



Rethinking Judicial Reform in Indonesia: A Digital Civil Procedure Perspective

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Abstract: The research examines the changing landscape of Indonesia's judicial reform through the lens of "digital civil procedure", a framework that captures how technology and information change the administration of civil justice. The study emphasizes the importance of the *traffic rule*, which regulates the shift of dispute resolution from a physical courtroom to digital platforms such as e-Court, e-Civil, and e-Mediation. It also highlights the role of the *information rule*, a set of regulatory rules governing how data is produced, managed, and distributed within a digitized dispute-resolution environment. Together, these regulatory frameworks represent a significant step in the judiciary's broader political reform agenda. The study deploys a doctrinal legal method with a chronological analysis of the institution to map key regulatory developments, including the implementation of the Case Tracking Information System (SIPP), simplified litigation and electronic mediation, and assesses their impact on institutional functions, judicial powers and access to justice. The results show that digital civil procedure represents the shift from structural reforms in the judiciary to functional models that make technology a central instrument for improving efficiency, transparency and administrative surveillance. At the same time, new challenges are posed, such as discrepancies in access to digital technologies, risks to procedural equity, and growing tensions between procedural innovations of courts and static provisions of traditional civil procedural law. The study concludes that Indonesia's path to modern justice depends not only on the adoption of technology, but also on the development of a coherent regulatory protection system, a data governance framework, and an inclusive digital infrastructure capable of ensuring that the efficiency of technology does not undermine the basic and procedural ideals of civil justice.

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1. Introduction

This study primarily aims to investigate the "shifting factors" in the judicial reform process in Indonesia, particularly with the introduction of technology and information variables. This phenomenon is commonly referred to as "digital civil procedure," which encompasses two key characteristics.¹ First, the emergence of regulations that alter the procedures for resolving civil disputes, transitioning from in-person processes to online-based methods. This is known as "traffic rules," which in the context of Indonesia has been manifested in various judicial reform policies, such as e-Court, e-Mediation, and the Case Information Tracking System (SIPP). Second, there are "information rules," which involve the regulation of information management within the context of online litigation. This includes activities such as collecting, processing, and controlling the data obtained through the online judicial processes. This phenomenon represents a new starting point in the landscape of judicial reform. Concurrently, the use of information technology in the civil justice system has not yet been deeply analyzed in terms of its relationship with policies surrounding civil justice, including aspects such as access to justice, judicial effectiveness, and the strength

¹ David Freeman Engstrom, "Digital Civil Procedure", *University of Pennsylvania Law Review*, Vol. 169, No. 7, 2021

of alternative dispute resolution mechanisms.²

The study on the utilization of information technology in the civil justice system (digital civil procedure) is primarily grounded in the principle of simple, inexpensive, and affordable justice, as stipulated in Law No. 48 of 2009 on Judicial Power. Unfortunately, this principle has been interpreted in an unmeasured way and has become a form of "blind validation" when introducing new reform policies in the judiciary. Several studies on information technology in civil justice reform and its principles explain that the key to success lies in human resources and infrastructure.³ Additionally, other studies focus on evaluating the duration of online dispute resolution processes, arguing that the absence of technical regulations affects the judicial process. Therefore, one potential risk of "uncoordinated policy" resulting from the excessive application of these principles is inefficiency in the management of case resolution, leading to delays in achieving civil justice.⁴

The theoretical framework applied in this study is based on the politics of court reform. The politics of judicial reform offers an analysis, one that is often chronological, and places emphasis on institutional aspects.⁵ In this way, the study will explore the phenomenon of digital civil procedure in two key areas: (i) the driving factors and needs for information technology, and (ii) the changes in the functions and authorities of the judicial institutions. To explore these two focal points, this research will map out the regulations that have prompted the digitization policies within the civil justice system. Based on this, the study will evaluate the impact of these changes as well as the lessons learned from the development of the judicial institutions.

In the end, discussions on these themes will help to deepen the dynamics and concept of digital civil procedure in Indonesia, placing it in the institutional context of the judiciary, and information technology will bring new characteristics and characteristics. This will strengthen the assumption that Indonesia's judiciary is evolving towards modern justice. The main questions of this study are: (i) How has digital civil procedure developed in Indonesia's judicial reform, and (ii) How does it affect the function and authority of the judicial institutions?

2. Methodology

This study analyzes the development of digital civil procedure in Indonesia using normative and doctrinal legal methods. Such method is used to examine laws, Supreme Court regulations, and institutional policies governing the use of information technologies in civil justice. At the same time, the doctrinal legal method is commonly understood as the study of law as a consistent system of rules, principles, and doctrines, used to interpret the content of these regulations and analyze their internal coherence, hierarchy, and impact on civil law.

This methodological approach evaluates how instruments such as PERMA No. 1/2019, PERMA No. 3/2022 and Supreme Court Decree No. 71/KMA/SK/IV/2019 align with the existing procedural doctrine under HIR/RBg, and how they generate new features within the Indonesian civil justice framework. The study uses qualitative techniques to map the chronological evolution of digital civil procedure and to assess the motivation and political dynamics underlying its adoption, based on the theoretical perspective of judicial

² Binziad Kadafi, "The Small Claims Court: An Innovation in Judicial Reform," in *The Politics of Court Reform*, ed. Melissa Crouch, 1st ed. (Cambridge University Press, 2019), 198-217, <https://doi.org/10.1017/9781108636131.009>.

³ Sihotang, Nia Sari, 2016, "Penerapan Asas Sederhana, Cepat dan Biaya Ringan di Pengadilan Negeri Pekanbaru Berdasarkan Undang-undang Nomor 48 Tahun 2009 Tentang Kekuasaan Kehakiman Ilham", accessed on <https://www.neliti.com/publications/186909/penerapan-asas-sederhana-cepat-dan-biaya-ringan-di-pengadilan-negeri-pekanbaru-b>

⁴ Sundusiyah, 2022, "Implementasi Peraturan Mahkamah Agung Tentang E-Court Untuk Mewujudkan Asas Sederhana, Cepat Dan Biaya Ringan Di Pengadilan Agama Pamekasan, accessed on <https://arenahukum.ub.ac.id/index.php/arena/article/download/1448/90957/96449>

⁵ Melissa Crouch, "The Judicial Reform Landscape in Indonesia: Innovation, Specialisation and the Legacy of Dan S. Lev," in *The Politics of Court Reform*, 1st ed., ed. Melissa Crouch (Cambridge University Press, 2019), <https://doi.org/10.1017/9781108636131.001>.

reform policy. This methodological combination allows systematic interpretations of the normative framework and situates it in broader institutional reform processes.

3. Discussion

3.1. The Development of Judicial Reform in Indonesia

Before examining the functional and technological changes introduced by digital civil procedure,⁶ it is important to describe the initial phases of Indonesia's judicial reform, which Crouch (2019) divides into several institutional phases.⁷ *First*, to establish an independent judiciary that includes the general court and the special court. Since 1945, the Supreme Court has been serving the courts of general law in 34 provinces. In 1986, the Administrative Court Act No. 5, the Religious Court Act No. 7, and the Military Court Act No. 31 were enacted. *Second*, the next phase, known as a dependency court, introduces specialized courts under the general judicial framework. For example, the Commercial Court, the Human Rights Court, the Tax Court, the Industrial Relations Court, the Fisheries Court and the Anti-Corruption Court, as shown in the table below.

Table 1. The Development of Judicial Reform in Indonesia

Phase	Year	Type	Initial Legal Basis
Independent Court	1945	General Court (Supreme Court)	1945 Constitution
	1986	Administrative Court	Law No. 5/1986
	1989	Religious Court	Law No. 7/1989
	1997	Military Court	Law No. 31/1997
	2003	Constitutional Court	Law No. 24/2003
Dependent Court	1999	Commercial Court	Presidential Decree No. 97/1999
	2000	Human Rights Court	Law No. 26/2000
	2002	Tax Court	Law No. 14/2002
	2004	Industrial Relations Court	Law No. 2/2004
	2004	Fisheries Court	Law No. 31/2004
	2009	Anti-Corruption Court	Law No. 46/2009

Source: Author's compilation, 2026.

Based on the table above, judicial reform is still seen as an institutional process characterized by the establishment of new court institutions. This institutional approach is driven by the need to resolve cases, both civil and criminal, with the support of judges who focus on specific issues. As a result, the process and decisions made can deliver justice with substantial considerations. For this reason, in some dependent courts, judges appointed must meet additional requirements, such as holding specific certifications for career judges or having a particular professional background for ad hoc judges.⁸ Institutionalism in judicial reform in Indonesia has positive aspects because it provides guarantees of stability and continuity. This can be understood in the context of independent and dependent courts, which are established in laws that cannot be amended arbitrarily except through a defined legislative process. The existence of these judicial institutions provides legal certainty in handling cases according to their respective relative and absolute powers. However, this institutional approach has also faced various criticisms, especially because it is not

⁶ David Freeman Engstrom, *Op.cit.*, pg. 16-32.

⁷ Crouch, *Op.cit.*, pg. 1-13.

⁸ Rifqi S. Assegaf, "The Supreme Court: Reformasi, Independence and the Failure to Ensure Legal Certainty," in *The Politics of Court Reform*, 1st ed., ed. Melissa Crouch (Cambridge University Press, 2019), <https://doi.org/10.1017/9781108636131.002>.

adaptive to changes and emerging complexities. For instance, the need for swift trials in simple cases involving small sums of money. Another example is the COVID-19 pandemic, which altered courtroom procedures.⁹ These challenges are difficult to address using an institutional approach, as the judicial policies produced must go through formal stages.

The next phase of judicial reform in Indonesia is marked by a shift from an institutional approach to a functional one. Functionalism in judicial reform views the court as a subsystem within the legal system, aiming to maintain the balance and order of society.¹⁰ Consequently, this approach involves adjusting to functions in a more flexible way, without necessarily forming new structures or institutions. The emphasis on public functions allows for relatively quicker responses to societal needs. The legal foundation for establishing these functions does not necessarily have to go through legislative stages, such as laws, but can also be done through internal regulations of the court. This functionalist approach has sparked many new initiatives in judicial reform, utilizing information technology as a catalyst for meeting social needs.¹¹

This functionalist perspective can serve as a framework for investigating the phases of civil judicial reform in Indonesia. The urgency for civil judicial reform is driven by both global and national indicators. On a global scale, the World Bank's Ease of Doing Business (EoDB) survey and assessment report that the average time to resolve civil cases in Indonesia is 390 days (150 days for trial and 180 days for execution), with the total cost of litigation averaging 74% of the disputed amount. As a result, the civil justice system in Indonesia has become highly ineffective.¹² On a national scale, the ratio of judges to civil cases in 2023 was 1:469, which significantly burdens judges.¹³ Therefore, the policy approach to address these issues is to update information technology to create a simpler, faster, and less costly judicial system. This functionalist policy is realized by the Supreme Court through several strategies, including case management reforms, updates to information technology, and improvements in transparency systems.¹⁴ The emphasis of this policy does not involve altering or adding new court structures, as the institutionalist approach would suggest.

Instruments for implementing the functionalist approach can be identified in three forms, such as social instruments (*empirical functionalism*), legal instruments (*normative functionalism*), and rational instruments (*rational choice version of functionalism*).¹⁵ Simply put, social instruments stem from societal initiatives to reform civil justice. Legal instruments refer to directives from the state that grant specific powers to judicial institutions, which must be followed by the entire society. Rational instruments arise from the urgent need to reform the modern civil justice system. This study will focus on the rational instruments of functionalism in the civil justice system, which have led to technology-based policies.

Several studies explain that information technology has introduced new features and characteristics that mark a significant shift in the civil justice system. Ballestros (2021) argue that information technology has deepened the discourse on access to justice.¹⁶ Engstorm (2022) points out that the use of information

⁹ Qian Hongdao et al., "Legal Business Model Digitalization: The Post COVID-19 Legal Industry," *SAGE Open* 12, no. 2 (2022): 215824402210939, <https://doi.org/10.1177/21582440221093983>.

¹⁰ Samantha Joy Cheesman and Attila Badó, "Judicial Reforms and Challenges in Central and Eastern Europe," *International Journal for Court Administration* 14, no. 2 (2023): 5, <https://doi.org/10.36745/ijca.532>.

¹¹ Ahmad Tholabi Kharlie and Achmad Cholil, "E-Court and E-Litigation: The New Face of Civil Court Practices in Indonesia," *International Journal of Advanced Science and Technology* 29 (2020).

¹² World Bank Group, "Indonesia Doing Business 2020", accessed at <https://www.doingbusiness.org/content/dam/doingBusiness/country/i/indonesia/IDN.pdf>.

¹³ Kepaniteraan Mahkamah Agung Republik Indonesia, "Laporan Tahunan 2023: Integritas Kuat, Peradilan Bermartabat." Accessed at https://kepaniteraan.mahkamahagung.go.id/images/laporan_tahunan/FA-LAPTAH_MA_2023-_low.pdf

¹⁴ Mahkamah Agung RI, "Pembaruan Peradilan Sebagai Ikhtiar Mewujudkan *Court Excellence*," accessed at <https://www.mahkamahagung.go.id/id/artikel/4965/pembaruan-peradilan-sebagai-ikhtiar-mewujudkan-court-excellence>.

¹⁵ Bert Van Roermund, "Law and Functionalism: The Limited Function of Law," *Law and Method*, ahead of print, April 2015, <https://doi.org/10.5553/REM/.000009>; see also Vincenzo Ferrari, *Functionalist Theory of Law in Norberto Bobbio*, in *Encyclopedia of the Philosophy of Law and Social Philosophy*, Springer, https://link.springer.com/rwe/10.1007/978-94-007-6730-0_79-2;

¹⁶ Teresa Ballesteros, 2021, "International Perspectives on Online Dispute Resolution in the E-Commerce Landscape",

technology brings new risks to judicial institutions, such as the protection of personal data.¹⁷ Susskind (2019) also reveal the phenomenon of unauthorized legal practices due to legal services provided by platforms based on information technology.¹⁸ These new characteristics and features in the civil justice system form the foundation for the strengthening of the digital civil procedure nomenclature. Therefore, digital civil procedure has become a new phase in civil judicial reform in Indonesia, reflected in several policies outlined here.

Table 2. Policies in Indonesia's Civil Judicial Reform

Phase	Year	Type	Initial Legal Basis
Digital Civil Procedure	2019	Case Tracking Information System (SIPP)	SK KMA 71/KMA/SK/IV/2019
	2019	Small Claims	Supreme Court Regulation No. 4/2019
	2019	e-Court	Supreme Court Regulation No. 1/2019
	2022	Electronic Mediation	Supreme Court Regulation No. 3/2022

Source: Author's compilation, 2026.

The development of digital civil procedure in Indonesia began in 2019 with the introduction of several key policies, including the Case Tracking Information System (SIPP), simple lawsuits, e-Court, and electronic mediation (e-mediation). SIPP is an application designed to manage case information both for internal court use and for the public.¹⁹ For internal use, SIPP serves as a data center where all case files are stored, managed, and utilized. The system is hierarchical, with each court, from the Supreme Court to the district courts, having its own server that backs up data in a short period. The data managed includes details about the parties involved in the case, from the initial lawsuit to the final judgment. As such, SIPP stores sensitive personal information of the parties involved, which requires extra care and attention. SIPP was implemented based on Supreme Court Decree No. 71/KMA/SK/IV/2019, derived from Supreme Court Supreme Court Regulation No. 1/2019 on the Administration of Court Cases and Proceedings by Electronic Means (e-Court). Before the SIPP was implemented, district courts had to manage case administration and file archives manually, often causing information exchange errors, weak monitoring and control processes and a general delay in case resolution.²⁰ As a result, SIPP marked a new phase of judicial reform as a technology-based policy in the civil justice system.

In addition to the SIPP, the introduction of simple claims under the Supreme Court No. 4/2019 on the Procedure for Resolving Simple Proceedings (small claims) also marked an important change. The regulations do not specifically require the conduct of simple proceedings by electronic means but open the possibility of such an application. This is important because simple litigation is a simple and low-value dispute settlement mechanism, and its use is constantly increasing over time. In 2022, 7,432 simple proceedings were decided by district courts throughout Indonesia.²¹ To facilitate access to the courts,

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¹⁷ David Freeman Engstrom, 2022, "The New Judicial Governance: Courts, Data, And the Future Of Civil Justice", *DePaul L. Review* Vol 72 (2).

¹⁸ David Freeman Engstrom, 2023, *Legal Tech and the Future of Civil Justice*, Cambridge University Press, UK; and Richard Susskind, 2019, *Online Courts and the Future of Justice*, Oxford University Press, UK.

¹⁹ Dedi Putra, "A Modern Judicial System in Indonesia: Legal Breakthrough Of E-Court And E-Legal Proceeding," *Jurnal Hukum Dan Peradilan* 9, no. 2 (2020): 275, <https://doi.org/10.25216/jhp.9.2.2020.275-297>.

²⁰ Mahkamah Agung Republik Indonesia, "Laporan Tahunan 2021", https://kepaniteraan.mahkamahagung.go.id/images/laporan_tahunan/FA-LAPTAH-2021-LOW.pdf, accessed 10 March 2026.

²¹ Mahkamah Agung Republik Indonesia, "Laporan Tahunan 2022", https://kepaniteraan.mahkamahagung.go.id/images/laporan_tahunan/FA-LAPTAH-2022.pdf, accessed 10 March 2026.

particularly during the COVID-19 pandemic, which limited public mobility, the Supreme Court Regulation allowed for the electronic administration of cases.

Further developments occurred with the implementation of e-Court, as outlined in the Supreme Court Regulation No. 1/2019, which was later amended by Supreme Court Regulation No. 7/2022. E-Court is an application that enables online case registration and resolution services. There are at least four services provided through e-Court. Firstly, *e-filing* is an online case registration service accessible by both legal advisors and individuals.²² Some of the key documents required for e-filing include the registrant's identity, the lawsuit document, the list of evidence, and other information such as the lawyer's identification card. Once e-filing is completed, the registrant must pay court fees online through *e-payment*.²³ After the payment is processed, the system sends a registration number and an official *e-summons* for the first trial, which is assigned by the head of the district court.²⁴ According to the regulation, during the first hearing, the parties are asked whether they agree to use *e-litigation* to resolve their case. If both parties agree, the stages of the lawsuit, responses, and the reading of the judgment will be done through documentary procedures, except during the evidence stage.²⁵ In the evidence stage, the parties must appear in court in person to present and counter the submitted evidence.

The latest policy on digital civil proceedings in Indonesia is electronic mediation. This is governed by Regulation No. 3 of the Supreme Court of 2022 on Electronic Mediation in Courts (e-Mediation). This regulation allows parties to resolve disputes through online mediation, which provides more flexible and accessible ways of resolving civil matters, especially in the context of the increasing dependency on digital instruments in judicial proceedings.²⁶ These initiatives collectively represent a fundamental change in the Indonesian civil justice system and a shift towards a more efficient, accessible and technologically driven process. The combination of electronic case tracking, online dispute procedures and digital mediation has simplified many aspects of the judicial system and made it more adaptable to modern society's needs.²⁷ This change is particularly important in light of the increasing complexity and volume of civil cases and the increasing dependency on technology driven by pandemics and other global challenges.

3.2. Digital Civil Procedure in Indonesia's Judicial Reform

The transformation of Indonesia's civil procedural landscape since 2019 demonstrates a shift from institution-based reform toward functionalist reform, with information technology serving as the primary driver. Engstrom's "digital civil procedure" framework offers two precise analytical lenses for understanding this moment: *traffic rules*, which govern the movement of dispute-resolution processes from in-person hearings to online forums, and *information rules*, which regulate the availability, exchange, and use of information within an increasingly digitized litigation system.²⁸ By placing e-Court, e-Litigation, e-Mediation, and SIPP within these two lenses, what emerges is not merely administrative modernization but a reconstruction of authority relations, an expansion of judicial discretion at the technical level, and the creation of data infrastructures that function as new sources of institutional power within judicial governance.

Within the broader context of the "politics of judicial reform",²⁹ this digital acceleration did not originate

2026.

²² Article 8-9 of Supreme Court Regulation No. 1/2019 on e-Court.

²³ Article 10-13 of Supreme Court Regulation No. 1/2019 on e-Court.

²⁴ Article 15-18 of Supreme Court Regulation No. 1/2019 on e-Court.

²⁵ Article 19-28 of Supreme Court Regulation No. 1/2019 on e-Court.

²⁶ Ni Putu Laria Dewi et al., "Implementation of Supreme Court Regulation Number 3 of 2022 Concerning Electronic Mediation in the Jurisdiction of The Denpasar District Court," *Indonesian Journal of Multidisciplinary Science* 3, no. 11 (2024), <https://doi.org/10.55324/ijoms.v3i11.984>.

²⁷ Suheflihusnaini Ashady et al., "Perkembangan Regulasi dan Pelaksanaan Mediasi Pada Persidangan Secara Elektronik Pasca Berlakunya Peraturan Mahkamah Agung Nomor 3 Tahun 2022," *CERMIN: Jurnal Penelitian* 8, no. 1 (2024): 13, https://doi.org/10.36841/cermin_unars.v8i1.4152.

²⁸ Engstrom, *Op.cit.*, pg. 16-32.

²⁹ Deval Desai, *Expert Ignorance: The Law and Politics of Rule of Law Reform*, 1st ed. (Cambridge University Press, 2023), <https://doi.org/10.1017/9781009284776>.

from long legislative processes, but rather from a series of Supreme Court Regulations and administrative decisions. This pattern is typical in the early phases of judicial digitalization, where the discretionary pool of judges and court administrators becomes the primary locus of procedural decision-making.³⁰ In other words, reform is shifting “from structure to function”. Instead of establishing new specialized courts, the Supreme Court redirects procedural pathways while centralizing and standardizing case-data flows through SIPP.³¹

In practice, Indonesia’s *traffic rules* are clearly manifested through the Supreme Court Regulations No. 3 of 2018 (the initial foundation), Supreme Court Regulations No. 1 of 2019 (which integrates e-filing, e-payment, e-summons, and e-litigation), and further consolidation through Supreme Court Regulations No. 7 of 2022. Numerous normative-empirical studies show that the architecture of e-Court shifts logistical burdens from in-person processes to digital channels, reducing time and transaction costs.³² Putra (2020) views the e-Court/e-Litigation breakthrough as a modernization leap that enhances transparency and mitigates geographical barriers to justice.³³ At the policy-evaluation level, Ariwijaya and Samputra (2021) find improved realization of the “simple, fast, and low-cost” principle in electronic registration and summons procedures;³⁴ this aligns with Tsabitha (2024), who identifies e-Litigation as a tool for both procedural acceleration and internal efficiency.³⁵ These policies shift the “gateway” of litigation from physical corridors to digital environments through a combination of party consent and judicial discretion.³⁶ These changes appear to be a technical relocation of the forum that transforms the architecture of cost distribution and litigation strategies.

However, traffic regulations do not eliminate the concerns of distribution justice. Engstrom warns against the justice gap and the effects of empathy in virtual forums, where inequalities in connectivity, device quality and digital capabilities may affect representation capacity and case results.³⁷ In Indonesia, digitalization is indeed improving efficiency, accessibility and transparency, but it also generates new challenges such as digital divisions, the exclusion of vulnerable groups and the potential erosion of the principles of fair trials.³⁸ These issues require regulatory safeguards and comprehensive digital literacy programmes. Doctrinal tensions also arise when e-Litigation leads ahead of revisions to HIR/RBg. For this reason, Indonesia must formalize minimum standards for online-hearing openness, audiovisual quality, and public-participation protocols to uphold *open courts* and prevent procedural regressivity that disproportionately disadvantages technologically limited parties.

Beyond traffic rules, Indonesia’s *information rules* materialize through SIPP as a data infrastructure of justice that unifies case management, consolidates data from district courts to the Supreme Court, and publishes case statuses and decisions nearly in real time.³⁹ SIPP shifts oversight from conventional administrative inspection to *data-driven oversight*, enhancing the Supreme Court’s capacity for performance monitoring, caseload management, and procedural standardization. Theoretically, digitalization reconfigures the informational ecology of courts, such as it not only increases data volume but centralizes and normalizes data flows, generating “new power” for judicial administrators and creating

³⁰ Engstrom, *Op.cit.*, pg. 16-32.

³¹ Abdul Rachmat Ariwijaya and Palupi Lindiasari Samputra, “Evaluasi Kebijakan Peradilan Elektronik (E-Court) Mahkamah Agung Republik Indonesia.” *Jurnal Hukum & Pembangunan* 51, no. 4 (2021): 1104–1122. <https://doi.org/10.21143/jhp.vol51.no4.3303>.

³² *Ibid.*

³³ Putra, *Op.cit.*, pg. 282.

³⁴ Ariwijaya and Samputra, *Op.cit.*, pg. 1109-1110.

³⁵ Aulia Rahmadhani Andara Tsabitha, *Analisis Penerapan E-Court Dalam Sistem Peradilan Perdata di Indonesia Guna Mewujudkan Peradilan yang Transparan*, December 8, 2024, <https://doi.org/10.5281/ZENODO.14301016>.

³⁶ Kharlie and Cholil, *Op.cit.*, pg. 2210-2211.

³⁷ Engstrom, *Op.cit.*, pg. 21-23.

³⁸ Tria Prabawati *et al.*, “Efektivitas Penerapan Aplikasi E-Court Dalam Upaya Peningkatan Kualitas Pelayanan Publik (Studi Di Pengadilan Negeri Tanjung Karang Kelas 1a)”, *Administrativa: Jurnal Birokrasi, Kebijakan dan Pelayanan Publik* 3, no. 1 (2021): 37–51. <https://doi.org/10.23960/administrativa.v3i1.58>.

³⁹ Dian Latifiani *et al.*, “Reconstruction of E-Court Legal Culture in Civil Law Enforcement,” *Journal of Indonesian Legal Studies* 7, no. 2 (2022): 441–48, <https://doi.org/10.15294/jils.v7i2.59993>.

trade-offs between increased informational transparency and unimproved real-time transparency.⁴⁰

The implications of information rules become sharper as electronic evidence and digital documents increasingly underpin civil-procedure proof. Indonesia now faces issues of authenticity, integrity, and evidentiary authority within electronic systems.⁴¹ Engstrom notes that in e-discovery and technology-assisted review (TAR) ecosystems, the tension between accuracy and efficiency can redefine proportionality.⁴² Although TAR is not yet prominent in Indonesia, predictive systems and machine outputs may be monopolized by repeat players with superior technological and data access. This could force courts to confront questions regarding whether machine outputs are protected as *work product*, how seed-set methodologies should be contested, and when cross-party collaboration is required.⁴³ Preventively, Indonesia should develop internal guidelines for electronic-evidence authentication, document interoperability, and judicial capacity-building for proportionality assessments.

At this stage, e-Mediation in Indonesia represents traffic rules shifting mediation venues from courtrooms to virtual spaces, while also embodying information rules that redefine communication, confidentiality, and traceability in this quasi-private process. Ashady et al. (2024) show regulatory developments and practical dynamics in electronic mediation, questioning whether key procedural principles are preserved in digital environments.⁴⁴ Under Engstrom's lens, mediation's digital shift must be balanced by information rules ensuring *privacy by design*, limited auditability, and safeguards for digitally vulnerable parties.⁴⁵ Thus, e-Mediation requires a careful equilibrium between scalability and demonstrable procedural justice.

From an institutional-authority perspective, digitalization expands the Supreme Court's role as a digital regulator and data controller.⁴⁶ The evolution of e-Court indicates a new pattern: regulating functions rather than creating new structures. This aligns with evaluative findings (Ariwijaya & Samputra 2021) showing that e-Court clarifies institutional organization and enhances measurable realization of the "simple, fast, and low-cost" principle at the administrative level.⁴⁷ As SIPP centralizes data, the Supreme Court's capacity for data-driven oversight increases. Yet such "data power" requires accountability and explainability. Building on Engstrom,⁴⁸ the most sound policy path includes: (i) maintaining judicial discretion for choosing digital or hybrid pathways while embedding minimum due-process principles; (ii) pursuing a law-making on court digitalization; and (iii) developing court's data governance enabling.

An important issue going forward is how Indonesia should respond to the rise of legal analytics and decision-support tools, which Engstrom predicts may transfer segments of "legal cognition" from humans to machines.⁴⁹ For example, outcome prediction, litigation-cost estimation, and automated drafting. The value of such tools often depends on data exclusivity; repeat players with extensive case outcomes data and internal feedback loops will benefit, while those without access will be disadvantaged. In Indonesia, before widespread adoption, the judiciary should establish a framework for analytical tools that provide information insights and supervised by a multi-stakeholder committee.

From a theoretical and methodological standpoint, Engstrom's approach invites us to see digital civil procedure as a "policy-choice arena" requiring rigorous empirical research rather than solely normative exposition. He advances a digital-research agenda that includes causal evaluations of remote-hearing impacts on outcomes, distributional studies of who benefits or is harmed by traffic rules, and testing different information-rule designs. For Indonesia, this means promoting accountability in court data management that is fair, inclusive, and accountable. Without such an integrative approach, the risk is that

⁴⁰ Engstrom, David Freeman, and RJ Vogt. "The New Judicial Governance: Courts, Data, and the Future of Civil Justice." *DePaul Law Review* 72, no. 2 (2023): 171, <https://via.library.depaul.edu/law-review/vol72/iss2/4/>.

⁴¹ Andara Tsabitha, *Op.cit.*

⁴² Engstrom, *Op.cit.*, pg. 26-29.

⁴³ *Ibid.*

⁴⁴ Ashady et al., *Op.cit.*

⁴⁵ Engstrom, *Op.cit.*, pg. 21-23.

⁴⁶ *Ibid.*

⁴⁷ Ariwijaya and Samputra, *Op.cit.*

⁴⁸ Engstrom, *Op.cit.*, pg. 16-32.

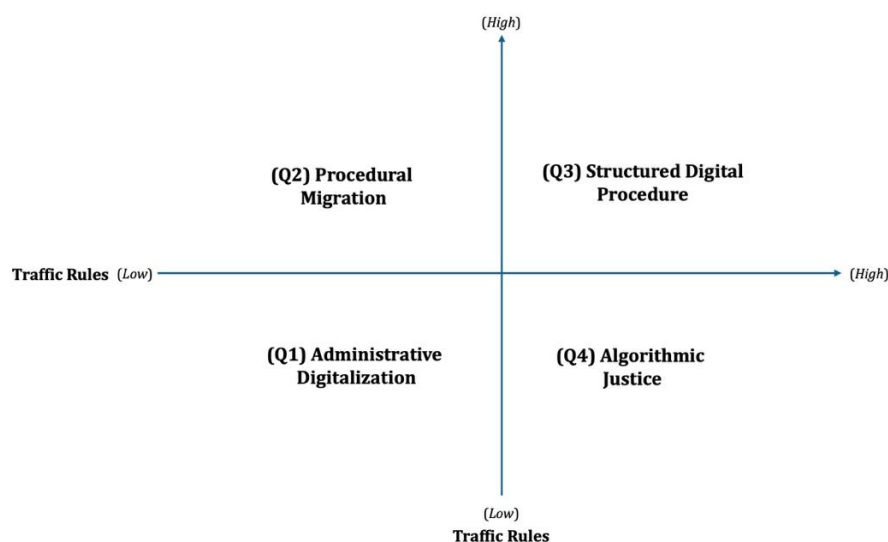
⁴⁹ *Ibid.*, pg. 32-33.

digital transformation becomes mere “administrative modernization” that accelerates process flows while allowing the justice gap to persist. Aligning traffic rules with sensitivity to asymmetry, designing information rules that honor accountability and privacy, and establishing multi-stakeholder governance for data-driven innovation will determine whether Indonesia’s civil-justice landscape truly moves toward “modern justice”.

3.3. Patterns in the Development of Digital Civil Procedure in Indonesia

Indonesia’s post-2019 trajectory of digital civil procedure does not unfold in a linear pattern but instead follows a patterned evolution shaped by the interaction between traffic rules and information rules. Traffic rules refer to the degree of procedural migration from physical to digital forums, ranging from low levels where hearings remain offline to high levels where filings, summons, hearings, and mediation are conducted electronically or in hybrid form.⁵⁰ Information rules refer to the maturity of data governance, ranging from weak regimes characterized by minimal standardization and limited integrity controls to strong regimes that incorporate encryption, role-based access, logging, privacy safeguards, and structured transparency.⁵¹ When these two dimensions are placed together, they form a four-quadrant framework that captures the distinct phases of Indonesia’s reform. The pattern that emerges from these quadrants provides a trajectory map that helps explain both the sequencing and the normative implications of digital civil procedure in Indonesia.

Picture 1. Developmental Stages of Digital Civil Procedure



Source: Author’s compilation, 2026.

The first quadrant represents a phase of *administrative digitalization* in which traffic rules remain low while information rules begin to strengthen. This pattern is observable in the early implementation of the Case Tracking Information System (SIPP), where digitalization was primarily aimed at improving internal administrative processes without altering the fundamentally physical nature of procedural movement. Information became more standardized and centralized, and limited transparency was introduced, yet hearings and evidentiary processes continued to rely on in-person interactions. The reforms at this stage accelerated administrative work but did not significantly change the litigation experience for parties. This illustrates Indonesia’s data-first orientation in its early digitalization efforts, producing stability but limited behavioural transformation.

The second quadrant corresponds to a phase of *procedural migration*, where traffic rules rapidly increase while information rules remain comparatively underdeveloped. The 2019 introduction of e-filing,

⁵⁰ *Ibid.*, pg. 16-32.

⁵¹ *Ibid.*

e-payment, and e-summons exemplifies this shift, as procedural steps that were previously tied to physical counters moved into digital channels. Migration reduced logistics burdens and made early access more efficient, but it exceeded the maturity of data governance. Information security, interoperability standards and integrity protocols have not yet complied with the demands of increasingly digital processes. This created inequalities in compliance capacities between the parties, created the differences in digital literacy and highlighted the differences in device and connectivity. Such a pattern is characteristic of jurisdictions where procedural innovation moves more quickly than the stabilization of information management.

The third quadrant emerges once traffic rules and information rules strengthen in parallel, producing a phase of *structured digital procedure*. This became evident after 2022, when e-Litigation, e-Mediation, and a more standardized SIPP operated as an integrated ecosystem. In this phase, Indonesia began to function through genuinely digital procedures in which documents, filings, hearings, and inter-party communication were organized within a unified technical infrastructure. The integration of data flows has increased the Supreme Court's regulatory and supervision capacity and led to a greater concentration of judicial information. At the same time, the system has created new challenges, including risks to the protection of personal data, differences in device performance and inequalities in technology capabilities between lawyers and litigants. These developments have shown that combining digital procedures does not eliminate inequality, but can be reorganized around technical competences and information control if not managed.

The fourth quadrant encapsulates an *algorithmic justice* horizon in which information rules are highly developed, and traffic rules begin to depend on data-driven recommendations generated by analytic tools. Although Indonesia has not yet entered this phase, there are early indications in discussions on litigation analysis, workload prediction systems and decision-support tools for judges. In this possible future phase, information models shape litigation strategies, scheduling and procedural choices and create new asymmetries between actors who have access to historical data sets, technical expertise, or advanced analytics. This horizon highlights the need to strengthen governance mechanisms such as regulatory sandboxes, model documents and systematic bias checks to prevent the emergence of assembly line justice through opaque computational tools.

The four-quadrant mapping reveals three overarching patterns in Indonesia's reform. *First*, the trajectory tends to progress from information-driven reforms, to traffic-driven migration, to integrated digital ecosystems, and eventually toward predictive or analytic environments. *Second*, each quadrant contains distinctive risks, including data inconsistency in the first quadrant, capacity inequality in the second, privacy and procedural regularity pressures in the third, and informational power concentration in the fourth. *Third*, the quadrants collectively demonstrate that the success of digital civil procedure depends not on the speed of procedural migration alone but on the equilibrium between traffic rules and information rules. Indonesia currently occupies the second quadrant, characterized by consolidated digital procedure but limited analytic integration. The direction and quality of future reform will depend on how information rules are strengthened to prevent technologically advantaged actors from dominating digital litigation.

Taken together, this four-quadrant pattern provides not only a descriptive account of Indonesia's digitalization but also an analytical framework for anticipating its future direction. If capacity differences are not addressed, transitions from the second to the third region can create accessibility gaps, while transitions from the third to the fourth region can create accountability gaps unless information governance is strengthened. However, if managed appropriately, quadrants can support faster, more economical, more inclusive and more accountable digital civil justice systems, which embody modern justice beyond superficial digitalization.

4. Conclusion

The transformation of Indonesia's civil law system through digital civil proceedings reflects the fundamental shift from an institutional model of judicial reform, which deals with the establishment of new courts, to a functionalist approach that uses technology to address systemic inefficiencies, burdensome cases, and greater transparency demands. The study shows that digitalization policies initiated since 2019

have changed the operational logic and epistemological basis of Indonesia's civil litigation, not just modernizing administrative procedures. The traffic rules contained in e-Courts and e-Mediation reconfigure the path of procedure, shifting key segments of dispute resolution from physical space to digital space, reducing transaction costs and extending access to judicial services. However, this change also introduces new distribution concerns, where litigants with limited digital knowledge or technical resources may face increasingly virtual disadvantages in legal proceedings. Meanwhile, the most obvious information rules of SIPP and electronic case management systems centralize judicial data, strengthen the Supreme Court's supervisory capacity, and institutionalize data-driven governance. These developments have improved monitoring, standardization and efficiency, but have also highlighted concerns about data privacy and the potential strengthening of unequal capacities between the parties and legal professionals.

Together, these dynamics reveal that digital civil procedure constitutes a new phase of civil justice reform, which cannot be understood as merely an update of the court infrastructure, but must be analyzed as a reconfiguration of the procedural authority, judicial discretion and the standards of civil justice. Although digitalization has expanded access and rationalized processes, the findings of the study highlight the continuing risks of digital division, procedural opacity and tensions between technological innovations and the unchanged text provisions of civil procedural law.

Therefore, the promotion of digital civil proceedings should not only be a modernization of administrative processes, but also be an integrated reform programme incorporating appropriate process safeguards, multi-stakeholder governance, first-class privacy data frameworks and continuous empirical evaluation of procedural results. Only through this approach can Indonesia ensure that digital transformation strengthens the basic ideals of civil justice.

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