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Risks and challenges to e-justice principles: governing remote work, online hearings and the use of social media in Chilean Courts

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Abstract: The digitalization of justice is emerging worldwide partially due to the most common narrative surrounding digital government being; more efficient, cost-effective and democratic. In an in-depth case study of the Chilean courts' implementation of technologies during COVID-19, we questioned the dominant narrative of e-justice as "better justice" by borrowing from digital government literature and highlighting implications to e-justice principles. Derived from thirty-one (31) interviews with key stakeholders from the Chilean judiciary system, we provided evidence on how the e-justice principles are challenged by the implementation of digital technologies by court systems in Chile. The paper showed risks to justice work and due process in two main ways: bypassing traditional media scrutiny and limited governance of ready-to-use technologies in remote work, online hearings and the use of social media in judicial communications. This paper advances our understanding of the relationship between justice, digital technology, and government.

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1. Introduction

In the realm of public organizations, courts have traditionally been nuanced places for digitalization due to their "unique normative thickness and heavy regulative status" (Lanzara, 2014, p. 6). In the last three decades, information systems have slowly been introduced in judiciary and court systems around the world with extensive implications to the functioning of democracy and governance structures (Contini & Lanzara, 2014; Lindquist & Huse, 2017). This long spanning process, made up of incremental changes, has promised to reduce costs, improve efficiency, and automate technical aspects of judicial work with varying degrees of success (Lupo & Bailey, 2014; Cerrillo & Fabra, 2008; Fabri & Contini, 2001). The introduction of digital technologies in the organizing of courts has predominantly followed two objectives: on one side, a managerial administrative one of optimization, efficiency and cost-reduction (Yavuz et al., 2022). On the other side, the political objective of legitimizing the court by promoting transparency, accountability and citizen engagement (Cano et al., 2015).

However, this fails to adequately question the ways that information is produced and consumed online, as well as how the digitalization of courtrooms is changing how people understand and interact with the state and the justice system, as a pillar of democratic institutions (Roche et al., 2016). There is also a pressing need to explore the extent to which these new digital and online innovations align with the justice values and principles underpinning democracy. Questions with regards to the reliability and independence of information and digital technologies and their accessibility and their impact on the functioning of democracy have not been addressed (Jiménez-Gómez & Gascó-Hernández, 2017; Mergel, 2021).

Within the e-justice literature, most of the studies adopt a functional paradigm seeing technology, as a tool or instrument to achieve "better justice" (Contini, 2020; Kallinikos, 2005, 2009). This also extends to the literature on open justice, where the focus is on making judicial procedures open to the public, including information of judicial records and public hearings (Jiménez-Gómez, 2020). As a result, literature primarily looks into digitalization of justice projects with a focus on practical problems and their outcomes (Lupo, 2019; Yavuz et al., 2022). Similarly, within the digital government literature, with the exceptions of exacerbating the digital divide and security and privacy concerns (Pérez-Morote et al., 2020), digital technologies are largely perceived as a gateway to the betterment of the relationship between government and citizen (Chen & Hsieh, 2009; Mergel et al., 2019). However, few researchers have addressed the consequences of digitalization in court systems and how those can be exacerbated in light of limited governance over the adoption of digital technologies (Donoghue, 2017; Rusakova & Frolova, 2022). This gap has been recognized both at the empirical and the theoretical levels.

A recent review of the e-justice literature highlights the theoretical gap "e-justice research needs to develop further in its theoretical foundations" (Yavuz et al., 2022, p. 403). Yavuz et al. identified four areas of research in the current e-justice body of knowledge:

- "Identification of success and risk factors or problem areas for e-justice project implementation (lessons learned from country case studies)
- Assessment of the impact of e-justice implementation, and developing and testing an assessment framework
- Examination of e-justice user satisfaction and experiences, and related technology design principles
- Evaluation of judicial websites." (Yavuz et al., 2022, p. 392)

From the four categories, the big absence is the governance of digital technologies in courts. With the exception of Chatfield & Reddick (2020), who proposed a networked governance structure to join up open justice and e-justice ecosystems, the e-justice literature has overlooked the development of governance principles and objectives which take into consideration the nuanced judicial governance. More specifically, "as a sub-field of the digital governance area, an integrated research framework is still lacking in the e-justice domain" (Yavuz et al., 2022, p. 403). Another understudied component of the digital transformation of courts is the role of judicial agencies in regulating and coordinating the digital technologies in use. In this regard, recent literature pointed out that "it is timely to address judicial governance in the light of the responsibility for fair procedure in those digital processes"(Reiling & Contini, 2022, p. 2).

In the same vein, the empirical studies on digitalization of courts lack a precise consideration of judicial governance of IT in courts, because the current state of the e-justice work focuses primarily on implementation and development of digital technologies in courts. Despite its importance and peculiarities, the subject of judicial governance of IT has received little attention (Reiling & Contini, 2022).

Looking at the consequences of the digitalization of court systems, some have highlighted key risks, which should be mitigated and addressed by novel governance models of digitalization (Rosa et al., 2013). The main risk factors are associated with conflicts among stakeholders resulting from a lack of knowledge and perspectives on IT projects' development. Other risk factors are related to ownership of the project and the knowledge gap between the developing team and other stakeholders. Moreover, Mckay pointed out the risks associated with the purchasing and procurement of digital systems: "Video conferencing systems in the justice sector are purchased by the state from major international companies, revealing an industrialization of vision and the control of individual subjects' perceptual experience." (2018, p. 256). Therefore, a more substantive approach to understanding the digitalization of justice systems and their governance is required.

The time of global pandemic has revealed more about the digitalization efforts in courts, than in previous years (Fabri, 2021). It also served as a push factor for scholars to empirically study the digitalization of court systems more deeply (Santuber et al., 2020, 2021). The judiciary's response highlighted some incompatibilities between existing judicial governance processes and the adoption of certain new processes, while laying bear the issues and risks associated with the digitalization of courts.

Empirical studies looking into the digitalization experiences of courts during the COVID-19 pandemic displayed the different aspects of the judicial governance of e-justice or lack thereof, especially

surrounding three main areas: remote work, online hearings and the use of social media in courts. One key tension observed was that most courts favoured the use of ready-to-use video-conferencing platforms like Skype, Zoom, and MS Teams (among others), because of the need for more user-friendly internet-based services, even when internal video and collaboration systems were available in courts (Sanders, 2021). These platforms, however, were not regulated by the judicial governance, which opened the door for privacy and data breach risks, as well as limited power over technology design and finally subjugation to private actors. Despite the significant changes that the use of remote appearances, via video-conference, in courts will have in the long term (Fabri, 2021), it is unlikely that video-hearings will disappear with the end of the mobility restrictions imposed by the pandemic (Sanders, 2021). Thus, a special attention to judicial governance is necessary to ensure the successful implementation and operation of remote hearings and by extension, remote work.

The tensions, while leveraging social media channels, were derived from it being unchartered waters for justice actors, leading to a hesitation to regulate. In the case of the European Court of Justice, they used social media channels during the pandemic to communicate to the general public about changes, court restrictions and information related to court procedures (Popotas, 2021). Moreover, using digital artefacts, such as the hashtag #AskCuria2020 (see figure 1), citizens were invited to ask questions to the court via Twitter (Popotas, 2021). Therefore, based on the experience during COVID-19, social media has been acknowledged as a tool to engage with users and increase access to justice systems (Fabri, 2021).

In more recent research, the new possibilities provided by online hearings with social media have surfaced, with unknown risks. From the experiences in Malaysia, "photography of Court proceedings and sharing the photographs on social media platforms gives rise to the dangers of witness intimidation and prejudice to the accused person's right to a fair hearing" (Ismail et al., 2022, p. 1). The possibility of streaming hearings on social media has also raised fears and concerns among judges in Germany about being attacked on those platforms (Sanders, 2021). This will also likely continue beyond the pandemic response, which prompts further inquiry into the legislative regulation and governance of the use of social media in courts and by the judiciary with possible implications on impartiality, legal due process and scrutiny by traditional media.

Figure 1: A screen capture of the Twitter post by the European Union Court of Justice encouraging users to ask questions via Twitter

Thus, our focus is on the risks and challenges associated with the governance of digitalization in the court systems in general and more particularly the utilization of ready-to-use technologies.

Accordingly, we pose the following research questions:

Q1: "How does digitalization of courts challenge judicial governance in Chile?"

Q2: "What are the risks and challenges of deploying ready-to-use technologies in courts?"

These questions are applied to interview data from the Chilean judiciary system in Santiago. The interview data was complemented by video analysis of online-hearings and legal documents. By adopting a grounded theory research design, we draw situated findings from the experiences of digitalizing justice in Chilean courts, and how this challenged the judicial governance of e-justice. Moreover, we further assess these challenges considering the objectives of digital government, while maintaining the nuances of justice principles.

In this paper, our contribution is twofold. On a theoretical vein, studying courts contributes to an ongoing effort to understand the specific risks and challenges associated with the digitalization of justice and their implications to the principles of e-justice. At a practical level, we aim to bridge the gap identified by previous work, namely pointing to the need for an approach combining a normative policy framework for judicial governance, while engendering mechanisms and spaces for experimentation with new technologies, as they emerge in the digitalization of the courts of justice.

The paper is organized in the following manner. In the second section, we conceptualize our theoretical approach that underpins this research paper, while drawing from e-justice and digital government literature. In the third section, we describe the methodology employed for data collection and analysis. In the fourth section, we present our findings based on thirty-one (31) interviews with key stakeholders from the Chilean judiciary system in Santiago. We provide evidence on how some of the e-justice principles and digital government objectives are challenged by the implementation of digital technologies in remote work and online hearings, using videoconferencing technology and social media by court systems in Chile, in the wake of COVID-19. Based on these findings, the fifth section follows with a discussion of major risks to justice work and due process especially in two main ways: the bypassing of traditional media scrutiny and the limited governance of ready-to-use videoconference technologies and social media in courts. In the sixth and last section, some final comments and limitations regarding this work are discussed.

2. Theoretical Background

The digital government literature in the last two decades recognized that the linkage between the introduction of digital technologies and the organizational and governance transformation of the public sector process is unavoidable (Gong et al., 2020; Mergel et al., 2019). Bannister and Connelly (2012) argued that the use of information and communication technologies (ICTs) in government can be understood as avenues, that alter and create governance structures or processes in ways that are not feasible without ICT. The pervasiveness of digital and information technologies in public affairs requires a necessary (and complex) process of organizational revision for letting the new digital technologies be institutionalized, routinized, governed and regulated (Margetts & Dunleavy, 2013).

This argument can be made for the justice systems, which are normatively thick, heavily regulated and independently governed. Thus, placing them in conflict with digital era-governance approaches where digital innovation is an ongoing strategy for addressing, as well as enabling the dynamic integration and use of digital technologies to achieve public service goals (Young, 2020). Enacting governance in the digital age therefore, needs more normative frameworks for the regulation of digital technologies: 1) Promote equality of outcome over process; 2) Provide formal digital rights to privacy, data protection, freedom of information, access to digital channels and minimum information collection; 3) Keep the state nodal obligation to be at the centre of information collection and distribution (Howlett, 2019) and 4) Experiential learning to move away from the idea of government as a finished product, but trialling digital policies and services on citizens and adjusting in response to the findings (Dunleavy & Margetts, 2015).

Drawing from e-justice literature, we align with the understanding of digitalization of court systems that states that the:

> *"switch from conventional or paper-based procedures to digital ones is not just a change of the tools used to access information and exchange procedural data and documents, nor just a way to make justice more efficient and effective" (Contini, 2014, p. 332).*

Instead, the use of technologies represents a legal and judicial reconfiguration (Lanzara, 2009). Recognizing that "digital transformation is not an end in itself but rather an ongoing evolutionary process of innovation" (von Kutzschenbach & Daub, 2021, p. 181), this paper argues that there is a pressing need to gain a critical understanding of the use of technology not only in the government but also, in the judiciary.

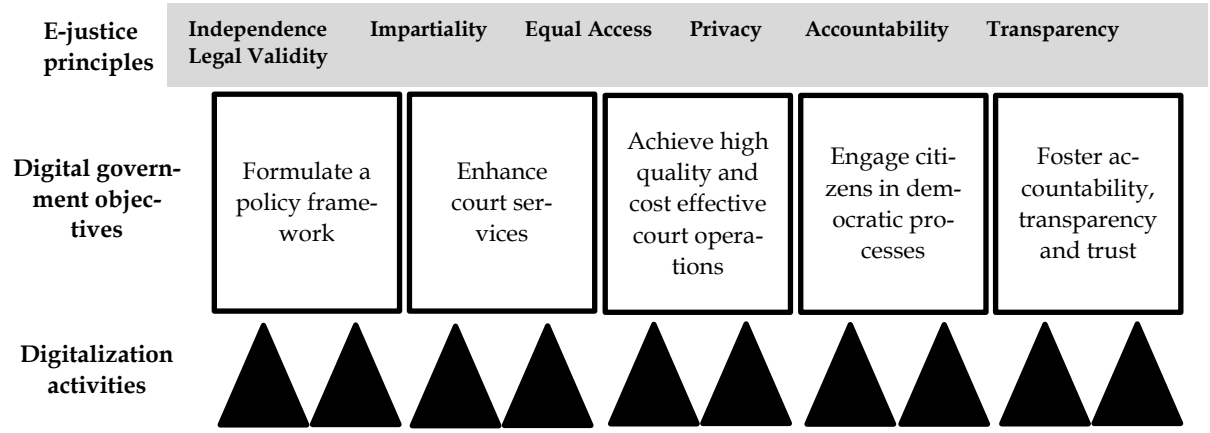
The following, agreed upon objectives of digital government, can be, therefore, used to examine the digitalization of justice systems, to reveal tensions but also opportunities for designing judicial policy frameworks that govern digitalization, as a process of continuous innovation, rather than ad hoc projects (Arundel et al., 2019; Bannister & Connolly, 2012; Dawes, 2008):

1) *Formulate a policy framework* that sets policy goals and specify the rules and conditions under which information is gathered, used, protected, and shared by government, individuals, and the private sector, to achieve them.
2) *Enhance public services* by replacing an organizational perspective with a customer orientation, providing access, convenience and choice to citizens seeking information or services from government.
3) *Achieve high quality and cost-effective government operations* through managerial, professional and technical improvements that address not only efficiency, but also infrastructure investments, information management and use.
4) *Engage citizens in democratic processes* by enhancing accessibility and usability of technologies and information content that foster public interaction with government.
5) *Foster accountability, transparency and trust* pertaining to the structures and processes of government, as well as to the roles and responsibilities of government actors.

These are combined with Lupo (2016), who integrated justice efficacy factors into a value-based approach to the assessment of e-justice systems, which centres around the following principles:

1) *Independence* refers to the need of courts and judges to prevent interference from other powers (executive and legislative), and pressures from the outside on how to practice jurisdictional power. A factor relevant to this research is the involvement of external IT service providers, national or foreign. This is relevant because "involving external actors may hinder the independent functioning of an e-justice system." (Lupo, 2016, p. 58). From a broader perspective, having foreign external actors also hinders the digital sovereignty that every country should be able to enforce regarding its judicial system. This is the most relevant principle when it comes to judicial governance. Assessing this principle is done through the extent of the court's dependence on external providers of e-justice systems, as well as the cost of switching to other providers.
2) *Accountability,* assessment of judicial activity, in light of rule of law principles and efficiency. This includes the assessment of the mechanisms that assure judicial accountability in formal processes, such as annual court report publication, judicial appointment scrutiny and appealable judgments. Judicial accountability is also guaranteed through civil society, specifically the media reporting on trials. The role played by social media in scrutinizing judicial activity is a crucial aspect to explore accountability.
3) *Impartiality* refers to the absence of prejudice, partiality or biases, as well as outside pressures on the judicial decision-making process. The way e-justice systems affect how information is gathered, shared, analysed and consumed has a direct impact on decision-making processes.
4) *Equal Access,* should prevent access to justice, based on individual or group categories. At the same time, it means that e-justice systems should be barrier-free with considerations for digital divisions (e.g. digital literacy, internet connectivity, access to digital devices etc). Assessments of this principle can look into the kind of supports available to parties with limited technological literacy and others with needs for inclusive technologies (e.g. People Living With Disability) (Denvir & Selvarajah, 2022).
5) *Transparency* centres around publicity of court activities, norms and procedures through several channels, such as public hearings, the media, reports, use of information, and communication technologies.
6) *Privacy,* the protection of information of individuals and communities involved in judicial procedures. The extent to which data privacy is assured by the e-justice system.
7) *Legal validity,* the activities of court and the parties should follow a procedure stated by the law, with respect to the fundamental rights protected by the constitution and the law. Assessments of this principle can examine the e-justice systems' capacity to either comply with justice norms and procedures or facilitate the compliance by users.

Figure 2: Conceptual framework based on Arundel et al., 2019; Bannister & Connolly, 2012; Dawes, 2008 & Lupo, 2016



We critically examine the use of digital technologies in the practices of online hearings, remote work and the use of social media in Chilean courts, through a combined lens of digital government objectives and digital justice values and principles. We argue that aiming to achieve digital government objectives, while adhering to e-justice principles can improve the governance of digitalization initiatives of court systems. Such a framework is adopted unreflectively but critically, to point to risks and tensions and how they may be affecting the functioning of democracy.

3. Methodology

The research design followed a grounded theory approach to gain a better understanding of the risks and challenges associated with the digitalization of court systems in general, and more particularly the use of ready-to-use technologies (Gioia et al., 2013). To achieve this, we conducted an in-depth case study of the Chilean judiciary system "Poder Judicial de Chile", where we focused on two focal types of courts (i.e., criminal and civil courts) in the Chilean judiciary system in Santiago. We chose the case of Chilean judiciary system in Santiago de Chile, due to access to key stakeholders of judiciary systems and respective interviews, which we secured through a cooperation agreement.

This approach guided a three-stage research analysis process: 1) Open coding, where we employed a data-driven inductive qualitative approach, guided by the research questions (Boyatzis, 1998); and 2) Axial coding, where there was a combination of inductive and deductive reasoning informed by the theoretical body of knowledge on the digitalization of justice systems and; 3) Selective coding, to focus on a central theme that captures the essence of the data. This approach allowed for open pattern recognition within the data, where emerging themes become the categories for analysis. At the same time, it enabled a more determined application of the theoretical body of knowledge on e-justice.

3.1. Data Collection

To obtain an adequate set of interviewees, we used snowball sampling (Myers & Newman, 2007), which we stopped when we reached saturation of a specific perspective (e.g., different agencies or departments). To collect data, we developed a semi-structured interview guideline. In detail, we conducted two rounds of interviews: 1) An explorative, open first round to gather rich information on the overall context and goals of targeted institutions from April 2020 to April 2021; and 2) A focused second round to understand the digitalized practices in the context of the increased introduction of digital/ICT technologies in Chilean courts (e-justice, remote work, online hearings, and the use of social media). We recruited interviewees from court members and auxiliary institutions (n= 31) (see Table 1). The interviews were conducted, transcribed, and analysed in Spanish. We later translated them using Deepl software (Deepl, n.d.), checked, and corrected afterwards.

Table 1: Interview participants' profiles from the Chilean judiciary

Ref	Number of interviewees	Years of Experience in Courts average	Duration average
Civil Court	10	7.8 years	50 minutes
Criminal Court	8	6 years	57 minutes
Law Clinic	5	6.2 years	53 minutes
Communications Directorate	8	6.5 years	60 minutes

To triangulate our findings, we utilized multiple data sources including digital regulations, national strategies and pandemic related laws. Especially relevant for this research, was the observation of the judiciary's public social media activity and presence (website and their official social media channels, such as YouTube, Facebook, Instagram, and Twitter), which are publicly available data sources.

The archival data consulted, focused on three aspects of e-justice governance: legal regulation[1], judicial regulation[2], and judicial-administrative coordination in Chilean courts.

3.2. Data Analysis

Recognizing the nascent stage of topic knowledge, we pursued a stepwise coding which consisted of open, axial, and selective coding to elaborate on digital practices and patterns undertaken by

[1] All legal documents are available online www.bcn.cl

[2] All judicial regulation is available online: http://autoacordados.pjud.cl/

Courts employees (Urquhart, 2012). We collected and analysed data iteratively, shifting between empirical data and theoretical concepts in a cycle between interviewing, transcribing, analysing and checking back with the theoretic body of knowledge on e-Justice. During coding, we corroborated the detailed insights, derived from analysing the interviews, by constantly comparing and triangulating these insights with the results obtained from the videos of online hearings and legal documents material (Gioia et al., 2013). To do this in a systematic way, we used Atlas.Ti (ATLAS.Ti Scientific Software Development GmbH, n.d.) as our computer-assisted qualitative data analysis software.

The data has been analysed in the form of case studies in previous papers by the authors (Santuber, 2023; Santuber et al., 2022, 2021). Building on those previous findings, we conducted a critical analysis of the digitalization of Chilean courts during COVID-19.

We interrogated the "better justice" narrative dominating the e-justice literature, based on managerial and efficacy-based approaches. After the first round of interview write-ups and summaries, we employed open coding to generate first order codes, which were used to condense the transcripts and obtain an initial overview of themes emerging from the data (Yin, 2008). At this stage, the themes that emerged showed the wide landscape of digitalization in the Chilean courts. This step of the analysis revealed that digitalization and innovation was mainly happening in three areas, which were all related to delivering justice from home: *telework or remote work, online hearings and use of social media* for live stream hearings and to engage with external users and internal staff members by the Communications Directorate of the Judiciary (Santuber, 2023).

Employing axial coding techniques, we critically explored and identified contradictions and inconsistencies within the Chilean Judiciary system and used these contradictions to explore how the use of digital technologies in the three aforementioned areas of e-justice, uptake and implementation challenges digital government objectives and e-justice principles. This allowed for a critical engagement with the existing prescriptive narratives on digital justice, as a gateway to "better justice" and provided a more nuanced perspective on the crucial role of judicial governance in regulating the digitalization of justice systems. At this stage, themes such as legal values, confusion on applicability of regulation, uncertainty of action, conflicting policies and ambiguous rules emerged. In the selective coding stage, we focused on three perspectives, which highlighted major tensions in the digitalization of justice implementation and uptake:

Digital by choice vs Digital by default. Previous work has highlighted the practical challenge of the implementation of digital technologies before policy (digital by default), in contrast to a more desirable policy making, followed by, implementation (digital by choice) (OECD, 2020b). This leads to problems of policy becoming irrelevant with limited ownership, and the development of silos. In the context of e-justice, members of the practice face a dilemma. To freely exploit the features of the digital medium and perform new procedures and objectives that may benefit the practice or "transpose them [old procedures] into the new medium and try to make them work" (Lanzara, 2014, p. 23). This resulted in a focus on policing how individuals use digital technology and, to a lesser extent, the underlying algorithmic design and architecture of digital services and tools that end up defining the course of justice.

The concept of technological neutrality in digital government refers to the principle that digital government systems should be designed and implemented in a way that is neutral with respect to the specific technologies used (OECD, 2003). In other words, digital government systems should be designed to be adaptable to a variety of technological platforms, rather than being tied to a particular technology or vendor. This principle is important for several reasons. First, it helps to ensure that e-government systems are accessible to the widest possible audience, regardless of the technology they use. Second, it promotes competition and innovation in the technology marketplace, as governments are not locked into specific vendors or technologies. Finally, technological neutrality helps to future-proof digital government systems, as they can be adapted as new technologies emerge (United Nations, 2018). In practice, achieving technological neutrality requires careful planning and design of digital government systems, including the use of open standards and the avoidance of proprietary technologies (Baheer et al., 2020). Governments may also need to invest in training and capacity building to ensure that their staff are equipped with the skills needed to work with a range of technologies (OECD, 2003). By adhering to the principle of technological neutrality, governments can ensure that their e-government systems are accessible, competitive, innovative, and sustainable.

Social media by courts. Existing research has investigated the relationship between judges and social media platforms (Gibson, 2016) and the far-reaching implications beyond the courtroom (Stadelmann, 2020). Recent work, has conducted a comparative analysis on the use of social media by high courts in Latin America, showing that intensity in use does not correlate with influence (Llanos & Weber, 2021). However, the implications of using social media platforms, and particularly their design and algorithmic structures in relation to the courts and other civil society stakeholders— e.g., traditional press— is not yet clear.

Despite existing research emphasizing that communicating content on social media allowed justice institutions to reach a broader audience faster in comparison to formal justice communications (Schneider, 2016), the extent to which conveying content on these platforms (e.g., Facebook, Instagram and YouTube) affects people's perception and understanding of the justice system, remains unexplored (Walby et al., 2020). While traditional court communication was subject to strict quality control and approval processes as part of public scrutiny of court procedures, a consequence of the speed and access benefits is that these governing controls are either weakened or removed entirely.

This digitally enabled direct communication between justice systems and citizenry as a consuming audience is further complicated by the fact that "digital displays also increase the perception of science-based communication or the idea that the information contained in the display is scientific and factual" (Walby et.al. 2020, p. 61). Moore added that "the public can tune into proceedings at their leisure, in the comfort of their own home, skipping through sections that do not interest them; inside the courtroom, they figure as an unseen audience, unknown in size, attitude, and demographic make-up."(2019, p. 9). Therefore, problematizing this interaction is necessary to account for potential consequences of social media in courts being: "a form of camouflage that creates obfuscation or misdirection that hails an individual as a subject of law, while appearing entertaining and arousing" (Walby et.al. 2020, p. 62).

4. Findings

The findings are divided into three sub-sections. The first, sets the stage by providing critical background information about the Chilean Judiciary system, its governance and the organizational management of digital transformation and innovation. It also contextualizes the onset of COVID-19, which led to the increased uptake of digital technologies in the delivery of justice from home. The remaining two sub-sections showcase how the Chilean Judiciary implemented and adopted digital technologies in their attempts to work remotely, hold online hearings and use social media to live-stream hearings and engage with external users, as well as internal staff members, with varying degrees of regulation and governance.

4.1. Case context and background

The Chilean judiciary system "Poder Judicial de Chile" is a unitary organization that serves a population of 18 million citizens with a high territorial distribution — Chile's length equals the US's width from NY to Seattle, or the distance from northern Norway to Libya. It is composed of the Supreme Court, 17 Courts of Appeals and 448 lower courts, with a total of 1,490 judges plus more than 11,000 employees.

The Supreme Court sets the operations of all courts in the country and is manifested via Auto-acordados. This self-policing power, a normative faculty, called the "Superintendencia Directiva, Correccional y Económica" is expressly stated in the Chilean Constitution, art. 82.1.

In the 1990s, considering New Public Management reforms, the judicial governance in Chile was disaggregated into the judiciary and the newly introduced Administrative Corporation of the Judiciary. This new structure functioned as a part of the judiciary and depended on the Supreme Court. Innovation and digital transformation in the Chilean courts is under the auspice of the Administrative Corporation of the Judiciary. It has the overarching mission of providing excellent service to the court, contributing to improving the quality of justice, and facilitating access to the community in an efficient and transparent manner. It functions as a technical organization with a focus on efficient management, innovation, and sustainability (Poder Judicial de Chile, 2021).

On March 18, 2020, the supreme decree N° 104 by the central government imposed restrictions on mobility, including limited access to the physical space of courts and their digital infrastructure. However, legal regulations governing court proceedings were not promptly updated, and it took weeks for Law N° 21.226 to be enacted on April 2, 2020. In the meantime, the courts acted to fill the legal vacuum, as evidenced by Supreme Court Acts 41 (March 13, 2020), Act 42 (March 18, 2020), Act 51 (March 31, 2020), and Act 53 (April 8, 2020). Judges and their teams tried out different forms of providing judicial services, resulting in a variation in digital experiences and practices among different courts. According to a civil judge, the regulation of all digitalization initiatives at the beginning of the pandemic:

> *"required a lot of proactive resourcefulness on our part, but it has been difficult at times to reach agreement. It made it difficult to interpret the law, as some courts do one thing and others another." (Civil Judge)*

The COVID-19 emergency uncovered risks stemming from the absence of an overarching policy framework to govern the digitalization decisions.

4.2. Enacting ready-to-use technologies to allow for remote work and online hearings in the absence of clear regulation and limited governance

The judiciary had already been working on regulating remote work two years prior to the pandemic, as part of the digitalization trajectory of the judiciary, which included the launch of an e-proceedings platform in 2015. This was mentioned by an interviewee from the Administrative corporation of the judiciary:

> *"First of all, the issue of teleworking in the Judiciary is something that we have been working on for a long time, as in 2018. And notice that when the time came for the pandemic, the agreed order was almost ready. In fact, it seems to me that the agreed order was approved and two days later we were told to go home" (Administrtive corporation)*

The Agreed Order 41, Autoacordado 41, referenced by the previous interviewee served as the first key regulatory framework for remote-work. Enacted five days before the lockdown, the order was geared towards incorporating, regulating, and improving teleworking in the Judiciary. As outlined by the order, teleworking consisted of a modality of labour organization that allows the institution to ensure the continuity of its operations. It entailed performing tasks without physical travel, through technological means to provide justice services (Agreed Order 41, March 18 2020).

This order dedicated 27 articles to the operationalization of remote work, which acted as a reference for employees on how to work from home while leveraging the e-proceedings platform, remote desktop, VPN, in addition to other equivalent means, such as instant messaging and videoconferencing applications. Despite email being the main communication channel, court staff reported that communication while working remotely was mostly conducted via WhatsApp. They created groups and broadcasted messages within those groups, which involved the exchange of sensitive information about cases and court operations. As a ready-to-use instant messaging tool, WhatsApp stores data globally, meaning that sensitive case data was transferred outside the country without explicit controls from the Chilean Judiciary.

Concerning the use of videoconferencing, The Agreed Order 41 mentioned it in a concise way (one paragraph long article 28), without defining the specific operations of online hearings.

> *"Article 28. The court may hold hearings by videoconference in order to give continuity to the administration of justice, ensuring at all times the validity of the rights and procedural guarantees of the parties and interveners." (Agreed Order 41, March 2020)*

The specifications were hereafter regulated on-the-go, in a series of acts (SC Act 42, 51, and 52 together with Law 21.226) that attempted to ensure the validity of the rights and the procedural guarantees of the parties involved, with various degrees of success, leading to a multiplicity of regulation and confusion over the precise selection of the videoconferencing tools.

> *"We were sort of on the go, learning how to function correctly, and that's because there were no guidelines from the law, from the Supreme Court." Official Civil*

With the wide adoption of videoconferencing technologies across countries and sectors, questions arose about security in Zoom conferences, to the point that some courts used a different provider due to security reasons, such as Cisco WebEx. The chosen videoconferencing platform's software architecture, functions and features filled in the gaps of the regulation brought in by the digital experiences and practices. In a sense, the possibilities provided by the videoconferencing software determined the courts' staff members' adoption of a new system with shortcomings in regulation.

Zoom was one of the videoconferencing tools used by some courts initially and then, as highlighted by the civil court officer, the tool was later legitimized and scaled on all courts leading to a single videoconferencing provider, as opposed to several providers. Dictated by the Zoom interface design and functionalities, court staff and users started new meetings, joined meetings or scheduled meetings for future dates, and, during a video call, staff and users could mute/unmute, start video, share screen, record, view other participants and show reactions with emojis (see Figure 3).

> *"The court did not have a Zoom account. We had to operate with a Zoom pro account of another person, and that person had to accept us [to the call] as a court. From there, we were able to meet, but the court did not have an account until later. Now all the courts have an account, but at that time, nobody believed that it was an experiment. It was like: let us do it, and if it works, it will be used later." (Civil Court officer)*

For example, during online hearings, the "screen sharing" feature enabled evidence to be presented to the court through multimedia. This feature was not yet regulated in any protocol or document, but court staff and legal practitioners nevertheless utilized it.

Figure 3: An adapted screen capture of Zoom Meeting with touchpoints and functionalities corresponding to a civil court hearing.

On the flip side, the chosen videoconferencing tool also came with unknown risks, which could not be swiftly regulated, with severe implications on basic principles and fundamental rights. On April 1, 2020, the Zoom CEO published a letter directed to users recognizing "incidents of harassment (or so-called "Zoom bombing"[3])" happening in the platform, as well as acknowledging and apologizing for the lack of transparency ("confusion") regarding data encryption on the Zoom platform (A Message to Our Users, 2020)

In response to this, Zoom, the videoconferencing software, took steps to improve their security. In the meantime, while Zoom was improving their security standards, the Supreme Court was grappling with regulating the use of videoconferencing in trials. In doing so, they passed a new regulation in the Agreed Order 53, dated April 17, 2020 which dictated that the use of technological means must assure legal basic principles and fundamental rights.

> *"Article 6. Use of electronic means. To ensure access to justice, due process and to safeguard the health of individuals, the Judiciary shall endeavour to use all the technological means at its disposal, privileging its flexible, up-to-date and timely use, provided that it does not constitute an obstacle to the exercise of the basic principles that have been enunciated, and the rights of the interveners and parties are fully respected." (Agreed Order 53-2020).*

An example pointing to the inadequacy of the chosen ready-to-use videoconferencing tool found by the courts of justice is the need for identity verification. As a prerequisite to trial proceedings, all parties needed to verify their identity to participate remotely in online hearings. As Zoom was not designed to enable identity verification, court staff had to find a workaround to continue with the online hearings. The workaround consisted of showing the ID document to the secretary of the court before the beginning of the hearings using the video function of the videoconferencing platform (see Figure 4).

This "hack" by court staff, was not taken up by Zoom to improve the compatibility with online hearings. It was however, regulated almost two years later by the Agreed Order 271, passed on December 2021, and thus integrated into a large body of technology related legal and judicial adjustments. The regulation neither questioned the adequacy of the videoconferencing tool nor proposed a more systematic way of verifying identities online. Instead, it just legitimized the existing practice, which was meant to be a temporary solution dictated by the unavailability of a necessary function.

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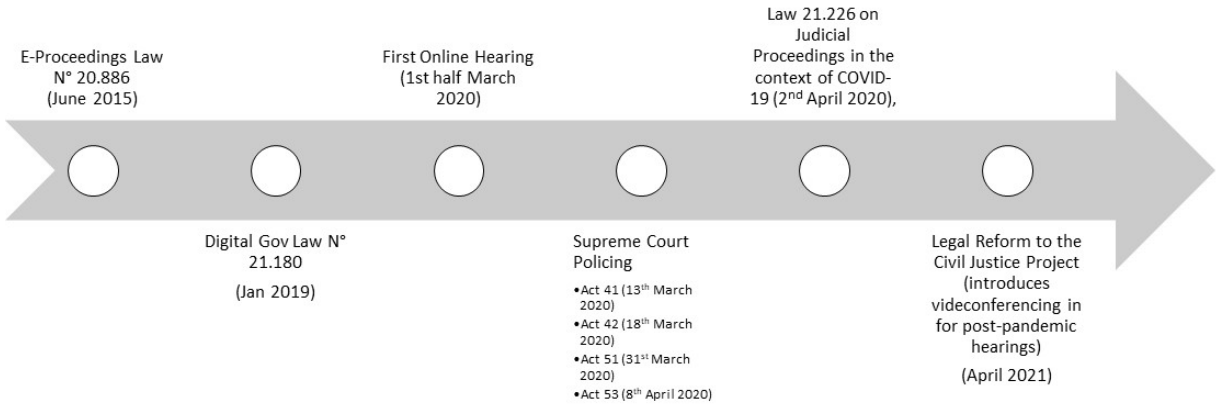
[3] Zoom bombing was a malicious practice that occurred when an unauthorized stranger would break into a Zoom meeting, takeover the screen-sharing function showing harmful and sensitive content, disturbing the participants with different degrees of affectation. It became a general concern, when hackers and internet trolls inserted "material that is lewd, obscene, racist, misogynistic, homophobic, Islamophobic, or anti-Semitic in nature, typically resulting in the shutdown of the session" ("Zoombombing," 2022).

> *"Article 7. Verification of identity. The verification of the identity of those who appear must be made immediately before the start of the hearing, remotely before the minister of faith or the official determined by the respective court, by means of the exhibition of the corresponding identity document, of which a record will be left." (Agreed Order 271, 18 December 2021)*

Figure 4: Screen capture of a recording of a hearing in a civil court held on May 12, 2020, in which a party performs the identity verification showing her ID by placing it in front of the camera to be inspected by the judge.

Almost a year after videoconferencing tools and online hearings became commonplace, in April 2021, the ministry of justice presented a project of reform to the civil justice system which included videoconferencing as a tool to conduct remote hearings going forward, based on the experience during the pandemic. With this project, the use of video conferencing tools in trials will be regulated. As of March 2023, the reform languishes in congress. The question remains whether this attempt to regulate, albeit late, will bring something new to the table or just legitimize existing practices and make way for mass procurements of already used (popular) technologies.

Figure 5: Timeline with main regulation and policies which affect the Chilean judiciary' digitalization.



4.3. "Socializing" judicial communication on social media in an environment of institutional reluctance to regulate

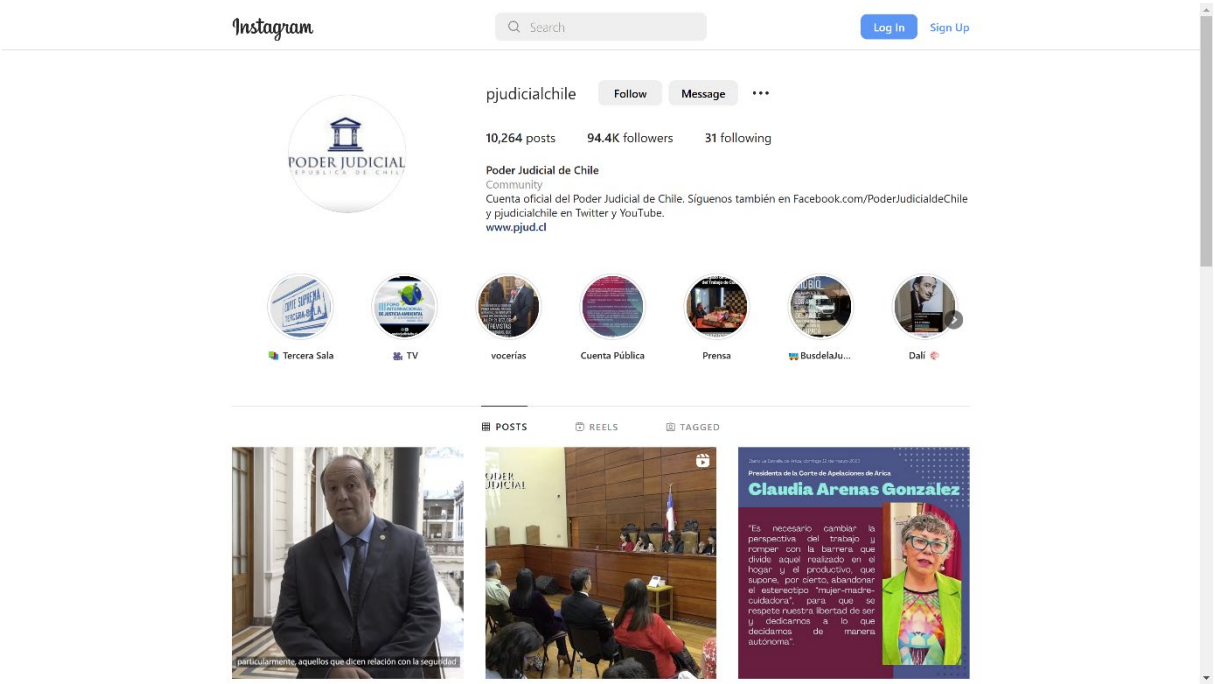
The Chilean Judiciary has had an established social media and communication strategy since 2013, which is executed by a centralized Communications Directorate that reports to the plenary of the Supreme Court. Located in Santiago Chile, the Communications Directorate has a mandate to propose a communication policy to the Supreme Court, and develop a communications program.

In 2012, the president of the Supreme Court announced that:

> *"from this year, the Judiciary will be incorporated into virtual social networks: Facebook, Twitter and YouTube, in order to disseminate official information and offer a faster and more expeditious way of resolving queries […] these initiatives and projects seek to bring the Judiciary closer to citizens so that they understand our work and have timely access to information on cases and judicial procedures" (Annual Report 2012)*

Figure 6: Screen capture of the judiciary's official Facebook profile

Figure 7: Screen capture of the judiciary's official Instagram page, March 2023.



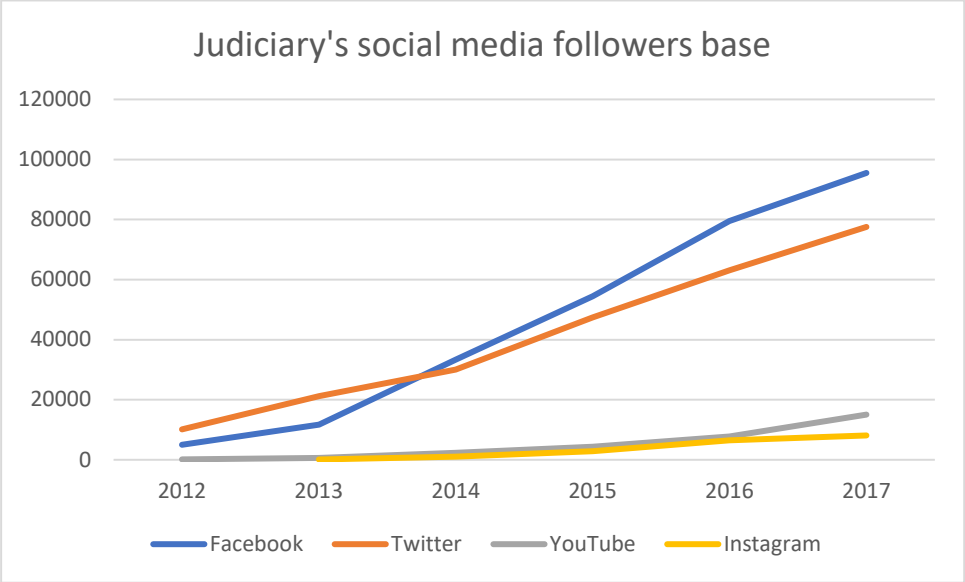
Each one of the social media platforms provided novel possibilities and functionalities for the judicial communications to be enacted in new formats. Rather than pointing to risks of the rapid uptake of users on judicial social media pages, such as the increased risk of personal data harvesting on Facebook. Instead those new communication practices gained legitimacy inside the courts and

by judges, who were eager to elevate their public profiles. Early on, the judiciary legitimized the use of social media, based on the positive reaction of court users — now referred to "as fans, followers, and subscribers" as shown in the annual report of 2014:

> *"Within the framework of the engagement and education strategy, social media networks were consolidated as a direct and expeditious means of communication, validated and recognized by the different users. Facebook reached 33,342 fans, Instagram 1,040, Twitter 30,036 followers and YouTube 2,284 subscribers." (Annual Report 2014).*

Between 2012 and 2018, the judiciary 'on boarded' different digital platforms as they became popular: Facebook, twitter, YouTube, Instagram, and most recently LinkedIn. Up until 2018, this social media expansion happened in an experimental manner without recognition of the need for regulation or control. In 2018, the Supreme Court's plenary approved a report that outlined a policy for how the judiciary should use social media. However, the report reflected an overall enthusiasm for social media engagement, growing steadily over the years (see Figure 8).

Figure 8: Chart showing the growth of followers of the judiciary's social media accounts in Facebook, Twitter, YouTube, and Instagram between 2012 and 2017, taking into consideration for the AD-1873 of 2018 regulation.



Citing these successful numbers, the plenary of the Supreme Court decided not to provide further recommendations. The regulation and control by the judicial authority of their social media activity came down to one sentence in the document AD 1873-2018:

> *"In view of the data presented, it is concluded that the scope and dissemination of judicial events through institutional social networks and citizen communication platforms are completely efficient and satisfactory, which is why this Committee does not propose recommendations in this area." (AD 1873, 2018)*

This was a missed opportunity to regulate the social media activity of the judiciary. Instead, the AD 1873 of 2018 only explicitly regulated the use of social media by individual members of the judiciary and did not address the institutional outlook and narrative.

The use of social media created a direct channel with citizens that allowed the judiciary to "control" the message being delivered – as opposed to being questioned, filtered, trimmed and recomposed by journalists from traditional media channels and the press. The interviewee from the Communications Department of the Court highlighted that:

> *"The organization understood this need of the citizenship […] being a consumer of the Judiciary's own social network, it was better for the people to find out by ourselves than to outsource the information [press and journalists]".*

With social media at their fingertips and an eager audience online, the use of such online social networks became part of a strategy to better position the judiciary and the judges in the public opinion. In this regard, as mentioned by a journalist working in court:

> *"we convinced the judges that in communication, the one who strikes the first communication blow is the most relevant and even with little information, and the one who gives the frame of what is happening, is the one who wins most of the battle" (Communications Department).*

Citizens also increasingly used social media to communicate with the judiciary. This was reflected in the numbers of online inquires, going from 3.000 inquiries to 13.000 during 2020. In this context, the Supreme Court regulated attention to the public, assigning a major role to the Communications Directorate:

> *"The Communications Directorate shall establish an information and continuous dissemination plan in order to communicate to citizens their rights and the new channels of attention to gain access to justice." (Agreed Order 53 – 2020, 17 Abril 2020).*

The Court used Facebook and YouTube to livestream online hearings that attracted a lot of attention from the press and the public. The most popular hearing had over a million viewers who followed the case of Antonia Barra, a young woman who committed suicide after being raped. On August 6, 2022, one of the judges manifested his views on the case via social media during the process (Authors, forthcoming). In a recent decision the Supreme Court, via an appeal for annulment, nullified the whole process citing non observation of due process and legal validity, specifically required for the impartiality of the court.

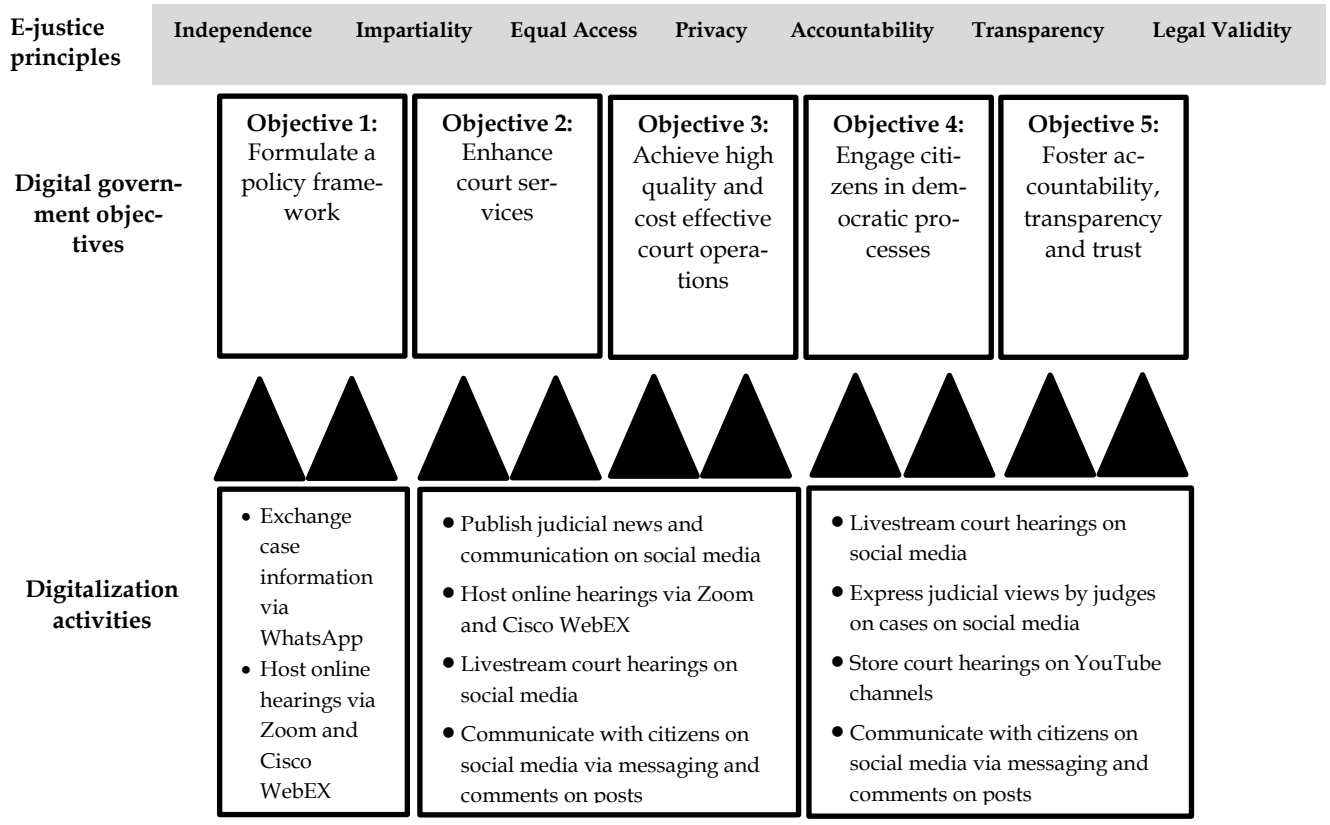
While in this case the procedural mechanisms worked as a safeguard of the due process, at a judicial governance level, the response to the activity of the judiciary on social media is still pending. While the activity of individual members of the judiciary on social media was regulated by the Supreme Court in 2018, the activities of the judiciary still lack a framework to regulate the evolving possibilities offered by social media platforms.

5. Discussion

Since the literature on e-justice has focused on studying the implementation of digitalization projects, their failures and successes, and the development and design principles (Yavuz et al., 2022), the topic of governance in e-justice has received little attention (Reiling & Contini, 2022). This is especially relevant since judicial governance differs from other forms of governance, be it public governance or private, because of the principles of independence and non-interference. This paper critically examined and assessed the use of digital technologies to allow for three cases: online hearings, remote work and the use of social media in Chilean courts, through a combined lens of digital government objectives and digital justice principles. Our research on the Chilean courts demonstrated that the digitalization efforts showed variations in the alignment with the digital government objectives with differing implications for e-justice principles.

5.1. Risks to e-justice principles in the digitalization of Chilean Courts in light of digital government objectives

Figure 9: Summary of findings discussed based on Arundel et al., 2019; Bannister & Connolly, 2012; Dawes, 2008 & Lupo, 2016



Digital Government Objective 1 (Formulate a policy framework): A key objective enabling digital government is to set policy goals and specify the rules and conditions under which information is gathered, used, protected, and shared by government, individuals, and the private sector to achieve

them. This follows a logic of regulation-followed-by-implementation. Our research on the Chilean courts during the pandemic revealed that the digitalization process was not guided by an overarching policy framework, but rather by ad hoc decisions and adaptations. As a result, courts acted as self-organizing units with little to centralized, oversight at the beginning of the pandemic. The case study showed three approaches with varying consequences for e-justice principles of privacy, independence, impartiality and accountability.

In the case of remote work, there was a Supreme Court regulation in place when mobility restrictions took place, which was leveraged to partially guide the implementation and coordination of remote team work. However, despite having a regulatory framework in place that allowed for the use of instant messaging tools, it was missing clear mechanisms to support the court staff and leadership in selecting and assessing the tools that would ensure privacy and protection of data. As a result, we observed the unregulated use of instant messaging tools such as Whatsapp for the exchange of secret and sensitive case information, which are stored outside the country without explicit controls from the Chilean Judiciary.

In the case of online hearings, it was regulated "on the go" with limited to no guidance for the judiciary and court staff during the first month. The absence of a policy framework resulted in the development of a heterogeneous and complex landscape of technologies and practices that varied across different courts and units. This finding confirms previous studies that highlighted the difficulties of long-term ICT development in courts, due to their highly normative and regulated institutional setting (Contini & Cordella, 2015). The heterogeneity was reflected in how different units experimented with various commercial ready-to-use videoconferencing services. Some used Zoom, while others used Cisco WebEx due to having to make their own judgement calls on the suitability of the tool.

While the multiplicity of tools reduced dependence on a single service provider, the later procurement of single, ready-to-use technologies deepened the judiciary's dependence on international service providers and hampered the potential of technological neutrality, making it difficult to adapt as new technologies emerge. Therefore, we argue that the use of Zoom in Chilean Courts is consistent with previous research that argued against the potential industrialization of justice systems, resulting from purchasing video conferencing systems from international companies (McKay, 2018).

Each of these ready-to-use technologies introduced new objects and procedures that were not explicitly intended or regulated by the legal framework or the court members themselves. In this context, technology adoption and implementation should have included careful analysis and careful selection of such technological possibilities. However, the Chilean case revealed major tensions in the adoption of ready-to-use digital technologies before regulation. A good example of this is hosting online hearings via Zoom, which was regulated on the go.

These were mostly oriented and designed for personal use and were not adapted to meet the specific institutional functionalities of the court, as was the case with the identity verification requirement. With limited capacity to regulate and customize a ready-to-use tool, the judiciary relied on the service providers to self-regulate, as was the case of the "Zoom Bombing" incidents. When the Administrative Department attempted to regulate the use of Zoom, they legitimized the existing

practices, as was the case with the identity verification. This meant that the citizens' experience was dictated by the technology with a one size-fits-all tool that overwrites procedural regulation and policy as defined by the software architecture, functions, and features. It can also mean that justice systems can be subjugated to private actors and technology service providers with major consequences for judicial impartiality and independence.

Despite the increased relevance of social media and the deepened use of channels such as Twitter, Instagram, Facebook and YouTube, the use of social media remains unregulated by the Supreme Court in Chile. In the long run, the potential use of social media as the main medium of judicial communication can hamper the principles of impartiality, independence, privacy and legal validity. Social media platforms' algorithmic design and architecture have a control over how the judicial communication is presented, circulated, analysed and shared. As an integral principle of e-justice (Lupo, 2019), the courts are supposed to maintain impartiality of the judicial decision-making process with limited pressure or bias from external stakeholders. However, the social media platforms are out of the judiciary's control and their algorithms out of their knowledge and reach. As a result, the judiciary can only control what is published on their end. Yet, how the information is consumed and viewed by users is controlled by the social media platform's algorithm. By virtue of this social media providers' control over judicial communication, the courts and judges' need for independence from other powers is challenged.

Furthermore, social media platforms harvest user data for assessment, analysis and even monetization purposes. This is inconsistent with the e-justice principle of data assurance and protection. Thus having major implications on how the judiciary make decisions on the basis of this social media communication which hampers impartiality. This also reduces the courts' ability to ensure legal validity as the procedure in the case of social media is governed by external service providers and not by the law.

Digital Government Objectives 2 (Enhance court services) & 3 (Achieve high quality and cost effective court operations): While the three cases were oriented towards enhancing court services, and achieving high quality and cost effective court operations, yet the digitalization experiences revealed tensions and hindrances surrounding the principle of equal access in ways that have not been assessed yet. The use of ready-to-use videoconferencing and instant messaging tools technologies allowed the court staff to hold online hearings and coordinate remote work in a fast and cost-effective way. Additionally, many of the court staff were previously familiar with the tools from personal use, which reduced the need for capacity building and training. The same argument can be made for social media tools, which facilitated the quick and cost effective judicial communication both internally and with citizens.

However, the different videoconferencing technologies increased the complexity of the system, both for internal, as well as external users. Some used Zoom, while others used Cisco WebEx due to having to make their own judgement calls on the suitability of the tool. Internal court staff were forced to switch between technologies. In the case of end-users or citizens, these videoconferencing platforms presented a number of financial and functional barriers on accessibility, thus hampering the equal access principle of e-justice. Users need to have suitable devices (e.g. smart phones, tablets or laptops) to access the online hearing, as well as the need for sufficient internet connectivity to join

calls. Additionally, users require accounts to access online hearings. Paying users have more privileges than free users (e.g. duration of the call). This is the same for social media, where the potential over-reliance on such networks to deliver justice services can reduce the accessibility for people who either choose not to be on social media or just do not have the means to do so.

Digital Government Objectives 4 (engage citizens in democratic processes) & 5 (foster accountability, transparency and trust, pertaining to the structures and process of government): While the use of social media by the courts has contributed positively to fostering citizen engagement in judicial activities as represented in the number of viewers of proceedings' livestreams and number of followers of the judiciary, among other indicators. Additionally, livestreaming court hearings on social media and storing court sessions on YouTube for anyone to check when they please, potentially enhances the transparency and accountability of court activities and proceedings by broadcasting them to a wide audience (Schneider, 2016).

Yet, social media grants the judiciary more power over justice communication and narrative. This has several consequences that undermine democratic processes, accountability and legal validity of court judgements. The possibility to engage directly with the citizens has been used to bypass the traditional press, which had served as a way of speaking truth to the power of the state, and the judiciary. In this regard, having a direct access to citizens allowed them to frame the news in a way that is favourable to the judiciary, taking over a role traditionally played by the press and journalists as an integral element of the accountability structure to judicial activity. This affects a practice of control and scrutiny that the press has over governments and could give the courts a monopoly over communication of their news. Additionally, judges used social media to express their opinions on active cases, which can lead to interference of outside influence on the outcome of cases and thus, hamper judicial due process. In the long run, such practices can reduce trust in the judicial process.

Furthermore, the authority given to the courts and their judges to solve disputes is delivered by an internal communication team that functions in ways that are like an omnichannel marketing approach. In this sense, courts being online put social media platforms at their fingertips, exploring and exploiting them according to their goals. By increasing their followers on social media, amounting to thousands of people, the judiciary maintain a tight grip on the flow of information to citizens from a centralized social media office in Santiago. As previously highlighted in Moore (2019) and Walby (2020), the use of social media channels and displays to communicate with citizens as a consuming audience can have fundamental consequences on the way people perceive and interact with the justice system. The use of digital display devices contributes to the perception of content and information communicated as factual. Thus, opening the door for abuse of such tools to promote the institution and signal a dominance of public opinion. Another risk of using social media to broadcast justice content and court hearings is that it increases the chances of citizens' conflating justice content with leisure, which can weaken the legitimacy of the system and blur the view of citizens as subjects of the law (Moore, 2019).

5.2. Implications for the digitalization of justice

The previous discussion supports previous research on the digitalization of government as a process without an end status, unlike established approaches to e-justice projects with a start and an end

date, a measurable and defined end status, as well as a fixed budget. Therefore, we argue that e-justice literature should rather look at the digitalization of justice as a live, continuous process that needs frequent adjustments of its processes, services, and products to internal and external needs. This prompts a clearer focus on governance of digital justice as an integrated strategy, mission and function that requires close collaboration and experimentation across the different justice institutions and other key stakeholders necessary for the seamless and agile delivery of justice services. We argue that an approach combining a normative policy framework for judicial governance, while engendering mechanisms and spaces for experimentation with new technologies as they emerge is needed (Santuber et al., 2021). This can contribute positively to assure that regulation of new justice practices exploiting new features and functions provided by the development of digital technology can be better aligned to the principles and values of the judicial branch.

COVID-19 opened the door for the potential re-imagining of justice delivery that fundamentally alters how citizens perceive and interact with the justice system and allowed court staff and judiciary to exercise experimental learning to digital technology adoption and practice, albeit with risks for e-justice principles. In the future, these will not be exclusive to broadcasting online hearings via Zoom or using social media to communicate with citizens, which already have major ramifications on the course of justice, court independence and neutrality, as well as hampering justice due process as demonstrated by the Chilean case. Therefore, it is indeed time for e-justice literature to further theorize on value-based, experimental and iterative approaches to the governance of digital justice that aim to achieve fast and cost-effective digital court operations, while continuing to ensure the principles underpinning the overall purpose of justice.

6. Conclusion, Limitations, and Future Research

In this research we have looked at the Chilean Judiciary and interrogated the dominant e-justice narrative of digital justice as "better justice" by borrowing from digital government literature and highlighting the implications to e-justice principles. We used three main concepts: digital by default, technological neutrality and social media in courts to critically engage with the digitalization of justice systems. From our empirical research, we schematically assessed how some of the e-justice principles are challenged by the implementation of digital technologies in the Chilean courts, leading to major risks to justice work and due process. In particular, the lack of a policy framework and the implementation of ready-to-use videoconferencing and instant messaging tools to hold online hearings and work remotely during the global pandemic. Additionally, we explored how an increased use of social media in the service delivery gives the courts a monopoly over the communication of their news, bypassing the control and scrutiny of traditional media and press.

While this study advances our understanding of the digitalization of justice and e-justice principles, there are topics that emerged in our interviews referring to the paradoxes inherent in the use of digital technologies, in the public sector in general and justice systems in particular. Therefore, future research should address questions on digital sovereignty, and the dilemma faced by government, of being efficient, while at the same time, maintaining control over their digital infrastructure. Topics associated with this include the choice of deploying digital systems on the Cloud that escapes

their jurisdiction or choosing to take the long road of seeding and growing internal capabilities to achieve that goal. Other topics include the risks posed by the digitalization of courts, to new theories and concepts of justice, such as the restorative practices related to inter-personality, shared places and embodied experiences. Moreover, future research can also explore further the tension between the judiciary and other external actors, like central government and ministries and its implications on the governance of IT in e-justice systems.

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