Revista Ítalo-Española de Derecho Procesal
pp. 207-222
Madrid, 2026
DOI: 10.37417/rivitsproc/3340
Marcial Pons Ediciones Jurídicas y Sociales
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ISSN: 2605-5244
Recibido: 05/02/2026 | Aceptado: 22/04/2026
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DIGITAL TECHNOLOGIES AND CIVIL PROCEDURE: A COMPARATIVE ANALYSIS BETWEEN EUROPE AND LATIN AMERICA

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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

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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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