced an innovative electronic registration system for limited liability companies. Notaries create electronic forms by inputting the data of interested parties, with the platform featuring archiving functions and regular updates to reflect current and past actions[15].

Digitization of notarial acts is a key priority for modern notaries in the EU member states. Consequently, notary registries are largely digitized. For example, Austria, Belgium, Croatia, the Czech Republic, Estonia, France, Germany, Hungary, Latvia, Luxembourg, Malta, the Netherlands, Poland and Romania maintain registers of wills and successions linked to the EU succession register. This system provides notaries with information about inheritances issued in specific jurisdictions. The accessibility of notarial acts in these registers varies: they may include the notary's physical signature and seal or only electronic details, such as a unique code.

The digital transformation and modernization of notarial services have emerged in response to the evolving demands of the digital era, as traditional paper-based processes are progressively replaced by digital solutions and notaries must be prepared to act competently in accordance with these new digital requirements which are increasingly important compared to the last century. One of the main subjects is the digitalization of notarial acts and the use of AI in creating notarial acts within this process.

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3. DIGITALIZATION OF NOTARIAL ACTS

3.1. Estonia's experience

Since 2010, Estonian notaries have been developing a program to provide online access to notarial services. A key milestone in this process was the Estonian "e-Residency" program, which enabled the remote verification of individuals' identities and allowed its use in certain notarial procedures. Through e-Residency, individuals connected to Estonia whether through business or other ties—could confirm their identity remotely. While the digital ID issued under this program could not serve as a personal identity card or travel document, it was fully valid for identification purposes and for executing a digital signature.

Initially, the platform was designed primarily for users abroad, enabling them to perform certain notarial acts such as issuing powers of attorney or submitting inheritance-related applications without traveling to Estonia. However, the Covid-19 pandemic significantly accelerated the adoption of the system, expanding its use far beyond the original scope.

Due to restrictions on movement and the need to minimize physical contact, Estonia adopted a law on remote authorization, allowing notaries to perform nearly all notarial acts remotely, with the exception of marriage and divorce applications. Notaries retained the right to refuse remote services if they deemed the format unsuitable for a particular client, if the quality of the connection compromised the reliability of identity verification, or if other circumstances cast doubt on the integrity of the notarial process. Following the adoption of this law, remote authorization rapidly gained popularity in Estonia, eventually accounting for nearly one-third of all notarial transactions.

In the e-Notary system, the notary designates the specific notarial act to be performed remotely and grants access to the participants. At this stage, the notary may also use the Verifyprogram, which prompts the user to take a photograph of themselves alongside their identity document. The system then compares this image with stored biometric data to detect potential fraud. While these technical tools enhance security, the notary remains fully responsible for verifying the participant's identity.

Only individuals holding an Estonian ID card including the e-Residency ID are eligible to participate in remote authorization. The notary can access participants' photos from the databases of the Police and Border Guard Board, relying on these images for identification rather than the document submitted by the user. If necessary, the notary may ask additional questions, drawing on information from the civil registry, which contains details such as the person's residence, parents and children.

If identity cannot be reliably confirmed due, for example, to a poor internet connection the notary may refuse remote authorization and require the participant to appear in person. To access the system, users must enter their

digital ID code. When Verify is used, access is granted only after successful completion of the verification procedure. Once verified, a secure video link is established and the participant enters the "digital notary office."

The remote authorization process mirrors the procedures in a notary's office. The notary reads the text of the document, explains its terms and conditions and makes any necessary changes. The document is displayed on the screen for all participants, though only the notary has editing privileges. Once all parties agree, the document is stored in a digital repository and sent for signatures. Signatures are executed on the "e-Notary" platform and the notary receives a notification when all signatures are completed. Subsequently, the notary signs the document and grants participants access via the www.notar.ee platform. The document is preserved as a digital original, with a certified print copy archived by the notary if required.

With 98 por cien of the Estonian population holding an ID card and over 61 000 valid e-Residency IDs issued, digital identification and signing are highly streamlined. Estonia's digital signature complies with the highest standards under the EU eIDAS directive. Nevertheless, some users prefer in-person interaction with a notary. To accommodate this, hybrid authorization was introduced on September 7, 2021, allowing some participants to attend physically at the notary's office while others join remotely[16].

Estonia's e-Notary system is an innovative leap in digital notarial services, but it faces several challenges. First, its accessibility is limited to Estonian ID cardholders and e-Residents, excluding foreign nationals and individuals without these credentials, thus restricting its international reach. Second, the system's reliance on stable internet connections and biometric verification can hinder users with poor connectivity or technical issues, forcing them to appear in person. Although the notary's right to refuse remote services ensures security, it can lead to inconsistent access. User trust remains a concern, as some individuals still prefer traditional in-person interactions, reflecting skepticism about fully digital processes. Additionally, while biometric data and photo database access enhance security, they also raise privacy and data protection issues, requiring strict safeguards and clear user consent protocols. Lastly, accommodating both physical and remote participation could create logistical complications and strain resources, adding operational complexity. To ensure the system's success and broader adoption, these issues—accessibility, technology, user trust, privacy and operational challenges must be addressed.

[16] The Estonian Notary Chamber facilitates remote authentication and facial recognition services for notarial acts, as regulated by several key legal documents. These include the Estonian Notaries Law Act (§ 36), the Notarisation Act and the Notaries Regulation, all of which establish the legal basis for remote notarial procedures. The remote authentication service, accessible through the official portal, integrates advanced facial recognition technology to ensure secure identity verification. Estonia's pioneering fully remote e-notary service represents a significant advancement in digital public services, making it one of the first state-level implementations of this kind in Europe. This initiative highlights Estonia's commitment to leveraging technology to increase accessibility, security and efficiency in legal and administrative processes.

3.2. Latvia's experience

Over the past decade, the Latvian notariat has implemented several IT solutions that distinguish it from others. Since July 2018, it has been possible to perform notarial acts remotely, making Latvia the first country not only in the Baltic region but across Europe to offer such services. The Latvian notariat was also the first to provide users with close access to online services via *www.latvijasnotars.lv*.

To receive remote notarial services, a user must first schedule a video consultation with a notary through the Latvian Notaries' Portal. This portal has become a fully developed platform offering modern, fully digital and interactive services in collaboration with notaries across the country.

Currently, the following notarial services can be accessed online in Latvia: issuing powers of attorney, opening estates, obtaining legal consultations, filing divorce applications, transferring real estate, drafting wills and more. Before booking a video consultation with a notary, it is necessary to create a valid "eSignature" (electronic signature). A notarial act cannot be performed remotely without an eSignature. If a user does not have a Latvian eSignature, it can be obtained by applying for an eID card through the Latvian embassy.

For a video consultation, users need an eSignature, a Latvian passport or eID card, access to online banking, a computer with a camera, microphone and headphones, a reliable internet connection and a quiet, well-lit space. Remote notarial services are particularly beneficial for the more than 370 000 Latvians living abroad (including 250,000 in Europe), though local residents also benefit by completing acts quickly without visiting a notary in person. Notably, remote notarial services have become an essential practical tool in the context of digital transformation.

Since July 2018, the portal has offered the "Verify Power of Attorney" service. This feature provides additional security in business transactions, allowing users to verify whether a power of attorney exists, is valid and whether the presented document matches the original.

The portal also provides access to records of all notarial acts dating back to 2006. For example, if someone forgets where a will was notarized, this information is available online.

Since July 1, 2019, the competence to certify public documents with an apostille has been transferred to Latvian notaries. Citizens no longer need to travel to the capital for this service; it is available at any notary office in 30 Latvian cities. Notaries can also certify electronic documents with an apostille remotely. This service is fully digital and documents can be accessed on the portal by entering the apostille number or uploading the file in the appropriate format.

User identification is performed on the portal (www.latvijasnotars.lv) through the appropriate authorization methods. The responsible authority

for the portal is the State Agency for Digital Development (Latvia.lv). To complete the process, citizens need an eSignature, an eID card, Smart-ID (mobile authentication), or bank authorization (as needed). After successful verification, the user gains access to their profile.

Participation in remote notarial acts is available to individuals with a Latvian personal identification number. Video conferences are conducted using the Twilio system. Any notarial act can be performed via video conference. Digital documents are stored in compliance with the relevant regulations, using only qualified electronic signatures from EU Trusted List providers.

From July 1, 2024, notaries in Latvia will not be able to register marriages remotely, but they will be able to register divorces. Remote authorization is not subject to any geographical restrictions. Anyone with a valid eSignature can use the service from anywhere in the world. Since the system's implementation, no issues have arisen regarding the recognition of Latvian remote notarial acts abroad. If necessary, the notary can issue a printed extract equivalent to the original document[17].

Latvia's early adoption of remote notarial services and its comprehensive digital platform mark significant progress in modernizing legal services, positioning it as a European pioneer since 2018. However, the system faces notable challenges. Its reliance on multiple digital requirements such as a Latvian eSignature, eID, online banking and proper hardware excludes those without access or digital skills, especially older adults and people in areas with poor internet. Limiting remote services to individuals with a Latvian personal ID number further restricts access for non-residents and foreign nationals, hindering cross-border transactions. The use of third-party platforms raises privacy and security concerns that require stronger oversight. Additionally, mandatory advance booking of video consultations may reduce flexibility for urgent needs. While online access to records and document verification improves transparency, these features depend heavily on users' digital literacy, which may limit their practical value.

3.3. Hungary's experience

Hungary has established a legal framework that allows for the creation of electronic notarial acts. By law, all 313 Hungarian notaries are required to hold a qualified electronic signature, which enables them to draft electronic

[17] The Latvian Notary Chamber has officially authorized the performance of notarial acts through digital means, as regulated by the Notariate Law, particularly Division E.1 on Electronic Deeds and Certifications. This legal framework enables notaries to offer remote services accessible via the official website (www.latvijasnotars.lv), with user authentication facilitated through the national portal (www.latvija.lv). To utilize these services, clients must possess a valid eSignature, which can be one of several recognized forms (eID, eParaksts, eParaksts Mobile, or Smart-ID). Additionally, identity verification through a passport or ID card is required and is conducted by the notary at the start of the online session. This development reflects a significant step toward modernizing notarial services in Latvia, enhancing accessibility and efficiency while maintaining rigorous identity verification standards.

notarial acts. Despite notaries being fully equipped, most citizens do not possess electronic signatures, which limits the use of electronic notarial acts. A few years ago, the government introduced electronic ID cards containing a chip, which can include the citizen's electronic signature upon request. Unlike some countries (e.g., Belgium), where electronic signatures are automatically integrated into the national eID system, in Hungary this feature was optional and many citizens chose not to activate it.

The Digital Citizenship program offers citizens a mobile application (for phones or tablets) that stores not only personal identification data but also an electronic signature if the user chooses to register and use the app. This application will serve as Hungary's version of the European Digital Identity Wallet, which is expected to be operational across the EU from 2026. The app is steadily gaining users, meaning that more citizens now have access to their digital signatures. The Hungarian Chamber of Notaries is currently working to enable the simplest and most seamless integration of these electronic signatures with electronic notarial acts. Further details will be announced later. These developments could eventually promote the broader adoption of electronic notarial acts in Hungary. At present, Hungarian legislation does not permit the execution of electronic notarial acts that is, notarial acts conducted via video conference without the physical presence of the client. During the pandemic, limited possibilities existed for remote notarial consultations, but the client was still required to sign the notarial act in person and physically[18].

Hungary has made important legal strides by mandating qualified electronic signatures for all notaries, enabling the creation of electronic notarial acts. However, widespread citizen adoption remains a significant barrier. Unlike countries where electronic signatures are automatically embedded in national eID cards, Hungary's optional activation has limited citizen uptake, restricting the practical use of electronic notarial services. While the Digital Citizenship mobile app promises to improve access and aligns with the upcoming European Digital Identity Wallet, its gradual adoption means that most citizens still lack convenient digital signature options. Moreover, the absence of legal provisions for fully remote electronic notarial acts, such as video conferencing without physical presence, highlights a notable gap in Hungary's digital transformation especially in light of the pandemic's restrictions. Although limited remote consultations were permitted, the requirement for in-person signing undermines the convenience and accessibility that digital solutions aim to provide. The Hungarian Chamber of Notaries' efforts to integrate electronic signatures more seamlessly are promising, but without broader legal reforms and increased citizen adoption, Hungary risks lagging behind other countries in embracing fully electronic notarial services.

[18] ANY Security Printing Company. (n.d.). *New electronic identity card in Hungary.* Retrieved October 20, 2025, from *https://www.any.hu/en/products/documents-e-id/*

3.4. Benelux countries' experience

Following the Covid-19 pandemic, the Chambers of Notaries in Belgium and the Netherlands began actively collaborating with representatives of the digital identification application itsme® to integrate digital identification and signatures into notarial acts. The itsme® app already has 7 million users across the Benelux countries and combines four functions within a single application: users can verify their identity, log into systems, confirm transactions and apply digital signatures to documents. Starting in 2024, electronic signatures will carry the same legal weight as handwritten signatures, enabling fully digital execution of notarial acts, including mortgage loans, business formation and powers of attorney. The e-Depot SOA platform allows notaries to electronically sign and prepare documents. Video conferencing tools and electronic identification services compliant with eIDAS standards, such as the itsme® app simplify notaries' workflows and facilitate the secure performance of electronic notarial acts[19].

The collaboration between the Chambers of Notaries in Belgium and the Netherlands with the itsme® digital identification app represents a significant advancement in digitizing notarial services. Leveraging itsme®'s extensive user base and multifunctional capabilities enhances user convenience and streamlines the authentication process. The legal recognition of electronic signatures as equivalent to handwritten ones from 2024 is a major step toward fully electronic notarial acts, facilitating efficiency in transactions like mortgage loans and business formations. However, despite these innovations, challenges remain. Dependence on a single digital identification app, even a widely adopted one, may raise concerns about inclusivity for users without access to or familiarity with the app. Data privacy and security risks linked to centralized digital identity management also require ongoing vigilance. Additionally, while platforms like e-Depot SOA and compliant video conferencing tools improve workflow, their effective adoption depends on notaries' digital literacy and infrastructure readiness. This model offers a promising blueprint for electronic notarial services but must continue to address accessibility, security and user education to ensure broad, equitable adoption.

4. CURRENT SITUATION REGARDING ELECTRONIC SIGNATURES IN GEORGIA AND REGISTRY

Currently, the State Agency for the Development of Public Services provides qualified electronic services. The process for delivering qualified trusted services is fully governed in accordance with various regulatory, industrial and IT standards. The agency is the only institution in the region fully com-

[19] Itsme®. (2025, March 31). *Royal Dutch Association of civil-law notaries and itsme® collaborate for digital ID and e-signatures.*

pliant with the European Union Regulation on Electronic Identification and Trust Services (eIDAS) and the standards developed by the European Telecommunications Standards Institute (ETSI). Under Georgian legislation, a qualified electronic signature has the same legal force as a handwritten signature. To create a qualified electronic signature, a citizen needs an electronic ID (residence or identity card), a universal program for the electronic ID and a reader device. Information on qualified electronic signature certificates recognized in Georgia and the tools for creating electronic signatures is available in the list of trusted service providers in Georgia (the so-called Trusted List of Georgia). According to the Law of Georgia on Electronic Document and Electronic Trusted Services, an electronic document is a collection of textual, audio, visual, or audiovisual information and/or data stored in electronic form. A notarial act, considered as an electronic textual document stored electronically, requires an appropriate signature to be legally valid.

Georgia is taking its first steps in this process, which is why it is important to draw on the experience of other countries. A Georgian notary is legally required to maintain an electronic notarial registry, which records all notarial acts performed. This registry serves as a database containing the personal data of individuals who receive notarial services and consists of both open and closed internal systems.

The open internal system enables notaries to access information related to all entities involved in notarial activities. Each notary can view the notarial acts registered within this system, regardless of who performed them. It includes:

— The registry of inheritance matters;
— The registry of wills;
— Information on enforcement sheets from the general register.

The openness of the inheritance registry ensures that two different notaries cannot issue inheritance certificates of identical content for the same estate. A notary cannot open inheritance proceedings if the testator's will is already held by another notary. Likewise, multiple writs with identical content cannot be issued for the same property or estate.

Access to the closed internal system is restricted exclusively to the notary who recorded the act. This system includes:

— The general registry (all notarial acts except those listed above);
— The registry of objections to promissory notes and checks;
— The registry of money and securities;
— The registry of resolutions.
— Data Accessibility and Confidentiality

A key issue concerns the form and scope in which data stored in the open internal system may be shared with other notaries or public institutions beyond notarial functions, such as the Public Registry.

On the one hand, a notary is bound by professional secrecy; on the other hand, some outcomes of notarial acts are accessible to fellow notaries and

certain individuals connected with the registry. For example, a notary public, a person who authenticated a will, witnesses, or individuals who signed on behalf of the testator are prohibited from disclosing any information about the will's content, preparation, amendment, or revocation before the estate is opened. Nevertheless, such data may be stored electronically and registration in the notarial registry could potentially reveal the existence or content of a will to others.

Article 27 of the Law of Georgia "On Personal Data Protection" defines data security requirements, emphasizing their conditional and precautionary nature. These provisions highlight the obligation to protect data, as well as mechanisms for responding to data breaches and appointing a Data Protection Officer. Under the new law, both data controllers and processors must ensure that all actions related to data are recorded electronically. This includes incidents, data collection, modification, access, disclosure (transfer), linking and deletion. When data is processed in non-electronic form, controllers and processors must still record all actions involving disclosure or alteration, including incidents.

In the context of the notarial registry, this obligation applies both to the systematic maintenance of the registry and to the execution of notarial acts themselves.

When recording a notarial act in the registry, the following data must be included:

— Date and registration number of the notarial act;
— Name, surname, residence and personal identification number of the participant.
— For minors without an ID: name, surname and date of birth.
— For legal entities: name, legal address and identification code (for residents).
— For other organizational formations: name and location.
— The content of the notarial act;
— The notary's fee.

In inheritance proceedings, additional data such as the deceased's name, date of death and identification information must be recorded. When registering the publication of a will, the testamentary decree, identification data of heirs or substitutes, the executor's name and address, the person entrusted with appointing the executor and legatees (if any) must also be included.

Personal data is indispensable in recording any notarial act, yet different standards of notarial responsibility apply to public and private deeds. This raises the question of whether data protection rules should follow the same dual standard.

A breach of professional secrecy or notarial law has distinct legal consequences compared to a violation of data protection obligations. Data breaches may result from the actions of data subjects, their representatives, other notaries, or public officials outside the notarial sphere. However, they may

also arise within the notary's professional responsibility such as when notarial details are disclosed to unauthorized institutions.

This linkage between data protection and notarial activities underscores the need for a uniform standard of data security, applicable to both public and private deeds.

Regardless of the document's nature, the notary must always ensure data protection. However, when the registry's structure prevents applying a single standard to both types of deeds, the notary faces a complex question of compliance.

A notary is not responsible for the content of a private deed or for failing to accurately reflect the signatory's intent. Still, a serious disciplinary violation occurs when a notary breaches professional secrecy, except in cases provided under Disciplinary Statute. A breach that causes serious consequences is treated as a particularly grave disciplinary offense.

Therefore, violations of data security rules by a notary may not always lead to disciplinary liability this reflects the inherent limits of the current legal framework. Finally, all public institutions were required to align their sub-legal and individual acts on data processing with the new Law of Georgia "On Personal Data Protection" by its effective date. The law came fully into force on June 1, 2024.

A notarial act that is not recorded in the notary electronic registry is considered invalid, except in certain exceptional cases expressly provided by law. Each notarial act is assigned a unique identification number and registered after the notary has signed and sealed the document. The entry into the registry is made either by the notary or by an employee of the notarial bureau acting under the notary's authority and bound by a confidentiality obligation, which equally applies to substitute notaries.

Every registered notarial act must be accompanied by an electronic copy of the deed. The Notary Chamber of Georgia oversees the administration and technical supervision of the electronic registry. Under its agreement with the Chamber, all individuals involved in the registry's administration are legally required to maintain the confidentiality of any information accessed during data processing and they bear full responsibility for breaches of notarial secrecy.

In comparative perspective, the Belgian Data Protection Supervisory Authority has ruled that when a notary, acting as a data controller, mistakenly sends personal data to unintended recipients even if they attempt to recall the message this constitutes a data security breach, not merely a technical error in data processing[20].

A notary or substitute notary must obtain authorization from the Notary Chamber of Georgia to access the electronic registry. The Chamber has the

[20] *Data Protection Authority (Belgium). (2024, April 3). Case No. 52.*

authority to issue, suspend, or terminate this authorization when a notary's professional powers are suspended or revoked. It is also responsible for ensuring data security within the registry, providing training for notaries and their staff and approving technical guidelines governing the operation of the system.

In practice, implementation may vary. Depending on the specific circumstances of data processing, the Notary Chamber of Georgia and individual notaries may function as joint controllers, independent data controllers, or data processors, depending on who determines the purpose and legal basis of data processing. Generally, a notary acts as a data controller, but in specific cases such as under an agreement with the National Public Registry Agency the notary may assume the status of data processor, while the public registry acts as the data controller. In such cases, the notary processes personal data strictly within the limits established by the law and the contractual agreement.

When managing the notary register under their own name, a notary independently processes the personal data of individuals, which clearly identifies the notary as a data controller in relation to the register.

Substitute notaries, notaries employed under contracts and notary assistants are considered to be in an employment relationship with the notary and, therefore, are not classified as data processors. Under data protection principles, a data processor cannot simultaneously be an employee of the data controller. These individuals are not independent controllers but play a crucial supporting role in ensuring the continuity of notarial services, forming part of the internal structure of the notarial bureau. Thus, the notary remains the primary responsible entity within their office.

In comparison, the Polish Data Protection Supervisory Authority has clarified that a notary may act as a data processor only when a specific Article 28 GDPR agreement has been signed with the data controller.

Under the new Law of Georgia "On Personal Data Protection," the Notary Chamber of Georgia, as a public institution, is required to appoint a Data Protection Officer (DPO). According to Article 27(a) of the General Administrative Code of Georgia, an administrative body includes any public institution or private legal entity funded by state or municipal resources. Thus, the Notary Chamber of Georgia, as a legal entity under public law, clearly qualifies as such a body and must appoint a DPO.

A notary, however, though exercising public authority, is not considered a public institution in a formal sense. The obligation to appoint a DPO arises when a controller or processor handles large-scale data processing or systematically monitors individuals. This obligation does not apply to entities processing data of fewer than 3 por cien of the population of Georgia, based on the latest census. As individual notaries are unlikely to reach this threshold, they are currently not required to appoint DPOs. Nonetheless, future legislative changes or shifts in quantitative criteria may introduce this obligation.

From a data security perspective, every data controller must implement appropriate technical and organizational measures to ensure lawful and secure processing and to demonstrate compliance. Therefore, while notaries are not yet individually required to designate DPOs, oversight and general data protection functions can be managed centrally within the Notary Chamber of Georgia.

The following entities are involved in maintaining and managing the notary electronic registry:

— The Notary Chamber of Georgia;
— Individuals contracted by the Chamber for technical management;
— The Chamber's Data Protection Officer;
— Notaries and substitute notaries;
— Notaries employed under contract;
— Notary assistants.

The status, responsibilities and obligations of each must be defined in accordance with the Law of Georgia "On Personal Data Protection", including who qualifies as a data controller, processor, or joint controller.

In Spain, the Data Protection Supervisory Authority found that a notary violated the obligation to inform a client about the purpose of data processing and security measures during a notarial act. The notary's claim that notarial law imposed no such duty was rejected the authority clarified that information transparency must always be ensured, regardless of sector-specific regulations[21].

Similarly, in Italy, the Data Protection Authority ruled that the provider of an electronic notary registry (as the data controller) was liable for unauthorized data processing involving information about individuals' credit obligations. This breach occurred because data was accessed and processed without proper authorization, underscoring that ultimate liability lies with the controller[22].

Every employee involved in data processing whether belonging to a controller or processor is required to operate strictly within the scope of their authority and to preserve data confidentiality, even after their employment ends. Both controllers and processors must define access rights for staff, prevent unauthorized data use and ensure employees are adequately trained in data protection practices.

Technical guidelines may further define individual obligations and authorities within registry management. Although notaries perform public functions independently, the data generated through their activities and citizens' personal information are stored in the central electronic registry. Therefore, even if an individual notary fully complies with data protection rules, this alone cannot guarantee complete data security.

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[21] Data Protection Authority (Spain). (2020, October 23). *Case No. PS/00044.*
[22] Data Protection Authority (Italy). (2024, January 11). *Case No. 9993548.*

The controller and processor must implement organizational and technical safeguards to protect data from loss, unauthorized access, alteration, disclosure, or destruction. To ensure the integrity of the notary electronic registry, its management and functions must be systematically organized and periodically reviewed.

When determining adequate protection measures, controllers and processors must consider the nature, volume and purpose of data processing, as well as potential risks to data subjects. They are also required to periodically evaluate the effectiveness of implemented measures and update them as necessary.

In Belgium, the Data Protection Supervisory Authority concluded that personal data processed in the course of notarial activities may not be transferred to another public authority (such as a registering institution) unless such transfer is explicitly authorized by the data subject. Otherwise, both legal and ethical violations occur[23].

Despite its electronic structure, the current Georgian notary registry does not yet incorporate modern technological capabilities such as automated decision-making or profiling. The system still requires the active participation of a notary in drafting notarial deeds. For this reason, it is vital to enhance automation functions within the electronic registry to strengthen the legality, efficiency and security of data processing in the notarial system[24].

5. DIGITAL INNOVATIONS AND AI IN NOTARIAL PRACTICE

Despite advancing technologies, the role of the notary will not become obsolete or replaceable by technology in the foreseeable future. However, intelligent digital tools could soon be implemented to enhance, streamline and improve notarial work, as well as the functioning of the rule of law. While notaries, lawyers and judges are unlikely to be replaced by AI in the short or medium term, certain aspects of their work can be improved through the use of advanced technology. Digitalization can help relieve notaries and their staff from repetitive, time-consuming and error-prone tasks, but it cannot replace the need for qualified, legal expertise and personalized services. Therefore, fears about the digitalization of law seem exaggerated, but dismissing the potential of digital tools is equally misguided. For the foreseeable future, computers will continue to perform tasks that we assign to them. Consequently, notaries and the rule of law should focus on managing AI effectively rather than fearing it. The true obstacle to the sensible use of AI is not the technology itself, but human errors and mismanagement[25].

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[23] Data Protection Authority (Belgium). (2024, April 3). *Case No. 52*. Data Protection Authority (Belgium). (2021, April 8). *Case No. 48*.

[24] Shengelia, E., & Leonidze, I. (2024). Notary electronic registry and data security. *Journal of Personal Data Protection Law, 1*, 33–34.

[25] Jeep, J. (2019). Notary disrupted – Legal tech und der Rechtsstaat: Chancen und Risiken der KI für den Rechtsstaat im Allgemeinen und den Notarberuf im Besonderen. *Legal Tech, Aufsätze*, 837.

We should distinguish between two cases: when a notary uses AI for personal purposes, either at work or outside of it and when a notary uses AI in the performance of professional duties. This distinction is important because personal use of AI by a notary generally does not raise significant concerns for the Notaries' Chamber. In contrast, professional use of AI presents more serious issues, such as when AI is employed to calculate notary fees for citizens or for other tasks directly affecting clients and notarial services.

The adoption of digital technologies and artificial intelligence (AI) in notarial practice offers significant opportunities to improve efficiency, transparency and accessibility for both notaries and service recipients. One key innovation is the use of chatbots embedded within the official websites of notarial chambers. These systems can be programmed to respond to frequently asked questions, providing citizens with immediate, verified information. The primary purpose of such chatbots is to reduce repetitive inquiries, allowing notaries to focus on their core responsibilities. Importantly, chatbots are informational tools and do not perform notarial acts or replace professional legal consultation. For example, in 2018, the Belgian Chamber of Notaries introduced a chatbot to guide future spouses on prenuptial agreements, providing instant information while ensuring the notary remains the authoritative source for legal decisions.

Applications for Information Classification and Legislative Updates play a critical role in modern notarial practice. Digital dashboards and automated systems allow notaries to track legislative changes in real time, identify affected legal documents and update notarial acts accordingly. While AI can assist in analyzing documents, detecting risks and checking compliance, all information provided must be verified by the notary. Similarly, information comparison applications support notaries in verifying data across multiple sources, such as business registries or multilingual documents, ensuring accuracy and reliability while mitigating risks related to personal data processing. Examples include notary search systems in Latvia, Estonia, Lithuania and Georgia.

AI-Assisted Archival Data Analysis further enhances efficiency by facilitating the organization, retrieval and verification of historical notarial records. These tools help maintain continuity of service, even if a notary's authority is suspended or transferred and improve indexing and classification of sensitive personal data. Semantic Search Engines (SSEs) and other AI tools enable fast retrieval of documents and clauses based on context, not just keywords, while ensuring AI outputs are treated as supportive rather than definitive.

Facial Recognition and Real-Time Verification Technologies are increasingly relevant for remote notarial acts, allowing for electronic identification and fraud prevention. These systems can detect identity impersonation, including cases of biological twins or disguises, though notaries must still apply additional verification measures. Similarly, suspicious transaction detection applications allow notaries to identify unusual patterns in property transfers

or financial operations, although excessive reliance on AI may carry risks of bias or misclassification.

Blockchain Technology represents one of the most promising innovations for notarial services. By providing immutable records, secure data transmission and enhanced protection against forgery, blockchain can improve transparency and efficiency in document management and may partially replace traditional registries in the future[26]. The National Agency of Public Registry in Georgia, for example, has explored blockchain for document searches.

Personal Data Protection remains a central concern in all digital innovations. Notarial service recipients, as data subjects, have rights to access, correct, delete, restrict, transfer and lodge complaints regarding their data. The rapid integration of new technologies increases the need for notaries to remain informed about international standards and recommendations. In 2024, the European Data Protection Board (EDPB) issued guidance on AI and personal data, emphasizing harmonized data protection, transparency and risk mitigation[27]. Key considerations include the nature of the relationship between the data subject and data controller, the source of data and the user's expectations regarding their data. In 2025, the EDPB released guidance on blockchain-based data processing, stressing secure data handling, technical and organizational safeguards and compliance with core principles, including the necessity of a Data Protection Impact Assessment (DPIA) for high-risk processing[28].

Digital tools, AI and blockchain technologies offer transformative potential for notarial services, enhancing efficiency, accessibility and reliability. These innovations must be integrated thoughtfully, with robust legal frameworks, data protection safeguards and clear limits on the role of technology in decision-making, ensuring that notaries remain the primary and accountable providers of legal acts and services[29].

On one hand, there is a real risk of compromising the core professional principles of notaries. On the other hand, artificial intelligence (AI) has the potential to enhance these fundamental values. AI can improve the quality of notarial services and make them more accessible. In fact, as AI reinforces the professional values of notaries, its use may soon become essential, rather than optional, in notarial practice. This would align with the broader digital transformation of public services. Therefore, raising awareness about AI among notaries is critical.

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[26] Comp. International Bar Association, & Center for AI and Digital Policy. (2024, September). *The future is now: Artificial intelligence and the legal profession* (pp. 12–13).

[27] European Data Protection Board. (2024). *EDPB opinion on AI models: GDPR principles support responsible AI. https://edpb.europa.eu*

[28] European Data Protection Board. (2025). *Certification, blockchain and AI: EDPB adopts new documents at its latest plenary session.*

[29] See: Jackowski, M., & Araszkiewicz, M. (Eds.). (2024). *First global report on the state of artificial intelligence in legal practice* (p. 123); Aksharha, G. J., Shruthi, I., & Rubikka, S. (2024). Artificial intelligence and the legal profession. *International Journal of Legal Science and Innovation, 6*(4), 546.

To implement AI effectively, the Notaries' Chamber should take a leading role. It can develop practical guidelines and recommendations and initiate actions to implement AI systems. Additionally, the Chamber should propose legislative amendments that reflect modern innovations and mitigate the risks associated with AI. Collaboration with AI system providers will also be crucial to ensure the smooth application of relevant technologies. The integration of digital technologies, particularly AI, demands high standards for data security. Notaries handle large amounts of sensitive information, so secure IT infrastructure, data encryption and adherence to established standards are paramount.

When adopting AI, it is essential to thoroughly evaluate its technical characteristics, including how the system is structured and how it ensures the integrity of the data it processes. It is not enough to confirm that a technology is legally permissible an in-depth review of its technical specifications is necessary.

AI systems are vulnerable to cyberattacks, which could lead to malfunctions or inaccurate, misleading outcomes. Notaries lack the ability to independently ensure the proper functioning of AI software. Therefore, the Notaries' Chamber should actively engage in the development of the notarial registry and collaborate with AI providers, the Ministry of Justice of Georgia, the National Agency for Service Development, the Digital Governance Agency and other relevant institutions.

The Notaries' Chamber's role primarily involves improving the notarial registry, but it also includes working with other authorities to develop shared digital services and databases. Cybersecurity must be addressed at every stage of this process. Notaries should avoid using applications whose origin is unknown. If they must use such applications, they must carefully assess the type of data entered, ensuring that confidential information is not shared inappropriately—especially in applications like machine translation tools, where protecting sensitive data is a professional obligation[30].

Notaries and the Notaries' Chamber must ensure that artificial intelligence (AI) is integrated into notarial practice in compliance with core legal and ethical standards. AI applications should be designed to avoid discriminatory outcomes and meet all relevant legal requirements for data processing. Personal data should only be used for its original purpose and clients must be informed whenever AI processes their data.

During AI system development, anonymized data should be prioritized, especially for algorithm testing and clear policies should be in place for the secure storage and management of personal data. Notaries are responsible for ensuring the accuracy of information provided to AI systems to guarantee

[30] Walree, T. F., Reijneveld, M. D., Wolters, P. T. J., & Roes, J. S. L. A. W. B. (2023). *AI in the notarial profession: An exploration of the opportunities, risks, and legal conditions of the development and use of AI in the notarial profession* (External research report).

correct outcomes. They must also inform clients about their rights and the safeguards in place when their data is processed.

While AI can support decision-making, notaries should not rely solely on AI outputs and must retain full control over notarial acts. Notaries must understand how AI systems function and any actions taken with AI assistance must be properly documented, with decisions clearly justified. Additionally, notaries and the Notaries' Chamber should be ready for future legal changes related to AI and ensure compliance with national and international laws. Throughout this process, AI must not compromise the key professional principles of notarial independence, impartiality and diligence.

6. CONCLUSION

The integration of digital technologies, artificial intelligence and blockchain into notarial practice heralds a transformative era for the profession. These innovations promise greater efficiency, transparency and accessibility, enabling notaries to streamline routine processes, improve data accuracy and provide more responsive services to citizens. Yet, the adoption of such technologies must be carefully calibrated: legal certainty, data protection and professional accountability remain paramount. Technology should serve as an empowering tool rather than a substitute for the notary's expertise and judgment.

By embracing innovative systems while upholding ethical standards and regulatory compliance, notaries can create a resilient, future-ready framework for digital services—one that balances operational efficiency with trust, security and the protection of citizens' rights. It is obvious that we already live in a new reality where AI plays a huge role in people's lives. That is why notaries should not shy away from this development and should be at the forefront of the concept before it becomes a problem for us.

The first main step toward using AI in the notary system is improving the notary registry and making these databases more compatible with AI tools. This will help notaries become familiar with these tools and ensure a safer way of using them. This means that we should begin considering not just paper-based services, but also electronic ones. Digital notary acts represent the future of Latin-based notary systems. AI and digital notary acts must ensure the safety and reliability of notary services.

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The drafting of procedural legal documents between conciseness and gai tools

Matilde Vita*
PhD Candidate at the University of Genoa

ABSTRACT: AI forces a reconsideration of how the Italian principles of clarity and conciseness should be interpreted in legal drafting. If algorithms can synthesise complex reasoning, the traditional linear structure of procedural documents may lose relevance, opening the way to thematic layouts, interconnected points, or dynamic formats inspired by the French model.

KEYWORDS: legal drafting; clarity and conciseness; GAI tools.

SUMMARY: 1. THE PRINCIPLE OF CONCISENESS IN THE CARTABIA REFORM.— 2. CONCISENESS AND SIZE LIMITS OF PROCEDURAL DOCUMENTS.— 3. CONCISENESS AND GENERATIVE AI.— 4. BEYOND CONCISENESS: RETHINKING THE STRUCTURE OF PROCEDURAL DOCUMENTS IN THE GENERATIVE AI ERA, INFORMED BY THE FRENCH EXPERIENCE.— BIBLIOGRAPHY

1. THE PRINCIPLE OF CONCISENESS IN THE CARTABIA REFORM

The Italian Legislative Decree No. 149 of 10 October 2022 implemented the principle of conciseness and clarity of procedural documents in civil proceedings, incorporating an approach that had previously emerged from doctrinal[1]

* PhD Candidate in Civil procedural law at the University of Genoa. ORCID: 0009-0002-4005-4751.

[1] More precisely, the Cartabia reform does not create these principles *ex novo*, but rather affirms their full operability within civil proceedings as well. As emphasised in doctrine, the need for conciseness arose as a result of the increasing regulatory and technical ease with which excessively long judicial documents could be produced, due, on the one hand, to the obligation of procedural self-sufficiency, which encouraged the full transcription of deeds and documents, and, on the other hand, to IT tools, which made it possible to reproduce case law and defence texts immediately. For further information, Biavati (2017).

and jurisprudential considerations[2]. Drawing inspiration from the rules governing administrative proceedings, where this principle had already been expressly codified[3], the legislator thus marked, at least in part, a reversal of the traditional paradigm according to which civil proceedings constitute the general model of reference against which the rules governing other proceedings are developed[4].

As is well known, the principle of conciseness and clarity has been codified in Art. 121 Civil Procedure Code, whose heading — originally *"Libertà di forme"* (Freedom of form) — has now been changed to *"Libertà di forme. Chiarezza e sinteticità degli atti"* (Freedom of form. Clarity and conciseness of documents). The regulatory choice in favour of an express provision of formal requirements for procedural acts has raised some concerns, as it potentially conflicts with the principle of achieving the purpose, which guarantees the validity of the act that fulfils its function regardless of its form[5].

The contradiction with the principle of freedom of form is even more evident when examining the provisions of Art. 46 implementing provisions of Civil Procedure Code (also affected by the reform), which delegates the adoption of IT formats and editorial limits for procedural documents to Ministerial Decree 110/2023; a provision that is likely to conflict with the principle set out in Art. 121 Civil Procedure Code insofar as it introduces formal and dimensional constraints that are potentially capable of limiting the effective articulation of defences. Although the principle of conciseness and clarity of documents was introduced with reference to both party documents and judicial measures, this reflection will examine only its application to party documents, where the practical implications are most relevant. To this end, it should be noted that the concepts of conciseness and clarity, although frequently considered as a pair, refer to different meanings, so that—in the absence of an express regulatory definition that reduces their semantic indeterminacy[6]—they must be analysed individually[7].

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[2] The case law of legitimacy stands out, which, having affirmed the principle of conciseness and clarity with reference to the parties' documents for the purposes of the admissibility of the appeal to the Court of Cassation, then extended its scope, elevating it to a general principle. Luongo (2021).

[3] Art. 3, par. 2, Administrative Procedure Code establishes the principle of clarity and conciseness in procedural documents, stipulating that the judge and the parties shall draft documents in a clear and concise manner, in accordance with the provisions of the implementing rules.

[4] The Court of Cassation stated that the principle of conciseness of procedural acts, introduced into procedural law by Art. 3, par. 2, Administrative Procedure Code, expresses a general principle of procedural law, which is also intended to apply in civil proceedings, in that it serves to guarantee, on the one hand, the principle of reasonable duration of proceedings, constitutionalised by the amendment to Art. 111 of the Constitution, and, on the other hand, the principle of loyal cooperation between the parties to the proceedings and between them and the judge (Court of Cassation, 20 October 2016, n. 2129).

[5] Critical observations in this regard can be found in Gamba (2023).

[6] It should be noted that the absence of defined boundaries, which characterises the concepts of clarity and conciseness, makes it difficult to give them effective prescriptive content without running the risk of overly discretionary regulatory formulations. Noceto (2024). On this subject, the reflections of Michele Taruffo, prior to the Cartabia reform, are noteworthy. According to Taruffo, the principle of conciseness is vague and lacks defined criteria, so much so that the only way to evaluate it is through questionable quantitative measures. The same applies to clarity, as there are no objective parameters for determining whether a text is clear or not. For further information, Taruffo (2017).

[7] Among those who highlight the distinction between the two concepts, Luongo (2021).

The concept of "conciseness", at first glance, seems to refer to a purely quantitative aspect of the act, implying that the text should not be verbose or redundant. However, such a description risks being reductive and misleading, if not counterproductive. Indeed, if conciseness were to be reduced to a mere quantitative parameter, this would risk compromising not only the clarity of the act, but also the effectiveness of judicial protection[8]. Therefore, as reiterated in doctrine[9] and case law[10], conciseness should be understood as a notion that depends, on the one hand, on the plurality and complexity of the issues to be addressed and, on the other, on the scope of the procedural submission. In other words, conciseness cannot be reduced to a merely quantitative, rigid, or absolute parameter; rather, it must be contextualised in light of several factors, including the degree of specificity that procedural acts are required to exhibit within the relevant regulatory framework[11].

The term "clarity", on the other hand, refers to the qualitative dimension of the text and, more precisely, to its comprehensibility. This requirement relates to the logical structure of the discourse, the orderly use of regulatory references, and the use of technical language, such as legal language, that is understandable. Intelligibility therefore presupposes skilful use of the drafting techniques of the act[12].

The distinction between the two concepts, which allows us to understand the correct meaning of conciseness, can be easily grasped through the following observation: a concise text is not, in itself, necessarily clear and, conversely, a clear act is not, for that reason alone, necessarily concise. In light of this, it is preferable to conceive of conciseness in its relational dimension, i.e. as the result of a balance between the need for completeness and the need for restraint. More precisely, in order to draft a document that is both clear and concise, it is advisable to use simple and straightforward language, avoiding long sentences full of subordinate clauses and favouring concise and effective phrases, without, however, sacrificing the completeness of the defence arguments. With a view to reducing redundant exposition, it is therefore advisable to make moderate use of doctrinal or jurisprudential citations,

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[8] Given that the conciseness of procedural documents increases their persuasive effectiveness vis-à-vis the judge and makes the arguments clearer and more transparent, also to the benefit of the other party, a concise document facilitates the management of the proceedings, ensuring their reasonable duration, pursuant to Art. 111 of the Italian Constitution. In this sense, conciseness is an essential criterion for protecting the fundamental right of defence, ensuring the effectiveness of judicial protection. Pellegrinelli (2018).

[9] De Giorgis (2023).

[10] According to the Council of State, the essence of conciseness, as prescribed by the code of procedure, does not lie in the number of pages or lines on each page, but in the proportion between the multiplicity and complexity of the issues debated and the length of the document that conveys them (Council of State, 12 June 2015, n. 2900).

[11] Consider, by way of example, Art. 167 Civil Procedure Code; Art. 281-undecies, par. 3, Civil Procedure Code; Art. 342 Civil Procedure Code; Art. 378 Civil Procedure Code; Art. 416, par. 3, Civil Procedure Code.

[12] Consider, for example, the drafting of an index, the division of the text into paragraphs (and sub-paragraphs) and the use of sequential numbering; these are already established editorial practices for many solicitors.

limiting oneself—where possible—to indicating the details of the judgments and refraining from the extensive use of "copy and paste"[13].

Although these observations may seem obvious (if not trivial), they are in fact necessary given the trend, observed in recent decades, towards a gradual increase in the length of court proceedings. This phenomenon has been facilitated by several factors, including, for example: the use of IT tools[14]; the introduction of a unified contribution[15]; the principle of non-contestation[16]; the principle of self-sufficiency[17].

In view of the tangible increase in the size of procedural documents, there is a clear need to bring their length within reasonable limits, avoiding superfluous arguments, in order to ensure that proceedings are conducted in a more orderly and efficient manner, in accordance with the principles of procedural economy. In light of the context in which the principle of conciseness and clarity has been codified, it becomes necessary to assess its actual impact on the reasonable duration of proceedings. In this regard, one must consider a significant issue frequently encountered in practice: it is not uncommon for the judge to conduct the hearing without having had the opportunity to read the documents filed, thereby asking counsel to (re)explain what has already been set out in writing[18]. Although this is merely a factual observation with no immediate regulatory significance, the phenomenon is nonetheless important when examining the practical application of the principle of conciseness and clarity in the drafting of procedural documents. This notuncommon dynamic, it is clear, risks not only diminishing the attention devoted by lawyers to complying with the standards of conciseness and clarity in the drafting of submissions, but also undermining the necessary cooperation between the judge and the parties[19].

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[13] For further information on the evolution of legal writing in the context of progressive digitisation, see Zucconi Galli Fonseca (2015).

[14] The advent of electronic civil proceedings has led to a significant increase in the length of procedural documents, as the spread of word processing technology has made it extremely easy to reproduce texts and insert long quotations (from case law, legal doctrine or legislation). The use of computers, characterised by the absence of the material constraints typical of paper, has also contributed to less attention being paid to the synthesis and selection of relevant information. For further information, see Zucconi Galli Fonseca (2015). On the link between legal language and the material support used, see also the reflections of Comoglio (2015).

[15] The reform of the taxation system, which replaced the stamp duty every four pages with a fixed unified contribution, also had an impact on the excessive length of procedural documents, encouraging their length, as it was no longer conditioned by economic limits proportionate to the number of pages. Among the many contributions that highlight this aspect, Pellegrinelli (2018).

[16] The principle of non-contestation, enshrined in Art. 115 Civil Procedure Code, as amended by Law No. 69 of 18 June 2009, leads defence lawyers to take a position on every single argument put forward by the opposing parties, often out of concern not to overlook any defence argument, even if only potentially relevant. Pellegrinelli (2018).

[17] The principle of self-sufficiency of appeals, developed through case law, has had a significant impact on the scope of procedural acts, since its violation renders the appeal inadmissible. On this point, see Luongo (2021).

[18] If not, indeed, to reiterate from time to time what has already been said at previous hearings.

[19] This is intended to emphasise that the impossibility for the judge to study the parties' documents and, therefore, to conduct the hearing with due accuracy, due to the excessive number of pending

While, on the one hand, the need to limit the length of pleadings is understandable, aimed as it is at avoiding superfluous or redundant arguments and at facilitating the judge's work; on the other hand, it should not be overlooked that the judge possesses the requisite skills to discern the relevance of the arguments advanced, and is able to calibrate the degree of attention devoted to each part of the submission, also in light of the complexity of the issues addressed[20].

Another important factor is the now widely recognised fact that the format in which documents are accessed, whether paper or digital, is by no means neutral. On the contrary, it has a significant impact on reading habits, encouraging faster but generally less thorough reading in the case of electronic consultation of digital documents[21]. This consideration, together with others, raises doubts about the effective guarantee of implementation of the reasonable duration of proceedings by the codified principle. In addition, in the face of particularly complex issues—but above all because of the stringent provisions laid down by the Italian Code of Civil Procedure itself—it is inevitable that the procedural document will be drafted accordingly, not to mention the fact that the complexity inherent in containing the defence arguments may also derive from the attitude of the opposing party. These observations clearly highlight the need to understand conciseness as a concept of proportion between the plurality and complexity of the issues to be dealt with, on the one hand, and the length of the document, on the other[22].

In light of the considerations outlined above, it is clear that in a context characterised by restrictions and burdens[23]—where oral proceedings have given way to written proceedings and unified contributions have replaced revenue stamps—the principle of conciseness and clarity in procedural documents cannot be considered a solution to the problem of the length of proceedings: on the one hand, it might be appropriate to rethink the rules of procedure in order to restore a balance that allows lawyers to draft more concise documents without incurring preclusion or inadmissibility; on the other hand, the judge should be able to examine the procedural documents in such a way as to

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proceedings, compromises the effective exercise of the powers necessary for the prompt and proper conduct of the proceedings, as referred to in Art. 175 Civil Procedure Code. For further information, see Caponi (2016).

[20] According to the Court of Cassation, the excessive abundance of evidence presented by the parties not only burdens the administration of justice and the opposing parties with unnecessary burdens, but, far from clarifying the issues to be decided, envelops them in a veil that obscures their contours and prevents their clear understanding, ultimately resulting in an impediment to the full and fruitful conduct of the adversarial proceedings (Court of Cassation, 20 October 2016, n. 2129).

[21] For further psychological insights into this now well-established phenomenon, see Nardi (2022). This leads to the need to adapt writing styles to digital reading, including in the legal field. For further considerations on this topic, see Rosenberg (2023).

[22] De Giorgis (2023).

[23] Reference is made to the obligations, on the one hand, to specifically contest the opposing party's allegations and, on the other, to censure all the *rationes decidendi*, in order to avoid the inadmissibility of the appeal, to which is added the principle of self-sufficiency of the appeal to the Court of Cassation, as highlighted by De Giorgis (2023).

allow lawyers to simply cite previous documents, without having to reproduce them in full[24].

2. CONCISENESS AND SIZE LIMITS OF PROCEDURAL DOCUMENTS

The amended Art. 46 implementing provisions of Civil Procedure Code was implemented by Ministerial Decree 110/2023, which introduced size limits and technical specifications for the drafting of clear and concise documents. The intervention, both from the formal point of view of the source of law and from the substantive point of view of the regulatory provisions, has raised many concerns in legal doctrine[25].

With regard to the first aspect, there has been criticism of the decision to adopt these measures by means of a ministerial decree, rather than through an act having the force of law, the constitutionality of which has been called into question[26].

From a content perspective, the introduction of size limits (i.e. numerical and quantitative)—in addition to conflicting with the principle of freedom of form referred to in Art. 121 Civil Procedure Code[27]—risks disregarding the central importance of the quality of procedural documents. In this regard, the risk inherent in reducing the principle of conciseness of documents to mere brevity of content has been pointed out on several occasions, since, by interpreting conciseness as a formal quantitative factor, there is a risk of limiting the scope of defence arguments to the detriment of their qualitative dimension[28].

As highlighted above, it should be borne in mind that these new provisions are part of a civil procedure which, following a series of reforms, has moved away from oral proceedings in favour of written proceedings[29] and the direct consequence of this approach, which has become established over the years, is an inexorable increase in the size of documents[30]. More specifically, the

[24] And, undoubtedly, to facilitate this type of operation, it would be necessary to address the underlying problem by filling staffing shortages, so that the judicial workload can be more evenly distributed among the judicial bodies.

[25] By way of example, Pagni (2023).

[26] Gamba (2023).

[27] On this point, legal scholars have criticised the choice made by the delegated legislator, noting an excess of delegation: while the enabling law reaffirmed the principle of freedom of form, subjecting it to the clarity and conciseness of procedural documents; the delegated legislator, on the other hand, introduced more restrictive rules, delegating to a ministerial decree the determination of the size limits of the documents, based on general criteria relating to the type, value and complexity of the case, as well as the nature of the interests and the number of parties involved. Gamba (2023).

[28] In particular, the decision to give predominant importance to the value of the cause is questionable, as it indicates adherence to a quantitative—rather than qualitative—conception of conciseness. Giabardo (2024).

[29] For further information on this topic, Caponi (2024), Pagni (2024) and Punzi (2024).

[30] Emblematic in this sense is the introduction of written hearings (*udienze a trattazione scritta*), which, replacing traditional in-person hearings, exclude any form of direct dialogue between the parties to the proceedings. For critical observations on the so-called *udienza cartolare*, see Scarselli (2020).

replacement of oral arguments with the filing of written documents, together with the codification of the principle of non-contestation in Art. 115 Civil Procedure Code, has inevitably required lawyers to formulate their written defences using arguments that are as comprehensive and precise as possible[31].

With regard to the content of the new provisions, there has also been extensive discussion in legal doctrine about the consequences of non-compliance with the measures established by the implementing decree, as the legislator has provided that violation of the drafting limits does not affect the validity of the act[32]. In particular, par. 5 of Art. 46 implementing provisions of Civil Procedure Code gives the judge the power (but not the obligation) to consider non-compliance with technical specifications and drafting criteria solely for the purposes of costs; it follows that, in the absence of a real sanction (except in economic terms), the binding effect of the new provisions is considerably weakened. In other words, the lack of consequences in terms of the admissibility or validity of the document ultimately compromises the real binding force of the drafting limits, reducing them to mere recommendations, lacking in incisiveness. It should also be noted that the limits currently in place are, in any case, particularly broad, which raises questions about the actual usefulness—if not the actual necessity—of these regulatory provisions. In addition, even when complied with, the size limits refer only to the parties' submissions, limited to the factual and legal grounds (not including other elements, such as the heading), but may be disregarded if there are adequate reasons for doing so[33].

These theoretical and practical misgivings help to explain why the first decision applying the new regime was awaited with particular interest. The Court of Cassation's initial pronouncements confirm the doctrinal diagnosis in concrete terms: exceeding the dimensional thresholds set by Ministerial Decree 110/2023, although constituting a breach of the principles of clarity and conciseness, does not affect the admissibility or intrinsic validity of the act; the sole, foreseeable consequence is an adverse modulation of costs under Art.

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[31] Panzarola (2018) observes that, in requiring lawyers to meet high standards of conciseness in the drafting of procedural submissions, one must take into account the concrete conditions under which defensive activity is carried out, particularly the tight time constraints within which it is often performed, structurally different from those available to the judge in the decisionmaking phase. Conciseness, therefore, cannot be understood as an autonomous or merely stylistic burden, nor may it result in an aggravation of defence obligations not envisaged by the Italian Code of Civil Procedure; rather, it must be framed, within the limits set by the legislature, as a criterion functional to the effectiveness of the adversarial process and to the reasonable duration of proceedings, without encroaching upon the essential core of the right of defence protected by Art. 24 Cost.

[32] See, e.g., Montanari (2024), according to which the violation of the canons of clarity and conciseness does not, as a rule, affect the validity of the procedural act, since these canons operate as drafting criteria rather than as essential requirements of the act itself. The resulting sanction is therefore external to validity and operates primarily at the level of cost allocation.

[33] Michele Taruffo had already pointed out, on the one hand, the arbitrariness inherent in the application of quantitative limits to procedural acts and, on the other, the vagueness of the relevant derogation regime. With regard to this second aspect, he emphasises that the vagueness stems from the fact that the cases in which exceeding the size limits is permitted are not only based on discretionary assessments but are also contained in merely illustrative lists. Taruffo (2017).

46, par. 6, implementing provisions of Civil Procedure Code, to be deployed where the prolixity demonstrably imposes an unnecessary burden. In the case at hand the Court found a manifest noncompliance—a petition of some 120 pages and roughly 200,000 characters submitted without any justification for derogation—and, in light of the petition's manifest uselessness and the breach of the duty of loyal cooperation, ordered costs at the maximum parameters. That outcome thus confirms two points: first, the essentially economic character of the sanction envisaged by the implementing decree; second, the high degree of judicial discretion that will govern its application[34].

The legal and policy implications are clear: as matters stand, the new drafting limits perform primarily a symbolic and standardising function rather than a coercive one; they signal a legislative preference for brevity and machinereadability (especially in a telematic environment) but rely on costbased incentives and judicial prudence for enforcement. If the legislature's objective is to secure more uniform compliance and to reduce the transactional costs of litigation, two complementary responses appear necessary. On the one hand, courts should develop and publish clearer, doctrinebased criteria for assessing when length translates into prejudicial prolixity; criteria that specify the evidentiary showing required, the metrics to be used, and the circumstances in which cost modulation is appropriate. On the other hand, procedural standardisation, including the templates and fieldstructured formats introduced by Ministerial Decree 110/2023, and technological aids (for example, tools that flag excessive length or identify redundant passages) can reduce discretionary variance and assist practitioners in conforming to the new expectations. Until such doctrinal and operational clarifications emerge, however, the first application of Art. 46 implementing provisions of Civil Procedure Code confirms that the reform's immediate effect will be to reframe professional incentives rather than to impose a rigid formal barrier to access to the courts[35].

In light of this brief examination of the reform and its implementing regulations, it can be concluded that—without prejudice to the need to understand the principle of conciseness as a concept of relationship and proportion—*in medio stat virtus*. When faced with a complex issue that requires skilful use of defensive arguments, conciseness could be inversely proportional to the clarity of the act. In this sense, it is indeed essential to ensure a balance between the complexity of the issue and the conciseness of the document in which it is represented, but it is equally true that the requirements of conciseness and clarity in the drafting of procedural documents are nothing more than an expression of common sense[36]. While understanding, therefore, the need

[34] Court of Cassation, ord., 14 January 2026, n. 802.

[35] The sanction provided for in Art. 46 implementing provisions of Civil Procedure Code for violating the dimensional limits of submissions does not entail invalidity, but may affect the allocation of costs; this framework confirms the legislative choice not to link conciseness to a regime of invalidity, but rather to a mechanism of economic accountability for the parties. Montanari (2024).

[36] In this sense, Taruffo highlights the fact that this is a true emphasis on banality (*"enfatizzazione della banalità"*), because the idea that writing and speaking should privilege clarity and conciseness

to keep the size of documents within reasonable limits [37], the introduction of purely quantitative limits does not appear to be the most appropriate means of achieving this objective [38].

3. CONCISENESS AND GENERATIVE AI

Having outlined the regulatory framework and examined the scope of the principle of conciseness, it is appropriate to consider its relationship with generative AI tools (the so-called GAI tools), in order to assess whether such technologies may serve as a viable means of ensuring its effective implementation in accordance with the parameters set out in Ministerial Decree 110/2023.

It must be acknowledged that, given the relentless pace of technological innovation, any reflections offered here are destined to become rapidly outdated. Likewise, many of the critical remarks concerning the limitations or shortcomings of current systems are likely to be overtaken by the emergence of increasingly sophisticated and, consequently, more reliable software. Yet, even with the awareness that future developments will be marked by a continual refinement of outputs, AI-based technologies nonetheless present themselves as instruments capable of offering valuable avenues for reflection [39].

Starting from these premises, the aim is to examine the use of generative AI tools by lawyers, with particular regard to the practical and functional implications arising from the adoption of technological solutions specifically designed for the legal field [40]. In this regard, it should be noted that generative AI systems developed specifically for the legal sector are already available on the market. Sector-specific specialisation therefore significantly mitigates the degree of uncertainty typical of generalist models used by the general public, as it is more closely aligned with the language and logic of legal discourse. The implementation of the functionalities of these systems—such

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over prolixity and obscurity is a commonplace principle found throughout rhetorical theory ("*che nello scrivere e nel parlare sia meglio essere sintetici e chiari piuttosto che essere prolissi ed oscuri è una regoletta di senso comune presente in tutti i discorsi sulla retorica*"). Taruffo (2017), p. 454.

[37] Since it is undeniable that the use of computers, which allows for easy copying and pasting of other documents or records, has a considerable impact on the size of the content of court documents.

[38] They could prove to be more effective than legal writing workshops aimed at students enrolled in law degree programmes, given the validity of Legal Writing programmes (as well as Legal Clinics) in the United States, as highlighted by Bello (2024).

[39] For some thoughts on how the transparency of AI systems affects people's trust in them, see J. Zerilli. *et al.* (2022).

[40] On an operational level, it should be noted that generative AI tools, based on machine learning or deep learning, are capable of generating images and texts using natural language. In particular, with regard to the latter aspect, reference is made to Natural Language Processing (NLP) and, more recently, to Large Language Models (LLMs), which are capable of processing natural language with a high degree of complexity. For observations on the relationship between LLM and legal texts, with particular reference to the perception of lawyers towards documents drafted by such systems, please refer to Harasta *et al.* (2024).

as the drafting of procedural documents according to specific templates, as well as the use of technical legal language—allows lawyers to streamline and speed up repetitive tasks. In this sense, subject to an unavoidable retrospective check, a dual use is conceivable[41].

Upstream use may consist, for example, in instructing the AI tool to prepare a template or preliminary draft of the document to be produced. However, with the advent of electronic civil proceedings and the widespread use of computers, which has led to a substantial standardisation of the various categories of procedural documents, lawyers already rely on templates within their firms, customised and predefined according to the type of submission. In this sense, AI could be employed to generate documents by providing the predefined template and asking the software to modify the relevant sections, replacing outdated information with new data or adding further elements. In such cases, however, it must be borne in mind that obtaining a satisfactory output requires supplying the system with inputs that are as precise and comprehensive as possible. Consequently, where a predefined template is already available, the use of AI may not offer significant advantages in terms of time optimisation. Conversely, in the absence of a suitable facsimile into which new data can be inserted, it may be beneficial to rely on an AI tool to generate an initial draft that can subsequently be refined manually.

In addition to these opportunities, there is also the possibility of downstream use. One may, for instance, upload a fully drafted document into an AI tool and request the correction of grammatical errors or the elimination of inconsistencies within the text. Such a task aligns closely with the functioning of Natural Language Processing systems, which operate on principles of textual coherence. Unlike humans, however, generative AI tools do not "reason" in the strict sense; they process sequences of words to produce sentences that appear meaningful. For this reason, it is important to bear in mind that, although the tool may generate a grammatically and logically coherent text, the result remains, in a certain sense, incomplete. One of the features that distinguishes human reasoning from algorithmic calculability is intuition: while a solicitor can identify alternative interpretations and propose different solutions to the same problem, a machine, in order to provide an answer, will tend to reproduce the patterns it has previously followed, even when asked to rework them[42].

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[41] To cite two of the most commonly used systems: Simpliciter AI is capable of identifying certain potentially relevant judicial decisions, at times providing a useful starting point for drafting a legal opinion or developing a specific line of argument (this support must, however, be employed with caution, as the decisions suggested are not always pertinent or fully reliable); LexRoom AI, for its part, adopts a generally less acquiescent approach than other systems (yet it is not free from errors and, although it tends to avoid fabricating information when it lacks the necessary data, it nonetheless requires careful critical scrutiny by the user).

[42] To support the fact that human intuition, unlike algorithmic calculation, allows the same data to be interpreted differently, Garapon and Lassègue offer the example of the appeal: a machine, limiting itself to repeat the same results in a strictly identical manner starting from the same data, it would not be able to deal with a type of appeal based on the possibility of drawing different conclusions from the same facts. Garapon *et al.* (2021).

Beyond their use in drafting documents, these tools may also assist more broadly in the activities that make up legal practice, such as consulting databases or employing predictive systems capable of identifying trends in case law, thereby supporting the construction of defence strategies. Even in the context of legal advice, identifying a particular jurisprudential trend can offer a valuable interpretative key to the case at hand, enabling the solicitor to provide more informed guidance on potential litigation strategies. This not only facilitates the lawyer's study and preparation of the case, but may also have a positive impact in terms of reducing litigation: when faced with a consolidated and clearly unfavourable jurisprudential orientation, likely to result in the dismissal of the claim, the lawyer may advise the client to refrain from initiating proceedings and, where appropriate, to opt for alternative dispute resolution mechanisms.

In essence, the use of generative AI in the legal sector represents a significant opportunity, with the potential to enhance the efficiency, accuracy and overall quality of drafting activities. However, alongside this potential, it is essential to acknowledge the critical issues inherent in the use of such tools. Among the most frequently cited concerns are the risks of bias, the blackbox effect and the phenomenon of socalled "AI hallucinations"[43]. In particular, the latter, recently brought to public attention in the judicial sphere[44], describes the tendency of generative models to provide answers that appear plausible but are in fact completely incorrect, as they lack any documentary or jurisprudential evidence [45]. This phenomenon is particularly insidious, for when the system is asked to confirm, or even directly confronted with, the error in its output, it nonetheless persists in asserting the correctness of the information provided, reiterating its supposed veracity and reproducing the fabricated data with a striking degree of confidence.

These findings raise important questions about the reliability of the tools used. With regard to the latter, there is therefore a need for active and informed human control, especially in the drafting of procedural documents, where accuracy and verifiability of sources are essential requirements. For these reasons, targeted training courses appear necessary, aimed at promoting in-depth awareness of the characteristics, potential and limitations of generative AI tools, so that professionals are guided towards responsible, informed and technically appropriate use of the technologies in question[46]. In fact, although there are some problematic aspects, it is undeniable that these tools, when used correctly, can offer significant opportunities for improving efficiency and the quality of professional performance[47].

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[43] Yu *et al.* (2019) and Cyphert *et al.* (2024).

[44] Trib. Firenze, sez. imprese, ord. 14 March 2025.

[45] Dahl *et al.* (2024).

[46] In the regulations introduced by the AI Act (Regulation (EU) 2024/1689), training plays a fundamental role, as highlighted in Recital 20. Art. 4, moreover, imposes an obligation of "AI literacy" on deployers, i.e. users of such systems.

[47] Consider the optimisation of database consultation activities; a computer's ability to analyse enormous amounts of data is incomparable to that of a human being. It is clear that software is capable

In summary, the use of generative AI tools could facilitate the correction of typos and (probably) promote the implementation of the principles of conciseness and clarity. From the point of view of conciseness, at least, the machine can be asked to reorganise the text, improving its syntax to make it more concise overall; by contrast, enhancing the intelligibility of legal submissions may prove more challenging, given the operational logic on which these systems are based[48].

4. BEYOND CONCISENESS: RETHINKING THE STRUCTURE OF PROCEDURAL DOCUMENTS IN THE GENERATIVE AI ERA, INFORMED BY THE FRENCH EXPERIENCE

In the final analysis, the spread of generative AI tools compels a reconsideration not only of the techniques used in drafting procedural documents, but of the very notion of conciseness on which those techniques have traditionally rested. More specifically, to continue articulating this principle in predominantly quantitative terms (such as limiting length or reducing the number of pages) means operating within a paradigm that has now been overtaken, one premised on informational scarcity and on a centrality of written text no longer compatible with the digital environment and with the possibilities opened by contemporary technology. Consequently, in a context in which AI is capable of producing, reorganising, and synthesising content almost instantaneously, the quality of a procedural document can no longer be assessed by its extent, but must instead be linked to its capacity to orient the decisionmaking process effectively.

Conciseness, therefore, cannot be reduced to a mere limitation of legal discourse; it must instead be understood as a criterion for structuring procedural information. This shift entails a genuine change of paradigm: the procedural document can no longer be conceived as a narrative organised according to a rigid (and often redundant) sequence, but rather as a construction designed to render the relevant facts, legal issues, and corresponding arguments immediately intelligible. In this perspective, the value of the document does not lie in its descriptive completeness, but in the clarity of its architecture and in the transparency of the connections between the alleged facts and the evidentiary record, according to a logic that aligns the procedural act more closely with hypertextual systems and conceptual maps than with the traditional narrativeargumentative format[49].

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not only of identifying existing precedents, but also of selecting those that are truly relevant. To this end, it is essential to have not only a high-quality database, but also an effective system for extracting the legal principles from a judgment.

[48] Alternatively, the result produced could offer useful food for thought in order to evaluate the possibility of reworking the sentences already written, providing an external and different point of view on the possible construction of the argument, for example, in more concise terms.

[49] On the conciseness and usability of procedural documents, Comoglio (2015).

The French model of the unitary, progressively-constructed procedural document offers, for its part, a particularly fertile framework for rethinking the structuring of procedural documents in light of the principle of conciseness. The *conclusions*, conceived as a unitary document progressively integrated throughout the *mise en état*, make it possible to concentrate the entire body of defensive material within a single filing, thereby ensuring internal coherence and avoiding both the systematic reiteration of identical arguments and the dispersion of decisive issues. The reforms accompanying this evolution, culminating in the progressive *modélisation* of filings and in the strengthening of the judge's casemanagement powers, demonstrate that formal standardisation and the structured organisation of information do not amount to a restriction of the right of defence, but rather constitute instruments for making that right effective. The French experience shows, in other words, that conciseness is not a constraint imposed on counsel, but a condition for the efficient functioning of the adversarial process[50].

Building on this model, and in light of the possibilities opened by generative AI, one can envisage solutions even more disruptive than the current configuration of party submissions in Italian civil procedure. GAI tools make concretely feasible the idea of a "dynamic" procedural filing, capable of evolving over time through traceable integrations, without losing coherence or becoming unwieldy as the document is progressively updated and expanded throughout the proceedings. In such a scenario, it becomes plausible to imagine a profound transformation of the very form of the procedural act, to the point of calling into question the primacy of narrativeargumentative writing. There is, in fact, no intrinsic reason why a procedural document must necessarily take the form of a discursive text; a structure based on bullet points, diagrams, tables, argumentative maps, or even a slidebased presentation could prove far more suitable for representing the facts of the case and the parties' submissions in a more concise and precise manner, thereby translating the complexity of the dispute into greater clarity and guiding the

[50] In particular, the innovations introduced by *décret* no. 981231 (and subsequent measures, notably *décret* no. 20191333) have progressively transformed the *conclusions* from mere defensive pleadings into fully structured containers of the entire evidentiary and argumentative record, regulating the *editio actionis*, the sequencing and purpose of the memoranda, and instituting the *calendrier de la procédure* as the temporal governance mechanism for documentary exchange. Practically speaking, the introduction of specific forms (e.g., *conclusions qualificatives* and *récapitulatives*) and the real prospect of procedural sanctions, including *irrecevabilité* for pleadings that fail to conform to prescribed drafting standards, have prompted the bar to rethink drafting technique: practice has favoured the construction of filings as autonomous, coherent blocks, thereby reducing repetition and increasing responsibility in the selection of arguments. At the same time, the progressive *modélisation* of filings has been accompanied by a strengthening of the judge's casemanagement powers (calendaring, powers to direct proceedings and to sift issues), demonstrating that formal standardisation serves a more effective governance of the adversarial process rather than a mere formal curtailment of the right of defence. Finally, the convergence of standardisation and digitalisation—through uniform templates and formats, structured fields and electronic procedures—has enabled more accessible and verifiable use of procedural material, transforming the single pleading into a genuine information infrastructure: not a constraint on argumentative creativity, but a device to render argumentation more intelligible, traceable and usable for decisionmaking. See Noceto (2024).

judge in identifying the issues that warrant closer attention. Such a reconceptualisation would not entail abandoning legal argumentation, but rather relocating it within a more efficient informational architecture. Argumentation does not disappear; it becomes visible, decomposable, and verifiable, with clear benefits in terms of transparency and oversight, streamlining the procedure (particularly with respect to the burdens placed on counsel) and ensuring the reasonable duration of the proceedings. In this context, AI can play a decisive supporting role: from the automatic generation of summaries and thematic indexes, to the verification of consistency between alleged facts and evidence, to the management of versioning within the unitary procedural document. The responsibility of counsel would, of course, remain intact: the algorithm would not replace the lawyer, who would instead be required to exercise informed and critical oversight over the tools employed[51].

The issue, in truth, is not the adoption of a new technology, but the redefinition of the very concept of the procedural act. In the age of AI, conciseness no longer coincides with "writing less" but with "writing better" according to a logic of information design oriented toward decisionmaking. Embracing this perspective entails accepting a genuine break with tradition, moving beyond a procedural framework built on the proliferation of filings and their textual repetition, and shifting instead toward a model in which the procedural act becomes a shared, evolving, and functional informational infrastructure. Only in this way can conciseness recover its most authentic meaning, not as a formal constraint, but as a parameter of argumentative quality and, ultimately, of procedural rationality.

From this standpoint, a renewed emphasis on orality could facilitate the introduction of this new structuring of procedural documents, bringing the core of the adversarial exchange back into the courtroom and reducing the proliferation of defensive submissions and supplementary memoranda that are often redundant. The enhancement of orality and immediacy would not entail any curtailment of the right of defence; on the contrary, it could contribute to making the adversarial process more authentic and efficient, restoring to the judge the central role in directing the proceedings that the judiciary once held.

Recentring orality within civil proceedings could significantly streamline the Italian process, which is currently burdened by an excessive number of written submissions that often, quite unreasonably, replicate the same content. This redundancy weighs down a system already characterised by an unduly long average duration. A viable solution (one capable of ensuring compliance with the principle of reasonable duration as well as the principles of clarity and conciseness) would be to restore the central role that orality once held. By expanding the space for genuine dialogue between the parties, it would become possible to reduce both the quantity and the length of procedural documents. From this perspective, a reform would be desirable that, on

[51] Comoglio (2015).

the one hand, fundamentally rethinks the very notion of the procedural act as we understand it today, replacing the current sequence of submissions with a single, progressively formed act; and, on the other hand, brings orality back to the heart of the process, thereby reducing the written dimension, which has been pushed to an extreme by the Cartabia reform (one need only consider the paradox of writtenonly hearings, where the exchange of written notes substitutes for an inperson hearing under art. 127 *ter* c.p.c.).

This scenario raises the question of the relationship between procedural acts and documents; a question of particular relevance when such acts are processed, summarised, or reworked by means of AI tools. The core problem concerns the legal value that a procedural act acquires when it contains, transcribes, or incorporates an evidentiary document, and the consequences that follow when the original document is no longer physically available on the case file.

The Joint Divisions of the Court of Cassation (*Sezioni Unite*), in judgment no. 4835/2023, held that a document, once produced, remains part of the proceedings and cannot be lost merely because the party's case file was not deposited in subsequent instances. The court of appeal cannot disregard documentary evidence solely on the ground that it is not physically before it; on the contrary, it is under a duty to reconstruct the document's content through the first-instance judgment, the procedural acts that refer to it, or, where necessary, by ordering its production. From this perspective, a procedural act may become a source of knowledge of the document, without thereby assuming the character of independent evidence in its own right. The Court acknowledges, in fact, that the content of a document may be reconstructed even through its partial transcription or its citation in the acts, thus preventing the dispersal of evidence and ensuring continuity of the evidentiary record across instances[52].

It follows that when a procedural act is fed into an AI system for summarisation, the act does not change its nature as a communicative vehicle, nor does it take on the function of autonomous evidentiary document; yet, insofar as it contains the transcription or description of a document, it becomes (consistently with the approach endorsed by the *Sezioni Unite*) a source capable of reconstructing that document's content. The summary generated by the AI therefore does not create evidence, but may contribute to making already-acquired evidentiary material more accessible and intelligible, provided that the underlying act is drafted in a clear, concise, and well-structured manner. The formal quality of the act, in other words, becomes a variable capable of directly affecting the reliability of the algorithmic processing built upon it.

Conciseness, ultimately, is a structural precondition for procedural acts to perform their function effectively, even within a digital and algorithmic ecosystem. Prolix, repetitive, or overloaded acts not only burden the judge's

[52] Court of Cassation, Sez. Un., 16 February 2023, n. 4835.

work, but undermine the capacity of AI systems to extract relevant information, increasing the risk of errors, omissions, and distortions in their automated processing. Two responses are therefore required: on one hand, a rethinking of procedural architecture so as to restore centrality to orality, envisaging a single act of progressive formation; on the other, the cultivation of a culture of procedural drafting that treats conciseness and clarity not as formal duties imposed by statute, but as the substantive precondition for effective judicial protection, all the more so in an era marked by the growing use of AI tools in litigation.

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FROM PRINCIPLE TO DESIGN: RETHINKING SELFSUFFICIENCY IN CASSATION APPEALS IN THE DIGITAL AGE*

Martina Donnarumma
Junior Researcher at the Research Centre
in European Private Law (ReCEPL)

ABSTRACT: This paper examines the principle of self-sufficiency in appeals to the Italian Court of Cassation, historically characterised by interpretative uncertainty and fluctuating case law, which has fostered increasingly lengthy and redundant pleadings. Against the backdrop of digital justice and the dematerialisation of procedural documents, it investigates the potential of assisted drafting tools, interactive templates, and emerging AI-based systems to enhance the clarity and concision of cassation appeals, in line with evolving European and national regulatory frameworks on artificial intelligence

KEYWORDS: principle of self-sufficiency; appeals before the Court of Cassation; AI-assisted drafting; digital transformation of justice; legal design.

SUMMARY: 1. INTRODUCTION: THE PRINCIPLE OF SELF-SUFFICIENCY BETWEEN *FORM* AND *FORMALISM*.— 2. FROM PRAETORIAN ROOTS TO FORMALISTIC DEVIATIONS: SELF-SUFFICIENCY BETWEEN MISAPPLICATIONS AND INITIAL ATTEMPTS AT REBALANCING: 2.1. The origins and development of the principle of self sufficiency: from the burden of identification to the burden of transcription; 2.2. Legislative attempts in 2006 and 2009 to codify the self-sufficiency principle and the judiciary's uneven response; 2.3. The reform's failure and the institutional reaction of 2013; 2.4. The 2013 memorandum of understanding on cassation appeal drafting and the supreme court's response.— 3. THE SELF-SUFFICIENCY PRINCIPLE UNDER SCRUTINY: THE *SUCCI ET AUTRES* V. ITALY AFFAIR: 3.1. Formalism *vs*. The right to justice: the self-sufficiency principle before the ecthr; 3.2. Between procedural legitimacy and disproportionate constraints; 3.3. Not a condemnation, but a caution: towards a more elastic understanding of the self-sufficiency principle.— 4. BEYOND INTERPRETATION: A STRUCTURAL RECASTING OF SELFSUFFICIENCY IN THE DIGITAL AGE.— 5. BIBLIOGRAPHY.

* Unless otherwise indicated, all translations from italian sources are by the author. *https://orcid.org/0009-0005-0513-6104*

1. INTRODUCTION: THE PRINCIPLE OF SELF-SUFFICIENCY BETWEEN *FORM* AND *FORMALISM*

In the framework of proceedings before the Court of Cassation, the principle of self-sufficiency [*id est* principio di autosufficienza del ricorso (*rectius:* dei motivi di ricorso) per cassazione] of the appeal has long occupied a paradoxical position. Conceived as a mechanism for rationalising access to review on points of law and as a safeguard of clarity and argumentative completeness, it has gradually evolved into a source of systemic instability, fuelling a vicious cycle of escalating defensive burdens, fluctuating lines of authority, and increasingly unpredictable outcomes[1]. It is therefore essential to distinguish between *form* and *formalism*: the former, understood as the functional architecture of the pleading, constitutes a precondition for intelligibility and for the effective operation of adversarial proceedings; the latter, conceived as the heterogeneous and at times redundant superimposition of procedural requirements, ultimately betrays the very function it purports to secure.

The substantial body of case law in which the principle of self-sufficiency has featured prominently—quantitatively extensive and qualitatively uneven—has not resulted in its systematic consolidation. On the contrary, it has accentuated the principle's protean character, generating a plurality of interpretative lines which are often mutually incompatible. In this context, self-sufficiency has progressively lost its functional anchorage, operating at times as a surrogate for the specificity of the grounds of appeal, at others as a selective threshold for access to cassation review, and at others still as an instrument for managing the Court's caseload. The consequences directly affect the right of defence, legal certainty, and the predictability of judicial decisions.

The result is a system in which the fear of a declaration of inadmissibility prompts counsel to adopt drafting strategies marked by excessive caution, leading to increasingly lengthy, repetitive, and unfocused appeals. Far from enhancing the intelligibility of the grounds advanced, this argumentative hypertrophy obscures their essential core, burdens the Court of Cassation, and, paradoxically, contributes to the very congestion that formalism ostensibly seeks to contain. Self-sufficiency, once conceived as a bulwark of clarity, thus

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[1] A similar scenario led Proto Pisani, A. (2015). *Il ricorso per cassazione in Italia*. *Foro Italiano*, V, p. 192, to observe that the case law of the Supreme Court, rather than constituting a source of guidance, ultimately becomes a source of disorientation.

Emblematic in this regard is the passage by Ricci, E. F. (2010). Sull'«autosufficienza» del ricorso per cassazione: il deposito dei fascicoli come esercizio ginnico e l'avvocato cassazionista come amanuense. *Rivista di diritto processuale*, p.737: "As an object of nomophylactic reflection, the issue of the requirements of the appeal is highly fashionable, while 'self-sufficiency' is a concept sufficiently elastic to encompass an entire universe. A cursory computer search reveals that, from 2005 to the present, decisions concerning the 'self-sufficiency' of the appeal number more than two hundred and ninety, with an upwa rd trend in recent years; and highly diverse are the directions in which the repercussions of this unsuspected cornerstone of the *ius quo utimur* may be felt, even though in every case (the sole unifying feature) it is the admissibility of the appeal that ultimately bears the cost".

becomes a sword of Damocles hanging over counsel and, simultaneously, a factor of systemic inefficiency[2].

Attempts to confine the principle within more determinate boundaries, from the legislative reform introduced by Legislative Decree No. 40 of 2 February 2006 to subsequent soft law initiatives, such as the Memoranda of Understanding concerning drafting standards, have revealed evident structural limitations. On the one hand, the indeterminate wording of the statutory provisions has left considerable scope for divergent interpretations; on the other, the non-binding nature of the guidelines has prevented them from exerting a stable influence on drafting practices and judicial approaches.

Against this background, it is increasingly apparent that the "self-sufficiency question" cannot be addressed solely at a doctrinal or interpretative level. The issue lies not merely in the theoretical definition of the principle or in the identification of its normative foundation, but more fundamentally in the concrete modalities governing the drafting of appeals before the Court of Cassation and in the now unbalanced relationship between form and substance in the initiating pleading. It is precisely on this terrain that the present proposal seeks to shift the analytical focus, from what self-sufficiency ought to be to how it may be effectively implemented without degenerating into formalism.

From this perspective, the article advances the introduction of a structured drafting template for appeals under Article 360 of the Italian Code of Civil Procedure, conceived not as an additional formal constraint but as an instrument of structural rationalisation. Building on recent regulatory developments, most notably Ministerial Decree No. 110 of 7 August 2023 and the 2023 Memorandum of Understanding on civil proceedings before the Court of Cassation, the proposed model rests on a logically and functionally organised architecture, articulated into mandatory and guided sections designed to ensure clarity of exposition, targeted completeness, and argumentative coherence. In this manner, form is restored to its proper function, ensuring intelligibility, accurate identification of the relevant procedural materials, and the determinacy and cogency of the grounds, while formalism is countered through practical tools (structured guidance boxes, alerts for omissions or inconsistencies, and self-sufficiency checklists) aimed at preventing both deficiencies and redundancies.

The objective is not to introduce an additional filter on access to cassation review, nor to further intensify procedural burdens on counsel, but to provide a systemic response to the crisis of self-sufficiency by restoring it to a role consistent with its original rationale. In this sense, the drafting template operates as an instrument of legal design, capable of orienting forensic

[2] On this point, see also Poli, R. (2014). *Le Sezioni Unite sul regime dei motivi specifici del ricorso per cassazione. Rivista di diritto processuale*, 183 ff., where cassation proceedings are described as "a veritable obstacle course by which the Court defends itself against the excessive number of incoming appeals."

writing towards shared standards of clarity and concision, reducing the risk of purely formal findings of inadmissibility and, at the same time, facilitating the Court's evaluative task.

The article ultimately seeks to demonstrate that a structural solution grounded in guided standardisation of the drafting process may help reconcile the demands of procedural efficiency with the effective protection of individual legal positions, thereby rescuing the principle of self-sufficiency from the interpretative drifts that have progressively eroded its systemic coherence.

The central thesis advanced is that the crisis of self-sufficiency stems not from an interpretative deficit but from a structural one: only a guided drafting model, potentially supported, in due course, by intelligent technological tools, can restore the principle to its functional limits and recover its original normative rationale.

2. FROM PRAETORIAN ROOTS TO FORMALISTIC DEVIATIONS: SELF-SUFFICIENCY BETWEEN MISAPPLICATIONS AND INITIAL ATTEMPTS AT REBALANCING

The principle[3] of self-sufficiency is of judge-made origin. In shaping the structure of appeals before the Court of Cassation, the Court's rulings have therefore performed a distinctly orienting function, operating as genuine "interpretative compasses"[4]. Since the Court of Cassation has positioned itself as a pioneer in constructing the cassation appeal, contributing to moulding its architecture and progressively redefining its boundaries, the seemingly most natural course would be to derive the meaning of the principle directly from its case law.

Yet, as has been aptly observed, "the dense accumulation of headnotes invoking the so-called principle of self-sufficiency of the cassation appeal presents so variegated a landscape as to be practically unusable for those seeking to apply it, in its current form, in order meaningfully to distinguish cases of genuine inadmissibility from those in which reliance upon the rule would amount to a perilous formalism; to such an extent as to justify the doubts of those who have questioned whether such a principle is imposed for the convenience of the judge or in the interest of the opposing party, criticising it as the outcome of an eccentric doctrinal preoccupation, destined

[3] Although it is commonly designated as a "principle", part of the scholarly literature contests the terminological accuracy of this label, considering it more appropriate to qualify it as a "modality" of the preliminary conditions governing the admissibility of the appeal or, alternatively, as an essential requirement thereof. Balletti, B. (2006). Il ricorso per cassazione e il c.d. principio dell'autosufficienza. *Diritto e giustizia,* 105 ff, esp 120.

[4] Eloquent in this respect is the passage by Sassani, B. (2016). *Da Corte a Ufficio Smaltimento: ascesa e declino della "Suprema". Judicium*. *https://www.judicium.it*, according to whom: "And thus, while banks proceed to write their own rules governing compulsory enforcement, the upper echelons of the Supreme Court 'have written for themselves' their own rules governing cassation proceedings".

solely to increase the length of the appeal, to the exclusive benefit of the public purse"[5].

The picture emerging from the Court's decisions is therefore anything but homogeneous. Although even a cursory search of any legal database yields an exceptionally high number of rulings employing the expression "self-sufficiency", such terminological proliferation falls far short of enabling the identification of a clear and unitary definition of the requirements governing the proper drafting of a cassation appeal.

The celebrated metaphor advanced by Chiarloni—likening the Court of Cassation to a "supermarket"—[6] aptly conveys the extent of this interpretative fragmentation: for every hermeneutic orientation one can readily find another of the opposite tenor, so that, amidst shelves stocked with antithetical lines of authority, the interpreter may select, according to convenience, the precedent most conducive to his or her thesis.

2.1. The origins and development of the principle of selfsufficiency: from the burden of identification to the burden of transcription

from a historical perspective, the expression "self-sufficiency" made its first appearance in the landmark judgment Cass., 18 September 1986, No. 5656, in which the Court reviewed the refusal to admit certain evidentiary requests, in circumstances where the appellant had failed to specify the relevant evidentiary items[7].

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[5] Evangelista, S., Canzio, G. (2005). Corte di cassazione e diritto vivente. *Foro Italiano*, p. 84.

[6] The reference is to Chiarloni, S. (2002). Ruolo della giurisprudenza e attività creative di nuovo diritto. *Rivista trimestrale di diritto e procedura civile*, p. 6; Id. (2012). Un ossimoro occulto: nomofilachia e garanzia costituzionale dell'accesso in cassazione. In C. Besso & S. Chiarloni (Eds.), *Problemi e prospettive delle corti supreme: esperienze a confronto*. Quaderni del Dipartimento di Giurisprudenza dell'Università di Torino, Napoli, 2012, p. 21; Id. (2013). *Ragionevolezza costituzionale e garanzie del processo. Rivista di diritto processuale*, p. 525.

[7] It was precisely this omission that inevitably led the Court to dismiss the appeal, finding that the challenge suffered from an incurable lack of specificity, such as to preclude any substantive review of the complaint, in strict adherence to the formal and substantive parameters governing access to review on points of law. In setting out the grounds for its decision, the Supreme Court clarified that no complaint may be entertained at the cassation stage where it lacks a specific indication of the evidence whose admission was refused, of the facts to which such evidence relates, and of the causal link between the impugned decision and the alleged omission. In such circumstances, it becomes impossible, on the one hand, to identify the elements necessary to assess the decisiveness of the alleged defect in reasoning and, on the other, to ensure compliance with the principle of self-sufficiency of the cassation appeal. That principle requires that the allegations advanced be complete and exhaustive from the outset, excluding the possibility that deficiencies affecting the initiating pleading may be remedied by the reviewing court through supplementary inquiries extending beyond the mere examination of the arguments articulated in the appeal.

In the Court's view, in the case at hand the formulation of the appeal was manifestly inadequate to meet these requirements, amounting instead to a mere reference to informational sources external to the appeal itself. Such a drafting technique resulted in an inadmissible construction *per relationem*, devoid of the requisite argumentative autonomy.

An examination of that decision, an undisputed milestone in the delineation of the principle of self-sufficiency, constitutes a crucial stage in tracing its genesis, marking its earliest points of consolidation and thereby defining the trajectory along which subsequent doctrinal and jurisprudential developments would unfold. The first element that emerges concerns the very origin of the principle, which, in the perspective articulated by the aforementioned judgment, appears as nothing more than a particular expression of the broader and already established requirement of specificity of the grounds of appeal. Nor did this judicial construction undergo any substantial transformation in the following decade[8], during which the principle was repeatedly reaffirmed in its original guise, translating into the imposition upon the cassation appellant of a precise and punctual "topographical" indication within the appeal, namely, the identification of the specific procedural act or hearing record to which the complaint referred[9].

In light of the foregoing considerations, a point of fundamental importance emerges: contrary to what has often been maintained, the judgment in question cannot properly be regarded as the founding decision, in any absolute sense, of the requirement of self-sufficiency, which in fact finds its roots in the earlier and more general principle of specificity. The true contribution of the decision lies not in the introduction of an innovative principle, but rather in its capacity to crystallise an already familiar procedural requirement in a newly coined formula: the term "self-sufficiency". The genuinely innovative dimension of the ruling thus resides in an operation of linguistic rationalisation which, without altering the substance of the underlying obligation, supplied a lexically effective label that has since come to encapsulate a fundamental—though already sedimented—procedural burden.

Although devoid of structural novelty, the decision nevertheless produced a disruptive effect: it furnished subsequent case law with a new vocabulary through which to reformulate an existing obligation, thereby triggering a gradual semantic transformation of the principle. From that point onwards, later decisions amplified its practical reach. While the original operational core of the principle of self-sufficiency was initially confined to the ground of appeal concerning defects in reasoning under Art. 360(1)(5) of the Italian Code of Civil Procedure (c.p.c.), that perimeter soon proved insufficient to contain its inherent expansive force. From the outset, the hermeneutic scope of the principle appeared destined to transcend its original context, progressively extending first to the ground of error in law (*vizio in iudicando*) under Art. 360(1)(3) c.p.c., and subsequently to procedural defects (*vizio in procedendo*) under No. 4 of the same provision[10].

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[8] See, in this regard, Cass. 19 giugno 1995, n. 6927.

[9] Cf. Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "…Eppur si muove…". Dal peccato di omissione al peccato di commissione, *Judicium*. *https://www.judicium.it*, p. 3. On this point, see also Bossi, F. (2015). Il contenuto del ricorso per cassazione e il c.d. principio di autosufficienza (Nota a Cass. 11 luglio 2014, n. 15882). *Giurisprudenza italiana*, p. 1119.

[10] On this point, see Caporusso, S. (2008). Autosufficienza del ricorso per cassazione e divieto di esame diretto degli atti processuali. In S. Pagliantini, E. Quadri, & D. Sinesio (Eds.), *Scritti in onore di*

This expansion of its sphere of application, unsupported by a corresponding statutory anchor, gradually transformed self-sufficiency into an increasingly all-encompassing principle, applied across heterogeneous contexts and with varying degrees of intensity[11]. Whereas its original core consisted in the so-called duty of localisation—that is the precise indication by the appellant of the procedural stage at which the relevant document had been produced and of its exact placement within the pertinent case file—with the advent of the new millennium this requirement was progressively supplanted by a far more onerous obligation: the full transcription, within the body of the ground of appeal, of the procedural documents upon which the complaint was founded[12].

Under this renewed framework, the formalistic configuration[13] of the principle of self-sufficiency found one of its most incisive applications in complaints concerning the refusal, at the merits stage, to admit means of proof. Thus, whereas at an earlier stage the Supreme Court had required the appellant to provide a precise and detailed indication of the content of the evidence whose admission in the proceedings on the merits was allegedly denied,

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Marco Comporti. Milano, pp. 457– 458: "Initially, that is, in the second half of the 1980s, the principle was coined by the court of legitimacy exclusively with regard to the ground under art. 360, no. 5, c.p.c., in order to express the need for complaints concerning omitted, insufficient or contradictory reasoning not to be sought outside the text of the appeal or, in any event, to be inferred *per relationem* through reference to acts from the previous stages of the proceedings. Subsequently, however, the scope of operation of the principle of self-sufficiency was gradually extended to encompass the grounds set out in art. 360, nos. 3 and 4, c.p.c., with the result of elevating self-sufficiency to a 'content-form requirement of the appeal additional to those expressly provided for in art. 366'. The Supreme Court, indeed, probably driven by the need to reduce its caseload, carried out a form of generalisation of that principle and, even in the absence of a specific statutory basis, did not hesitate to apply the sanction of inadmissibility whenever the assessment of the complaints would have required access to the acts of the previous stages of the proceedings". To the same effect, Rusciano, S. (2007). Il contenuto del ricorso per cassazione dopo il d.lgs. 40/2006. *Corriere giuridico,* p. 283. The Author observes: "In recent years, moreover, the expansion of the principle in question has become even more evident, as it has concerned not only the very notion of self-sufficiency but also its field of application: self-sufficiency, initially referred to and limited to the sole defect in reasoning under art. 360, no. 5 c.p.c., now also applies with regard to nos. 3 and 4 of the aforementioned art. 360".

[11] With regard to the persistent oscillations in the case law, see Ricci, G. F. (2019). Il velo squarciato: la Suprema Corte apre la porta al sindacato di legittimità sul giudizio di fatto. *Rivista di diritto processuale*, p. 364, who observes: "What is most disconcerting is the attitude of the case law itself, which continuously oscillates between the more rigorous interpretation—requiring the transcription within the appeal of the act or document upon which the complaint is focused—and the more liberal interpretation, which confines itself to demanding compliance with less stringent requirements".

[12] Among the decisions reflecting the former, stricter approach, see Cass. 25 marzo 1999, n. 2838, ECLI:IT:CASS:1999:2838CIV; Cass. 10 marzo 2000, n. 2802, ECLI:IT:CASS:2000:2802CIV; Cass. 13 settembre 2000, n. 12080, ECLI:IT:CASS:2000:12080CIV; Cass. 1° giugno 2001, n. 7434, ECLI:IT:-CASS:2001:7434CIV; Cass. 1° agosto 2001, n. 10484, ECLI:IT:CASS:2001:10484CIV; Cass. 10 novembre 2001, n. 13963, ECLI:IT:CASS:2001:13963CIV; Cass. 5 marzo 2003, n. 3284, ECLI:IT:CASS:2003:-3284CIV; Cass. 14 aprile 2003, n. 5886, ECLI:IT:CASS:2003:5886CIV; Cass. 10 agosto 2004, n. 15412, ECLI:IT:CASS:2004:15412CIV; Cass. 18 novembre 2005, n. 24461, ECLI:IT:CASS:2005:24461CIV.

[13] On the dichotomy between the "rigorous" and the "indulgent" versions of self-sufficiency, see Chiarloni, S. Il diritto vivente di fronte alla valanga dei ricorsi in cassazione: l'inammissibilità per violazione del c.d. principio di autosufficienza. *Judicium. https://www.judicium.it*. The same distinction is taken up and further developed by Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "…Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., *passim*, who differentiates between a "light" and a "strong" version of the principle.

this requirement subsequently evolved into a far more exacting imperative: the complete reproduction, within the body of the appeal, of the articulated witness evidence, a mere generic reference to the evidentiary headings and the factual circumstances to which they related being deemed insufficient for the purposes of compliance with the principle in question[14].

The application of such rigour certainly did not spare other forms of evidence. In the case of a complaint concerning the refusal to admit formal examination, the Supreme Court required the exact reproduction of the factual circumstances forming the subject matter of the questions to which the party was to be subjected[15]. Likewise, in relation to the refusal to admit a decisive oath, the Court demanded the precise transcription, within the appeal, of the formula in which the oath had been articulated[16]. Similarly, where the appe-

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[14] On this point, cf. Cass. 17 maggio 2006, n. 11501, ECLI:IT:CASS:2006:11501CIV, which states: "It is necessary, indeed, to apply the principle of law, decisive of any other issue, according to which an appellant before the Court of Cassation who alleges defects in the judgment connected with the refusal of the trial judge to admit witness evidence, or with that judge's failure to evaluate a document, bears the burden both of demonstrating the existence of a causal link between the alleged error and the decision actually rendered, and of specifically indicating in the appeal, including by means of full transcription, the concrete circumstances forming the subject matter of the evidentiary headings or the exact content of the document allegedly disregarded. This is in order to enable the court of legitimacy to verify the validity and decisiveness of the rejected evidentiary submissions solely on the basis of the cassation appeal, in light of the principle of self-sufficiency governing that pleading, without the need for supplementary inquiries and without any possibility that reference *per relationem* to other acts or defensive submissions filed in the previous stages of the proceedings may serve a substitutive function". In the same terms, Cass. 6 agosto 2003, n. 11895 (ECLI:IT:CASS:2003:11895CIV); Cass. 18 giugno 2004, n. 9711, ECLI:IT:CASS:2004:9711CIV.

[15] In this regard, reference may be made to Cass. 5 giugno 2007, n. 13085, ECLI:IT:CASS:2007:-13085CIV, which states: "It must be reiterated, in conformity with a more than consolidated line of authority of this Court acting as court of regulation, that where, by means of an appeal in cassation, complaint is made of the refusal by the trial judge to admit oral evidence, the appellant bears the burden of indicating in the appeal the evidentiary headings that were not admitted, failing which the appeal must be deemed inadmissible (Cass. 12 maggio 2000, n. 6115). An appeal in cassation challenging the refusal by the trial judge to admit oral evidence must therefore contain, on pain of inadmissibility, in compliance with the principle of self-sufficiency, the indication of the evidentiary schedule (Cass. 9 maggio 2000, n. 5876). An appellant who, in cassation proceedings, complains of the failure to admit evidence bears, in particular, the burden of specifically indicating the factual circumstances forming the subject matter of that evidence, in order to enable the court of legitimacy to review the decisiveness of the facts sought to be proved; such review, by virtue of the principle of self-sufficiency of the appeal, must be carried out solely on the basis of the appeal itself, without the possibility of supplementation by reference to other procedural acts (Cass. 12 maggio 1999, n. 4684). In light of the principle of self-sufficiency of the appeal, the Court of Cassation must be placed in a position to carry out its own assessment, as to the relevance and decisiveness of the evidence not admitted by the trial judge, exclusively on the basis of the submissions contained in the pleading, any deficiencies therein being incapable of remedy through supplementary inquiries (Cass., sez. un., 24 febbraio 1998, n. 1988). It being legally undisputed as set out above, it is observed that, in the present case, although the appellants complained that the judges on the merits had refused to admit the formal interrogation of PEDONE Fernando, who had attained the age of majority only in the course of the proceedings, they failed to transcribe in the appeal the content of the factual circumstances on which he would have been required to respond".

[16] On this point, see Cass. 30 maggio 2002, n. 7923, ECLI:IT:CASS:2002:7923CIV: "It follows that, in compliance with the principle of self-sufficiency of the appeal in cassation, an appellant who complains of the refusal by the trial judge to admit evidentiary requests bears the burden of analytically indicating in the appeal the factual circumstances forming the subject matter of the requested and unadmitted evidence (Cass. 15 giugno 1999, n. 5945 Cass. 12 maggio 1999, n. 4684; Cass. 7 gennaio 1998,

llant complained of the omission or erroneous assessment of documentary evidence, the Court held that, in accordance with the principle of self-sufficiency of the cassation appeal, the grounds advanced must enable it to carry out an adequate review solely on the basis of the submissions contained in the initiating pleading, any deficiencies therein being incapable of remedy through supplementary inquiries. This position therefore translated into the imposition upon the appellant of the burden of accurately reproducing the content of the document alleged to have been omitted or improperly evaluated[17].

The strictness of this approach did not abate even in disputes involving a court-appointed expert report (*consulenza tecnica d'ufficio*), which were likewise subjected to particularly stringent requirements. Accordingly, where the impugned judgment departs from the findings of the technical assessment carried out, it is insufficient for the appellant merely to assert in general terms that the reasoning is flawed or inadequate, or to invoke evidentiary elements susceptible of a different evaluation and to draw conclusions divergent from those reached by the trial judge. Rather, it is necessary to reproduce in full the portions of the expert report allegedly disregarded, accompanied by specific, analytical, and detailed critical arguments demonstrating the logical and legal shortcomings of the reconstruction adopted by the court *a quo*[18].

It should further be noted that the requirement of full transcription has also emerged in disputes involving the application of secondary legal provisions. Given the inapplicability of the principle *iura novit curia* in this context, the Supreme Court is not under an obligation to possess direct knowledge of such sources; their production falls upon the parties, unless the court is vested with investigative powers enabling it to secure autonomous access to them independently of the parties' procedural activity[19].

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n. 72). Since, in the present case, the appellant failed to reproduce in the appeal the formula in which the decisive oath had been articulated, the ground of appeal is inadmissible".

[17] In these terms, Cass. 20 febbraio 2003, n. 2527, ECLI:IT:CASS:2003:2527CIV; Cass. 14 aprile 2003, n. 5886, ECLI:IT:CASS:2003:5886CIV. Reference is also made to Cass. 30 agosto 2004, n. 17369, ECLI:IT:CASS:2004:17369CIV.

[18] On this issue, see furthermore Cass. 13 giugno 2007, n. 13845, ECLI:IT:CASS:2007:13845CIV, which provides: "As regards the alleged deficiencies of the court-appointed expert report, it is necessary to reiterate the principle according to which 'a party who attributes to the court-appointed expert report deficiencies in fact-finding or errors of assessment, or who complains of erroneous evaluations contained therein (and in the judgment that adopted it), must, first and foremost, fully transcribe in the appeal in cassation at least the salient and contested passages and subsequently set out the specific content of the criticisms raised against them, in order to highlight the errors committed by the trial judge in merely adopting the report and in wholly disregarding the objections formulated with respect to the expert's findings and conclusions. In sum, the criticisms directed at the expert report and at the judgment must display such a degree of specificity as to enable the Court of Cassation to assess their decisiveness directly on the basis of the appeal itself.' In the present case, however, the appellant reproduced neither the contested passages of the expert report nor the criticisms addressed to it, thereby failing to comply with the principle of self-sufficiency of the appeal".

For a more in-depth analysis, see Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "… Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., pp. 6–7.

[19] Ibidem: "Consequently, so the Court reasons, in cases where the judge is vested with investigative powers, as occurs at the merits stage, he or she may acquire direct knowledge independently of the activity carried out by the parties, who may confine themselves to indicating the elements necessary for

Finally, the principle reaches its highest degree of applicative rigour when the Court, in reviewing the interpretation of a judgment delivered on the merits, makes the admissibility of the appeal contingent upon the full reproduction of the impugned decision, comprising both its reasoning and its operative part, together with a specific indication of the procedural location in which the final judgment may be found and examined[20].

2.2. Legislative attempts in 2006 and 2009 to codify the self-sufficiency principle and the judiciary's uneven response

As an immediate and almost inevitable consequence of this escalation of procedural burdens, defensive practice underwent a marked shift towards hyper-formalism. In their fear of succumbing to the abyss of a declaration of inadmissibility, counsel increasingly resorted to redundancy and excessive argumentation, producing appeals that became progressively longer and more unwieldy. In an effort to avert the risk of inadmissibility, defensive activity frequently degenerated into a purely reproductive exercise: counsel were transformed into veritable amanuenses[21], indiscriminately transcribing every

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locating such regulatory acts; at the cassation stage, by contrast, in the absence of such investigative powers on the part of the judge, the principle of self-sufficiency requires, on pain of inadmissibility of the appeal, the full transcription of the secondary provisions alleged to have been violated".

In confirmation of the foregoing, cf. Cass. 2 dicembre 2004, n. 22648, ECLI:IT:CASS:2004:-22648CIV; Cass. 16 novembre 2005, n. 23093, ECLI:IT:CASS:2005:23093CIV; Cass. 29 maggio 2006, n. 12786, ECLI:IT:CASS:2006:12786CIV.

[20] See Cass. 29 settembre 2007, n. 20594, ECLI:IT:CASS:2007:20594CIV, which states: "It has been held that 'the interpretation of an external res judicata may also be carried out directly by the Court of Cassation with full jurisdiction, within the limits, however, in which the res judicata is reproduced in the cassation appeal, by virtue of the principle of self-sufficiency governing that form of challenge, with the consequence that, where the interpretation adopted by the trial judge is considered incorrect, the appeal must reproduce the text of the res judicata alleged to have been erroneously interpreted, with joint reference to both the reasoning and the operative part, since the operative part alone may be insufficient to understand the judicial command (Cass. n. 26227 del 2006). Moreover, the Joint Sections of the Court have clarified that "the principle that an external res judicata may be raised in cassation proceedings, provided that it results from the acts produced in the merits proceedings, must be coordinated with the requirement of completeness and self-sufficiency of the appeal, such that the appellant relying on that res judicata must indicate the procedural stage and the circumstances in which those acts were produced (Cass. sez. un. n. 1416 del 2004). It has also been observed that 'with reference to the procedural regime prior to D.Lgs. n. 40 del 2006, in order to satisfy the requirement of so-called self-sufficiency of a ground of appeal in cassation concerning, pursuant to art. 360 c.p.c., n. 5 (the same applies where the assessment must be carried out for the purposes of reviewing a defect under art. 360 c.p.c., n. 3, or a defect constituting error in procedendo under numbers 1, 2 and 4 of that provision), the evaluation by the trial judge of documentary evidence requires not only that the content of such evidence be reproduced in the appeal, but also that the procedural stage of the merits proceedings in which the production occurred be indicated, as well as the location within the court file or the parties' files, respectively acquired and produced in the cassation proceedings, where it may be found".

[21] It was precisely this dynamic that led Ricci, E. F. (2010). Sull'«autosufficienza» del ricorso per cassazione: il deposito dei fascicoli come esercizio ginnico e l'avvocato cassazionista come amanuense. *Rivista di diritto processuale*, p. 738, to observe: "The figure of the cassation lawyer has in turn changed, with an expansion of the catalogue of requisite qualities. Today, such a lawyer must also (and perhaps

conceivable textual reference, with the paradoxical effect of suffocating, under the weight of argumentative excess, the very substance of the legal issue submitted for review on points of law[22]. Thus, the remedy turned into an obstacle: the work of the judges became more onerous, the reading of appeals increasingly exhausting, and the procedural machinery, burdened by unnecessary verbosity, ground to a halt amidst delays and inefficiencies[23], to the detriment of the principle of the reasonable duration of proceedings. The progressive tightening, in the case law, of the requirements associated with the principle of self-sufficiency, together with the inevitable defensive hypertrophy that ensued, underscored the need for legislative intervention aimed at restoring a more balanced configuration of cassation proceedings. That need was addressed by D.lgs. 2 febbraio 2006, n. 40, entitled «Modificazioni al codice di procedura civile in materia di processo di cassazione in funzione nomofilattica e di arbitrato», through the introduction of two significant innovations designed to curb the excesses of an increasingly pervasive formalism. Among the reforms of particular relevance in this context was, first and foremost, the introduction of art. 366-bis[24], which required the appellant—whether principal or incidental[25]—to accompany each ground of appeal falling within the scope of art. 360, primo comma, nn. 1, 2, 3, 4, with

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above all) be a careful amanuensis and copyist, faced with an operational dilemma: should the necessary transcriptions be incorporated into the body of the appeal, or, after having been mentioned and identified therein, may they instead take the form of separate 'appendices' to be attached ('stapled', in professional jargon) to the pleading? The latter solution is more rational, yet it may give rise to doubts as to the admissibility of such 'staplings', thereby opening the way to further debate. Moreover, since defensive caution may induce counsel to be generous in their transcriptions (wherever placed), one cannot exclude that, sooner or later, an issue may arise concerning their dimensional limits (with the result that the cassation lawyer would also have to assume the role of an inspector of weights and measures)".

[22] See Verde, G. (2006). *Profili del processo civile* (Vol. 2). Napoli, p. 292.

[23] In similar terms, Consolo, C. (2008). *Le impugnazioni delle sentenze e dei lodi*, Padova, p. 245.

[24] It should be noted that the provision was repealed by L. 18 giugno 2009, n. 69. For further analysis, see Ricci, E. F. (2009). Il quesito di diritto nel ricorso per cassazione: istruzioni per l'uso. *Rivista di diritto processuale*, p. 550.

[25] Dispelling any doubt, Rusciano, S. (2012). Nomofilachia e ricorso in cassazione. Torino, p.153, observes: "Although the legislature in 2006 had 'forgotten' to amend art. 371 c.p.c. by including a reference to the new art. 366 bis, it must be held, as a matter of interpretation, that the formal requirement also applies to the incidental appeal. This conclusion follows from the simple reference in the aforementioned art. 371 to art. 366 c.p.c., which, in turn, under no. 4 provides (provided), on pain of inadmissibility, that the appeal must contain 'the grounds upon which cassation is sought, with an indication of the provisions of law relied upon, in accordance with art. 366 bis.'" On this point, see also De Cristofaro, M. (2007). Sub art. 366. In C. Consolo & F. P. Luiso (Eds.), *Codice di procedura civile commentato*. Milano, p. 2957: "Such a conclusion is reached both in light of the fact that the reference encompasses all provisions governing the formal and completeness requirements for lodging the appeal, which condition its admissibility and procedural viability, such that it would appear rather incongruous for the incidental appellant not to be subject to the same burden; and in view of the connection between the requirement imposed upon the parties to articulate the question of law and the corresponding obligation upon the Court to state the principle of law in all cases of appeal brought under no. 3 of art. 360, as well as in appeals based on any of the other possible grounds where it considers that it has resolved questions of law of particular importance, an obligation which clearly applies to all grounds of appeal advanced by the parties, regardless of whether they are contained in the principal or the incidental appeal".

the formulation of a specific question of law (*quesito di diritto*). Conversely, in relation to the ground under n. 5 of the same provision, the appellant was required, on pain of inadmissibility, to indicate clearly the disputed fact in respect of which the reasoning was alleged to be omitted or contradictory, or to set out the reasons why the asserted insufficiency of the reasoning rendered the decision incapable of justification.

It is difficult not to perceive behind this provision the shadow of a veritable gentlemen's agreement[26] between the higher judiciary and the legislature. Fully aware of the Court of Cassation's need to stem the relentless flow of incoming appeals, and of the deflationary function that the principle of self-sufficiency had surreptitiously come to perform, the legislature replaced that sword of Damocles with a new instrument, less exacting in form, yet equally effective in substance: the obligation to formulate a question of law, non-compliance with which would entail a declaration of inadmissibility and thereby contribute to the pursuit of the same deflationary objective[27].

Nor does the 2009 reform appear to have departed from the underlying rationale of the previous intervention. Although art. 366-bis was repealed, the legislature simultaneously introduced further mechanisms which, albeit structurally different, pursue the very same aim: the access filter to the Court of Cassation under art. 360-bis[28] and the so-called "filter section".

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[26] The expression is borrowed from Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "… Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., p. 14.

[27] With regard to the rationale underlying that provision, Ibidem: "The rationale of the legislative innovation as a whole is revealed by the legislature itself in the explanatory report accompanying the decree: it consists, on the one hand, in the need 'to provide the Court, as well as the responding party, with a framework that is as immediate, complete and self-sufficient as possible of the complaints upon which it will be called to rule, and to facilitate its task of locating the acts and documents on which they are based'; and, on the other hand, in the intention to 'tighten the mesh' of review in Cassation, thereby excluding the admission of merits judgments that are not subject to challenge at the stage of review on points of law. It should also be borne in mind that the provision set out in art. 366 bis c.p.c. offered considerable practical advantages, especially in light of the generally moderate and reasonable interpretation, save for some initial 'exaggerations', adopted by the Supreme Court. In particular, in my view, that rule assisted the appellant in drafting the appeal, enabling him or her to summarise—perhaps after grounds extending over seven or eight pages—the legal issue in just a few lines, thereby reducing the risk of a finding of lack of specificity of the ground. Consequently, by allowing the complaint submitted to the Court of Cassation to be circumscribed with greater precision and analytical clarity, it reduced the danger of inadmissibility rulings hastily reasoned and founded upon the excessive generality of the ground". A similar position is taken by Rusciano, S. (2012). *Nomofilachia e ricorso in cassazione*, cit., p. 154, who explains: "The required formulation of the question of law or the identification of the disputed fact was, in the legislature's intention, functional to 'facilitating the reading of the cassation appeal and, therefore, the prompt identification of the issues to be resolved, with a view to a swift decision'; the indirect objective was to confine the Court's review to issues that can genuinely constitute the subject matter of a cassation decision, to operate a natural selection of appeals, and to prevent access to the Court of those challenges which, behind apparent complaints of law, in reality seek to submit factual issues, often already examined on appeal, to the scrutiny of the court of legitimacy." On this issue, see also Proto Pisani, A. (2006). *Lezioni di diritto processuale*. Napoli, p. 529, who considers that the introduction of these new grounds of inadmissibility responded to the need to "reduce the number of appeals lodged by lawyers not accustomed to practising before the Court of Cassation".

[28] See, on this point, by Rusciano, S. (2012). *Nomofilachia e ricorso in cassazione*, cit., pp. 161–162: "The repeal of art. 366 bis by the 2009 reform, although it formally eliminated the sanction of inadmis-

Tracing the legislative trajectory backwards to the 2006 reform, one encounters what most likely constitutes its most significant innovation: the introduction of a new paragraph, no. 6, into art. 366 c.p.c., which enriched the initiating pleading of cassation proceedings with an additional requirement of form and content, namely the specific indication of the procedural acts, documents, and collective agreements or contracts upon which the appeal is founded.

The rationale underlying this provision is, *ictu oculi*, evident. It marks the legislature's first attempt to reclaim regulatory control and to curtail the—until then virtually unbounded—discretionary power exercised by the Court in shaping the contours of self-sufficiency, thereby delineating the outer limits[29] of its operation[30]. That limit appears, with good reason, to correspond precisely to the third level of self-sufficiency previously discussed, defined by the duty of localisation. By implication, it entails the exclusion of any obligation of full transcription, an obligation which, as previously noted, properly pertains to a distinct and subsequent level of completeness.

Further, albeit indirect, confirmation of this interpretation may be drawn from art. 369, secondo comma, n. 4, c.p.c. By requiring the appellant not only to specify in the appeal the procedural acts, documents, and collective agreements or contracts upon which the complaint is based, but also to file them subsequently, that provision would be deprived of its very rationale were one

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sibility of a ground of appeal where it was not accompanied by a question of law or where the latter was incorrectly formulated, did not, however, bring about the definitive disappearance of that requirement of the cassation appeal. With the introduction of art. 360 bis, the legislature in fact imposed additional burdens upon the appellant, including the indication of the legal issues decided by the trial judge. This entails a requalification of the question of law: from a requirement of the ground of appeal, prescribed on pain of inadmissibility, to an element of the appeal aimed at improving the formulation of the complaint, perhaps necessary in order to overcome the 'filter'; from a condition of inadmissibility to a mere drafting technique of the appeal. From this perspective, and in light of the new art. 360 bis c.p.c., the question of law constitutes a complementary element in relation to the complaint: it is a requirement of the appeal intended to supplement the ground of challenge, pertaining to the manner in which the complaint itself is formulated". Along the same lines, see also Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "…Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., pp. 14–15.

[29] See Tedoldi, A. (2006). La nuova disciplina del procedimento di cassazione: esegesi e spunti. *Giurisprudenza italiana*, p. 2011, who argues that the reform in question affected the scope of the principle by tempering the "excessive discretionary power" previously attributed to the Court.

On this point, see also Tiscini, R. (2007). Il giudizio di cassazione riformato. *Giusto processo civile*, p. 523 ff.., in particular 546, where the Author observes that these innovations preclude any renewed abuse of the principle of self-sufficiency.

To the same effect, Caporusso, S. (2008). Autosufficienza del ricorso per cassazione e divieto di esame diretto degli atti processuali, cit., p. 465.

[30] Cf. Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "…Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., pp.12–13; Rusciano, S. (2007). Il contenuto del ricorso per cassazione dopo il d.lgs. 40/2006, cit., p. 280, who further clarifies: "It should, however, be clarified that the combination of these amendments concerns the individual ground of appeal and not, strictly speaking, the content of the appeal as a whole. This clarification is not merely formal, but contributes to a more accurate interpretation of the provisions in question: indeed, where there is a failure to attach a procedural act or document, a failure to indicate their location, or non-compliance with the aforementioned art. 366-bis, the sanction must affect not the entire appeal but only the individual ground".

to consider full transcription of the relevant elements and circumstances contained in those acts to be mandatory.

Moreover, the same interpretative trajectory appears to be supported by the wording of the third paragraph of the same provision. Within the normative framework established by the reform in question[31], it provided that "il ricorrente deve chiedere alla cancelleria del giudice che ha pronunciato la sentenza impugnata o del quale si contesta la giurisdizione la trasmissione alla cancelleria della Corte di cassazione del fascicolo d'ufficio; tale richiesta è restituita dalla cancelleria al richiedente munita di visto, e deve essere depositata insieme col ricorso"[32].

Yet, notwithstanding its undeniable cogency, this interpretative approach cannot be regarded as the sole possible exegetical key. Authoritative voices have questioned the univocal character of the reading just examined, noting that the textual datum does not lend itself to a single, incontrovertible interpretation[33]. On the contrary, its wording appears open to multiple constructions, leaving room for competing interpretative reconstructions which, though divergent, each find support within the statutory language itself.

It has further been observed that, even if one endorses this orientation and thus considers the mere indication of documentary elements sufficient, the resulting duty of localisation, while advantageous in sparing the Court of Cassation the need to search *aliunde* for the acts underlying the complaints, would nonetheless entail significant collateral implications. In particular, pursuant to art. 366, primo comma, n. 6 c.p.c., a declaration of inadmissibi-

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[31] That paragraph was subsequently repealed by D.lgs. 10 ottobre 2022, n. 149, as amended by l. 29 dicembre 2022, n. 197.

[32] This interpretative approach finds support in the positions expressed by Rusciano, S. (2007). Il contenuto del ricorso per cassazione dopo il d.lgs. 40/2006, cit., p. 289; Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "…Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., p. 15. See also Caporusso, S. (2008). Autosufficienza del ricorso per cassazione e divieto di esame diretto degli atti processuali, cit., p. 471; Chiarloni, S.Il diritto vivente di fronte alla valanga dei ricorsi in cassazione: l'inammissibilità per violazione del c.d. principio di autosufficienza, cit., p. 5; Balena, G. (2023). *Istituzioni di diritto processuale civile* (Vol. 2). Bari, p. 467.

In support of this orientation, see also Succio, R. (2019). Il principio di autosufficienza dei motivi di ricorso alla Suprema Corte: alcune considerazioni. *Rassegna tributaria*, pp. 73–74, according to whom: "The term 'indicazione' referred to in art. 366, comma primo, n. 6, c.p.c., appears here to constitute a textual element of no small importance in favour of the thesis advocating a less radical application of the principle; it should therefore be interpreted as a precise and punctual, unequivocal and comprehensive reference to the location of the act or document. It thus amounts to a 'duty of localisation', since to indicate the document in this context means to localise it, and in order to localise it it is necessary to make known to the Court the procedural locus in which it was introduced into the proceedings. In particular, if it concerns a procedural act, it must be specified whether it relates to the first-instance or appellate proceedings, the nomen under which it was identified therein in the pleading that referred to it, the procedural party responsible for its production, and, more directly, the number assigned to it within the party's file or the progressive number attributed to it if produced *aliunde*. […] Lastly, it should be noted in favour of this non-hyper-rigorous thesis the argument that the interpretation of the procedural system which favours a full decision on the merits of the case should in any event be preferred (also for reasons of systemic coherence) over one leading to a decision on purely procedural grounds."

[33] On this point, see De Cristofaro, M. (2007). Sub art. 366, cit., p. 2951.

lity might follow whenever the judge considers that the required indication fails to satisfy the standard of precision demanded, thereby identifying a potential circumvention of the provision. In this way, the Court would effectively be empowered to declare inadmissible even appeals that might otherwise prove well-founded [34].

To avert this risk, the sanction of inadmissibility for violation of art. 366, primo comma, n. 6 c.p.c. should be confined to cases of omitted or insufficient indication of those acts and documents that are genuinely indispensable to the intelligibility of the ground of appeal. Only in such circumstances would the failure of localisation assume decisive relevance, translating into an objective impossibility of fully identifying the alleged defect.

The paradoxical outcome is thus evident: the legislative remedy designed to anchor self-sufficiency within clearer and more determinate boundaries reveals itself, in turn, to be an elusive construct, susceptible to divergent interpretations and, above all, to distortions in application. Rather than curbing the risk of arbitrary declarations of inadmissibility, it risks amplifying it, becoming itself a vehicle for decisions that frequently appear contestable.

Indeed, an examination of the case law following the 2006 reform reveals "a constellation of non-dialoguing decisions" [35], incapable of coalescing into a coherent hermeneutic line. Despite this fragmentation, one constant feature persists: a margin of discretion so expansive as to verge upon arbitrariness, within which the Court of Cassation moves with near-complete freedom in redefining, from case to case, the weight and scope of the burdens deriving from the principle at issue.

Thus, the ambitious legislative attempt to circumscribe more clearly the scope of self-sufficiency soon collided with a jurisprudence that, far from stabilising, continued to oscillate between antithetical orientations, thereby perpetuating the very uncertainties the reform was intended to dispel. It is therefore unsurprising that, notwithstanding the legislative addenda, a considerable body of decisions [36] persists in requiring the full transcription of the acts underlying the appeal, thereby anchoring the principle to its most rigorous—and by now anachronistic—configuration.

But the matter does not end there. The reform not only failed to resolve the ambiguities that had necessitated its introduction; it ultimately furnished the pretext for the emergence of an additional paradigm of completeness, supported by even more stringent burdens. Under this construction, the introduction of art. 366, primo comma, n. 6 c.p.c. is read as giving rise to a

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[34] Thus, Caporusso, S. (2008). Autosufficienza del ricorso per cassazione e divieto di esame diretto degli atti processuali, cit., pp. 468–470.

[35] Santangeli, F. Sui mutevoli (e talora censurabili) orientamenti della Suprema Corte in tema di autosufficienza: in attesa di un (auspicabile) intervento chiarificatore delle Sezioni Unite. *Judicium*. *https://www.judicium.it*

[36] For references, see Cass. 24 febbraio 2010, n. 4434, ECLI:IT:CASS:2010:4434CIV; Cass. 3 marzo 2010, n. 5091, ECLI:IT:CASS:2010:5091CIV; Cass. 19 aprile 2010, n. 9300, ECLI:IT:CASS:2010:9300CIV.

supplementary obligation—namely, localisation—which, rather than replacing the pre-existing duty of transcription, operates alongside it. The result is the coexistence of two distinct but equally indispensable requirements for admissibility, thereby imposing a dual burden upon the appellant[37].

Yet adherence to the most rigorous configurations of self-sufficiency has not gone entirely untempered. Alongside the tightening of formal requirements, one encounters—albeit sporadically—interpretative openings which, without disavowing the dogma of full reproduction, tend to mitigate its rigidity. A first indication of such moderation emerges in decisions where the Court, while not denying the necessity of reproducing the content of the procedural act, recognises the attachment of the document to the appeal as an acceptable alternative[38]. In certain instances, the Court appears willing to go further still, accepting that a sufficiently clear, complete, and structured summary, capable of rendering the essential contours of the dispute immediately intelligible, may adequately satisfy the burdens flowing from the principle of self-sufficiency[39].

Despite the predominance of a rigorist jurisprudential approach, dissenting voices persist. By returning to a more faithful adherence to the *littera legis* and to the ratio underlying the reform, these positions stand in counterpoint to prevailing formalism. Under this alternative reading, self-sufficiency is emancipated from its formalistic excesses: at times it is restored to the familiar boundaries of localisation; at others it is rediscovered in its original character as an integrative corollary of the principle of specificity[40], with the consequent exclusion of full transcription from the catalogue of indispensable prerequisites for access to review on points of law[41].

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[37] In confirmation of the foregoing, see Cass. 23 marzo 2010, n. 6937, which states: "For the proper fulfilment of the burden imposed upon the appellant by no. 6 of art. 366 c.p.c., to indicate specifically in the appeal also the procedural acts upon which it is based (and to transcribe them in full with reference to the parts subject to complaint), it is necessary, in compliance with the principle of self-sufficiency of that procedural act, that they also be identified with reference to the sequence of documentation concerning the conduct of the proceedings as a whole, as transmitted to the Court of Cassation, in order to make their examination possible." In the same terms, Cass. 16 marzo 2012, n. 4220, ECLI:IT:CASS:2012:4220CIV; Cass. 9 aprile 2013, n. 8569, ECLI:IT:CASS:2013:8569CIV.

[38] See, for example, Cass. 20 aprile 2010, n. 9379, ECLI:IT:CASS:2010:9379CIV, in which the Court observes that the appellant "avrebbe dovuto riportare (ovvero allegare al ricorso) il contenuto dell'appello proposto".

[39] Cf. Cass. 17 marzo 2020, n. 6517, ECLI:IT:CASS:2020:6517CIV.

[40] On this point, see Cass., sez. un., 22 maggio 2012, n. 8077, ECLI:IT:CASS:2012:8077CIV, in which it is affirmed that the principle of self-sufficiency constitutes a corollary of the requirement of specificity of the grounds of appeal, now embodied and clarified by arts. 366, comma 1, n. 6, and 369, comma 2, n. 4 c.p.c.

[41] See Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "…Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., pp. 19–20: "The more perceptive, albeit minority, case law of the Supreme Court thus appears to have correctly interpreted and enhanced the legislative amendments introduced by the 2006 reform, properly grasping their rationale and the judicial policy choices underlying them, essentially reviving the originally 'light' version of self-sufficiency, understood exclusively as a duty of 'localisation' of the act. The Court of Cassation, in compliance with that institutional agreement concluded with the reforming legislature, expressly goes so far as to exclude the necessity of transcribing, on pain of inadmissibility, the acts forming the basis of the appeal, requiring exclusively, pursuant to the principle in question—the specification of the procedural stage in which the document,

The instability permeating the interpretative landscape is further exacerbated by the emergence of a minority line of authority which, overturning the perspective adopted by the prevailing case law, not only strips full transcription of any relevance, but even goes so far as to declare the appeal inadmissible on that very ground[42]. From this standpoint, the mechanical reproduction of the content of procedural acts amounts to little more than an implicit referral back to the acts themselves, a result indistinguishable from that which would follow were the appeal reduced to a mere inventory of documents, leaving it to the Court to examine them and extract the essential information.

Such an approach effectively shifts onto the Court of Cassation an activity which, being inherent in the content of the appeal as a party's pleading, properly falls within the appellant's prerogative. The consequence is a distortion of the Court's institutional role and an additional prolongation of the time required to dispose of the proceedings, in manifest tension with the principle of the reasonable duration of the trial[43].

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though identified in its essential elements within the appeal, was produced in the merits proceedings". Emblematic on this point is Joint Sections of the Court of Cassation, 31 October 2007, No. 23019, which states: "With reference to the first objection, it must be clarified that D.Lgs. 2 February 2006, No. 40, art. 5, which is applicable *ratione temporis* to the present appeal, by amending the wording of art. 366 c.p.c., established that the appeal in cassation must contain, on pain of inadmissibility, the 'specific' indication of the procedural acts and documents upon which it is founded; where that requirement is complied with, the amended text of art. 369 c.p.c., No. 4, sanctions with procedural inadmissibility (*improcedibilità*) the failure to file, together with the appeal, the aforementioned acts and documents. The new discipline governing appeals in cassation is marked by greater rigour, in order to ensure the precise identification of the scope of the dispute devolved to the court of review on points of law, by imposing, on pain of inadmissibility, both the formulation of questions of law in the cases provided for by art. 360 c.p.c., Nos. 1, 2, 3 and 4, and the clear indication of the disputed facts in the case provided for by No. 5 (art. 366 bis c.p.c.), as well as the specific indication of the procedural acts, documents and collective agreements or contracts upon which the appeal is based (art. 369 c.p.c., No. 4). Whereas previously it was sufficient, in order to guarantee the self-sufficiency of the appeal in cassation, that the questions submitted to the court of review could be inferred with sufficient clarity from the text of the appeal in relation to the acts and documents contained in the parties' files of the merits proceedings, whose non-filing did not, according to the interpretation adopted in the case law, entail the sanction of procedural inadmissibility in cases where examination of those acts and documents was deemed unnecessary for the purposes of the decision, and to those further documents filed within the limits permitted by art. 372 c.p.c., there is now required the 'specific' indication of the acts and documents forming the basis of the appeal, in order to achieve the absolute and precise delimitation of the *thema decidendum*, by precluding the court of review from exceeding the scope of the questions submitted to it and from grounding its decision on findings other than those emerging from the acts and documents specifically indicated by the appellant". In the same vein, Court of Cassation, 17 July 2008, No. 19766, in which the Supreme Court clarifies: "Indeed, the requirement set out in art. 366 c.p.c., No. 6, in order to be satisfied, presupposes that it be specified in which procedural stage the document, although identified in the appeal (as in the present case), was produced, since to indicate a document necessarily means, in addition to specifying the elements that identify it, to state where in the proceedings it may be found".

In confirmation of this orientation, see Court of Cassation, 2 December 2008, No. 28547, ECLI:IT:CASS:2008:22648CIV; 12 December 2008, No. 29279, ECLI:IT:CASS:2008:29279CIV; 23 September 2009, No. 20535, ECLI:IT:CASS:2009:20535CIV; 13 November 2009, No. 24178, ECLI:IT:CASS:2009:24178CIV.

[42] See, for example, Joint Sections of the Court of Cassation, 17 July 2009, No. 16628, ECLI:IT:CASS:2009:16628CIV; Court of Cassation, 22 September 2009, No. 20393, ECLI:IT:CASS:2009:20393CIV; Court of Cassation, 24 July 2013, No. 18020, ECLI:IT:CASS:2013:18020CIV.

[43] In confirmation of the foregoing, see Joint Sections of the Court of Cassation, 9 September 2010, No. 19255, ECLI:IT:CASS:2010:19255CIV.

Moreover, this drafting technique proves wholly incapable of complying with Article 366(1)(3) of the Code of Civil Procedure. Rather than incorporating into the body of the appeal a clear exposition of the facts of the case, it refers their identification to sources external to the pleading itself, thereby depriving that provision of its nature as a formandcontent requirement of the initiating act in cassation proceedings.

If, therefore, the legislative intent underlying the reform was transparent—namely, to confine selfsufficiency within clearer boundaries and to purge it of the formalistic accretions that had distorted its function—its practical implementation has proved far more elusive.

In the present author's view, the causes of this failure are attributable to a dual responsibility. A significant part undoubtedly lies with the legislative choice itself: the vagueness of the statutory wording, far from permitting a unitary reading, facilitated the proliferation of conflicting interpretations and, at times, even encouraged the stratification of additional requirements upon appellants. Yet the more decisive contribution to this fragmentation derives from the case law of the Court of Cassation. In particular, the Joint Sections, entrusted with the primary task of "ensuring the exact observance and uniform interpretation of the law, and the unity of national objective law"—have, in practice, fallen short of that mandate, endorsing divergent interpretations over time and thereby undermining their role as guardians of legal unity.

2.3. The reform's failure and the institutional reaction of 2013

If, therefore, the intent underlying the reform was unequivocal (*i.e*. to confine self-sufficiency within clearer boundaries, purging it of the formalistic accretions that had distorted its function), its practical implementation proved far more arduous. In the present author's view, the causes of this failure are attributable to a dual responsibility. A significant share undoubtedly lies with the legislative choice: the vagueness of the statutory wording, far from lending itself to a unitary interpretation, facilitated the proliferation of divergent readings and at times even fostered the layering of additional burdens upon the appellant. Yet the more decisive contribution to this fragmentation derives from the jurisprudence of legitimacy. In particular, the Joint Sections, primarily entrusted with the task of "ensuring the exact observance and uniform interpretation of the law, and the unity of national objective law"[44], ultimately fell short of that mandate, endorsing conflicting interpretations over time and thereby compromising their role as guarantors of legal unity.

A (belated) attempt to curb the interpretative excesses that had characterised the application of the principle of self-sufficiency from its inception may

[44] Art. 65 of R.D. No. 12 of 30 January 1941.

be found in the letter dated 17 June 2013[45] from the then First President of the Court of Cassation, Giorgio Santacroce, to the then President of the National Bar Council, Guido Alpa. That letter constitutes the first tangible sign of an institutional awareness, on the part of the Court, of the crisis affecting the institute. It marks, for the first time at an official level, the delineation of guidelines intended to govern the drafting of appeals, employing language that places particular emphasis on the requirements of conciseness and clarity.

The first of these requirements, conciseness, finds its paradigmatic expression in a 20-page limit, albeit subject to exceptional derogation where the extraordinary complexity of the case demands more extensive treatment. In such instances, the requirement may nonetheless be deemed satisfied where the pleading is accompanied by a summary, not exceeding two or three pages, highlighting the salient aspects of the dispute and the issues of greatest legal significance.

As to clarity, the letter recommends the inclusion of an index or summary in each pleading, so that the judge may be guided clearly and immediately in its reading and comprehension.

It is further emphasised that these indications must also govern the drafting of the individual grounds of appeal, which should be concise and focused, in order to avoid what may be described as a "fragmentation" of the issue constituting the core of the complaint, through repetitive formulations that undermine the overall coherence of the reasoning.

The letter also clarifies that such recommendations are in no way incompatible with the principle of self-sufficiency of the appeal to the Court of Cassation. That principle does not require the full transcription of the documents underpinning the appeal; rather, it demands a concise indication of the documentary passages decisive for the proper understanding and assessment of the case by the court of legitimacy.

lthough formally addressed to counsel, with the declared aim of guiding them in the proper drafting of appeals, this clarification appears to pursue a broader objective. In reality, it reads as a subtle attempt to influence the interpretation of the principle of self-sufficiency itself, directing judges towards its correct application. In the present author's view, were these remarks truly directed at practitioners alone, they would have been entirely devoid of practical effect. Even had counsel scrupulously followed the recommendation by omitting full transcription, the almost unanimous case law of the time would nonetheless have resulted in a declaration of inadmissibility for lack of self-sufficiency, thereby rendering adherence to the directive not merely futile but potentially detrimental.

It is noteworthy, finally, that the First President—unlike the legislator—did not resort to indeterminate or ambiguous formulae, but adopted a position

[45] For further analysis, reference may be made to the text of the letter (2013_Lettera_Cnf.pdf).

of unequivocal clarity. Nevertheless, the intended corrective effect once again failed to materialise. The path already entrenched in judicial practice proved too deeply rooted to be altered by so mild an intervention, and the requirement of full transcription continued to resonate in the immediately subsequent case law[46].

In light of the more than decade-long persistence, within the jurisprudential landscape, of an approach that has never truly abandoned the imposition of full transcription, it appears evident that only an authoritative intervention could prove genuinely decisive.

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[46] Santangeli, F. (2014). Autosufficienza. Ieri, oggi, domani. "…Eppur si muove…". Dal peccato di omissione al peccato di commissione, cit., pp. 45–48, provides an overview of the positions adopted, in the subsequent two-year period, by the different divisions of the Court of Cassation. The principal trends may be summarised as follows.

With regard to the First Division: "The First Division of the Court of Cassation, in matters concerning contractual interpretation, maintains the position that 'in compliance with the principle of specificity of the grounds and self-sufficiency of the appeal, the full transcription of the entire contractual regulation of the relationship, or of the contested part thereof, is required, even where the judgment has referred to it, reproducing only part of its content, whenever such partial reproduction does not allow for a reliable reconstruction of the different meaning which the appellant seeks to attribute to it.'" Similarly, in challenges directed at a court-appointed expert report, it requires both the indication of the circumstances and elements to be subjected to review on points of law and the full reproduction of the portions of the expert report criticised. Yet, in another decision, again concerning challenges to expert reports, the necessary indication of the specific grounds of criticism is not accompanied by an obligation to transcribe the contested passages. On this point, see Cass. 15 May 2013, No. 11699, ECLI:IT:CASS:2013:11699CIV; Cass. 3 September 2013, No. 20131, ECLI:IT:CASS:2013:20131CIV; Cass. 4 June 2014, No. 12547, ECLI:IT:CASS:2014:12547CIV. There are, however, cases in which self-sufficiency is confined to the mere indication of the grounds of appeal; see, for example, Cass. 10 February 2014, No. 2962. "The Second Division of the Court of Cassation has clarified that a party challenging a judgment for failure to rule on a claim or objection bears, pursuant to the principle of self-sufficiency of the appeal and on pain of inadmissibility for lack of specificity, the burden not only of specifying in which pleading or hearing record the claim was raised, but also of setting out the arguments advanced in support of that request. It considers inadmissible, for breach of the principle of self-sufficiency, a ground alleging failure to examine private writings where their text has not been reproduced in the appeal; it approves the full transcription of documentary and testimonial evidence carried out by the appellant in compliance with the principle of self-sufficiency." For references, see Cass. 4 January 2013, No. 94, ECLI:IT:CASS:2013:94CIV; Cass. 9 January 2013, No. 316, ECLI:IT:CASS:2013:316CIV; Cass. 8 February 2013, No. 3137, ECLI:IT:CASS:2013:3137CIV. The Third Division, in certain instances, requires, on pain of inadmissibility, the full transcription of the content of the acts upon which the appeal is founded (Cass. 12 December 2014, No. 26155); in other cases, however, it appears satisfied with their mere localisation (Cass. 10 February 2015, No. 2489). The Fourth Division, where defects concerning *ultra petita* or *extra petita* rulings are alleged, has required the transcription of the ground of appeal within the appeal in cassation (Cass. 15 January 2013, No. 817); a similar approach is adopted with respect to contractual clauses whose re-examination is sought before the Court of Cassation (Cass. 15 November 2013, No. 25728). At times, however, in order to deem the principle of self-sufficiency satisfied, it has considered sufficient the analytical indication of the documents allegedly not examined (Cass. 16 January 2013, No. 892). The Fifth Division has required the complete reproduction of the passages of the reasoning contained in a tax assessment notice alleged to have been misinterpreted or disregarded by the court of merits (Cass. 4 April 2013, No. 8312; Cass. 19 April 2013, No. 9536; Cass. 17 October 2014, No. 22003). However, the same Author notes that: "In other decisions, by contrast, it is held that the appellant in cassation who intends to complain of the failure to examine, or erroneous assessment of, a document by the court of merits bears a dual burden: to indicate in which procedural phase and in which party file the document is located, and also to highlight its content within the appeal in cassation, being permitted either to transcribe it or merely to summarise it in its precise terms." On this issue, see Cass. 22 January 2013, No. 1435, ECLI:IT:CASS:2013:1435CIV.

2.4. The 2013 memorandum of understanding on cassation appeal drafting and the supreme court's response

Yet the hoped-for decisive intervention did not materialise, neither in the form of a legislative pronouncement nor through a ruling of the plenary bench. Where one might have expected an authoritative act, the matter instead culminated in an unprecedented solution: a genuine instance of institutional mediation. Thus, on 17 December 2015, the First President of the Court of Cassation, Giorgio Santacroce, and the President of the National Bar Council, Andrea Mascherin, signed not one but two Protocols of Understanding[47] on the drafting rules governing grounds of appeal, one concerning civil and tax matters, the other criminal proceedings[48].

Although formally external to the hierarchy of legal sources, the initiative sought to steer drafting practice, in the hope of stabilising an interpretative framework otherwise destined to persist in uncertainty.

The document emerged in response to a dual tension: on the one hand, the Supreme Court faced the pressing need to safeguard the efficiency of cassation proceedings, increasingly burdened by the proliferation of defensive pleadings whose excessive argumentative development often proved an obstacle rather than an aid to judicial comprehension; on the other hand, practitioners felt compelled to shield themselves from the pitfalls inherent in the jurisprudential application of the principle of self-sufficiency, whose multiple doctrinal constructions had fostered defensive prolixity driven less by substantive argumentative necessity than by the apprehension of a detrimental declaration of inadmissibility[49].

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[47] Regarding the meaning and scope of this instrument, Turroni, D. (2018), I Protocolli d'intesa e la loro rilevanza giuridica: tra regola e fatto. *Giurisprudenza italiana*, p. 790, observes: "In ordinary usage, the 'memorandum of understanding', transposed from diplomatic practice, is a programmatic declaration whereby several parties undertake to carry out certain actions (to promote initiatives, rules of conduct, devise solutions, pursue objectives) […] In the context of civil justice, the term refers to documents that identify shared rules of conduct concerning procedural activity, which the signatories undertake to promote within their respective spheres of competence. Typically, the signatories are the heads of the offices concerned and the presidents of the bar associations; occasionally, representatives of civil justice observatories or other representative organisations active in the field of justice are also involved."

[48] The drafting of the texts was entrusted to two joint working groups composed on an equal footing of Justices of the Court of Cassation and members of the National Bar Council, in implementation of the understandings reached between the Presidents at their meeting of 30 July of the preceding year. As regards the criminal Protocol, it was prepared with the contribution of President Giovanni Conti, Justice Matilde Cammino of the Court of Cassation, and members of the National Bar Council Rosa Capria (Secretary) and Stefano Savi (Coordinator of the Criminal Procedure Commission), with the valuable input of Professor Giorgio Spangher. The Protocol concerning civil and tax matters, for its part, was drafted by Justices Giovanni Mammone and Raffaele Botta of the Court of Cassation, together with members of the National Bar Council Andrea Pasqualin and Carlo Allorio, coordinators respectively of the Civil Procedure Commission and the Tax Procedure Commission.

[49] The objective pursued by the Protocol emerges unequivocally from its recitals, which state: "The Court of Cassation, represented by the First President, Giorgio Santacroce, and the National

In pursuing these objectives, the Protocol aimed at the substantive simplification of party pleadings, positioning itself as a genuine drafting vademecum. By laying down clear and stringent limits as to length and content, it sought to preserve an appropriate balance between form and substance, thereby ensuring the prompt and effective usability of the pleading by the adjudicating court[50].

With regard to the effective scope of self-sufficiency, the Protocol ultimately positioned itself as the long-awaited response to a question that had long animated legal debate: what specific burdens flow from this principle? In an intervention marked by clear discontinuity with consolidated jurisprudential trends, it reaffirmed and at the same time strengthened, the stance previously articulated by the First President, unequivocally dispelling the assumption that full transcription could constitute an obligation incumbent upon the appellant[51]. Since, as noted, case law had continued to move in the opposite direction, reiterating a practice that, in effect, burdened appellants with requirements lacking any genuine normative foundation, the significance of this statement lies in its decisive rupture with the past, severing the bonds of a formalism that had by then become devoid of legitimacy.

Under this renewed framework, the only residual obligation upon the appellant ought to have been that of providing an accurate indication of the page

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Bar Council, represented by its President, Andrea Mascherin, in the conviction that the time is ripe for a shared acknowledgement: 1) of the difficulties encountered in managing proceedings before the Court of Cassation: (a) on the one hand, as a result of the proliferation of appeals, counter-appeals and briefs disproportionate in the exposition of grounds and arguments; and (b) on the other, owing to the acknowledged difficulty of defining in a clear and stable manner the meaning and limits of the so-called principle of self-sufficiency of the appeal as developed in the case law; 2) considering that the excessive length of party pleadings may hinder effective comprehension of their essential content, with adverse consequences for the clarity and expedition of the decision; 3) further considering that such overextension may be, at least in part, the product of counsel's reasonable concern to avoid findings of inadmissibility for lack of self-sufficiency, and that there is therefore a need more precisely to define the limits of that principle in light of concrete and effective normative data; 4) deeming that a significant simplification may result from the adoption of a drafting model for appeals that delineates their substantive limits and facilitates their immediate comprehension by the adjudicating court, without the failure to comply with dimensional limits entailing an automatic procedural sanction […]".

[50] For further reference, the full text of the Protocol is freely accessible on the official website of the Court of Cassation and on the website of the National Bar Council.

[51] Indeed, the text of the document expressly states: "Compliance with the principle of self-sufficiency does not entail an obligation to reproduce in full, within the appeal or the counter-appeal, the acts or documents to which reference is made therein. The aforementioned principle must be deemed satisfied, even with respect to appeals falling within the jurisdiction of the Tax Section, where: 1) each ground advanced in the appeal complies with the requirements of specificity laid down by the Code of Civil Procedure; 2) in the text of each ground, where required, the act, document, contract, or collective agreement on which the ground is based is identified (art. 366(1)(6) c.p.c.), together with a specific indication of the precise location (point) within the act, document, contract, or collective agreement to which reference is made; 3) in the text of each ground, where required, the time (statement of claim or originating application, appearance in the proceedings, written submissions, etc.) of the filing of the act, document, contract, or collective agreement, as well as the procedural stage (first instance, second instance, etc.) in which such filing occurred, are indicated; 4)the acts, documents, contract, or collective agreement referred to in the appeal and counter-appeal are attached to the appeal (in a separate booklet, to be added to the party's file relating to the previous stages of the proceedings), pursuant to art. 369(2)(4) c.p.c."

and, where appropriate, the line or paragraph, where the Court of Cassation could readily locate the relevant passage, thereby fulfilling what has authoritatively been termed an obligation of "internal localisation"[52]. In parallel, the appellant would also be required to identify the file and the specific repository in which the procedural act or document grounding the appeal is contained, thus complying with the corresponding obligation of "external localisation."

The use of the conditional tense is by no means incidental. In practice, the recommendations proved largely *tamquam non essent*[53]. Notwithstanding the Protocol's attempt to inaugurate a change of direction, the jurisprudential landscape remains dotted with decisions in which the Court persists in requiring full transcription of the documents forming the basis of the appeal[54]. In so doing, it manages the paradoxical feat of disregarding the very guidelines

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[52] See Consolo, C. (2016). Il Protocollo redazionale CNF – Cassazione, Glosse a un caso di soft law (… a rischio di esser riportato quale hard black letter rule). *Giurisprudenza italiana*, p. 2775. The distinction between "internal" and "external" localisation is likewise taken up by Succio, R. (2019). Il principio di autosufficienza dei motivi di ricorso alla Suprema Corte: alcune considerazioni, cit., p. 82, who, with regard to so-called external localisation, further observes: "The indication of the 'time' of production also contributes to fulfilling the burden of external localisation, in that the parties must refer to the procedural moment at which a given pleading was filed and, with respect to documents, to the specific document, identified by the number assigned to it by counsel, contained in the file relating to the relevant stage of the proceedings. This burden is accompanied by the additional requirement of subsequent attachment in a separate booklet, which is to be added to the party's file from the previous stages".

[53] See also Giunchedi, F., & Sassani, B. (2021). La cruna dell'ago (a proposito del principio di autosufficienza). *Archivio penale*, p. 8.

[54] See, inter alia, Court of Cassation, 11 February 2015, No. 2617, ECLI:IT:CASS:2015:2617CIV; 18 May 2017, No. 19507, ECLI:IT:CASS:2017:19507CIV; 23 June 2017, No. 15737, ECLI:IT:CASS:2017:-15737CIV; 17 January 2019, No. 10210, ECLI:IT:CASS:2019:10210CIV; 10 April 2019, No. 9990, ECLI:IT:CASS:2019:9990CIV;. Reference should also be made to Court of Cassation, 27 October 2017, No. 995, ECLI:IT:CASS:2017:995CIV, which states: "Having regard to the foregoing, it must be observed that the thesis advanced by the employee in support of the criticism is manifestly deficient from the standpoint of self-sufficiency, since it fails to reproduce in full the wording of the judgment […]. The case law of this Court has long emphasised the necessary coordination between the principle according to which the interpretation of an external judgment may be carried out directly by the Court of Cassation with full jurisdiction, and the principle of the necessary self-sufficiency of the appeal. It has indeed affirmed that 'The interpretation of an external judgment may also be undertaken directly by the Court of Cassation with full jurisdiction, provided, however, that the judgment is reproduced in the appeal in cassation, by virtue of the principle of self-sufficiency governing this form of challenge. Consequently, where the interpretation given by the court of merits is deemed incorrect, the appeal must reproduce the text of the judgment alleged to have been misinterpreted, including both the reasoning and the operative part, since the operative part alone is insufficient to comprehend the judicial command' [see, in the reasoning, Cass. 31 July 2012, No. 13658, ECLI:IT:CASS:2012:13658CIV; Cass. 15 October 2012, No. 17649, ECLI:IT:CASS:2012:17649CIV; to which add Cass. 13 December 2006, No. 26627, ECLI:IT:-CASS:2006:26627CIV; Joint Sections, 27 January 2004, No. 1416, ECLI:IT:CASS:2004:1416CIV. That line of authority has further stressed that grounds of appeal in cassation founded upon an external judgment must comply with the requirements laid down in art. 366(1)(6) c.p.c., which constitutes the normative embodiment of the principle of self-sufficiency (cf. Cass. 18 October 2011, No. 21560; Cass. 30 April 2010, No. 10537; Cass. 13 March 2009, No. 6184); this applies both with regard to the reproduction of the text of the judgment having res judicata effect, since a mere summary is insufficient for that purpose (cf. Cass. 11 February 2015, No. 2617), and with regard to the specific indication of the procedural location in which it may be found and examined in the present proceedings in cassation (see Cass. No. 21560/2011)". To the same effect, see Court of Cassation, 8 March 2018, No. 5508, ECLI:IT:CASS:2018:5508CIV; 16 October 2018, No. 31341, ECLI:IT:CASS:2018:31341CIV.

it had itself delineated, assuming simultaneously the role of rule-maker and transgressor of its own prescriptions.

It follows that, rather than constituting the definitive settlement of the debate concerning the true scope of the principle of self-sufficiency[55], the Protocol instead gave rise to a further question: what is its legal nature, and what degree of binding force may it legitimately claim?

A first strand of scholarship[56] has unhesitatingly classified the Protocol among instruments of soft law, construing it as a set of directives devoid of binding force[57], unless the parties voluntarily elect to comply, and in any event lacking any direct legal consequences in the event of non-observance.

A different interpretative current[58] advances a more nuanced reconstruction. It discerns in the Protocol the contours of a form of consensual regu-

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[55] The scholarly output on this topic is vast. Among the many contributions, particular mention should be made of Rusciano, S. (2017). Ancora autosufficienza del motivo di ricorso per cassazione. Ma non era iniziata l'era della sinteticità degli atti?, note to Cass. 9 May 2017, No. 112312, *Judicium*. *https://www.judicium.it*. The decision under comment is an order in which the Court of Cassation once again declared the appeal inadmissible, relying on the most stringent construction of the principle. On that occasion, the Supreme Court reaffirmed that: "In relation to claims for damages concerning statements alleged to be defamatory in the press, the party challenging the assessment carried out by the court of merits as to the defamatory nature of the article […] is required, in compliance with the principle of self-sufficiency, to identify, if necessary by reproducing it directly, where required in light of the object of the criticism advanced in the ground of appeal, and, where the assessment so permits, indirectly, the content of the article in the portion to which the criticism refers, also specifying where the Court may examine it in order to verify that the reproduced content corresponds to the actual text". Such an approach prompts the following reflection on the part of the author: "[…] It invokes the principle of self-sufficiency along the lines of a body of case law that, by now, appeared to have been superseded. On the one hand, art. 366 c.p.c. does not seem to impose upon the appellant an obligation of full transcription of the act or document to which the complaint refers, but rather, at most, the distinct requirement of localisation; on the other hand, as clarified by the Protocol of Understanding between the Court of Cassation and the National Bar Council concerning the drafting rules for grounds of appeal in civil and tax matters (17 December 2015), 'compliance with the principle of self-sufficiency does not entail an obligation of full transcription, within the appeal or counter-appeal, of acts or documents to which reference is made therein.' Today, even more than in the past, the principle of self-sufficiency of the complaint (which inevitably entails an overgrown pleading) appears to have been definitively supplanted by another, more up-to-date criterion that ought to inform the drafting technique of judicial acts: the principle of conciseness. This principle has already received express normative recognition in the field of administrative proceedings (Decree of the President of the Council of State of 22 December 2016—pursuant to art. 13-ter of the implementing provisions to the Code of Administrative Procedure, as amended by Decree-Law No. 168/2016, converted into Law No. 197/2016) and, albeit in the form of a mere exhortation, in electronic civil proceedings (art. 16-*bis*, para. 9-*octies*, Decree-Law No. 179/2012) and is shortly to become the guiding canon for pleadings in civil proceedings as well".

[56] Among the proponents of this line of thought are Consolo, C., (2016) *Il Protocollo redazionale CNF – Cassazione, Glosse a un caso di soft law (… a rischio di esser riportato quale hard black letter rule)*, cit., pp. 2768 ff.; Menicucci, M. (2019). Considerazioni sull'autosufficienza, il giudicato, i vani sforzi imposti all'avvocato, il grado di legittimità in generale. *Il Lavoro nella giurisprudenza*, p. 779; Cappello, F. Le linee guida per la redazione del ricorso in Cassazione: natura ed efficacia temporale; il principio della sinteticità e chiarezza degli atti processuali. *Judicium.* www.judicium.it

[57] There are, however, those who maintain that, although the Protocols generally have the value of *moral suasion* with regard to the internal organisation of judicial offices, they are instead binding upon judges. On this point, see Graziosi, G. La nuova figura del giudice civile tra riforme processuali, moduli organizzativi e protocolli d'udienza. *Judicium.* www.judicium.it.

[58] See also Punzi, C. (2016). Il principio di autosufficienza e il "Protocollo d'intesa" sul ricorso in cassazione. *Rivista di diritto processuale,* pp. 585 ff.; Panzarola, A. (2016). La difesa scritta e orale in

lation grafted onto the normative framework governing appeals before the Court of Cassation, thereby enriching its regulatory architecture. Although devoid of binding force in the strict sense, it functions as an operational guide for forensic practice, orienting defence counsel in the drafting of appeals and judges in their interpretation of the principle of self-sufficiency. Understood in this light, the Protocol echoes the logic of the French *contrat de procédure*: an agreement between judges and lawyers aimed at crystallising shared practices into regulatory standards which, while lacking coercive enforceability, nonetheless assume tangible regulatory significance in the management of proceedings[59].

A further approach, by contrast, underscores its atypical nature which, by reason of its peculiar features, eludes ordinary classifications, observing that the Protocol does not stem from the spontaneous development of practice, but rather originates from an agreement between institutional actors, vested with authority to represent the two professional categories involved, namely the judiciary and the legal profession. Moreover, although not accompanied by sanctions of inadmissibility or improcedibility, its breach is not devoid of consequences, since it may be reflected in the judicial determination of litigation costs[60].

Despite the plurality of interpretative positions, the debate converges upon a common denominator: the denial of the Protocol's direct binding force. If it is accepted that it does not lay down mandatory rules, it follows that the adjudicating panel, in assessing the appeal, may legitimately depart from it, an approach that appears consistent with Article 101 of the Constitution, which provides that "Judges are subject only to the law", thereby excluding any subordination to sources of a different nature. Yet such a position is not without

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cassazione dopo il Protocollo d'intesa Mascherin-Santacroce e la legge 25 ottobre 2016 n. 197. *Il giusto processo civile*, p.1061 ff.

[59] Caponi, R. (2008). Autonomia privata e processo civile: gli accordi processuali. *Rivista Trimestrale di Diritto e Procedura Civile*, p. 112, who observes that: "A separate discussion, as an expression of a form of collective autonomy involving not only the parties but also the judicial offices, is warranted by the practice of the "contrat de procédure", initiated in the French legal system […] In this direction, within the Italian legal order, moves the experience of the civil justice observatories: a group of judges, lawyers, court personnel and university professors freely undertake to act, through joint or coordinated initiatives, in order to attempt to alleviate, insofar as possible, the inefficiency of civil justice within a given local context. Among the principal activities of the observatories is the "codification" of self-regulated and shared practices, collectively oriented towards promoting efficiency in the management of proceedings (the 'protocols')"». With regard to their legal nature, the same Author notes: «As to the effectiveness of the rules contained in the protocols, it is not binding in character but merely persuasive; however, this does not exclude the possibility of qualifying them as legal norms, if one accepts the view according to which law is characterised by "consisting in the creation of a body of 'norms' intended to operate within the social structure of a community and in conferring upon the precepts they express a particular 'effectiveness', which renders them more or less strictly 'binding' (where the constraint is weaker, one speaks of the 'persuasive' effectiveness of norms)"». The quotation is drawn from Pizzorusso, G. (1998). Sistemi giuridici comparati. Milano, p. 6.

For further discussion, see Caponi, R. (2007). L'attività degli osservatori sulla giustizia civile nel sistema delle fonti del diritto. *Foro italiano*, V, *passim*.

[60] On this issue, see Succio, R. (2019). Il principio di autosufficienza dei motivi di ricorso alla Suprema Corte: alcune considerazioni, cit., p. 82.

internal tensions, as it may lead to the incongruous outcome whereby counsel, having scrupulously complied with the Protocol's directives, might nonetheless see the appeal declared inadmissible for lack of self-sufficiency, on the ground that it omits the verbatim reproduction of the documents upon which it relies. Such a result would not only substantially frustrate the very function of the Protocol, but would also undermine the parties' legitimate expectations, eroding the relationship of reliance upon which it is predicated.

Nonetheless, it has been observed that the coexistence and harmonisation of the two seemingly antithetical considerations—on the one hand, the non-binding nature of the Protocol, together with judicial independence in the interpretation of procedural law; and, on the other, the reliance interests of parties who have diligently adhered to its prescriptions—are not entirely unattainable. A possible solution might lie in the adoption of a technique akin to that employed in cases of overruling, which, by affording protection to those who, as a result of a shift in settled case law, incur a breach of procedural rules, enables them to remedy the defect identified, even in the absence of an express provision or beyond the ordinary time limits[61].

3. THE SELF-SUFFICIENCY PRINCIPLE UNDER SCRUTINY: THE *SUCCI ET AUTRES* V. ITALY AFFAIR

3.1. Formalism *vs*. The right to justice: the self-sufficiency principle before the ecthr

In a legal landscape in which formalism exceeds its organising function, caselaw oscillates between discordant solutions and judges multiply mutually irreconcilable interpretative paths, with the result that procedural law risks losing its centre of gravity and drifting away from the ultimate horizon of adjudication: the effective protection of individual legal rights. Thus, access to justice, an inalienable and universal right, finds itself suspended in an

[61] Turroni, D. (2018), I Protocolli d'intesa e la loro rilevanza giuridica: tra regola e fatto, cit., pp. 790–791. The Author further develops the analysis, observing that: "The foreseeable objection concerns the difference between the two phenomena. A consolidated line of case law, upon which the protection of legitimate expectations in procedural matters is grounded, is obviously not the same as a 'protocol' signed by representatives of the relevant professional bodies and judicial offices. The former is the result of a jurisprudential orientation that is generally shared and maintained over time; the latter, by contrast, is a declaration that does not necessarily express a settled position on the legal issue. If one starts from the premise that a stable line of authority is required in order to generate legitimate expectations as to the resolution of a point of law, then 'protocols' would in many cases lack the necessary prerequisites. This objection, however, seems to me capable of being overcome, at least with regard to the protocols concluded by the Court of Cassation, which has the function of ensuring uniform interpretation of the law (nomofilachia) among its institutional duties (Art. 65 of the Judicial Organisation Act). A memorandum of understanding such as those at issue constitutes an important policy statement capable of generating a high degree of legitimate expectation. In any event, the protection of parties who comply with it is a necessary, besides acceptable, counterpart in order to confer upon these documents the requisite credibility on their most significant aspects, and to prevent them from being reduced to mere compilations of practice".Inizio moduloFine modulo

unresolved tension: on the one hand, the need to ensure rigour and systemic coherence; on the other, the risk that an excess of form may turn into an insurmountable obstacle to the very right at stake [62].

It is precisely within this framework that the judgment in *Succi and Others v. Italy*, delivered by the European Court of Human Rights on 28 October 2021, must be situated. The Court was called upon to scrutinise the conduct of the Italian Court of Cassation in the light of Article 6 § 1 of the European Convention on Human Rights. On that occasion, the Grand Chamber was seised of three applications, joined for a single examination, in which the applicants alleged a violation of their right of access to a court following declarations of inadmissibility issued by the Court of Cassation, which had prevented a full examination of their respective claims [63].

Although the grounds underlying those rulings were heterogeneous, they converged on the principle of selfsufficiency as the core of the dispute. According to the applicants, that principle operated as an excessively stringent filter which, in its intransigence, ultimately erected a barrier to the exercise of their substantive rights.

The judgment does not merely resolve the specific dispute; rather, it serves as a catalyst for broader reflection on the procedural system as a whole. The crux lies in the delicate boundary between the legitimate need for rigorous procedural discipline and the danger that such rigour may entail the sacrifice of judicial protection. The Strasbourg Court, called upon to navigate this fragile equilibrium, positions itself as the arbiter of an unresolved tension, one in which justice risks dissolving within the meshes of a formalism that has become an end in itself.

The first application [64] concerned a dispute arising from eviction proceedings relating to the lease of commercial premises. The case culminated, at the appellate stage, in a judgment of the Court of Appeal of Catania which, fully upholding the first instance decision, declared the lease terminated and ordered the immediate surrender of the properties.

Considering his rights to have been infringed, the applicant, acting as manager of the tenant company, lodged an appeal with the Court of Cassation

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[62] With regard to situations in which formal rigour conceals a case of *denegata giustizia*, see Chiarloni, S. Il diritto vivente di fronte alla valanga dei ricorsi in cassazione: l'inammissibilità per violazione del c.d. principio di autosufficienza, cit., *passim*.

[63] In this respect, it is worth recalling that the European Court of Human Rights has already had occasion to address the issue of the right of access to justice, with particular regard to appellate proceedings. Indeed, in its judgment of 5 April 2018, *Zubac v. Croatia*, the Strasbourg Court clarified that, although Member States are not required to structure their judicial systems on multiple levels by providing for a system of double or triple instances, where such a system is established it must comply with the procedural guarantees enshrined in Article 6 of the European Convention on Human Rights. Nevertheless, it is acknowledged that, in the context of appellate proceedings, those guarantees may assume a different configuration, thus justifying, by reason of their nature, more stringent admissibility criteria, provided that this does not result in an unreasonable restriction of the right of defence.

[64] n. 55064/11, *Succi*.

on 2 March 2010, advancing five grounds of appeal. By Order No. 4977/2011, however, the Sixth Civil Section declared the appeal inadmissible for breach of Article 366(1), Nos. 4 and 6, of the Code of Civil Procedure.

In particular, the Supreme Court censured the serious structural deficiencies affecting the appeal, noting the absence of a heading capable of clearly identifying the alleged defects, the failure to refer to any of the grounds exhaustively listed under Article 360 c.p.c. and the omission of specific documentary references supporting the arguments advanced[65].

The second appeal[66], on the other hand, originated from a claim for damages brought by the owner of a property against a municipality for harm caused to the building as a consequence of works carried out in the vicinity of his property. Although the Tribunal had initially upheld the claim, the Court of Appeal of Naples overturned that decision and, excluding the liability of the public authority, attributed the damage to the private company awarded the contract. Consequently, on 16 December 2006, the applicant brought the matter before the Supreme Court, alleging the violation and misapplication of certain provisions of the Civil Code, as well as the omission or insufficiency of the reasoning of the second-instance judgment with regard to a disputed fact deemed decisive for the resolution of the dispute.

By judgment of 14 February 2013, no. 3652, the Supreme Court declared the appeal inadmissible, finding a breach of Articles 366, first paragraph,

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[65] In order to ensure greater clarity and completeness of the exposition, it is appropriate to reproduce the passage of the judgment at issue that is decisive for a full understanding of the matter addressed: "With reference to Article 360 c.p.c., no. 4, it is reiterated that cassation proceedings, unlike appellate proceedings, are proceedings at *critica vincolata*, that is, limited to the grounds specifically provided for in Article 360. Accordingly, they require, on the one hand, for each ground of appeal, a heading (*rubrica*) clearly indicating the reasons why that particular ground, among those expressly set out in Article 360 c.p.c., is invoked; on the other hand, they require an illustration of each individual ground, setting out the arguments relied upon in support of the challenge to the decision embodied in the contested judgment and a detailed specification of the considerations which, in relation to the ground as expressly indicated in the heading, justify the quashing of the judgment. With reference to no. 6 of Article 366 c.p.c., it is reiterated that it is settled case-law that, following the reform introduced by Legislative Decree no. 40 of 2006, the amended Article 366, paragraph 1, no. 6, in addition to requiring the 'specific' indication of the acts and documents on which the appeal is based, also requires that the procedural stage at which the document, though identified in the appeal, was produced be specified. Where such specific indication concerns a document produced in the proceedings, it presupposes identification of where it was produced in the proceedings on the merits and, pursuant to Article 369, paragraph 2, no. 4, that it also be filed in the proceedings before the Court of Cassation. In other words, where an appellant in cassation intends to complain of the omission or erroneous assessment of a document by the court of merit, he is subject to a dual obligation, imposed by Article 366, paragraph 1, no. 6, to file the document and to indicate its content. The first obligation must be fulfilled by specifying precisely in the appeal the procedural stage and the party's file in which the document is located; the second must be fulfilled by transcribing or summarising in the appeal the content of the document. Failure to comply with even one of these obligations renders the appeal inadmissible. The principal appeal does not comply with the above principles, since the five grounds on which it is based lack headings indicating the defects complained of and references to the cases governed by Article 366 c.p.c., and also lack reference to and indication of the documentation on which the supporting arguments are based". For the full text of the judgment and the passages not expressly cited here, reference is made to Cass., 28 February 2011, no. 4977, ECLI:IT:CASS:2011:4977CIV.

[66] No. 37781/13, *Pezzullo*.

no. 4, 366-bis[67], and 375, fifth paragraph of the Code of Civil Procedure. The *dictum* rested on two related *rationes decidendi*:[68] on the one hand, the questions of law departed from the model delineated by the case law of the Court of Cassation, lacking a concise yet precise exposition of the relevant factual elements, of the solutions adopted by the courts of merit in relation to the grounds advanced, and of the statutory provisions whose correct application would have led to a different outcome. For those reasons, they appeared abstract and generic, devoid of effective decisiveness and of concrete reference to the case under review, and did not permit, on their mere reading, either the identification of the solution adopted in the impugned judgment or a precise delineation of the terms of the challenge. On the other hand, the documents relied upon in support of the appeal were referred to without adequate textual reproduction of the relevant passages or, where such reproduction was present, without precise indication of their location in the case files of the proceedings on the merits, thereby preventing their immediate retrieval.

The applicants in the third case[69] under examination challenged before the Supreme Court the judgment of the Court of Appeal of L'Aquila which, reforming the decision rendered at first instance by the Tribunal of Teramo, had reduced the amount of damages awarded to them as compensation for the loss suffered as a consequence of the death of a relative in a road traffic accident. An appeal on points of law was lodged against that judgment on 21 December 2011, articulated in four grounds of complaint. Nevertheless, by order of 17 September 2013, no. 21232, the Court of Cassation declared the appeal inadmissible for breach of Article 366, first paragraph, no. 3, of the Code of Civil Procedure, noting the failure to comply with the requirement of conciseness in the summary statement of the facts.

Indeed, the appeal was characterised by a slavish reproduction of the content of the pleadings filed in the proceedings on the merits, adopting a technique of mere "assembly" of those acts, without any critical selection of the factual elements of relevance. Such a *modus operandi* not only impaired the effective understanding of the *thema decidendum*, but also stood in open contrast with the principle enunciated by the *Sezioni Unite* in judgment of 11 April 2012, no. 5698, which reiterated that the literal and uncritical transcription of procedural acts not only appears superfluous, since no comprehensive account of the entire procedural history is required, but is even antithetical to the need for a clear and concise exposition of the *res iudicanda*, as it in fact shifts onto the Court the burden of identifying *ex post* the aspects that are genuinely relevant for the purposes of the decision.

Faithful to a broad methodological approach, the Court precedes its examination of the issues directly submitted to its jurisdiction with a systematic

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[67] It should be noted that the provision was subsequently repealed by Law no. 69 of 18 June 2009.

[68] On this point, see also the Report published on 30 November 2021 by the Office of the *Massimario* of the Court of Cassation, no. 116, currently available on the institutional website of the Court of Cassation.

[69] No. 26049/12, *Di Romano et al.*

inquiry aimed at probing the scope of the principle of *autosufficienza* and testing its compatibility with the guarantees enshrined in Article 6 § 1 ECHR[70]. The assessment unfolds in two essential and intrinsically connected stages: first, whether there exists a legitimate aim capable of justifying the restrictions imposed on the drafting of appeals; and, once that aim is established, whether those restrictions are proportionate to the objective pursued[71].

In the interpretation advanced by the Strasbourg Court and in light of the observations submitted by the Italian Government and the settled caselaw of the Court of Cassation, the principle of self-sufficiency emerges as a mechanism designed to facilitate the immediate comprehension of the legal issues raised, enabling the court of review to decide the case without resorting to additional acts or documents. The principle thus operates as an essential instrument for preserving and strengthening the Court of Cassation's function of ensuring the uniform interpretation of the law (*nomofilachia*). On this basis, the European Court of Human Rights (ECtHR) readily acknowledged the legitimacy of the aim pursued by self-sufficiency, recognising it not merely as a drafting technique intended to streamline the Court of Cassation's work, but as an element embedded within a broader conception of the legal order one in which efficiency and clarity serve legal certainty and the proper administration of justice.

Far more delicate, however, is the proportionality limb. The ECtHR held that the considerable backlog and high volume of appeals—however substantial—could not, in themselves, justify a purely formalistic construction of limitations on remedies. Such an interpretative turn would risk overstepping the fine line between the legitimate rationalisation of access to jurisdiction and a covert erosion of the right of access to a court. In this perspective, the Strasbourg judges observed, at least until Cass., 11 April 2012, No. 5698 and Cass., 22 May 2012, No. 8077[72], an approach by the Court of Cassation incli-

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[70] With regard to the formal requirements governing an appeal on points of law, the Court refers to the judgments in *Sturm v. Luxembourg* (no. 55291/15, §§ 39–42, 27 June 2017), *Miessen v. Belgium* (no. 31517/12, §§ 64–66, 18 October 2016), *Trevisanato v. Italy* (no. 32610/07, §§ 33–34, 15 September 2016), *Papaioannou v. Greece* (no. 18880/15, §§ 46–51, 2 June 2016), and *B□leš and Others v. the Czech Republic* (no. 47273/99, § 62, ECHR 2002-IX).

[71] In this connection, the ECtHR refers to a now well-established line of case-law, expressly citing the judgments in *Zubac v. Croatia* (no. 40160/12, 5 April 2018) and *Trevisanato v. Italy* (no. 32610/07, 15 September 2016).

[72] In this regard, see the analysis by Pagnotta, M. La Corte EDU legittima il principio di autosufficienza del ricorso per cassazione (pur condannandone una applicazione eccessivamente sproporzionata e formalistica…). *Judicium*. www.judicium.it: «In this passage of the judgment, the ECtHR does not miss the opportunity to emphasise that the application by the Court of Cassation of the principle of self-sufficiency reveals a tendency on the part of the Court itself to focus on formal aspects that do not appear to correspond to the legitimate aim previously identified and described by the Strasbourg Court, particularly with regard to the obligation to reproduce in full the documents referred to in the grounds of appeal. This "tendency" to which the European Court refers must be traced back to the so-called "logic of rejection" which, for years now, has characterised every level of adjudication in our legal system, also as a result of the legislature which, through repeated interventions and various reforms of procedural law, has scattered throughout the Code numerous grounds of inadmissibility (an example being the so-called "filtro d'appello" provided for under Article 348-bis c.p.c.), whose sole function appears, more often than not, to be that of discouraging and sanctioning those who bring proceedings before the courts».

ned to emphasise strictly formal aspects, thereby exceeding both the original ratio of *autosufficienza* and the legitimate purpose underpinning it. Emblematic of this tendency is the imposition of an obligation of full transcription of documents relied on in the grounds of appeal, coupled with the unpredictability of the resulting restrictions on access to review on points of law.

It follows that, where self-sufficiency is bent to purely casemanagement logics, transforming it into a tool for handling caseload pressures, it departs from its legitimising rationale, subordinating the protection of fundamental rights to an essentially administrative concern and thereby disturbing the equilibrium between the system's functional needs and the safeguarding of the right to a fair trial. In this regard, the ECtHR noted that such a tendency lies, in part, in the structure of *autosufficienza* itself, which requires the appellant to set out, already in the initiating pleading, all factual and legal elements relevant to each ground of appeal, so that the Court of Cassation may decide the dispute exclusively on the basis of the appeal, without supplementing its cognitive framework through autonomous examination of the file.

For these reasons, the ECtHR considered irrelevant, in the case at hand, the comparison advanced by the Italian Government with appealfiltering mechanisms adopted in other European legal systems. In those systems, the criteria for filtering concern substantive admissibility (e.g., the importance of the legal issue or the nature of the dispute), not formandcontent requirements of the appeal. They therefore operate on a different plane from self-sufficiency and are closer to Article 360bis c.p.c. Confirming this inapplicability, the Court also rejected any assimilation between the *autosufficienza* requirement and the Strasbourg Court's own filtering and admissibility conditions: Article 47 of the Rules of Court provides that any application under Article 34 ECHR must be submitted on the Registry's official form, in compliance with clear and foreseeable formal requirements set out in documents accessible to applicants.

3.2. Between procedural legitimacy and disproportionate constraints

Tthat being said, the European Court of Human Rights reached differing conclusions in the cases submitted to its scrutiny, finding a violation of Article 6 § 1 of the Convention in only one of the three joined applications. In that instance[73], it considered disproportionate an interpretative practice leading to the declaration of inadmissibility of an appeal where its reading, by reference to the salient passages of the appellate judgment and to the documents cited, made it possible to understand with sufficient clarity the subject matter of the dispute, the course of the proceedings at the merits stage, and the scope of the complaints raised. In the view of the Grand Chamber, in application

[73] The reference is to application no. 37781/13.

no. 55064/2011 those elements were fully identifiable both from the standpoint of their legal classification—namely, the type of defect alleged among those enumerated in Article 360 c.p.c.—and from that of their substantive content. In the case at hand, the ECtHR observed that, contrary to what had previously been maintained by the Supreme Court, each ground of appeal specified in its heading the defect complained of and the statutory provisions relied upon; moreover, the contested passages of the second-instance judgment were reproduced in the statement of facts and, as regards the relevant documents, their essential parts had been transcribed, accompanied by precise references to the original acts, thus enabling their immediate identification among those lodged together with the appeal.

A different conclusion was reached in the second case. On that occasion, the Strasbourg judges, having ruled out any incompatibility between the *quesito di diritto* under Article 366-bis c.p.c. and the guarantees enshrined in Article 6 ECHR, reiterating in this respect what had already been affirmed in *Trevisanato v. Italy*, found that the applicant had, on several occasions, failed to indicate the references to the statutory provisions invoked as well as to the passages of the appellate judgment under challenge, in clear breach of the settled case-law of the Court of Cassation. The ECtHR emphasised the specific nature of cassation proceedings, of the process as a whole, and of the role entrusted to the Supreme Court in that context, while also underscoring the particular obligations incumbent upon counsel for the applicant[74]. Taken together, these factors led the Court to conclude that, in that case, the declaration of inadmissibility did not amount to a distorted or formalistic application of the principle at issue, but rather constituted the inevitable outcome of an appeal manifestly lacking the minimum requirements necessary to enable effective review of the complaints raised.

With regard to the third—and final—application[75], the ECtHR held that the application of the principle of self-sufficiency, insofar as it requires, in the statement of facts, an exercise of synthesis and clarity and demands that counsel engage in critical selection of the relevant factual elements so that the exposition is functional to the grounds of appeal, does not entail a violation of Article 6 § 1 of the Convention. In the case at hand, the appeal consisted of a mere reproduction of extensive passages from the judgment of the Court of Appeal, including the appellants' submissions, part of the appeal, and the reasoning and operative part of the impugned decision. Such a modus operandi inevitably conflicted with the requirement, clearly inferable from Article 366 c.p.c. and from the interpretation already provided at that time by the Supreme Court, to furnish a structured account of the relevant facts, selected in advance in light of the complaints advanced[76].

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[74] In this regard, the Court relies on the judgment of the ECtHR, 5 April 2018, *Zubac v. Croatia*, § 82.

[75] Application no. 26049/14.

[76] For further analysis, which cannot be undertaken in this context, see the Report published on 30 November 2021 by the Office of the *Massimario* of the Court of Cassation, no. 116, in particular pp. 10–14.

3.3. Not a condemnation, but a caution: towards a more elastic understanding of the self-sufficiency principle

although, at first glance, certain passages of the judgment under consideration might suggest a stern rebuke of the now entrenched line of case law, almost as though the entire architecture of the principle of self-sufficiency were being called into question, a more discerning reading reveals a markedly different underlying rationale. The very fact that, of the three joined applications, the Court dismissed two would seem to dispel any hypothesis of a systemic condemnation: had the institution been deemed tout court incompatible with Convention guarantees, the review would necessarily have led to a uniform outcome, and the Court could scarcely have done otherwise than uphold all the complaints. Even more revealing is the circumstance that, before engaging with the individual cases, the Strasbourg judges expressly acknowledged not only the full legitimacy of the principle of self-sufficiency, but also reaffirmed its utility, endorsing its organising function within cassation proceedings[77].

It follows that the true import of the judgment[78] does not lie in an invitation to abandon the instrument of self-sufficiency, whose rationality is, on the contrary, expressly affirmed, but rather in an exhortation to reinterpret it from a more flexible standpoint, free from those formalistic rigidities that risk, at times, undermining its systemic function.

What is censured, therefore, is not the principle per se, but the mechanical and schematic manner in which it has been applied: the admissibility of the appeal has been made to depend upon a series of pre-packaged requirements, at times full transcription, at others internal and external localisation, the fulfilment of which often appears less a concrete necessity than an act of deference to an abstract formula.

The extensive body of case law examined clearly demonstrates how excessive rigidity has too frequently generated pleadings that, while formally impeccable, are superabundant, repetitive, and disordered, with the paradoxical consequence that, rather than genuinely facilitating the immediate comprehension of the grievances, the core of the dispute becomes diluted within a labyrinth of superfluous prescriptions.

The invitation implicitly addressed to the Court of Cassation is thus to reaffirm the principle in a manner more faithful to its teleological function: not by insisting upon a rigid catalogue of formalities to be observed pedissequa-

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[77] In the same vein, see Biavati, P. (2021) Il principio di autosufficienza del ricorso in Cassazione al vaglio della Corte Edu. *Questione giustizia*.

[78] With regard to the reception of the judgment in the case law of the Court of Cassation, reference should be made to the thorough analysis by Diana, M. (2023). Si riaccendono i riflettori sul principio di autosufficienza: la sentenza Succi c. Italia e il suo recepimento da parte della Corte di cassazione. *Il diritto processuale civile italiano e comparato*, pp. 635 ff.

mente, but by requiring that the pleading contain, in itself, all the elements necessary to enable the meaning and scope of the complaints to be grasped from the mere reading of the appeal. It is then for counsel to determine how best to achieve that objective, calibrating the drafting of the appeal to the specific features of the dispute and assessing, case by case, when transcription is appropriate, when a concise indication suffices, and when, conversely, excessive textual reproduction amounts to an unjustified burden.

4. BEYOND INTERPRETATION: A STRUCTURAL RECASTING OF SELFSUFFICIENCY IN THE DIGITAL AGE

In light of the foregoing considerations, this contribution maintains that the persistent crisis of self-sufficiency cannot be resolved either through yet another interpretative redefinition of the principle or through regulatory interventions lacking effective binding force. Such an approach, repeatedly adopted over time, has proven capable of addressing only the effects of the problem, without impacting its structural causes. What is required, instead, is a shift in the analytical focus: from the principle to the structure of the act, from the abstract rule to the concrete architecture of the appeal to the Court of cassation.

From this perspective, self-sufficiency can no longer be conceived as a conceptual category to be refined at the definitional level; rather, it must be understood as a problem of legal design in forensic drafting, capable of being addressed upstream, by intervening in the form-function relationship of the pleading, rather than downstream, through selective criteria applied *ex post*. The critical issue, therefore, does not lie in determining what self-sufficiency ought to be in abstract terms, but in the way it is, in practice, incorporated into the material configuration of the appeal, thereby affecting its intelligibility, its argumentative structure, and its capacity to fulfil the specific function of cassation review.

A further systemic consideration must be added. The "self-sufficiency question" appears to reflect a deeper structural tension affecting the overall framework of cassation proceedings and, more specifically, the Supreme Court in its concrete operation. The formalistic drift assumed by the principle and the increasingly frequent recourse to declarations of inadmissibility seem, at least in part, attributable to the Court's need to manage the substantial influx of appeals through mechanisms designed to regulate access to cassation review.

If the true systemic bottleneck lies in the excessive workload borne by the Court of Cassation, any attempt to resolve the crisis solely by recalibrating the doctrine of self-sufficiency risks constituting a partial remedy, one that addresses consequences rather than causes. In such a scenario, it is legitimate to question whether, once the principle of self-sufficiency has been redefined or curtailed, the Court might not identify new selective criteria,

and then others still, in a potentially unending proliferation of "access filters" devised to contain the flow of appeals. It follows that any solution confined to regulating the principle of self-sufficiency is destined, at most, to operate as a temporary palliative, incapable of addressing the system's underlying structural fragility.

Within this framework, the present project seeks to offer an innovative and practically viable response to the—still pressing—critical issues connected with the drafting of appeals under Article 360 c.p.c., with a view to optimising and standardising the formulation of complex pleadings in full compliance with the formal and structural requirements established by the most recent regulatory interventions in the field, namely the 2023 Protocol on civil proceedings before the Court of Cassation and Ministerial Decree no. 110 of 7 August 2023.

Developed within the Research Centre in European Private Law (ReCEPL), now a Jean Monnet Centre of Excellence under the ReCEPL4STAI programme, and grounded in a structured and ongoing collaboration between legal scholars and researchers in STEM disciplines with the aim of establishing an integrated Law & STEM Laboratory on Artificial Intelligence, the project introduces a pre-structured interactive template organised into logical and functional fields that guide counsel throughout the entire drafting process, thereby ensuring uniformity, rigour, and completeness. The use of guided boxes, automated alerts, and checklists serves to prevent omissions and redundancies, facilitating the work of practitioners while simultaneously assisting the Court in its evaluative function by presenting pleadings that are clearer, more homogeneous, and more readily analysable.

The innovation is further enhanced through the integration of intelligent components for the preliminary verification of the completeness and logical consistency of the appeal, as well as through the development of a predictive admissibility simulator based on machine-learning techniques, capable of providing counsel with a probabilistic assessment of the likely outcome of the grounds advanced.

Its implementation would yield a twofold benefit. On the one hand, counsel would be guided in drafting the appeal through a logical-functional structure designed to prevent redundancy and argumentative dispersion, thereby reducing the risk of inadmissibility rulings and freeing pleadings from the textual overaccumulation that has progressively undermined their intelligibility. On the other hand, judges would be presented with appeals of a uniform configuration, endowed with a clear and functional expository architecture, facilitating the analysis of the grounds raised and ensuring the prompt identification of the issues submitted to the Supreme Court. The adoption of the template would thus translate into significant time savings for both actors: counsel, by avoiding unnecessary argumentative repetition, could focus the drafting process on the essential elements; judges, in turn, would be confronted with clearer and more structured pleadings, with evident gains in terms of the expeditious exami-

nation of complaints. The systemic impact of such an intervention would be reflected directly in procedural economy, fostering swifter handling of appeals and thereby contributing to the reduction of pending caseloads.

The proposed solution therefore seeks to outline a new methodological paradigm for forensic drafting, potentially extendable, subject to appropriate adjustments, to other categories of procedural acts.

Further confirmation of the need to rethink self-sufficiency in structural, rather than merely interpretative, terms emerges from the reflections developed around the recent reformulation of Article 121 c.p.c., when read within the broader framework of the digital transformation of civil proceedings. The progressive dematerialisation of justice, marked by the centrality of electronically filed written submissions and by the increasing prominence of decision-making formats detached from in-person hearings, has profoundly affected not only the modalities of filing pleadings but, above all, the way they are accessed and read by judges. It is now an established fact that procedural acts are conceived, transmitted, and read almost exclusively in digital format. This circumstance is far from neutral. Research in cognitive psychology and neuroscience demonstrates that screen reading, particularly of lengthy and complex texts, differs significantly from reading on paper: it tends to be faster yet less in-depth, more fragmented and less reflective, with diminished levels of sustained attention and overall comprehension (the so-called *screen inferiority effect*)[79]. Digital reading typically favours orientative and discontinuous modes (skimming), to the detriment of the concentrated and analytical engagement (deep reading) that complex legal texts would require[80].

Within this context, the expectation that an appeal to the Court of Cassation may be effectively understood through prolix, redundant texts lacking a clear expository architecture appears not merely unreasonable, but structurally dysfunctional. Complexity sits uneasily with the screen: the immaterial act requires a visual structure capable of facilitating comprehension, reducing cognitive load, and rendering logical transitions immediately perceptible. It is therefore unsurprising that recent regulatory interventions, most notably Ministerial Decree No. 110 of 7 August 2023, have placed marked emphasis on visual clarity, schematic organisation, and structural articulation, laying down detailed criteria concerning division into rubricated sections, the use of keywords, indexes, and hyperlinks. All such measures converge in a single direction: the simplification of the visual and graphic usability of procedural pleadings.

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[79] This is confirmed by the european project E-READ (*Evolution of Reading in the Age of Digitisation*), funded under the European COST programme and active between 2014 and 2019, which brought together approximately 200 scholars from 33 countries to investigate the impact of digitalisation on reading practices.

For a more in-depth analysis, see Giabardo, C. V. (2024). Chiarezza e sinteticità degli atti nella cornice della digitalizzazione. In G. Gioia (Ed.), Chiari e sintetici. Come scrivere in maniera efficace gli atti processuali secondo gli esperti. Pisa, pp. 44–55.

[80] Nardi, A. (2022). *Il lettore "distratto". Leggere e comprendere nell'epoca degli schermi digitali*. Firenze; Id. (2015). Lettura digitale vs lettura tradizionale: implicazioni cognitive e stato della ricerca. *Form@re – Open Journal per la formazione in rete*.

In light of these considerations, the proposal for a guided and structured drafting model appears not merely opportune but systemically coherent with the evolution of digital civil procedure. It enables the requirements of self-sufficiency, clarity, and conciseness to be translated into a textual architecture capable of reducing the reader's cognitive burden, preventing argumentative dispersion, and enhancing the substantive legal content of the pleading. In this way, the design of the act constitutes a rational response both to the crisis of self-sufficiency and to the new material conditions under which judicial functions are exercised, confirming that the solution to the problem must lie in a structural rethinking of forensic drafting in the era of digital justice.

In this sense, the proposal for a guided and structured drafting model stands in full continuity with the needs arising from the digitisation of proceedings. It operationalises the demand for "digital clarity," incorporating self-sufficiency not as a rule to be verified *ex post*, but as a design criterion to be embedded *ex ante*, capable of reducing cognitive effort, optimising comprehension time, and improving the overall quality of cassation review. The functionality of the template thus lies not only in preventing inadmissibility rulings, but in its capacity to align forensic drafting with the concrete material and cognitive conditions of contemporary adjudication.

Further significant confirmation of the utility of the proposed solution derives from analyses devoted to the concrete modalities through which judges read judicial pleadings[81]. As has been observed in the literature, the issue does not lie solely in the abstract quality of forensic writing, but in the fact that judges, despite their high capacity to process complex texts, do not materially possess the time required for a complete, sequential, and in-depth reading of all the documents contained in a case file. In a context marked by structural information overload, engagement with procedural pleadings inevitably occurs through mechanisms of selection, visual scanning, and hierarchical organisation of information.

It has been convincingly noted that judicial reading increasingly takes the form of a strategic and orientational activity, grounded in the rapid identification of the text's pivotal points, through techniques of skimming and cognitive prioritisation. From this standpoint, the expectation of an exhaustive and linear reading of a pleading, especially where it is prolix, redundant, and devoid of a clear expository architecture, proves unrealistic, if not counterproductive. It follows that the communicative effectiveness of a procedural act depends less on the quantity of information conveyed than on its structural organisation and on the text's capacity to guide the reader toward the essential core of the claim and the grounds advanced.

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[81] On the topic, see Acerboni, G. (2024). Sintesi e chiarezza degli atti processuali. Un contributo linguistico. In G. Gioia (Ed.), *Chiari e sintetici. Come scrivere in maniera efficace gli atti processuali secondo gli esperti*. Pisa, esp. pp. 84–86; Spallino L., Sono i giudici lettori profondi?, in *https://www.dirittopa.it/it/interventi/cpa/sono-i-giudici-lettori-profondi/*

From these premises emerges a notion of clarity that does not exhaust itself in linguistic style or formal concision, but instead primarily concerns the editorial structure of the act. Comprehension of the defensive strategy is achieved, first and foremost, "at a glance", through a clear, coherent, and recognisable drafting model that enables the judge to orient himself immediately within the text; only subsequently is such understanding deepened through informational completeness and the quality of legal argumentation.

Comparative experience confirms this trajectory. One need only consider the application form of the European Court of Human Rights, which imposes a predefined and rigid structure precisely in order to ensure comprehensibility, uniformity, and immediacy of the application, irrespective of the complexity of the underlying facts. The standardised format does not curtail the right of defence; rather, it enhances its effectiveness by guiding the presentation of information according to readability criteria functional to the proceedings.

All these elements—normative, cognitive, empirical, and comparative—thus converge toward a single conclusion: in digital justice, form is function. In an environment in which judicial reading is necessarily selective, in which textual complexity is amplified by the digital medium, and in which written submissions increasingly replace oral advocacy, the procedural act must be designed, not merely drafted.

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