Journal of Law and Legal Reform
Vol. 7 Issue 1 (2026) 337–376
DOI: https://doi.org/10.15294/jllr.v7i1.24028
Online since: January 26, 2026

https://journal.unnes.ac.id/journals/jllr

Integrating AI into Small Claims Courts: Lessons from Global Practices for Legal Reform in Indonesia

Dwi Bintang Satrio [a] ✉, **Artaji Artaji** [a], **Efa Laela Fakhriah** [a], **Chami Yassine** [b]

[a] Faculty of Law, Universitas Padjadjaran, Sumedang, Indonesia
[b] College of Law, Abu Dhabi University, Abu Dhabi, United Arab Emirates

✉ corresponding email: dwi12001@mail.unpad.ac.id

Abstract

Indonesia's civil judicial system persists in facing procedural inefficiencies, especially with small claims, notwithstanding the implementation of the e-Court system. The lack of intelligent assistance in this digital infrastructure obstructs the achievement of efficient, rapid, and cost-effective adjudication as required by law. This study seeks to investigate the potential incorporation of artificial intelligence (AI) into Indonesia's small claims process as a tool for legislative and institutional change. The research used a normative legal methodology, incorporating statutory and comparative analyses, to derive insights from the regulatory frameworks and judicial innovations of China, Singapore, and Canada. These jurisdictions have effectively utilized AI for claim classification, procedural assistance, and facilitating access for self-represented litigants, according to the results. In contrast to traditional digital technologies, AI facilitates cognitive capabilities like pattern identification and legal triage, which can substantially reduce administrative burdens and improve judicial uniformity. The study presents a reform approach for Indonesia that integrates AI in the initial procedural phases—specifically in claim registration and preliminary review—while maintaining judicial independence and due process.

This study's originality resides in its integration of comparative law, legal technology, and Indonesian procedural realities to present a contextually relevant, ethically informed paradigm for AI-enhanced adjudication. If properly regulated and strategically implemented, this integration can convert small claims courts into more accessible, efficient, and equitable institutions, reinforcing the judiciary's constitutional responsibility in providing substantive justice.

Keywords

Artificial Intelligence, Small Claims Court, Judicial Reform, Access to Justice, Comparative Legal Analysis.

HOW TO CITE:

Chicago Manual of Style Footnote:

[1] Dwi Bintang Satrio, Artaji Artaji, Efa Laela Fakhriah, Chami Yassine, "Integrating AI into Small Claims Courts: Lessons from Global Practices for Legal Reform in Indonesia," *Journal of Law and Legal Reform 7*, no 1 (2026): 337- 376, https://doi.org/10.15294/jllr.v7i1.24028.

Chicago Manual of Style for Reference:

Satrio, Dwi Bintang, Artaji Artaji, Efa Laela Fakhriah, Chami Yassine. "Integrating AI into Small Claims Courts: Lessons from Global Practices for Legal Reform in Indonesia." *Journal of Law and Legal Reform 7*, no 1 (2026): 337-376. https://doi.org/10.15294/jllr.v7i1.24028.

Introduction

The digital revolution has gradually transformed the legal industry by challenging conventional judicial administration methods and exposing systemic inefficiencies inside court systems. In various developing countries, such as Indonesia, ongoing challenges like case backlogs, procedural delays, and limited access to justice persistently undermine the effectiveness of civil adjudication, particularly with small claims.[1] In this context, artificial intelligence (AI) ought to be regarded not solely as a technological advancement but as a governance tool that can improve judicial efficiency. Unlike its extensively documented applications in healthcare and finance, the integration of AI into judicial processes directly affects fundamental principles of the rule of law and public accountability.[2] In Indonesia's civil justice system, especially in small claims courts, AI offers a structural opportunity to optimize procedures, accelerate dispute resolution, and reduce litigation costs, thereby improving the normative principles of judicial administration—simplicity[3], speed, and affordability—while complying with constitutional mandates concerning access to justice.[4]

Indonesia's efforts to improve civil dispute resolution through the e-Court system and the *gugatan sederhana* procedural framework demonstrate a substantial commitment to judicial modernization, particularly in addressing case backlogs, procedural delays, and access challenges for self-represented litigants. However, these enhancements

---

1 Anjali Raghav et al., "Artificial Intelligence for Strengthening the Rule of Law and Justice Delivery System:," in *Advances in Computational Intelligence and Robotics*, ed. Christian Kaunert et al. (IGI Global, 2025), https://doi.org/10.4018/979-8-3693-9395-6.ch003.

2 Yifeng Liu and Yuqing Zhong, "On the Application of Artificial Intelligence Technology in the Field of Judicial Adjudication," *2021 3rd International Conference on Artificial Intelligence and Advanced Manufacture*, ACM, October 23, 2021, 1029–32, https://doi.org/10.1145/3495018.3495327.

3 Indah Sri Utari et al., "The Digital Sanctuary: Forging Legal And Ethical Frameworks For Interfaith Coexistence Online," *Contemporary Issues on Interfaith Law and Society* 4, no. 2 (2025), https://doi.org/10.15294/ciils.v4i2.35309.

4 Aristo Evandy A. Barlian et al., "Electronic Criminal Justice in Indonesia: Challenges and the Future Measures," *Jambura Law Review* 7, no. 1 (2025): 243–74.

reveal a basic limitation: the alterations achieved are primarily administrative rather than cognitive.[5] While e-Court enhances the digitization of filing, summons, and case management, it lacks independent, data-driven reasoning abilities necessary for adaptive procedural guidance, legal triage, or preliminary analytical support.[6] Thus, the technology functions as a digital interface lacking intelligence, uniformly imposing the essential duties of procedural compliance on both plaintiffs and court personnel.[7] Comparative analyses from jurisdictions such as China, Singapore, and Canada illustrate that artificial intelligence, when employed as an intelligent support system rather than merely a digital tool, can assist self-represented litigants, automate procedural verification, and optimize judicial resource allocation in small claims adjudication.[8] Thus, Indonesia's challenge resides not in the choice to enhance digitalization, but in the incorporation of intelligence within its judicial system[9], which is crucial for judicial reform that aligns technological progress with constitutional mandates to ensure accessible and effective justice.[10]

---

5 Djamaludin Djamaludin et al., "Assessing the Impact of Electronic Court Systems on the Efficiency of Judicial Processes in the Era of Digital Transformation," *Volksgeist: Jurnal Ilmu Hukum Dan Konstitusi*, June 27, 2023, 1–18, https://doi.org/10.24090/volksgeist.v6i1.8082.

6 Joanna Studzińska, "Artificial Intelligence in Civil Procedure in Europe – Some Perspectives," in *Frontiers in Artificial Intelligence and Applications*, ed. Antonio J. Tallón-Ballesteros (IOS Press, 2024), https://doi.org/10.3233/FAIA241371.

7 Ibid.

8 Irina A. Gronic, "On Some Aspects of Case Management in Electronic Courts of Indonesia," in *New Technology for Inclusive and Sustainable Growth*, ed. Agnessa O. Inshakova and Elena I. Inshakova, vol. 288, Smart Innovation, Systems and Technologies (Springer Singapore, 2022), https://doi.org/10.1007/978-981-16-9808-8_21.

9 Muhammad Azil Maskur et al., "Reimagining Criminal Liability in the Age of Artificial Intelligence: Toward a Comparative and Reform-Oriented Legal Framework," *Journal of Law and Legal Reform* 6, no. 4 (2025), https://doi.org/10.15294/jllr.v6i4.35540.

10 Indriati Amarini et al., "Digital Transformation: Creating an Effective and Efficient Court in Indonesia," *Legality : Jurnal Ilmiah Hukum* 31, no. 2 (2023): 266–84, https://doi.org/10.22219/ljih.v31i2.28013; Aju Putrijanti and Kadek Cahya Susila Wibawa, "Indonesia Administrative E-Court Regulation Toward Digitalization And E-Government," *Jurnal IUS Kajian Hukum Dan Keadilan* 9, no. 1 (2021): 18–33, https://doi.org/10.29303/ius.v9i1.796.

Despite procedural improvements such as *gugatan sederhana* and the introduction of the e-Court system, Indonesia's civil justice framework continues to suffer from structural inefficiencies that disproportionately impact unrepresented litigants and economically disadvantaged populations.[11] While e-Court has enhanced administrative accessibility, it has not addressed core systemic problems, including procedural rigidity, uneven court workloads, and insufficient assistance for self-represented litigants. The platform operates without the cognitive and analytical capabilities associated with artificial intelligence, which could otherwise aid in pre-trial screening, eligibility assessment, and claim formulation. The rising number of small claims, particularly in first-instance courts, coupled with the lack of a scalable and intelligent judicial support system, jeopardizes the fundamental principles of civil justice reform—simplicity, expediency, and cost-effectiveness.

Despite procedural improvements such as *gugatan sederhana* and the introduction of the e-Court system, Indonesia's civil justice system continues to suffer from structural inefficiencies that disproportionately impact lay litigants and economically disadvantaged populations. While e-Court has enhanced administrative accessibility, it has not addressed core systemic problems, including procedural rigidity, uneven court workloads, and insufficient assistance for self-represented litigants. The platform operates without the cognitive and analytical capabilities associated with artificial intelligence, which could otherwise aid in pre-trial filtering, eligibility assessment, and claim formulation. The increasing volume of small claims, especially in first-instance courts, along with the absence of a scalable and intelligent judicial support system, threatens the core tenets of civil justice reform—simplicity, expediency, and cost-effectiveness.

This study intends to thoroughly evaluate the viability of integrating artificial intelligence into Indonesia's minor claims adjudication as a strategic driver for extensive legal reform. The objective is to evaluate how AI can enhance procedural efficiency, reduce judicial limitations, and

---

[11] Denindah Olivia, "Legal Aspects of Artificial Intelligence on Automated Decision-Making in Indonesia," *Lentera Hukum* 7, no. 3 (2020): 301, https://doi.org/10.19184/ejlh.v7i3.18380.

improve access to justice for self-represented litigants, all while preserving due process and judicial impartiality. The initiative seeks to surpass theoretical abstraction by employing practical and comparative insights from nations like China, Singapore, and Canada, where AI is being applied in pre-trial triage, claim validation, and user assistance. This study seeks to provide targeted recommendations for policy development and the improvement of legal infrastructure by contextualizing these efforts within Indonesia's existing legal and institutional framework. The aim is to position AI not merely as a technology tool but as a catalyst for comprehensive reform in civil justice administration.

Recent Indonesian scholarship on artificial intelligence in the judicial sector has notably advanced by examining AI primarily as a supplementary tool in specific judicial functions, such as enhancing the quality and structure of judicial reasoning, standardizing verdict formulation, strengthening judicial oversight, and exploring the ethical limits of AI-assisted decision-making.[12] Other studies have analyzed AI from a broader reformist perspective, emphasizing its capacity to improve access to justice and efficiency in civil procedural law, mainly at a normative or policy-design level, without anchoring AI implementation in particular procedural domains such as small claims adjudication.[13] Concurrently, comparative and philosophical analyses of AI in judicial decision-making have predominantly focused on the balance between technological assistance and human judicial discretion, fairness, and accountability, often viewing AI as an auxiliary tool rather than as an essential procedural intelligence integrated within specific dispute-resolution systems.[14] These findings together suggest that Indonesian legal academics have insufficiently differentiated between

[12] Nur Putri Hidayah et al., "Artificial Intelligence and Quality of Composition Verdicts in Indonesia: Lessons from New Zealand," *Journal of Human Rights, Culture and Legal System* 4, no. 1 (2024): 101–20, https://doi.org/10.53955/jhcls.v4i1.175.

[13] Adeng Septi Irawan, "The Potential of Generative Artificial Intelligence Based on Applications in Judicial Supervision in An Efforts to Reduce Corruption, Collusion, and Nepotism," *Jurnal Hukum Dan Peradilan* 14, no. 3 (2025): 599–628, https://doi.org/10.25216/jhp.14.3.2025.599-628.

[14] Ummi Maskanah, "Artificial Intelligence in Civil Justice: Comparative Legal Analysis and Practical Frameworks for Indonesia," *Jambura Law Review* 7, no. 1 (2017): 225–42.

digitalization, automation, and intelligence, resulting in an analytical shortcoming regarding AI's cognitive impact on procedural justice.

Moreover, while some literature has explored ambitious concepts such as AI judges or generative AI for judicial oversight—particularly in criminal justice or institutional supervision—these discussions largely remain detached from the practical realities of civil justice systems that directly affect lay and self-represented litigants.[15] A notable deficiency of focused research is on the function of AI as an intelligent procedural support system in small claims courts, which are marked by expedited processes, increased caseloads, and limited legal assistance. The normative alignment of AI integration with essential civil justice principles, including due process, equality of arms, and access to justice in summary proceedings, remains insufficiently examined. The existing research is deficient in a context-sensitive, institutionally grounded framework for the incorporation of AI into small claims adjudication in Indonesia. This paper addresses the deficiency by reconceptualizing AI as a form of procedural intelligence, rather than merely a mechanism for efficiency or supervision, with the potential to revolutionize civil justice delivery in a constitutionally sound and institutionally feasible way.

This study seeks to address these substantial gaps by framing AI not merely as a technological improvement but as a potential revolutionary tool inside Indonesia's legislative framework. It links normative legal concerns with actual technical design by proposing a systematic framework for integrating AI into the procedural stages of small claims adjudication. This research improves the understanding of significant legal innovation by combining global experiences with doctrinal legal analysis and the institutional framework in Indonesia. It establishes an essential academic basis for policymakers and legal technologists to collaboratively shape the future of accessible, efficient, and constitutionally sound civil justice.

This research provides an unusual perspective by framing artificial intelligence as both an auxiliary administrative tool and a normative mechanism for legal reform in small claims adjudication in Indonesia.

---

[15] Panca Sarjana Putra et al., "Judicial Transformation: Integration of AI Judges in Innovating Indonesia's Criminal Justice System," *Kosmik Hukum* 23, no. 3 (2023): 233, https://doi.org/10.30595/kosmikhukum.v23i3.18711.

This study redirects attention from the dominant worldwide legal discourse on AI in adjudication, largely addressing criminal or high-value commercial disputes, to low-value civil claims, an often neglected yet essential aspect of everyday access to justice.[16] The innovation involves conceptualizing AI as a proactive partner in initial court procedures, particularly in case categorization, assessing procedural eligibility, and aiding unrepresented plaintiffs, thus embedding intelligence into the justice system from its foundation. This emphasis is relevant and urgent, given the rapid rise in small claims litigation and the growing demand for scalable, fair solutions. The research is justified by empirical evidence that underscores inefficiencies in the current Indonesian system and its potential to improve interdisciplinary policy development, incorporating legal theory, comparative jurisprudence, and technological innovations. This effort creates a strategic foundation for the integration of AI inside a constitutionally valid, ethically robust, and procedurally uniform civil court system.[17]

This paper utilizes a normative juridical approach,[18] incorporating statutory and comparative methods to critically examine the regulatory framework of minor claims processes and the prospective integration of artificial intelligence inside the Indonesian civil court system. The statutory method involves a thorough examination of relevant national laws and Supreme Court regulations, particularly those related to simple litigation and judicial reform. The comparative method concurrently analyzes exemplary methods from jurisdictions such as China, Singapore, and Canada, where AI has been systematically incorporated into judicial systems. The data collection procedure entails a thorough evaluation of literature,[19] encompassing legal documents, judicial records, and

---

16 Raghav et al., "Artificial Intelligence for Strengthening the Rule of Law and Justice Delivery System."

17 Odi Jarodi et al., "From Fragmentation to Coherence: Enhancing Human Resource Capacity in Indonesian Law Reform for Effective Justice Delivery," *Journal of Law and Legal Reform* 5, no. 4 (2024), https://doi.org/10.15294/jllr.v5i4.18924.

18 Irwansyah Irwansyah, *Penelitian Hukum: Pilihan Metode & Praktik Penulisan Artikel* (Mirra Buana Media, 2020).

19 Dian Ekawaty Ismail et al., *Metode Penelitian Hukum: Teori, Aplikasi, Dan Inovasi Dalam Penelitian Hukum*, ed. Tiara Oktaviana Namira Daud (Ruang Karya, 2025).

scholarly articles. The employed analytical method is qualitative-descriptive,[20] concentrating on the examination of legal norms and evaluating their implementation and potential for evolution alongside advancing technology. This method improves understanding of existing legal frameworks and facilitates a forward-looking analysis that situates AI within a broader context of institutional change and access to justice.

A. The Current Landscape of Small Claims Mechanism in Indonesia

The implementation of the small claims procedure (*gugatan sederhana*) in Indonesia signifies a deliberate reaction to enduring critiques regarding the inefficiency, inaccessibility, and procedural intricacies of the civil judicial system. The simple lawsuit mechanism was originally established by Supreme Court Regulation (Perma) No. 2 of 2015 and subsequently revised by Perma No. 4 of 2019, intended as an accelerated method for adjudicating civil disputes with claims of limited economic significance. The conceptual foundation is anchored in the constitutional imperative that judicial proceedings must embody the principles of simplicity, expediency, and affordability, as delineated in Law No. 48 of 2009 concerning Judicial Authority. However, actualizing these normative principles into practical realities has been significantly difficult.

The adoption of gugatan sederhana was primarily motivated by the necessity to alleviate the escalating case backlog and procedural impediments afflicting Indonesia's civil courts.[21] Civil litigation traditionally encompasses multi-stage processes marked by formal rituals and extended timescales, frequently lasting several years from initiation to final judgment. These inefficiencies not only encumbered the judiciary but also dissuaded individuals and small enterprises from seeking legal recourse, so significantly limiting access to justice.[22] Consequently, the straightforward lawsuit model arose as an

---

[20] Irwansyah, *Penelitian Hukum: Pilihan Metode & Praktik Penulisan Artikel*.

[21] Barlian et al., "Electronic Criminal Justice in Indonesia: Challenges and the Future Measures."

[22] Maskanah, "Artificial Intelligence in Civil Justice: Comparative Legal Analysis and Practical Frameworks for Indonesia."

institutional effort to facilitate adjudication for conflicts characterized by unambiguous problems and minimal financial stakes.[23]

Notwithstanding its theoretically appealing architecture, empirical assessments indicate that the straightforward lawsuit mechanism encounters considerable operational challenges in practice. Despite Perma's requirement for small claims matters to be adjudicated within twenty-five working days by a single judge, a significant number of cases continue to surpass this duration. The 2023 and 2024 Supreme Court Annual Reports indicate that delays persist, highlighting both administrative lethargy and systemic deficiencies in court case administration.[24] These empirical findings highlight a discrepancy between the regulatory framework's objectives and the courts' real institutional capabilities.

The minor claims procedure's operational framework is intricately linked to the e-Court system, which incorporates specific digital functionalities including electronic filing (e-filing), electronic payment of court costs (e-payment), electronic summons (e-summons), and online case tracking. Although these characteristics have alleviated logistical obstacles and the necessity for physical court appearances, their operational scope is confined to administrative functions.[25] The system is unable to verify whether a statement of claim satisfies formal requirements under the Perma, assess whether the claim value exceeds the statutory threshold, or identify defects in party qualification and jurisdiction. Thus, e-Court enables procedural transmission but does not execute substantive procedural validation, relegating essential legal screening responsibilities solely to human participants.

The current small claims system critically underestimates the procedural vulnerability of self-represented plaintiffs. Despite the design

---

[23] Diandra Preludio Ramada and Indah Sri Utari, "Unveiling the Surge in Corruption: A Menacing Threat to Indonesia's Stability in Anti-Corruption Law Reform," *Journal of Law and Legal Reform* 5, no. 1 (2024), https://doi.org/10.15294/jllr.vol5i1.2092.

[24] Mahkamah Agung, *Laporan Tahunan 2023 Mahkamah Agung Republik Indonesia Tahun 2023* (Mahkamah Agung, 2023).

[25] Rozha Kamal Ahmed et al., "Impact of E-Court Systems Implementation: A Case Study," *Transforming Government: People, Process and Policy* 15, no. 1 (2021): 108–28, https://doi.org/10.1108/TG-01-2020-0008.

objective of establishing an uncomplicated litigation process accessible without legal counsel, the complexities associated with initiating a case—even within the streamlined lawsuit framework—frequently pose significant obstacles.[26] The necessity to comprehend material claim thresholds, jurisdictional intricacies, and evidence requirements requires a level of legal literacy that many non-experts lack. As a result, the demographic targeted for empowerment continues to face systemic disadvantages, prompting significant issues over procedural fairness and equity.[27]

Empirical studies and judicial assessments consistently indicate that plaintiffs in small claims proceedings predominantly originate from middle- to lower-income groups and frequently appear without legal representation.[28] Reports from court monitoring institutions and access-to-justice studies in Indonesia show that the simplified procedure is most commonly utilized by micro-entrepreneurs, individual consumers, and informal workers seeking recovery of relatively small financial losses.[29] The absence of legal assistance in these cases amplifies procedural vulnerability, as litigants must independently navigate filing requirements, evidentiary standards, and jurisdictional rules—conditions that heighten the risk of procedural dismissal rather than substantive adjudication.

Furthermore, the rudimentary lawsuit framework excessively depends on human verification by court clerks and judges during the preliminary examination phase. The clerks are required to evaluate cases

---

[26] Sebastian Wejedal, "Simplification of Procedure: A Realistic (or Unrealistic) Alternative to Lawyer-Conducted Litigation?," in *YSEC Yearbook of Socio-Economic Constitutions 2022*, ed. Eva Storskrubb, vol. 2022, YSEC Yearbook of Socio-Economic Constitutions (Springer Nature Switzerland, 2023), https://doi.org/10.1007/16495_2023_48.

[27] Ignacio M Soba Bracesco, "The Normative Predetermination Ofthe Standards of Proof (a Derivative of Legal Certainty)," *Revista Eletronica de Direito Processual* 21, no. 2 (2020): 186–213.

[28] Indah Sri Utari et al., "Legal Protection for Children as Victims of Economic Exploitation: Problems and Challenges in Three Major ASEAN Countries (Indonesia, Vietnam and Philippines)," *Lex Scientia Law Review* 7, no. 2 (2023), https://doi.org/10.15294/lesrev.v7i2.68301.

[29] Hidayah et al., "Artificial Intelligence and Quality of Composition Verdicts in Indonesia."

for adherence to the stringent standards established in the Perma, while judges must ascertain case eligibility prior to the initiation of substantive hearings.[30]

From a philosophical and institutional standpoint, the significant dependence on human judgment during the preliminary examination phase, albeit aimed at maintaining judicial oversight, has resulted in unanticipated outcomes characterized by fragmented court practices and inconsistencies in procedural standards. Divergent interpretations of eligibility criteria—such as claim value, evidentiary sufficiency, and party qualification—among courts compromise the predictability that gugatan sederhana was intended to provide. This fragmentation exposes a structural paradox within the existing framework: the quest for speed and simplicity is hindered by manual discretion, resulting in variability that undermines procedural certainty and diminishes the normative assurance of equitable access to justice.[31]

The applicability of gugatan sederhana is normatively confined to disputes with little monetary value and specific case categories, limiting issues like property ownership, intricate contractual relationships, and instances involving several parties. The substantive and jurisdictional constraints indicate that the efficacy of the small claims process relies not only on procedural simplification but also on precise preliminary

---

30 Anne Sanders, "Law Clerks," in *The Oxford Handbook of Comparative Judicial Behaviour*, 1st ed., ed. Lee Epstein et al. (Oxford University Press, 2024), https://doi.org/10.1093/oxfordhb/9780192898579.013.21.

31 To optimize the use of artificial intelligence within the legal system, it is imperative to establish a robust ethical framework, strengthen law enforcement capacities, and regularly update the applicable regulatory rules, while simultaneously strengthening personal data protection, establishing an AI-based digital forensics task force, and fostering cross-sectoral collaboration to combat digital identity crimes without stifling technological innovation. Read more Benny Sumardiana et al., "Evaluation of Electronic Evidence in Criminal Justice in the Era of Advanced Artificial Intelligence Technology," *Indonesian Journal of Criminal Law Studies* 9, no. 2 (2024), https://doi.org/10.15294/ijcls.v9i2.50319; Ameena Syifa Dwiandari and Ridwan Arifin, "Criminal Law Enforcement on Digital Identity Misuse in AI Era for Commercial Interests in Indonesia," *The Indonesian Journal of International Clinical Legal Education* 7, no. 1 (2025), https://doi.org/10.15294/iccle.v7i1.25525.

filtering and legal evaluation—tasks that cannot be achieved through digitization alone without an intelligent evaluative component.

B. Conceptual Framework and Capabilities of Artificial Intelligence in Civil Procedure

Artificial intelligence (AI) within the judicial framework should be seen not merely as an automated instrument; it embodies a revolutionary approach to the processing of legal information, the recognition of procedural patterns, and the facilitation of decision-support functions.[32] Philosophically, AI is founded on the desire to emulate or enhance human reasoning via computing systems that can learn, adapt, and execute activities often associated with human cognition. In civil procedure, AI is not simply an addition to current processes but has the capacity to transform fundamental adjudicative mechanisms, especially in high-volume, low-value cases where procedural uniformity is essential.[33]

The defining characteristic of AI, as opposed to simple digitization, is its capacity to perform cognitive processes. In contrast to static e-filing systems or electronic case management platforms, AI systems may independently analyze legal texts, identify essential components of claims, and utilize rule-based reasoning to assess procedural eligibility.[34] Machine learning algorithms enable AI to enhance its precision over time by analyzing extensive databases of judicial decisions and procedural results.[35] This dynamic capability establishes AI as an optimal alternative

---

[32] Taras Shevchenko National University of Kyiv, Kyiv, Ukraine and Irina Izarova, "Towards Sustainable Justice: Looking for Ai-Driven Solutions for Legal Practice and Court Monitoring," *Bulletin of Taras Shevchenko National University of Kyiv. Series: Physics and Mathematics*, no. 2 (2024): 49–53, https://doi.org/10.17721/1812-5409.2024/2.8.

[33] Studzińska, "Artificial Intelligence in Civil Procedure in Europe – Some Perspectives."

[34] John Zeleznikow, "The Benefits and Dangers of Using Machine Learning to Support Making Legal Predictions," *WIREs Data Mining and Knowledge Discovery* 13, no. 4 (2023): e1505, https://doi.org/10.1002/widm.1505.

[35] Nur Aqilah Khadijah Rosili et al., "A Systematic Literature Review of Machine Learning Methods in Predicting Court Decisions," *IAES International Journal of*

for duties including initial case assessment, evidence classification, and predictive analytics about case developments—functions crucial for enhancing small claims processes.

AI can be used through rule-based eligibility screening systems that reflect the formal criteria outlined in Indonesia's small claims legislation. An AI system can be designed to autonomously ascertain if the monetary value of a claim is below the statutory limit of IDR 500 million, if the subject of the dispute is exclusively civil, and if the parties meet the criteria for eligible litigants according to the relevant procedural regulations. Through the cross-referencing of claim inputs with established legal criteria, AI can identify ineligible cases from the outset, thereby mitigating the danger of misclassification and alleviating the workload of court clerks and judges during first assessments.

Table 1. conceptual distinction between conventional digitalization and artificial intelligence in judicial administration

Aspect	**Conventional Digital Systems (e-Court)**	**Artificial Intelligence in Court**
Core Function	Data transmission and record management	Cognitive processing and rule-based analysis
Example Features	e-filing, e-payment, e-summons, case tracking	Eligibility screening, procedural triage, claim classification
Analytical Capacity	Static, user-driven	Dynamic, system-driven
Role in Adjudication	Administrative facilitation	Adjudication support (co-analyst)
Decision Authority	None	None (recommendatory only)

This comparison underscores that AI does not replace judicial authority but introduces an additional analytical layer that enhances procedural governance, particularly in high-volume, low-value claims.[36]

Artificial Intelligence (IJ-AI) 10, no. 4 (2021): 1091, https://doi.org/10.11591/ijai.v10.i4.pp1091-1102.

[36] In the era of Industry 4.0, characterized by the integration of technology and data, the application of AI within Indonesia's judicial system holds significant potential

The implementation of AI in civil procedure must be meticulously linked with the idea of proportionality. High-value commercial conflicts may require complex judicial analysis that exceeds present AI capabilities, whereas small claims typically include simple factual matrices and established legal standards.[37] The inherent simplicity of these situations renders them particularly amenable to AI involvement, especially during the initial procedural phases where the fundamental inquiries pertain to jurisdictional appropriateness, financial thresholds, and the fulfillment of essential evidentiary criteria.[38] Consequently, small claims courts serve as an optimal setting for testing AI-assisted procedural innovations while preserving the essential rights of judicial discretion.

However, the integration of AI in civil procedure presents significant normative issues. AI systems must exhibit transparency in their reasoning processes to meet the legal system's requirements for accountability and to maintain public trust in judicial equity.[39] Black-box algorithms—whose internal mechanisms are unclear—are fundamentally at odds with the concepts of procedural justice that

---

to enhance efficiency, transparency, and fairness through objective data-driven information management and strengthened procedural governance, particularly in high-volume and low-value cases, provided that AI is cautiously positioned as a supportive tool for human judges rather than a substitute for judicial authority, while ensuring transparency, accountability, and the protection of human rights. Read on David Hardiago et al., "Law and Digitalization: Cryptocurrency as Challenges Towards Indonesia's Criminal Law," *Indonesian Journal of Criminal Law Studies* 10, no. 1 (2025): pg.302, https://doi.org/10.15294/ijcls.v10i1.22557; Joice Soraya and Zico Junius Fernando, "AI Judges and the Future Revolution of the Judicial Profession in Indonesia," *The Indonesian Journal of International Clinical Legal Education* 6, no. 3 (2024): pg.393, https://doi.org/10.15294/iccle.v6i3.15358.

37 Tariq K. Alhasan, "Integrating AI into Arbitration: Balancing Efficiency with Fairness and Legal Compliance," *Conflict Resolution Quarterly*, January 9, 2025, crq.21470, https://doi.org/10.1002/crq.21470.

38 Vladyslava Zavhorodnia et al., "Artificial Intelligence in the Judiciary: Challenges and Tools for Achieving Sustainable Development Goals," *International Journal of Global Environmental Issues* 21, no. 2/3/4 (2022): 322, https://doi.org/10.1504/IJGENVI.2022.126199.

39 G. Chaudhary, "Explainable Artificial Intelligence (xAI): Reflections on Judicial System," *Kutafin Law Review* 10, no. 4 (2024): 872–89, https://doi.org/10.17803/2713-0533.2023.4.26.872-889.

support civil adjudication. Consequently, the incorporation of AI into the judicial process must conform to a framework of explainability, ensuring that the rationale and criteria underlying AI-generated recommendations are transparent and susceptible to human supervision.[40] This criterion is particularly significant in regions such as Indonesia, where the court's credibility is intricately connected to constitutional guarantees of due process.

A crucial differentiation must be upheld between artificial intelligence as a decision-making authority and AI as a support system for adjudication. In civil litigation, AI ought to serve as a procedural co-analyst, assisting judges with administrative filtering and legal triage, while refraining from intruding upon the essential realm of judicial decision-making. In this auxiliary capacity, AI can identify claims that are suitable for faster processing and pinpoint procedural shortcomings that need to be addressed, and systematize case information to improve court efficiency. This paradigm maintains the supremacy of human judgment while utilizing AI's analytical capabilities to alleviate caseload burdens and procedural delays.[41]

---

[40] Iñigo De Miguel Beriain, "Does the Use of Risk Assessments in Sentences Respect the Right to Due Process? A Critical Analysis of the Wisconsin V. Loomis Ruling," *Law, Probability and Risk* 17, no. 1 (2018): 45–53, https://doi.org/10.1093/lpr/mgy001.

[41] AI technologies, such as machine learning and natural language processing, enable large datasets to be analyzed for hidden patterns, thereby enhancing forensic investigations and improving decision-making processes in fraud cases. Empirical developments have shown that AI has been widely implemented within the legal field, including its use in predicting case outcomes and generating strategic recommendations. In the context of civil litigation, however, AI ought to function as a procedural co-analyst, assisting judges through administrative filtering and legal triage without encroaching upon the core domain of judicial decision-making. In this auxiliary role, AI can identify claims suitable for expedited processing, detect procedural deficiencies requiring correction, and systematize case information to enhance court efficiency. This paradigm preserves the supremacy of human judgment while leveraging AI's analytical capabilities to mitigate caseload pressures and reduce procedural delays. Read more Erma Rusdiana et al., "Augment Legal Efforts through Artificial Intelligence in Curtailing Economic Fraud in Nigeria: Issues and Challenges," *Indonesian Journal of Criminal Law Studies* 10, no. 1 (2025), https://doi.org/10.15294/ijcls.v10i1.22147; Ardina Khoirun Nisa, "The Prospect of AI Law in Indonesian Legal System: Present and Future Challenges,"

C. Comparative Legal Analysis: AI Integration in Small Claims Courts Abroad

A crucial distinction must be upheld between artificial intelligence as an adjudicative authority and AI as a support system for adjudication. In civil litigation, AI ought to serve as a procedural co-analyst rather than a decision-maker, aiding judges through administrative filtration and legal triage but refraining from intruding upon the fundamental realm of judicial judgment. In this auxiliary capacity, AI may discern claims appropriate for faster processing, identify procedural shortcomings necessitating rectification, and systematically arrange case information to improve judicial efficiency. This paradigm maintains the supremacy of human judgment while utilizing AI's analytical capabilities to alleviate caseload burdens and procedural delays..

Table 2. Comparative Models of AI Integration in Small Claims Courts (China, Singapore, Canada)

Jurisdiction	Primary AI Functions in Small Claims	Institutional Model	Level of Human Oversight	Key Normative Concerns
China	Evidence analysis, case classification, recommendation of legal outcomes	Highly centralized "smart courts"	Limited and policy-driven	Judicial independence, algorithmic opacity
Singapore	Procedural guidance, claim drafting assistance, eligibility screening	User-centered tribunal support (SCT)	Strong and mandatory	Due process, transparency
Canada	Case management support, language assistance, litigant guidance tools	Decentralized and court-specific	Continuous and contextual	Consistency, access to justice

The Indonesian Journal of International Clinical Legal Education 6, no. 1 (2024), https://doi.org/10.15294/iccle.v6i1.4686.

Indonesia	Administrative digitalization (e-filing, e-summons)	Centralized e-Court system	High (manual screening)	Procedural delay, access barriers

This comparison underscores that although all three jurisdictions utilize AI in the initial and administrative phases of litigation, they exhibit substantial disparities in governance structure, level of centralization, and normative safeguards—variances that are essential for Indonesia to contemplate when formulating its own AI-assisted small claims framework.

China's legal system exemplifies one of the most sophisticated applications of AI in court operations, through the establishment of "smart courts." In the Chinese approach, AI algorithms aid judges by scrutinizing evidence, detecting discrepancies in witness statements, and recommending suitable legal classifications and penalties based on comprehensive datasets of prior rulings. This AI-assisted adjudication is particularly relevant in minor claims contexts, where volume and standardization are essential considerations.[42] China's methodology is marked by significant centralized control and an instrumentalist perspective on technology, prompting concerns regarding judicial independence and openness that may conflict with constitutional democracies such as Indonesia.

Singapore integrates AI within its small claims framework, specifically in the Small Claims Tribunals (SCT), offering a more prudent and user-centric approach. Singapore's AI tools aim to assist litigants in understanding procedural mandates, crafting claims, and navigating the tribunal procedure without the need for legal counsel. Singapore prioritizes human control at all stages, ensuring AI serves as an assisting tool rather than a decisive one. This equilibrium between efficiency and procedural integrity is more congruent with Indonesia's

[42] Nu Wang, "'Black Box Justice': Robot Judges and AI-Based Judgment Processes in China's Court System," *2020 IEEE International Symposium on Technology and Society (ISTAS)*, IEEE, November 12, 2020, 58–65, https://doi.org/10.1109/ISTAS50296.2020.9462216.

normative framework, wherein judicial impartiality and litigant autonomy are constitutionally safeguarded principles.[43]

Canada's application of AI in judicial situations, while less centralized than in China or Singapore, offers a decentralized and adaptable framework, especially relevant for courts addressing linguistic diversity and self-represented litigants. In Canadian courts, AI is utilized mostly to assist with administrative functions, including translating decisions, optimizing case administration, and offering guidance tools for litigants unfamiliar with judicial processes. The Canadian model illustrates that AI does not have to supplant human judgment to be effective; rather, it can function as an infrastructural improvement that indirectly enhances access to justice by alleviating administrative costs and streamlining user interactions.[44]

A notable similarity among these countries is the strategic utilization of AI in the preliminary stages of litigation rather than in the conclusive adjudication. AI is chiefly assigned roles including eligibility screening, procedural guidance, and case categorization—domains where standardization and consistency are essential but do not require the subjective judgment of a human judge.[45] This functional division proposes a prudent yet efficient approach for AI integration that honors the integrity of judicial decision-making while enhancing procedural efficiency.

From a normative standpoint, the integration models observed internationally demonstrate the value of design ethics in judicial AI systems. Transparency, explainability, and accountability are prevalent themes in governments that emphasize preserving public trust in AI-

---

[43] Johann Laux, "Institutionalised Distrust and Human Oversight of Artificial Intelligence: Towards a Democratic Design of AI Governance Under the European Union AI Act," *AI & SOCIETY* 39, no. 6 (2024): 2853–66, https://doi.org/10.1007/s00146-023-01777-z.

[44] Oleksandr Shevchuk et al., "Problems of Legal Regulation of Artificial Intelligencein Administrative Judicial Procedure," *Juridical Tribune* 13, no. 3 (2023), https://doi.org/10.24818/TBJ/2023/13/3.02.

[45] Moustafa Elmetwaly Kandeel and Ghaleb Elrefae, "The Impact of Artificial Intelligence on Achieving the Efficiency of Justice 'AI & Speedy Justice,'" *2023 24th International Arab Conference on Information Technology (ACIT)*, IEEE, December 6, 2023, 01–05, https://doi.org/10.1109/ACIT58888.2023.10453918.

assisted adjudication.[46] Singapore's framework ensures that customers can monitor the creation of AI-generated recommendations, and human officials must verify crucial outputs before proceeding.[47] In Canada, AI tools undergo thorough pilot projects and ongoing human supervision, demonstrating a dedication to maintaining the essential principles of natural justice amidst technological advancement.[48]

The regulatory frameworks governing AI integration vary considerably between jurisdictions, underscoring the need for customized legal infrastructures. In China, the utilization of AI is governed by centralized judicial policies, with limited external oversight.[49] In contrast, Singapore integrates its AI initiatives into a comprehensive strategy of legal innovation, informed by public consultation and stringent regulatory control.[50] Canada's decentralized strategy emphasizes the significance of local flexibility and sector-specific regulations.[51] This comparative observation emphasizes that Indonesia's effective AI integration necessitates not just technological preparedness but also the establishment of a cohesive legislative framework that guarantees ethical implementation, accountability measures, and the safeguarding of rights.

A vital lesson is the significance of user empowerment. AI systems in small claims courts are most efficacious when they reduce informational and procedural obstacles for litigants, particularly those

---

46 Chaudhary, "Explainable Artificial Intelligence (Xai)."

47 Andrew J. Keith, "Governance of Artificial Intelligence in Southeast Asia," *Global Policy* 15, no. 5 (2024): 937–54, https://doi.org/10.1111/1758-5899.13458.

48 Mona Sloane and Elena Wüllhorst, "A Systematic Review of Regulatory Strategies and Transparency Mandates in Ai Regulation in Europe, the United States, and Canada," *Data & Policy* 7 (2025): e11, https://doi.org/10.1017/dap.2024.54.

49 Jie-jing Yao and Peng Hui, "Research on the Application of Artificial Intelligence in Judicial Trial: Experience from China," *Journal of Physics: Conference Series* 1487, no. 1 (2020): 012013, https://doi.org/10.1088/1742-6596/1487/1/012013.

50 Devyani Pande and Araz Taeihagh, "Navigating the Governance Challenges of Disruptive Technologies: Insights from Regulation of Autonomous Systems in Singapore," *Journal of Economic Policy Reform* 26, no. 3 (2023): 298–319, https://doi.org/10.1080/17487870.2023.2197599.

51 Sloane and Wüllhorst, "A Systematic Review of Regulatory Strategies and Transparency Mandates in Ai Regulation in Europe, the United States, and Canada."

lacking formal legal education.[52] Singapore's AI-driven claim filing platforms, including instantaneous feedback on document completeness and evidential adequacy, illustrate how technology may democratize access to justice.[53] Such developments would be especially advantageous in Indonesia, where a considerable number of plaintiffs in small claims cases navigate the process without legal assistance and encounter difficulties with procedural adherence.

The hazards linked to AI integration must not be overlooked. Comparative experiences indicate that excessive dependence on AI-generated outputs can reinforce systemic biases inherent in training data, diminish nuanced human judgment, and potentially give rise to new kinds of procedural unfairness.[54] Concerns in China about algorithmic opacity and potential manipulation exemplify the risks associated with inadequately transparent AI systems.[55] Such an issue highlights the necessity for Indonesia to emphasize the creation of AI systems that are both technically sound and compatible with ideals of fairness, legal equality, and substantial human monitoring.

D. Regulatory and Ethical Considerations for AI Adoption in Indonesian Civil Justice

The incorporation of artificial intelligence (AI) into Indonesia's civil court system, especially regarding small claims, prompts not only technical and administrative inquiries but also essential regulatory and ethical issues. In contrast to traditional digital tools, AI systems can

---

52 Raghav et al., "Artificial Intelligence for Strengthening the Rule of Law and Justice Delivery System."

53 Keith, "Governance of Artificial Intelligence in Southeast Asia."

54 Olivera Marjanovic et al., "Theorising Algorithmic Justice," *European Journal of Information Systems* 31, no. 3 (2022): 269–87, https://doi.org/10.1080/0960085X.2021.1934130; Johannes Kaspar et al., "Artificial Intelligence and Sentencing from a Human Rights Perspective," in *Artificial Intelligence, Social Harms and Human Rights*, ed. Aleš Završnik and Katja Simončič, Critical Criminological Perspectives (Springer International Publishing, 2023), https://doi.org/10.1007/978-3-031-19149-7_1.

55 Jian Xu, "Opening the 'Black Box' of Algorithms: Regulation of Algorithms in China," *Communication Research and Practice* 10, no. 3 (2024): 288–96, https://doi.org/10.1080/22041451.2024.2346415.

autonomously learn, adapt, and generate outputs that could affect judicial decisions. Their application in legal institutions cannot be regulated only by efficiency metrics; it necessitates a thorough regulatory framework that guarantees compliance with constitutional requirements, institutional legitimacy, and public accountability.

A primary regulatory difficulty is the lack of a definitive legal framework for the development, deployment, and oversight of AI in judicial contexts. Current Indonesian legislation, including Law No. 48 of 2009 on Judicial Authority, establishes fundamental concepts such as the right to a fair trial and access to justice, although it remains quiet about the implementation of autonomous or semi-autonomous technologies in the adjudication process.[56] This legal void engenders ambiguity over the boundaries of AI's allowable function, the degree of necessary human supervision, and the accountability for decisions shaped by AI-generated results. In the absence of legislative clarity, the incorporation of AI may function inside a legal ambiguity, compromising both procedural transparency and the faith of litigants.

A definitive institutional reaction is necessary to rectify this regulatory void. A judicial AI task group may be formed under the auspices of the Supreme Court, incorporating the Ministry of Communication and Information, the National Legal Development Agency, and pertinent judicial training institutions. This task group would be tasked with developing technological standards, ethical guidelines, and governance principles for the application of AI in judicial settings. The Supreme Court may concurrently establish a definitive Peraturan Mahkamah Agung (Perma) for AI-assisted judicial administration, elucidating allowable functions, degrees of human oversight, and accountability frameworks. The establishment of a regulatory sandbox—permitting restricted, tightly monitored pilot projects in designated courts—would enhance institutional learning

[56] Rodiyah Rodiyah et al., "The Future Impact of Technological Advancement in the Legal Drafting Process: A Human and Technology Analysis," 2022, 030019, https://doi.org/10.1063/5.0104135; Dharma Setiawan Negara et al., "The Implementation of Artificial Intelligence by Judges in Law Enforcement Reviewed From Legal Convergence Theory," *Journal of Information Systems Engineering and Management* 10 (2025): 427–41.

while mitigating systemic risks, ensuring that AI integration progresses in a regulated, transparent, and constitutionally consistent fashion.

Moreover, ethical issues related to algorithmic bias, data privacy, and explainability pose substantial challenges to the responsible implementation of AI. In a legal context, where decisions necessitate impartial and logical evaluation, the capacity of AI systems to perpetuate latent biases from training data is particularly alarming.[57] If historical judicial data utilized for training AI systems includes socio-economic or regional differences in results, there is a risk that these disparities will be replicated or exacerbated. Such outcomes may reinforce systematic inequity within a justice system that is constitutionally obligated to treat all individuals equitably under the law.[58]

Explainability, defined as the capacity to comprehend and scrutinize the rationale behind an AI system's specific output, constitutes a vital ethical imperative. In civil procedure, especially in small claims where decisions can significantly impact livelihoods, litigants must be entitled to understand the rationale behind procedural or substantive judgments.[59] AI systems that operate as "black boxes" contravene this concept by concealing the reasoning process, thereby hindering substantive appeals or judicial scrutiny.[60] For ethical integration of AI, its logic must be auditable, transparent, and amenable to human override.

Judicial independence, historically seen as a cornerstone of the rule of law, faces challenges in AI-assisted adjudication. If AI systems are permitted to affect case classification or suggest results without adequate

---

57 Muthukuda Arachchige Dona Shiroma Jeeva Shirajanie Niriella, "Artificial Intelligence and Sentencing Practices: Challenges and Opportunities for Fairness and Justice in the Criminal Justice System in Sri Lanka," *International Annals of Criminology*, January 31, 2025, 1–51, https://doi.org/10.1017/cri.2024.24.

58 Chih-Cheng Rex Yuan and Bow-Yaw Wang, "Ensuring Fairness with Transparent Auditing of Quantitative Bias in AI Systems," *2024 Pacific Neighborhood Consortium Annual Conference and Joint Meetings (PNC)*, IEEE, August 29, 2024, 25–32, https://doi.org/10.23919/PNC63053.2024.10697374.

59 Ali Hadi Al-Obeidi and Muaath Sulaiman Al-Mulla, "The Legal Basis of the Right to Explanation for Artificial Intelligence Decisions in UAE Law," *2022 International Arab Conference on Information Technology (ACIT)*, IEEE, November 22, 2022, 1–4, https://doi.org/10.1109/ACIT57182.2022.9994088.

60 Wang, "'Black Box Justice.'"

oversight, there is a danger that human judges may become excessively dependent on algorithmic recommendations, unintentionally relinquishing their discretionary power.[61] The gradual diminishment of human judgment is particularly alarming in summary proceedings such as small claims, where judges frequently operate under significant time constraints. The legal framework must ensure that AI functions as a support mechanism rather than an adjudicative substitute.

Judges perceive that the ethical incorporation of AI necessitates a redefinition of professional competence and judicial culture. Judges must possess not only doctrinal legal knowledge but also a practical comprehension of AI systems, including their limitations and inherent biases.[62] This requires focused ethics and technology training in judicial education programs, highlighting active engagement instead of passive dependence on algorithmic results. Furthermore, including judges in the design, testing, and assessment of AI systems is crucial to guarantee that technological instruments accurately represent judicial realities and maintain adjudicative principles. This collaborative development strengthens judicial independence, reduces the likelihood of automation bias, and confirms that AI functions as a support to—rather than a replacement for—human judgment grounded on legal reasoning, ethics, and accountability.

There is an urgent necessity to clarify authority and accountability for decisions connected to AI within institutions. In contrast to human actors, AI cannot be subjected to legal accountability. Consequently, any procedural determination affected by AI must be ascribed to an accountable legal entity—whether a judge, registrar, or system administrator. Regulations must delineate explicit authority, specify thresholds for AI intervention, and institute mechanisms for error rectification and dispute resolution. Neglecting to do so jeopardizes

---

61 Santosh Kumar et al., "AI Technological Interference in Court Proceedings: Right to Fair Trial Decision," *2023 3rd International Conference on Advancement in Electronics & Communication Engineering (AECE)*, IEEE, November 23, 2023, 237–42, https://doi.org/10.1109/AECE59614.2023.10428630.

62 Syarifah Lisa Andriati et al., "Justice on Trial: How Artificial Intelligence Is Reshaping Judicial Decision-Making," *Journal of Indonesian Legal Studies* 9, no. 2 (2024), https://doi.org/10.15294/jils.v9i2.13683.

public trust in judicial proceedings and may lead to considerable legal and reputational repercussions for the court.[63]

Data governance constitutes a fundamental component of ethical AI regulation. AI systems depend on extensive datasets for optimal functionality, and the quality, source, and handling of this data directly influence the system's performance and integrity. In Indonesia, the lack of comprehensive digitization and standardization of court data across jurisdictions results in a significant danger of data fragmentation and inconsistencies. Regulators must implement data quality standards, protect personal data in accordance with the Personal Data Protection Law (UU PDP), and guarantee that AI systems are trained on datasets that are representative, up-to-date, and legally acquired.[64]

A significant philosophical conflict exists between the pursuit of automation and the humanistic principles inherent in Indonesia's legal culture. The law is not solely a technical framework but a normative institution influenced by ethical reasoning, cultural context, and institutional legitimacy. The excessive mechanization of legal procedures, especially under the guise of efficiency, threatens to alienate users and diminish justice to a mere transactional service. Any ethical framework for AI in civil justice must integrate both procedural safeguards and normative contemplation regarding the significance of human judgment, empathy, and discretion in the administration of justice.

E. Strategic Pathways for Reform: Designing AI-Enhanced Small Claims Procedure

The incorporation of artificial intelligence into Indonesia's small claims process should be regarded not alone as a technological enhancement but as a strategic legal and institutional reform initiative. Reforming civil procedure using AI entails restructuring the current

---

63 Elena P. Ermakova and Evgenia E. Frolova, "Using Artificial Intelligence in Dispute Resolution," in *Smart Technologies for the Digitisation of Industry: Entrepreneurial Environment*, ed. Agnessa O. Inshakova and Evgenia E. Frolova, vol. 254, Smart Innovation, Systems and Technologies (Springer Singapore, 2022), https://doi.org/10.1007/978-981-16-4621-8_11.

64 Faiz Rahman, "Safeguarding Personal Data in the Public Sector: Unveiling the Impact of the New Personal Data Protection Act in Indonesia," *UUM Journal of Legal Studies* 16, no. 1 (2025): 1–18, https://doi.org/10.32890/uumjls2025.16.1.1.

workflow, pinpointing procedural inefficiencies, and carefully integrating intelligence-driven interventions that augment—not supplant—human court roles.[65] Due to their volume, relative simplicity, and socio-economic significance, small claims cases present an optimal opportunity for implementing AI-assisted procedural changes that emphasize access to justice and administrative efficiency.

An essential initial stage in this reform trajectory is the reconfiguration of the claim registration process. The current procedure for lawsuit registration necessitates that litigants manually compose claims, scan papers, and upload them through the e-Court system—an approach that remains unattainable for most individuals seeking justice, particularly those lacking familiarity with legal or digital frameworks.[66] At this level, AI can be integrated to provide guided claim-building tools that aid users interactively in organizing their claims according to predefined templates. These systems may encompass dynamic form completion, natural language input processing, and real-time validation of submission completeness and clarity.

In addition to claim submission, AI can significantly automate the initial classification of situations. Utilizing rule-based and machine learning algorithms, AI systems can evaluate if a case satisfies the formal and substantive requirements for minor claims adjudication as specified in Perma No. 4 of 2019. The factors encompass the nature of the issue, jurisdictional alignment, claim value, and evidentiary simplicity. Artificial intelligence can identify cases that meet these criteria and produce alerts for additional human verification, thus alleviating clerical burdens and diminishing the likelihood of human error in the filtering process.[67]

The allocation of judicial assignments is another domain primed for astute reform. At present, the appointment of judges is often managed

---

65 David Mark et al., "Regulating Automated Decision-Making in the Justice System: What Is the Problem?," in *Handbook on Public Policy and Artificial Intelligence*, ed. Regine Paul et al. (Edward Elgar Publishing, 2024), https://doi.org/10.4337/9781803922171.00034.

66 Wejedal, "Simplification of Procedure."

67 Aileen Nielsen et al., "Building a Better Lawyer: Experimental Evidence That Artificial Intelligence Can Increase Legal Work Efficiency," *Journal of Empirical Legal Studies* 21, no. 4 (2024): 979–1022, https://doi.org/10.1111/jels.12396.

through administrative means, which may be prone to inefficiencies or potential conflicts of interest. AI-driven systems like SMART MAJELIS, which the Supreme Court has tested at the cassation level, can be tailored for the small claims context to align cases with judges based on criteria such as experience, caseload, and subject-matter proficiency.[68] This would optimize court resource allocation and foster equity in case distribution while maintaining human oversight in final determinations.

Moreover, reform must consider the imperative of human-AI collaboration inside the adjudication process. AI should not be regarded as a judge or decision-maker but rather as a co-analyst that offers data-driven insights, procedural recommendations, or identification of potential abnormalities in evidence or arguments.[69] For instance, AI can provide comparative case evaluations to courts based on analogous precedents or identify discrepancies in supplied papers. This enables judges to concentrate on the substantive reasoning of the case without being encumbered by routine administrative tasks.[70]

To facilitate this capability, it is essential that AI systems are trained on extensive and ethically sourced information. Judicial data must be organized, anonymized, and standardized across jurisdictions to guarantee that algorithms are trained on precise and equitable inputs. The Ministry of Law and Human Rights, in conjunction with the Supreme Court, may develop a national data governance framework to oversee the access, cleansing, and integration of court data into AI training models. This is not solely a technical concern but a legal and ethical necessity fundamental to the legitimacy of AI-facilitated judicial change.

---

[68] Antara, "Mahkamah Agung Siapkan Smart Majelis Di Seluruh Pengadilan," *Antara* (Jakarta), 2025, https://mataram.antaranews.com/berita/442389/mahkamah-agung-siapkan-smart-majelis-di-seluruh-pengadilan.

[69] Mark Steyvers and Aakriti Kumar, "Three Challenges for AI-Assisted Decision-Making," *Perspectives on Psychological Science* 19, no. 5 (2024): 722–34, https://doi.org/10.1177/17456916231181102.

[70] Armen S. Danielyan, "Perspectives of the Application of Artificial Intelligence in Civil Legal Proceedings: Risk Assessment and the Method of Their Mitigation," *Gosudarstvo i Pravo*, no. 4 (August 2024): 192–96, https://doi.org/10.31857/S1026945224040181.

Enhancing institutional capacity is a vital element of strategic reform. Judges, court personnel, and administrators must be educated not only in the operation of AI systems but also in their underlying logic, constraints, and regulatory frameworks. Incorporating AI into civil procedure necessitates a fundamental transformation in judicial culture, shifting the perception of technology from peripheral to integral inside legal thinking and service provision.[71] This cultural shift can be promoted through pilot projects, interdisciplinary workshops, and collaborative design initiatives that engage technologists, legal scholars, and practitioners.

Ultimately, change must incorporate procedures for monitoring, evaluation, and continuous enhancement. AI systems, in contrast to static policy instruments, develop over time and necessitate continual recalibration. Consequently, any AI-augmented small claims system must incorporate a feedback loop that gathers user data, monitors performance metrics, and facilitates algorithmic upgrades in accordance with legislative advancements and societal conditions. This method of legal-technological co-evolution guarantees that AI reform is responsive, accountable, and consistent with the overarching objective of promoting substantive justice.

F. Anticipated Benefits and Potential Risks

The incorporation of artificial intelligence (AI) into Indonesia's small claims process presents considerable advantages that surpass mere administrative efficiency. The primary advantage is in AI's capacity to improve procedural efficiency through the automation of regular, time-intensive processes, including claim classification, document verification, and eligibility screening. This automation reduces judicial burdens and enables court officials to redirect time and resources to more intricate legal reasoning and adjudication.[72] In a judicial system

---

71 Ibid.

72 Christopher Ruben Reyes-Lopez and Rafael Luis Centeno-Rodríguez, "Automated Court Decision Platform in Ecuador: Advancing Judicial Processes Through Information and Communication Technologies," paper presented at 22nd LACCEI International Multi-Conference for Engineering, Education and Technology (LACCEI 2024): "Sustainable Engineering for a Diverse, Equitable, and Inclusive Future at the Service of Education, Research, and Industry for a

confronted with increasing caseloads and constrained staffing, such a transition is both pragmatic and essential.

A further expected advantage is the enhancement of access to justice for self-represented litigants, who sometimes have challenges in comprehending procedural requirements. AI-driven user interfaces can assist individuals in claim preparation, providing immediate feedback and mitigating frequent errors that often result in case rejection or delays.[73] This method of procedural support democratizes access to the legal system and conforms to Indonesia's constitutional obligation to guarantee equal treatment under the law. Significantly, by assisting unrepresented litigants instead than supplanting legal counsel, AI enhances rather than undermines human agency in the litigation process.

From an institutional standpoint, AI presents prospects for improving data-driven decision-making. Judicial systems can utilize aggregated data from AI technologies to analyze trends in claim categories, regional inequities in court accessibility, or inefficiencies in case management. This information can guide strategic judicial reforms and policy modifications based on empirical facts.[74] Moreover, predictive analytics generated by AI systems may assist courts in forecasting increases in litigation traffic or recognizing systemic inefficiencies, facilitating a transition from reactive to proactive court management.

Notwithstanding these substantial benefits, the implementation of AI in judicial systems entails severe risks. Algorithmic bias poses a

---

Society 5.0.," *Proceedings of the 22nd LACCEI International Multi-Conference for Engineering, Education and Technology (LACCEI 2024): "Sustainable Engineering for a Diverse, Equitable, and Inclusive Future at the Service of Education, Research, and Industry for a Society 5.0.,"* Latin American and Caribbean Consortium of Engineering Institutions, 2024, https://doi.org/10.18687/LACCEI2024.1.1.1572.

73 Angel Mary John et al., "Ethical Challenges of Using Artificial Intelligence in Judiciary," *2023 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence and Neural Engineering (MetroXRAINE)*, IEEE, October 25, 2023, 723–28, https://doi.org/10.1109/MetroXRAINE58569.2023.10405688.

74 Anu Thomas, "Exploring the Power of Ai-Driven Decision Making in the Judicial Domain: Case Studies, Benefits, Challenges, and Solutions," in *Advances in Media, Entertainment, and the Arts*, ed. Tien V. T. Nguyen and Nhut T. M. Vo (IGI Global, 2024), https://doi.org/10.4018/979-8-3693-0639-0.ch015.

significant problem, especially when AI models train on incomplete or historically biased data. In a legal environment, such prejudices can sustain structural disparities, eroding the fundamental principles of fairness and impartiality that the judicial system aims to protect. The hazards are most pronounced in small claims courts, where litigants frequently lack the legal acumen to identify or challenge unjust results shaped by algorithmic decision-support systems.[75]

The risk of excessive dependence on AI outputs exists, potentially resulting in the deskilling of judicial personnel and a diminishment of human judgment. If judges or clerks start to regard AI advice as infallible, the system may evolve into a robotic form of adjudication, compromising the deliberative essence of legal reasoning. These consequences would contradict the notion of judicial independence and could undermine the validity of court rulings, especially in circumstances necessitating delicate, contextual examination.[76] Furthermore, such dependence may undermine the judiciary's essential interaction with facts, norms, and individual circumstances—fundamental aspects of equitable justice.

Ultimately, privacy and data security issues must be meticulously addressed. AI systems depend on substantial amounts of sensitive legal and personal data, heightening the importance of data protection and ethical information governance. A violation of judicial data or the inappropriate use of litigant information for non-judicial reasons would significantly undermine public confidence.[77] Consequently, any AI system implemented in the judiciary must be accompanied by stringent safeguards, including encryption methods, anonymization standards, and rigorous restrictions on data access and retention.

---

[75] Lucy A. Guarnera et al., "Bias in the Justice and Legal Systems: Cumulative Disadvantage as a Framework for Understanding.," *Law and Human Behavior* 48, nos. 5–6 (2024): 329–37, https://doi.org/10.1037/lhb0000608.

[76] Andriati et al., "Justice on Trial."

[77] Yihong Li, "Security and Privacy of Artificial Intelligence with Ethical Concerns," *2024 IEEE 9th International Conference on Data Science in Cyberspace (DSC)*, IEEE, August 23, 2024, 660–67, https://doi.org/10.1109/DSC63484.2024.00098.

Conclusion

The incorporation of artificial intelligence into Indonesia's small claims process signifies both an essential institutional advancement and a tactical legal reform. This study concludes that although the e-Court system has made significant advancements in judicial digitization, it is confined to administrative responsibilities and lacks the cognitive capacity to meaningfully enhance procedural fairness. Utilizing comparative practices from China, Singapore, and Canada, the paper delineates a reform trajectory in which AI serves as a decision-support tool—improving efficiency in claim registration, procedural triage, and preliminary screening while preserving judicial discretion and due process. This research introduces a structured, ethically grounded framework for AI integration, specifically designed for Indonesia's normative and institutional setting, providing a practical approach to align technical innovation with legal integrity.

Advancing this reform agenda necessitates recognizing the integration of artificial intelligence into small claims adjudication as an essentially interdisciplinary undertaking that transcends the judicial institution. Effective and authentic AI governance in civil justice necessitates ongoing collaboration among judges, legal scholars, politicians, technology developers, and civil society participants, each offering unique normative, technical, and experiential perspectives. Academics are essential in enhancing conceptual frameworks and assessing systemic effects; policymakers and regulatory authorities are responsible for converting ethical principles into enforceable standards; technology developers must incorporate legal values like transparency and accountability into system design; and civil society acts as a crucial channel for expressing user viewpoints and ensuring access to justice. Through promoting collaborative engagement, AI can be regarded not only as a tool for enhancing efficiency but also as a fundamental facilitator of procedural fairness—one that reinforces, rather than undermines, the human-centered principles of Indonesia's civil judicial system.

References

Ahmed, Rozha Kamal, Khder Hassan Muhammed, Ingrid Pappel, and Dirk Draheim. "Impact of E-Court Systems Implementation: A Case Study." *Transforming Government: People, Process and Policy* 15, no. 1 (2021): 108–28. https://doi.org/10.1108/TG-01-2020-0008.

Alhasan, Tariq K. "Integrating AI into Arbitration: Balancing Efficiency with Fairness and Legal Compliance." *Conflict Resolution Quarterly*, January 9, 2025, crq.21470. https://doi.org/10.1002/crq.21470.

Al-Obeidi, Ali Hadi, and Muaath Sulaiman Al-Mulla. "The Legal Basis of the Right to Explanation for Artificial Intelligence Decisions in UAE Law." *2022 International Arab Conference on Information Technology (ACIT)*, IEEE, November 22, 2022, 1–4. https://doi.org/10.1109/ACIT57182.2022.9994088.

Amarini, Indriati, Yusuf Saefudin, Ika Ariani Kartini, Marsitiningsih Marsitiningsih, and Noorfajri Ismail. "Digital Transformation: Creating an Effective and Efficient Court in Indonesia." *Legality : Jurnal Ilmiah Hukum* 31, no. 2 (2023): 266–84. https://doi.org/10.22219/ljih.v31i2.28013.

Andriati, Syarifah Lisa, Inneke Kiki Rizki, and Ain Najwa Binti Mohd Malian. "Justice on Trial: How Artificial Intelligence Is Reshaping Judicial Decision-Making." *Journal of Indonesian Legal Studies* 9, no. 2 (2024). https://doi.org/10.15294/jils.v9i2.13683.

Antara. "Mahkamah Agung Siapkan Smart Majelis Di Seluruh Pengadilan." *Antara* (Jakarta), 2025. https://mataram.antaranews.com/berita/442389/mahkamah-agung-siapkan-smart-majelis-di-seluruh-pengadilan.

Barlian, Aristo Evandy A., Atip Latipulhayat, Elis Rusmiati, Widati Wulandari, and Ahmad Novindri Aji Sukma. "Electronic Criminal Justice in Indonesia: Challenges and the Future Measures." *Jambura Law Review* 7, no. 1 (2025): 243–74.

Beriain, Iñigo De Miguel. "Does the Use of Risk Assessments in Sentences Respect the Right to Due Process? A Critical Analysis of the Wisconsin V. Loomis Ruling." *Law, Probability and Risk* 17, no. 1 (2018): 45–53. https://doi.org/10.1093/lpr/mgy001.

Chami, Yassine, and Maya Khater. "The Influence of Maliki Jurisprudence on the French Civil Law in Terms of the Opposability of the Relative Effect of Contract to Third Parties: A Comparative Study." *Malaysian Journal of Syariah and Law* 13, no. 1 (2025): 123–33. https://doi.org/10.33102/mjsl.vol13no1.1157.

Chaudhary, G. "Explainable Artificial Intelligence (xAI): Reflections on Judicial System." *Kutafin Law Review* 10, no. 4 (2024): 872–89. https://doi.org/10.17803/2713-0533.2023.4.26.872-889.

Danielyan, Armen S. "Perspectives of the Application of Artificial Intelligence in Civil Legal Proceedings: Risk Assessment and the Method of Their Mitigation." *Gosudarstvo i Pravo*, no. 4 (August 2024): 192–96. https://doi.org/10.31857/S1026945224040181.

Djamaludin, Djamaludin, Muhammad Fahruddin Aziz, Yanuriansyah Ar-Rasyid, and Iskandar Ali As-Sayyis. "Assessing the Impact of Electronic Court Systems on the Efficiency of Judicial Processes in the Era of Digital Transformation." *Volksgeist: Jurnal Ilmu Hukum Dan Konstitusi*, June 27, 2023, 1–18. https://doi.org/10.24090/volksgeist.v6i1.8082.

Dwiandari, Ameena Syifa, and Ridwan Arifin. "Criminal Law Enforcement on Digital Identity Misuse in AI Era for Commercial Interests in Indonesia." *The Indonesian Journal of International Clinical Legal Education* 7, no. 1 (2025). https://doi.org/10.15294/iccle.v7i1.25525.

Ermakova, Elena P., and Evgenia E. Frolova. "Using Artificial Intelligence in Dispute Resolution." In *Smart Technologies for the Digitisation of Industry: Entrepreneurial Environment*, edited by Agnessa O. Inshakova and Evgenia E. Frolova, vol. 254. Smart Innovation, Systems and Technologies. Springer Singapore, 2022. https://doi.org/10.1007/978-981-16-4621-8_11.

Gronic, Irina A. "On Some Aspects of Case Management in Electronic Courts of Indonesia." In *New Technology for Inclusive and Sustainable Growth*, edited by Agnessa O. Inshakova and Elena I. Inshakova, vol. 288. Smart Innovation, Systems and Technologies. Springer Singapore, 2022. https://doi.org/10.1007/978-981-16-9808-8_21.

Guarnera, Lucy A., Jennifer T. Perillo, and Kyle C. Scherr. "Bias in the Justice and Legal Systems: Cumulative Disadvantage as a Framework for Understanding." *Law and Human Behavior* 48, nos. 5–6 (2024): 329–37. https://doi.org/10.1037/lhb0000608.

Hardiago, David, Rani Fadhila Syafrinaldi, Syafrinaldi Syafrinaldi, M. Musa, and Kim Hyeonsoo. "Law and Digitalization: Cryptocurrency as Challenges Towards Indonesia's Criminal Law." *Indonesian Journal of Criminal Law Studies* 10, no. 1 (2025). https://doi.org/10.15294/ijcls.v10i1.22557.

Hidayah, Nur Putri, Galih Wasis Wicaksono, Christian Sri Kusuma Aditya, and Yuda Munarko. "Artificial Intelligence and Quality of Composition Verdicts in Indonesia: Lessons from New Zealand." *Journal of Human*

Rights, Culture and Legal System 4, no. 1 (2024): 101–20. https://doi.org/10.53955/jhcls.v4i1.175.

Irawan, Adeng Septi. "The Potential of Generative Artificial Intelligence Based on Applications in Judicial Supervision in An Efforts to Reduce Corruption, Collusion, and Nepotism." *Jurnal Hukum Dan Peradilan* 14, no. 3 (2025): 599–628. https://doi.org/10.25216/jhp.14.3.2025.599-628.

Irwansyah, Irwansyah. *Penelitian Hukum: Pilihan Metode & Praktik Penulisan Artikel*. Mirra Buana Media, 2020.

Ismail, Dian Ekawaty, Novendri M. Nggilu, and Irlan Puluhulawa. *Metode Penelitian Hukum: Teori, Aplikasi, Dan Inovasi Dalam Penelitian Hukum*. Edited by Tiara Oktaviana Namira Daud. Ruang Karya, 2025.

Jarodi, Odi, Muhammad Khafid, and Arief Yulianto. "From Fragmentation to Coherence: Enhancing Human Resource Capacity in Indonesian Law Reform for Effective Justice Delivery." *Journal of Law and Legal Reform* 5, no. 4 (2024). https://doi.org/10.15294/jllr.v5i4.18924.

John, Angel Mary, Aiswarya M. U., and Jerrin Thomas Panachakel. "Ethical Challenges of Using Artificial Intelligence in Judiciary." *2023 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence and Neural Engineering (MetroXRAINE)*, IEEE, October 25, 2023, 723–28. https://doi.org/10.1109/MetroXRAINE58569.2023.10405688.

Joice Soraya, and Zico Junius Fernando. "AI Judges and the Future Revolution of the Judicial Profession in Indonesia." *The Indonesian Journal of International Clinical Legal Education* 6, no. 3 (2024). https://doi.org/10.15294/iccle.v6i3.15358.

Kandeel, Moustafa Elmetwaly, and Ghaleb Elrefae. "The Impact of Artificial Intelligence on Achieving the Efficiency of Justice 'AI & Speedy Justice.'" *2023 24th International Arab Conference on Information Technology (ACIT)*, IEEE, December 6, 2023, 01–05. https://doi.org/10.1109/ACIT58888.2023.10453918.

Kaspar, Johannes, Stefan Harrendorf, Felix Butz, Katrin Höffler, Lucia Sommerer, and Stephan Christoph. "Artificial Intelligence and Sentencing from a Human Rights Perspective." In *Artificial Intelligence, Social Harms and Human Rights*, edited by Aleš Završnik and Katja Simončič. Critical Criminological Perspectives. Springer International Publishing, 2023. https://doi.org/10.1007/978-3-031-19149-7_1.

Keith, Andrew J. "Governance of Artificial Intelligence in Southeast Asia." *Global Policy* 15, no. 5 (2024): 937–54. https://doi.org/10.1111/1758-5899.13458.

Kumar, Santosh, Kapil Joshi, Sumeshwar Singh, et al. "AI Technological Interference in Court Proceedings: Right to Fair Trial Decision." *2023 3rd International Conference on Advancement in Electronics & Communication Engineering (AECE)*, IEEE, November 23, 2023, 237–42. https://doi.org/10.1109/AECE59614.2023.10428630.

Laux, Johann. "Institutionalised Distrust and Human Oversight of Artificial Intelligence: Towards a Democratic Design of AI Governance Under the European Union AI Act." *AI & SOCIETY* 39, no. 6 (2024): 2853–66. https://doi.org/10.1007/s00146-023-01777-z.

Li, Yihong. "Security and Privacy of Artificial Intelligence with Ethical Concerns." *2024 IEEE 9th International Conference on Data Science in Cyberspace (DSC)*, IEEE, August 23, 2024, 660–67. https://doi.org/10.1109/DSC63484.2024.00098.

Liu, Yifeng, and Yuqing Zhong. "On the Application of Artificial Intelligence Technology in the Field of Judicial Adjudication." *2021 3rd International Conference on Artificial Intelligence and Advanced Manufacture*, ACM, October 23, 2021, 1029–32. https://doi.org/10.1145/3495018.3495327.

Mahkamah Agung. *Laporan Tahunan 2023 Mahkamah Agung Republik Indonesia Tahun 2023*. Mahkamah Agung, 2023.

Marjanovic, Olivera, Dubravka Cecez-Kecmanovic, and Richard Vidgen. "Theorising Algorithmic Justice." *European Journal of Information Systems* 31, no. 3 (2022): 269–87. https://doi.org/10.1080/0960085X.2021.1934130.

Mark, David, Tomás McInerney, and John Morison. "Regulating Automated Decision-Making in the Justice System: What Is the Problem?" In *Handbook on Public Policy and Artificial Intelligence*, edited by Regine Paul, Emma Carmel, and Jennifer Cobbe. Edward Elgar Publishing, 2024. https://doi.org/10.4337/9781803922171.00034.

Maskanah, Ummi. "Artificial Intelligence in Civil Justice: Comparative Legal Analysis and Practical Frameworks for Indonesia." *Jambura Law Review* 7, no. 1 (2017): 225–42.

Maskur, Muhammad Azil, Ali Masyhar, Ratih Damayanti, Diandra Preludio Ramada, and Subhra Sanyal. "Reimagining Criminal Liability in the Age of Artificial Intelligence: Toward a Comparative and Reform-Oriented Legal Framework." *Journal of Law and Legal Reform* 6, no. 4 (2025). https://doi.org/10.15294/jllr.v6i4.35540.

Negara, Dharma Setiawan, Zita Humairoh, Baiq Elma Purnamawadita, and Xavier Nugraha. "The Implementation of Artificial Intelligence by Judges in Law Enforcement Reviewed From Legal Convergence Theory."

Journal of Information Systems Engineering and Management 10 (2025): 427–41.

Nielsen, Aileen, Stavroula Skylaki, Milda Norkute, and Alexander Stremitzer. "Building a Better Lawyer: Experimental Evidence That Artificial Intelligence Can Increase Legal Work Efficiency." *Journal of Empirical Legal Studies* 21, no. 4 (2024): 979–1022. https://doi.org/10.1111/jels.12396.

Niriella, Muthukuda Arachchige Dona Shiroma Jeeva Shirajanie. "Artificial Intelligence and Sentencing Practices: Challenges and Opportunities for Fairness and Justice in the Criminal Justice System in Sri Lanka." *International Annals of Criminology*, January 31, 2025, 1–51. https://doi.org/10.1017/cri.2024.24.

Nisa, Ardina Khoirun. "The Prospect of AI Law in Indonesian Legal System: Present and Future Challenges." *The Indonesian Journal of International Clinical Legal Education* 6, no. 1 (2024). https://doi.org/10.15294/iccle.v6i1.4686.

Olivia, Denindah. "Legal Aspects of Artificial Intelligence on Automated Decision-Making in Indonesia." *Lentera Hukum* 7, no. 3 (2020): 301. https://doi.org/10.19184/ejlh.v7i3.18380.

Pande, Devyani, and Araz Taeihagh. "Navigating the Governance Challenges of Disruptive Technologies: Insights from Regulation of Autonomous Systems in Singapore." *Journal of Economic Policy Reform* 26, no. 3 (2023): 298–319. https://doi.org/10.1080/17487870.2023.2197599.

Putra, Panca Sarjana, Zico Junius Fernando, Bhanu Prakash Nunna, and Rizaldy Anggriawan. "Judicial Transformation: Integration of AI Judges in Innovating Indonesia's Criminal Justice System." *Kosmik Hukum* 23, no. 3 (2023): 233. https://doi.org/10.30595/kosmikhukum.v23i3.18711.

Putrijanti, Aju, and Kadek Cahya Susila Wibawa. "Indonesia Administrative E-Court Regulation Toward Digitalization And E-Government." *Jurnal IUS Kajian Hukum Dan Keadilan* 9, no. 1 (2021): 18–33. https://doi.org/10.29303/ius.v9i1.796.

Raghav, Anjali, Laeeq Razzak Janjua, Sahil Lal, Manmeet Kaur Arora, and Hind Hammouch. "Artificial Intelligence for Strengthening the Rule of Law and Justice Delivery System:" In *Advances in Computational Intelligence and Robotics*, edited by Christian Kaunert, Anjali Raghav, Kamalesh Ravesangar, Bhupinder Singh, and Budi Agus Riswandi. IGI Global, 2025. https://doi.org/10.4018/979-8-3693-9395-6.ch003.

Rahman, Faiz. "Safeguarding Personal Data in the Public Sector: Unveiling the Impact of the New Personal Data Protection Act in Indonesia." *UUM*

Journal of Legal Studies 16, no. 1 (2025): 1–18. https://doi.org/10.32890/uumjls2025.16.1.1.

Ramada, Diandra Preludio, and Indah Sri Utari. "Unveiling the Surge in Corruption: A Menacing Threat to Indonesia's Stability in Anti-Corruption Law Reform." *Journal of Law and Legal Reform* 5, no. 1 (2024). https://doi.org/10.15294/jllr.vol5i1.2092.

Reyes-Lopez, Christopher Ruben, and Rafael Luis Centeno-Rodríguez. "Automated Court Decision Platform in Ecuador: Advancing Judicial Processes Through Information and Communication Technologies." Paper presented at 22nd LACCEI International Multi-Conference for Engineering, Education and Technology (LACCEI 2024): "Sustainable Engineering for a Diverse, Equitable, and Inclusive Future at the Service of Education, Research, and Industry for a Society 5.0." *Proceedings of the 22nd LACCEI International Multi-Conference for Engineering, Education and Technology (LACCEI 2024): "Sustainable Engineering for a Diverse, Equitable, and Inclusive Future at the Service of Education, Research, and Industry for a Society 5.0.,"* Latin American and Caribbean Consortium of Engineering Institutions, 2024. https://doi.org/10.18687/LACCEI2024.1.1.1572.

Rodiyah, Rodiyah, Ratih Damayanti, Bayangsari Wedhatami, Ridwan Arifin, and Tri Sulistiyono. "The Future Impact of Technological Advancement in the Legal Drafting Process: A Human and Technology Analysis." 2022, 030019. https://doi.org/10.1063/5.0104135.

Rosili, Nur Aqilah Khadijah, Rohayanti Hassan, Noor Hidayah Zakaria, Shahreen Kasim, Farid Zamani Che Rose, and Tole Sutikno. "A Systematic Literature Review of Machine Learning Methods in Predicting Court Decisions." *IAES International Journal of Artificial Intelligence (IJ-AI)* 10, no. 4 (2021): 1091. https://doi.org/10.11591/ijai.v10.i4.pp1091-1102.

Rusdiana, Erma, Paul Atagamen Aidonojie, Muwaffiq Jufri, Hassan Ismaila, and Nathan Ibrahim. "Augment Legal Efforts through Artificial Intelligence in Curtailing Economic Fraud in Nigeria: Issues and Challenges." *Indonesian Journal of Criminal Law Studies* 10, no. 1 (2025). https://doi.org/10.15294/ijcls.v10i1.22147.

Sanders, Anne. "Law Clerks." In *The Oxford Handbook of Comparative Judicial Behaviour*, 1st ed., edited by Lee Epstein, Gunnar Grendstad, Urška Šadl, and Keren Weinshall. Oxford University Press, 2024. https://doi.org/10.1093/oxfordhb/9780192898579.013.21.

Shevchuk, Oleksandr, Volodymyr Martynovskyi, Olena Volianska, Ihor Kompaniiets, and Oleg Bululukov. "Problems of Legal Regulation of

Artificial Intelligencein Administrative Judicial Procedure." *Juridical Tribune* 13, no. 3 (2023). https://doi.org/10.24818/TBJ/2023/13/3.02.

Sloane, Mona, and Elena Wüllhorst. "A Systematic Review of Regulatory Strategies and Transparency Mandates in Ai Regulation in Europe, the United States, and Canada." *Data & Policy* 7 (2025): e11. https://doi.org/10.1017/dap.2024.54.

Soba Bracesco, Ignacio M. "The Normative Predetermination Ofthe Standards of Proof (a Derivative of Legal Certainty)." *Revista Eletronica de Direito Processual* 21, no. 2 (2020): 186–213.

Steyvers, Mark, and Aakriti Kumar. "Three Challenges for AI-Assisted Decision-Making." *Perspectives on Psychological Science* 19, no. 5 (2024): 722–34. https://doi.org/10.1177/17456916231181102.

Studzińska, Joanna. "Artificial Intelligence in Civil Procedure in Europe – Some Perspectives." In *Frontiers in Artificial Intelligence and Applications*, edited by Antonio J. Tallón-Ballesteros. IOS Press, 2024. https://doi.org/10.3233/FAIA241371.

Sumardiana, Benny, Pujiyono, Irma Cahyaningtyas, and Cahya Wulandari. "Evaluation of Electronic Evidence in Criminal Justice in the Era of Advanced Artificial Intelligence Technology." *Indonesian Journal of Criminal Law Studies* 9, no. 2 (2024). https://doi.org/10.15294/ijcls.v9i2.50319.

Taras Shevchenko National University of Kyiv, Kyiv, Ukraine, and Irina Izarova. "Towards Sustainable Justice: Looking for Ai-Driven Solutions for Legal Practice and Court Monitoring." *Bulletin of Taras Shevchenko National University of Kyiv. Series: Physics and Mathematics*, no. 2 (2024): 49–53. https://doi.org/10.17721/1812-5409.2024/2.8.

Thomas, Anu. "Exploring the Power of Ai-Driven Decision Making in the Judicial Domain: Case Studies, Benefits, Challenges, and Solutions." In *Advances in Media, Entertainment, and the Arts*, edited by Tien V. T. Nguyen and Nhut T. M. Vo. IGI Global, 2024. https://doi.org/10.4018/979-8-3693-0639-0.ch015.

Utari, Indah Sri, Diandra Preludio Ramada, Ridwan Arifin, and Robert Brian Smith. "Legal Protection for Children as Victims of Economic Exploitation: Problems and Challenges in Three Major ASEAN Countries (Indonesia, Vietnam and Philippines)." *Lex Scientia Law Review* 7, no. 2 (2023). https://doi.org/10.15294/lesrev.v7i2.68301.

Utari, Indah Sri, Diandra Preludio Ramada, Ubaidillah Kamal, Ratih Damayanti, and Nizamuddin Alias. "The Digital Sanctuary: Forging Legal And Ethical Frameworks For Interfaith Coexistence Online." *Contemporary Issues on Interfaith Law and Society* 4, no. 2 (2025).

https://doi.org/10.15294/ciils.v4i2.35309.

Wang, Nu. "'Black Box Justice': Robot Judges and AI-Based Judgment Processes in China's Court System." *2020 IEEE International Symposium on Technology and Society (ISTAS)*, IEEE, November 12, 2020, 58–65. https://doi.org/10.1109/ISTAS50296.2020.9462216.

Wejedal, Sebastian. "Simplification of Procedure: A Realistic (or Unrealistic) Alternative to Lawyer-Conducted Litigation?" In *YSEC Yearbook of Socio-Economic Constitutions 2022*, edited by Eva Storskrubb, vol. 2022. YSEC Yearbook of Socio-Economic Constitutions. Springer Nature Switzerland, 2023. https://doi.org/10.1007/16495_2023_48.

Xu, Jian. "Opening the 'Black Box' of Algorithms: Regulation of Algorithms in China." *Communication Research and Practice* 10, no. 3 (2024): 288–96. https://doi.org/10.1080/22041451.2024.2346415.

Yao, Jie-jing, and Peng Hui. "Research on the Application of Artificial Intelligence in Judicial Trial: Experience from China." *Journal of Physics: Conference Series* 1487, no. 1 (2020): 012013. https://doi.org/10.1088/1742-6596/1487/1/012013.

Yassine, Chami, Ahmad Ahmad, Mohamad Hidayat Muhtar, Kevin M Rivera, and Viorizza Suciani Putri. "Admissibility of Lawsuits Based on Interest under Algerian Civil and Administrative Procedures." *Jambura Law Review* 6, no. 2 (2024): 286–303. https://doi.org/10.33756/jlr.v6i2.24309.

Yuan, Chih-Cheng Rex, and Bow-Yaw Wang. "Ensuring Fairness with Transparent Auditing of Quantitative Bias in AI Systems." *2024 Pacific Neighborhood Consortium Annual Conference and Joint Meetings (PNC)*, IEEE, August 29, 2024, 25–32. https://doi.org/10.23919/PNC63053.2024.10697374.

Zavhorodnia, Vladyslava, Anna Slavko, Olha Shvaher, Mateusz Kamionka, Ion Cojocari, and Lubov Polyakova. "Artificial Intelligence in the Judiciary: Challenges and Tools for Achieving Sustainable Development Goals." *International Journal of Global Environmental Issues* 21, no. 2/3/4 (2022): 322. https://doi.org/10.1504/IJGENVI.2022.126199.

Zeleznikow, John. "The Benefits and Dangers of Using Machine Learning to Support Making Legal Predictions." *WIREs Data Mining and Knowledge Discovery* 13, no. 4 (2023): e1505. https://doi.org/10.1002/widm.1505.

Acknowledgment
None.

Funding Information
None.

Conflicting Interest Statement
The authors state that there is no conflict of interest in the publication of this article.

Publishing Ethical and Originality Statement
All authors declared that this work is original and has never been published in any form and in any media, nor is it under consideration for publication in any journal, and all sources cited in this work refer to the basic standards of scientific citation.