

PROSPECTS OF AI USE IN THE SUPREME COURT: COMPARISON OF CANADA AND INDONESIA

Geofani Miltree Saragih

Universitas Pamulang

geofanimiltree@gmail.com

Ade Sathya Sanathana Ishwara

Attorney General's Office of the Republic of Indonesia

sathya.kejaksaan@gmail.com

Jeremy Aprilian Hutauruk

Supreme Court of the Republic of Indonesia

jeremyapriann@gmail.com

Mohamad Juliandri Rahman

Supreme Court of the Republic of Indonesia

2207.mjr@gmail.com

Mariko Hattori

Yamaguchi University

mariko_hattori@yamaguchi-ac.jp

Abstract

The opportunities and challenges of applying artificial intelligence (AI) in law enforcement are the main focus of a comparative study between the Indonesian Supreme Court and Canadian judicial guidelines. In Canada, AI has been used to support transparency, speed, and consistency in decisions through decision prediction, case management, and legal data processing. This serves as an important inspiration for Indonesia, which is currently exploring the use of similar technology in its judicial system. The main challenges faced by Indonesia include limited digital infrastructure, the absence of comprehensive regulations governing the use of AI, and concerns regarding the integrity of decisions and the principle of justice. A normative juridical method combined with a comparative literature review was employed to

examine the regulatory frameworks, court practices, and applications of artificial intelligence in each country. The study's findings indicate that despite the significant challenges in Indonesia, the opportunities for AI implementation remain vast. AI implementation must be supported by adaptive national policies, capacity building for judicial officials, and continuous oversight to maintain the integrity of decisions and legal certainty. This study provides strategic recommendations for strengthening Indonesia's legal system in an increasingly complex and dynamic digital era.

Keywords: Artificial Intelligence, Law Enforcement, Supreme Court.

Introduction

The rapid development of digital technology has become a major driver in fostering innovation across various sectors, including the legal sector. Artificial intelligence (AI) has emerged as a potential solution to address the classic challenges of the judicial system, such as limited human resources, slow case resolution, and the overlap of complex data and documents.¹ The increasing volume of cases and the need for transparency in the modern era demand that the judicial system adapt to cutting-edge technology. AI offers the ability to process large amounts of data (big data) quickly and accurately, provide predictive analysis, and facilitate more efficient case administration.² These advantages are attractive to judicial institutions, especially in countries where the judicial system is undergoing modernization and digitalization.³

¹ Zichun Xu, "Human Judges in the Era of Artificial Intelligence: Challenges and Opportunities," *Applied Artificial Intelligence* 36, no. 1 (2022), doi:10.1080/08839514.2021.2013652.

² Priyank Jain, Manasi Gyanchandani, and Nilay Khare, "Big Data Privacy: A Technological Perspective and Review," *Journal of Big Data* 3, no. 1 (2016), doi:10.1186/s40537-016-0059-y.

³ Stanley Greenstein, "Preserving the Rule of Law in the Era of Artificial Intelligence (AI)," *Artificial Intelligence and Law* 30, no. 3 (2022), doi:10.1007/s10506-021-09294-4.

In many countries, AI has begun to be used in supporting the process of judicial and administrative decision-making.⁴ A study by Susskind asserts that AI is capable of recognizing decision patterns, analyzing legal precedents, and predicting decision trends in similar cases, thereby assisting judges in formulating consistent and responsive rulings. In the Indonesian criminal justice system, however, judicial decisions must be based on both the judge's personal conviction (*convictie*) and at least two valid pieces of evidence (*minimum bewijs*),⁵ in accordance with Article 183 of the Criminal Procedure Code. AI technologies can support this process by enhancing the judge's inductive reasoning through structured analysis of prior rulings and evidentiary correlations, without replacing the human responsibility of legal judgment.⁶ This practice has been implemented in various judicial institutions, such as in Canada, which utilizes AI in case management and decision trend mapping, and in Estonia, which has developed an e-Court fully based on AI.⁷ This transformation has become one of the important indicators in assessing the extent to which the judicial system can meet the demands of an increasingly critical and accountability-oriented society.⁸

However, behind the great potential of AI in supporting law enforcement, there are also concerns about algorithmic bias, violations of the principle of justice, and the limitations of technology in understanding the complexity of the socio-cultural context that is at the

⁴ Felicia Eugenia, Carla Joycelyne Limanto, and Dave David Tedjokusumo, "Tantangan Praktis Dalam Proses Pembuktian Perkara Pidana : Kredibilitas Saksi Dan Validitas Bukti Elektronik," *Iuris Studia Jurnal Kajian Hukum* 5, no. 2 (2024).

⁵ Felicia Eugenia et al., "Tantangan Praktis dalam Proses Pembuktian Perkara Pidana: Kredibilitas Saksi dan Validitas Bukti Elektronik," *IURIS STUDIA: Jurnal Kajian Hukum* 5, no. 2 (2024).

⁶ Sergey Yu Kashkin, "Proposals for Modernization of Legal Regulation of Artificial Intelligence and Robotics Technologies in Russia with Platform Legal Models," *Kutafin Law Review* 8, no. 3 (2021), doi:10.17803/2313-5395.2021.3.17.370-389.

⁷ Oleg Reznik et al., "Judicial Protection Service and Its Analogues: A Comparative Legal Research," *Revista Amazonia Investiga* 10, no. 47 (2021), doi:10.34069/ai/2021.47.11.5.

⁸ Geofani Milthree Saragih, Ade Sathya Sanathana Ishwara, and Rengga Kusuma Putra, "Evaluation of the Implementation of Pancasila Values and Human Rights Enforcement in Indonesian Judicial System Through Constitutional Approach," *Reformasi Hukum* 28, no. 3 (2024), doi:10.46257/jrh.v28i3.1082.

core of many legal cases. Therefore, the adoption of AI in the judicial sector requires a careful and comprehensive approach, while maintaining a balance between technological innovation and the fundamental principles of the rule of law.⁹ This is particularly important for countries like Indonesia, which are still in the early stages of AI implementation in the legal sector. This background serves as the basis for the urgency of research on how AI is applied in other countries and the opportunities and challenges of its implementation in Indonesia, so that the process of digital transformation in the judiciary can proceed in line with the principles of justice and the values of Pancasila.¹⁰

The development of artificial intelligence (AI) technology has become one of the important innovations in supporting law enforcement and the administration of justice to be more effective, transparent, and adaptive to the challenges of the times. AI is believed to be capable of increasing the speed of case processing, enhancing data accuracy, and providing new opportunities for access to justice in various legal sectors. The potential of AI in modern justice lies not only in its ability to process data on a massive scale but also in providing predictive analysis that can assist judges and court officials in making more objective and consistent decisions. In the digital era, the adoption of AI has become part of the judicial transformation expected to meet society's demands for transparency, accountability, and effectiveness of the judicial institutions.

More specifically, the use of AI in Canada has been implemented through various initiatives integrated into the framework of the judicial system. The Canadian Judicial Council (2020) notes how this technology is used to analyze previous case decisions, thereby mapping relevant patterns and trends for judges in examining new cases.¹¹ This approach enables more data-driven decision-making, minimizes inconsistencies, and facilitates the mapping of the complexities of

⁹ Rachid Ejjami -, "AI-Driven Justice: Evaluating the Impact of Artificial Intelligence on Legal Systems," *International Journal For Multidisciplinary Research* 6, no. 3 (2024), doi:10.36948/ijfmr.2024.v06i03.23969.

¹⁰ Ana Rahmatyar and Muhammad Rosikhu, "Implementasi Nilai Pancasila Dalam Pelaksanaan Sistem Peradilan Pidana Indonesia," *Innovative: Journal Of Social Science Research* 4, no. 3 (2024).

¹¹ Meredith Rossner, David Tait, and Martha McCurdy, "Justice Reimagined: Challenges and Opportunities with Implementing Virtual Courts," *Current Issues in Criminal Justice* 33, no. 1 (2021), doi:10.1080/10345329.2020.1859968.

similar cases. The application of AI in this manner serves as evidence that technology can be a strategic supporter for judges and judicial staff in maintaining the accuracy and precision of case handling.¹²

Not only that, AI use in Canada also supports more efficient and transparent case management. With an integrated digital system, AI helps schedule hearings, report decisions, and distribute legal documents automatically and measurably.¹³ This impacts the acceleration of trial processes, reduction of administrative burdens, and increased public access to case information. This advantage becomes a significant added value in the effort to build public trust in the integrity and professionalism of the judiciary.

However, the use of AI in Canadian courts still faces challenges that cannot be overlooked. Concerns about the potential bias of algorithms are a major issue, given that AI still has the potential to reflect the prejudices contained in the data used. In addition, experts emphasize the importance of maintaining a balance between technological sophistication and principles of human-centered justice, so that AI does not completely replace the role of judges as the primary decision-makers who consider values of social and contextual justice. Therefore, the implementation of AI in Canada is accompanied by strict oversight and continuous evaluation, to ensure that the technology truly becomes a supporting instrument, not a complete replacement in the judicial system.

In Indonesia, the discourse on the implementation of AI in the judicial system is still in its early stages. The Supreme Court has begun digitalization steps through the e-Court and e-Litigation systems regulated by Supreme Court Regulation (PERMA) Number 1 of 2019.¹⁴ Nevertheless, the utilization of more advanced AI, such as in Canada, has not yet been significantly observed. Various challenges pose

¹² Heru Setiawan et al., "Digitalization of Legal Transformation on Judicial Review in the Constitutional Court," *Journal of Human Rights, Culture and Legal System* 4, no. 2 (2024), doi:10.53955/jhcls.v4i2.263.

¹³ Damilola Awotula, "Indicium Ex Machina: Unstructured Sentencing and Disparate Outcomes in Canada," *Dalhousie University*, 2023.

¹⁴ Pagar Pagar, Ansari Ansari, and Adenita Sahfitri, "Efektivitas Peraturan Mahkamah Agung Nomor 1 Tahun 2019 Tentang Electronic Litigation Di Era Pandemi Covid-19 Dalam Konsep Masalah Mursalah," *Al-Maslahah Jurnal Hukum Islam Dan Pranata Sosial* 10, no. 01 (2022), doi:10.30868/am.v10i01.2437.

obstacles, including limited digital infrastructure, the absence of a comprehensive legal framework for the use of AI in the judiciary, and concerns about the integrity of decisions and the principle of justice. This indicates that although the potential for AI usage in Indonesia is very large, comprehensive institutional and national policy reforms are needed so that the adoption of this technology can align with the principles of the rule of law and the values of Pancasila. This research aims to contribute through a comparative study between Canada and Indonesia, with the hope of providing adaptive policy directions based on principles of justice in the era of digital transformation.

Research Methods

Several recent studies, such as the one conducted by Zahra Kamila (2025), focus on the analysis of legal regulations, prospects, and challenges of implementing Artificial Intelligence (AI) in the criminal justice system in Indonesia in the digital era, emphasizing the importance of regulations that govern the ethics, accountability, and security of AI to prevent algorithmic bias, protect data, and ensure its fair and sustainable application.¹⁵ Then, the research by Yanuar Joko Susilo (2025) focuses on the analysis of the application of Artificial Intelligence (AI) in the Alternative Dispute Resolution (ADR)-based dispute management system in the business sector, with an emphasis on the effectiveness of AI in the mediation stage and identifying potential obstacles and shortcomings that may arise in the non-litigation dispute resolution process through a descriptive normative juridical approach.¹⁶ The third study by Muh. Taufik Darmawan, Amir Junaidi, and Ariy Khaerudin (2025) focus on an in-depth analysis of the challenges in law enforcement regarding the misuse of deepfake technology for child pornography in the era of Artificial Intelligence (AI) in Indonesia, and provide recommendations for strengthening regulations, enhancing the capacity of law enforcement officers, and the importance of digital

¹⁵ Zahra Kamila, "Pengaturan Hukum Dan Prospek Penggunaan Artificial Intelligence Dalam Era Digitalisasi Sistem Peradilan Di Indonesia," *Jurnal Riset Multidisiplin Edukasi* 2, no. 3 (2025), doi:10.71282/jurmie.v2i3.172.

¹⁶ Yanuar Joko Susilo, "Penerapan Sistem Manajemen Sengketa Berbasis Artificial Intelligence (AI): Meningkatkan Efisiensi Dalam Proses Alternative Dispute Resolution (ADR) Pada Sektor Bisnis," *JINU* 2, no. 2 (2025).

literacy for the community.¹⁷ Finally, there is a study conducted by Muhammad Kandriana, Mirham Imamsyah, and Ridwan (2025) which delves into the effectiveness of using Artificial Intelligence (AI) in Indonesian law enforcement from a legal philosophy perspective, highlighting the importance of value-based regulations to ensure that AI does not deviate from the principles of justice, freedom, and moral responsibility.¹⁸

This research fundamentally has significant novelty compared to previous studies because it specifically focuses on the role and challenges of the Supreme Court in adopting AI to support law enforcement functions, while conducting a comparative study with practices in Canada, as one of the developed countries that has successfully utilized AI in a structured and systematic manner within its judicial system. Unlike previous research that focused more on ethical aspects, regulation, or the application of AI in the business sector and the risks of digital technology misuse, this study emphasizes how the Indonesian Supreme Court can adapt Canada's experience to enhance transparency, efficiency, and legal certainty, while also identifying potential local challenges unique to the Indonesian legal system. This approach is expected to provide new and relevant contributions to academic discourse as well as the development of AI adoption policies at the Indonesian Supreme Court in the digital era.

This research aims to address that need by comparatively analyzing the application of AI in the judicial system in Canada and the challenges faced by Indonesia.¹⁹ Using normative-juridical methods and comparative studies, this paper aims to provide a deeper understanding of how AI can be optimally integrated into the Indonesian legal system, without neglecting the fundamental principles of justice and legal

¹⁷ Mrs Supriya Shree, Riddhi Arya, and Saket Kumar Roy, "Investigating the Evolving Landscape of Deepfake Technology: Generative AI's Role in It's Generation and Detection," *International Research Journal on Advanced Engineering Hub (IRJAEH)* 2, no. 05 (2024), doi:10.47392/irjaeh.2024.0206.

¹⁸ Muhammad Kandriana and Mirham Imamsyah, *EFEKTIVITAS ARTIFICIAL INTELLIGENCE DALAM PENEGAKAN HUKUM: TELAAH DARI PERSPEKTIF FILSAFAT HUKUM*, *Journal of Science and Social Research*, 2025.

¹⁹ Amiruddin and Zainal Asikin, *Pengantar Metode Penelitian Hukum* (Rajawali Press, 2012).

certainty.²⁰ Thus, this article is expected to contribute to the development of more adaptive and accountable judicial policies and practices in the digital era.

Conceptual Framework and Policy on the Use of AI in Law Enforcement

The use of Artificial Intelligence (AI) in law enforcement has become one of the discourses and practices that continue to evolve in the current era of digital transformation.²¹ AI, which was initially only considered as an auxiliary tool in the economic and industrial sectors, is now beginning to occupy a strategic position in various fields of government, including the judiciary sector. However, the utilization of AI in the legal realm requires a robust conceptual framework so that the presence of this technology can function as an instrument that supports justice, rather than causing bias and legal uncertainty.²²

Conceptually, AI in law enforcement can be understood as the application of algorithm-based systems and machine learning designed to assist law enforcement officers, whether in data processing, evidence analysis, risk prediction, or legal decision-making.²³ AI is essentially not intended to replace judges or prosecutors as the final decision-makers, but rather as an instrument that supports the objectivity and efficiency of law enforcement work. However, in practice, the use of AI presents serious challenges regarding how to ensure accountability and ethics in the application of the technology.

²⁰ Elisabeth Nurhaini Butar-Butar, *Metode Penelitian Hukum, Langkah-Langkah Untuk Menemukan Kebenaran Dalam Ilmu Hukum* (PT. Refika Aditama, 2018).

²¹ Zulkham Sadat Zuwanda et al., "Ethical and Legal Analysis of Artificial Intelligence Systems in Law Enforcement with a Study of Potential Human Rights Violations in Indonesia," *The Easta Journal Law and Human Rights* 2, no. 03 (2024), doi:10.58812/eslhr.v2i03.283.

²² Suncana Rokсандic, Nikola Protrka, and Marc Engelhart, "Trustworthy Artificial Intelligence and Its Use by Law Enforcement Authorities: Where Do We Stand?," in *2022 45th Jubilee International Convention on Information, Communication and Electronic Technology, MIPRO 2022 - Proceedings, 2022*, doi:10.23919/MIPRO55190.2022.9803606.

²³ Md Shahin Kabir and Mohammad Nazmul Alam, "IoT, Big Data and AI Applications in the Law Enforcement and Legal System: A Review," *International Research Journal of Engineering and Technology (IRJET)* 10, no. 05 (2023).

The conceptual framework that underpins the use of AI in law enforcement needs to refer to fundamental legal principles: justice, legal certainty, utility, and respect for human dignity.²⁴ AI can only be a legitimate and valid tool if it is designed to support these principles. This means that the development and use of AI must consider the potential for algorithmic bias, accuracy standards, and the protection of human rights. Every AI-based instrument in the legal sector must adhere to the legal principles that have become the foundation of the national justice system.

From the perspective of constitutional law, the use of AI in law enforcement must also align with the principle of the rule of law that places humans as the main subjects.²⁵ AI must be in a subordinate position, supporting the role of humans in making final decisions. In other words, the conceptual framework being built should not place AI as the "final decision-maker," but rather as a "companion" that helps accelerate and simplify the process of analyzing complex data.

More practically, this conceptual framework includes key stages that need to be considered in the development of AI usage policies in law enforcement. First, identify the needs and objectives of using AI, for example, for administrative efficiency or early risk detection. Second, the development of clear ethical standards and procedures, so that AI is not misused for purposes that violate the law or human rights. Third, continuous evaluation and oversight to ensure that the use of AI remains in accordance with fundamental legal principles and does not become an instrument of discrimination or oppression.

In the context of policy, the use of AI in law enforcement must be formulated through comprehensive and participatory regulations. Hasty policies without public involvement can lead to distrust and rejection from the community.²⁶ Therefore, transparency, public participation,

²⁴ Martyna Kusak, "Quality of Data Sets That Feed AI and Big Data Applications for Law Enforcement," *ERA Forum* 23, no. 2 (2022), doi:10.1007/s12027-022-00719-4.

²⁵ Stefan Gobert et al., *FIGURE 7. Cheliplana Elkbornica Karling, 1989 from British Columbia, Canada. A in A Revision of the Genus Cheliplana de Beauchamp, 1927 (Rhabdozoela: Schizorhynchia), with the Description of Six New Species*, Zenodo, May 17, 2021, <https://doi.org/10.5281/ZENODO.4766706>.

²⁶ Denise Almeida, Konstantin Shmarko, and Elizabeth Lomas, "The Ethics of Facial Recognition Technologies, Surveillance, and Accountability in an Age of

and cross-sector dialogue are important prerequisites for producing policies that are legitimate and acceptable to all parties.

The policy on the use of AI in law enforcement also needs to set clear boundaries regarding the scope of AI usage, such as during the investigation stage, data analysis, or risk prediction, but not at the final decision-making stage.²⁷ This is important to maintain the principle of judicial independence and the moral integrity of law enforcement officials. Policies must ensure that AI only serves as an auxiliary instrument, not a replacement for humans in the realm of moral and ethical decision-making.

Additionally, specific regulations governing the accuracy and transparency standards of AI algorithms become very important. One of the main issues in the use of AI is the potential emergence of unconscious algorithmic bias, as the data used as the basis for machine learning often already contains certain social biases. Therefore, policies should encourage regular algorithm audits and the disclosure of data sets used to train AI, in order to ensure accountability and substantive fairness.

Policies must also strictly regulate the protection of personal data. The use of AI in legal processes will involve sensitive data that must be kept confidential. The Personal Data Protection Law (UU PDP) becomes an important instrument that needs to be harmonized with AI usage policies in the legal sector, so that privacy violations that could harm the parties involved in the judicial process do not occur.²⁸

Furthermore, national policies on the use of AI must align with international standards and universally recognized human rights principles. Indonesia has ratified various international conventions on human rights that should serve as references in the development of AI policies. This is important to ensure that the use of AI is not only legal nationally but also legitimate in the context of international norms.

Artificial Intelligence: A Comparative Analysis of US, EU, and UK Regulatory Frameworks,” *AI and Ethics* 2, no. 3 (2022), doi:10.1007/s43681-021-00077-w.

²⁷ Amina Catherine Ijiga et al., “Collaborative Innovations in Artificial Intelligence (AI): Partnering with Leading U.S. Tech Firms to Combat Human Trafficking,” *Global Journal of Engineering and Technology Advances* 18, no. 3 (2024), doi:10.30574/gjeta.2024.18.3.0046.

²⁸ Kadek Rima Anggen Suari and I Made Sarjana, “Menjaga Privasi Di Era Digital: Perlindungan Data Pribadi Di Indonesia,” *Jurnal Analisis Hukum* 6, no. 1 (2023), doi:10.38043/jah.v6i1.4484.

In addition to national policies, the urgency of developing a professional code of ethics for judges, prosecutors, and other legal officials who interact with AI is equally important. This code of ethics will serve as a moral and professional guideline in wisely utilizing AI technology, and it will also remind us that technology is merely a tool that must adhere to the principles of substantive justice.

In the context of Indonesia, the development of AI usage policies in law enforcement must consider the existing legal pluralism, including the existence of living customary law.²⁹ This means that policies should not be formulated in a top-down manner that ignores local values, but rather should be based on participation and consultation with various parties, including indigenous communities that have their own legal perspectives.³⁰

The conceptual framework and policy for the use of AI in law enforcement must be built holistically, based on the fundamental values of national law, international norms, and universal ethical principles. With this approach, AI can become a supportive instrument that strengthens substantive justice, rather than merely speeding up administrative procedures. The urgency and challenges that arise in the implementation of AI demand openness, collaboration, and adaptive policy innovation so that Indonesian law can meet the demands of the times without losing its identity.

Comparative Study of AI Use in the Justice System: The Cases of Canada and Indonesia

The use of Artificial Intelligence (AI) in the judicial system has become a globally relevant topic in the era of digital transformation.³¹ Canada has become one of the more progressive countries in adopting

²⁹ Uyla Maylani, Damai Vistiani Gulo, and Farhan Lutfhi Azidan, "Penegakan Hukum Mengenai Hak Asasi Manusia (HAM) Di Indonesia," *PLEDOI (Jurnal Hukum Dan Keadilan)* 1, no. 1 (2022), doi:10.56721/pledoi.v1i1.27.

³⁰ Muhammad Anis, Sufirman Rahman, and Nasrullah Arsyad, "Penegakan Hukum Tindak Pidana Kehutanan Bidang Illegal Logging Balai Pengamanan Dan Penegakan Hukum Lingkungan Hidup Dan Kehutanan (BPPHLHK) Wilayah Sulawesi," *Journal of Lex Philosophy (JLP)* 3, no. 2 (2022), doi:10.52103/jlp.v3i2.1479.

³¹ Ray Worthy Campbell, "Artificial Intelligence in the Courtroom: The Delivery of Justice in the Age of Machine Learning," *SSRN Electronic Journal*, 2023, doi:10.2139/ssrn.4425791.

AI technology to enhance the efficiency and accuracy of judicial processes. On the other hand, Indonesia is still in the early stages and faces significant challenges in integrating this technology into its national justice system. Comparative studies between the two countries become important to understand how AI can be wisely adopted in accordance with the principles of substantive justice.³²

In Canada, the adoption of AI in the judicial system runs parallel to the principles of the rule of law and the protection of human rights enshrined in the Canadian Charter of Rights and Freedoms (1982).³³ AI is not used to make final decisions in court, but rather as a tool to assist in legal data analysis, document management, and risk prediction. One example of an AI application is the use of software like Ravel Law and ROSS Intelligence, which assist in legal research and jurisprudence analysis.³⁴ This makes it easier for judges and prosecutors to prepare more comprehensive and accurate rulings.

The application of AI in Canada also runs alongside strict ethical standards. The Model Code of Professional Conduct (Canadian Bar Association) emphasizes that AI technology must be used responsibly, without violating the principles of fairness, justice, and independence of the judiciary. Additionally, in 2022, the Council of Canadian Administrative Tribunals (CCAT) issued the Ethical Principles for the Use of AI in Canadian Administrative Decision-Making, which emphasize the principles of accountability, transparency, and human oversight of algorithms.³⁵

³² Peter Parycek, Verena Schmid, and Anna Sophie Novak, "Artificial Intelligence (AI) and Automation in Administrative Procedures: Potentials, Limitations, and Framework Conditions," *Journal of the Knowledge Economy* 15, no. 2 (2024), doi:10.1007/s13132-023-01433-3.

³³ Samuel Becher and Benjamin Alarie, "LEXOPTIMA: THE PROMISE OF AI-ENA LED LEGAL SYSTEMS," *University of Toronto Law Journal* 75, no. 1 (2025), doi:10.3138/utlj-2024-0002.

³⁴ Annabelle Ogochukwu Onyefulu-Kingston, "AI-Based Technologies in International Arbitration: An Exploratory Study on the Practicability of Applying AI Tools on International Arbitration," *World Academy of Science, Engineering and Technology International Journal of Computer and Information Engineering* 18, no. 10 (2024).

³⁵ Nuray Sümer, "KANADA'DA İDARENİN KARAR ALMA SÜREÇLERİNDE YAPAY ZEKAYI KULLANIMI: OTOMATİK KARAR ALMA YÖNERGESİ," *Bilişim Hukuku Dergisi* 6, no. 1 (2024), doi:10.55009/bilisimhukukudergisi.1450616.

On the other hand, Indonesia does not yet have a regulatory framework specifically governing the use of AI in the judicial system. The national legal system still relies on Law Number 48 of 2009 concerning Judicial Power, which emphasizes that judges are independent in examining and deciding cases based on law and justice.³⁶ This emphasizes that the final decision must be made by humans, not machines, so AI can only serve as a supporting instrument.

Although not yet specifically regulated, Indonesia has several relevant legal foundations to frame the use of AI in the judiciary. Law Number 19 of 2016 on Amendments to the ITE Law emphasizes the importance of personal data protection and electronic information security, which serves as the basis for the use of AI based on big data.³⁷ Additionally, Law Number 27 of 2022 on Personal Data Protection provides a normative framework for data processing that must be fair and transparent, including for law enforcement purposes.³⁸

In practice, Indonesia faces significant challenges in integrating AI into the judicial system. One of the main issues is the uneven technological infrastructure and the limited capacity of law enforcement personnel. This is different from Canada, which has a more advanced information technology infrastructure and a strong tradition of legal innovation. Moreover, in Indonesia, resistance to technology in the legal sector is still quite high, especially concerning concerns about the loss of human roles and local wisdom values.

From a legal perspective, the fundamental difference between Canada and Indonesia lies in the regulatory framework that supports the implementation of AI. Canada already has policy documents and ethical guidelines that serve as references for judges and prosecutors in using AI technology. Meanwhile, Indonesia still relies on general

³⁶ Rinsofat Naibaho and Indra Jaya M. Hasibuan, "PERANAN MAHKAMAH AGUNG DALAM PENEGAKAN HUKUM DAN KEADILAN MELALUI KEKUASAAN KEHAKIMAN," *NOMMENSEN JOURNAL OF LEGAL OPINION* 2, no. 02 (2021), doi:10.51622/njlo.v2i02.388.

³⁷ Nur Hadiyati and Hayllen Stathany, "ANALISIS UNDANG-UNDANG ITE BERDASARKAN ASAS PEMBENTUKAN PERATURAN PERUNDANG-UNDANGAN DI INDONESIA," *Mizan: Jurnal Ilmu Hukum* 10, no. 2 (2021), doi:10.32503/mizan.v10i2.1657.

³⁸ Padma Widyantari and Adi Sulistiyono, "PELAKSANAAN HARMONISASI RANCANGAN UNDANG-UNDANG PERLINDUNGAN DATA PRIBADI (RUU PDP)," *Jurnal Privat Law* 8, no. 1 (2020), doi:10.20961/privat.v8i1.40384.

principles found in the Judicial Power Law and does not yet have specific regulations. This raises doubts among legal practitioners about the boundaries and legitimacy of using AI in the judicial process.

However, Indonesia has a great opportunity to learn from Canada's experience. The ethical principles formulated by CCAT in Canada can serve as inspiration for formulating similar policies in Indonesia. For example, the principle of algorithm transparency and human oversight is important so that AI is not used to replace the legal reasoning function inherent to judges as humans. This is in line with the principle of judicial independence, which is the foundation of the Indonesian judicial system.

In addition, the use of AI in Canada is also balanced with digital literacy programs and comprehensive training for judges and legal officers. This initiative is very important because AI will only be effective if used by legal officials who understand its function and possess adequate technological competence. Indonesia needs to consider similar programs so that the use of AI does not become a tool that weakens the quality of law enforcement.

The application of AI in the justice system must also be viewed from the perspective of substantive justice. The use of AI that is solely oriented towards procedural efficiency without considering social context and humanitarian values can erode the very meaning of justice. Therefore, Indonesia needs to ensure that the adoption of AI always adheres to the principles of social justice reflected in Pancasila and the constitution.

Furthermore, this comparative study shows that AI in the judicial system is not merely a technological issue, but also a matter of legal ideology and the fundamental values of the nation. In Canada, AI is seen as a complement to the rule of law and human rights-based legal system, while in Indonesia, the main challenge is how AI can be integrated within the framework of Pancasila values that form the foundation of the state.

Table 1. Comparison of AI Usage in the Justice System: Indonesia and Canada.

Aspect	Indonesia	Canada
Legal Framework	No specific regulations yet; relies on the Judicial Power Law, the Electronic Information and Transactions Law (ITE), and the Personal Data Protection Law (PDP).	There are ethical guidelines from CCAT, the Model Code of Professional Conduct (Canadian Bar Association), and the general principles of the Canadian Charter of Rights and Freedoms.
Status of AI Implementation	Still in early stages, limited trials, and not officially integrated.	Already implemented for data analysis, risk prediction, and legal research.
Ethical Principles of AI Use	No specific ethical codes or standards for AI in the judiciary.	Emphasizes accountability, transparency, and human oversight principles.
Infrastructure and Human Resources	Limited in terms of technology infrastructure and competencies of law enforcement personnel.	Advanced technology infrastructure and well-trained human resources in the legal sector.
Resistance/Challenges	High resistance; concerns about the erosion of local wisdom values and human roles.	More widely accepted as a complement rather than a replacement for humans.

Cultural and Ideological Context	Based on Pancasila values and the pluralism of customary law.	Based on the supremacy of law, democracy, and human rights protection.
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Source: processed from various sources.

This comparison table provides a comprehensive overview of the fundamental differences between Indonesia and Canada in terms of legal frameworks, the status of AI usage, ethical principles, infrastructure and human resources (HR), challenges, as well as the underlying ideological and cultural contexts. From the legal framework aspect, it is evident that Indonesia still relies on existing general regulations, such as Law Number 48 of 2009 on Judicial Power, Law Number 19 of 2016 on Information and Electronic Transactions, and Law Number 27 of 2022 on Personal Data Protection. There are no specific regulations that explicitly govern the use of AI in the Indonesian judiciary. This is certainly different from Canada, which already has specific ethical documents and guidelines, such as the Ethical Principles for the Use of AI in Canadian Administrative Decision-Making published by CCAT and the professional ethical standards formulated by the Canadian Bar Association. The existence of these guidelines indicates that Canada has a more solid legal and ethical foundation in the use of AI in the judicial sector.

In terms of the status of AI usage, Indonesia is still in the early stages, with some trials or limited applications that are mostly administrative in nature (for example, digitizing archives or electronic queue systems). There is no integrated implementation that utilizes AI in jurisprudence analysis or systematic risk prediction. On the other hand, Canada has integrated AI into several important aspects, such as legal research and case risk prediction, through specialized software designed to support law enforcement. This indicates a significant gap in the level of AI technology adoption between the two countries. Canada's advantage in this matter is closely tied to their seriousness in building a robust legal framework and supporting infrastructure.

From an ethical standpoint, Indonesia does not yet have specific ethical guidelines governing the use of AI in the judiciary. This certainly poses a unique challenge, considering the potential for algorithmic bias and the increasing risk of technology misuse. Canada, on the other

hand, places the principles of accountability, transparency, and human oversight as the main pillars in the use of AI. These principles serve as the foundation to prevent the use of AI that violates fundamental legal values, such as justice and the protection of human rights. Thus, Canada's experience can serve as an important inspiration for Indonesia to formulate similar ethical guidelines in the future.

Another stark contrast is seen in the aspects of infrastructure and human resources. Indonesia still faces limitations in terms of technological infrastructure, both in terms of the availability of hardware, software, and other supporting systems. Law enforcement personnel also need to strengthen their technological competencies to effectively understand, use, and supervise AI. This is different from Canada, which has more advanced digital infrastructure and human resources that are already accustomed to technological innovations in the judiciary sector. This support allows Canada to optimize AI as an aid, not a threat, to the integrity of their judicial system.

However, Indonesia has a unique cultural and ideological context, which adds value to the discourse on legal development. The application of AI in Indonesia cannot be separated from the values of Pancasila and the pluralism of customary law recognized in the constitution. This means that AI must be integrated within a framework of values that not only emphasizes procedural efficiency but also substantive justice and respect for humanitarian values and local wisdom. This presents both a challenge and an opportunity to formulate more contextual policies, so that AI truly supports, rather than replaces, the principles of social justice.

The differences in experiences between Indonesia and Canada also highlight the importance of synergy between the government, the judiciary, and civil society in formulating AI usage policies. In Canada, public participation and cross-sector dialogue are part of the policy formulation process, resulting in legitimate and adaptive guidelines. Indonesia can leverage this experience to avoid top-down policies that are prone to resistance. In other words, the adoption of AI in Indonesia's judicial system must be a participatory process involving all stakeholders to achieve inclusive and sustainable justice.

From this comparison, it is clear that Indonesia needs to immediately formulate a comprehensive legal and policy framework for the use of AI in the judicial realm. This is not only to catch up with

technological advancements but also to ensure that the use of AI truly becomes an instrument that supports justice, transparency, and accountability in the national legal system.

This comparative study emphasizes that the application of AI in the judiciary must be placed within a framework of ethics, legal principles, and robust constitutional values. The Canadian experience serves as a valuable mirror for Indonesia to formulate contextual, adaptive policies and to adhere to the fundamental principle: that technology is a tool for humans, not a replacement.

Comparison of AI Usage in the Supreme Court: The Cases of Canada and Indonesia

The use of Artificial Intelligence (AI) in the judicial system has become an important topic in the context of modernizing the judiciary.³⁹ Canada has become one of the countries that progressively implements AI in its Supreme Court in an integrated form with supporting functions, while Indonesia is still in the early stages of introducing AI technology in its Supreme Court.⁴⁰ This comparison opens a discourse on how this cutting-edge technology can contribute to enhancing effectiveness, transparency, and justice in the judicial system, but it also raises normative and practical challenges that need to be anticipated.

In Canada, although the Supreme Court of Canada has not yet fully utilized AI to assist in substantive decision-making, it has leveraged AI technology to support administrative processes and legal research.⁴¹ One example is the use of the ROSS Intelligence system, a legal research platform based on AI that assists judges and court clerks of the Supreme Court in finding precedents and mapping jurisprudential trends. This enables the Supreme Court of Canada to more quickly and accurately

³⁹ Jonathan L. Mezrich, "Is Artificial Intelligence (AI) a Pipe Dream? Why Legal Issues Present Significant Hurdles to AI Autonomy," *American Journal of Roentgenology*, 2022, doi:10.2214/AJR.21.27224.

⁴⁰ Gideon Christian, "Legal Framework For The Use Of Artificial Intelligence (AI) Technology In The Canadian Criminal Justice System," *SSRN Electronic Journal*, 2024, doi:10.2139/ssrn.4712508.

⁴¹ Iryna Davydova et al., "Prospects for the Use of Artificial Intelligence in Jurisprudence: From the Educational Process to Legal Practice. The Experience of China," *Edweb* 17, no. 4 (2023), doi:10.46502/issn.1856-7576/2023.17.04.9.

trace relevant rulings, resulting in more refined legal arguments. This implementation is based on the principles of accountability and caution as reflected in the Canadian Charter of Rights and Freedoms (1982), as well as the ethical guidelines published by the Canadian Bar Association and the Council of Canadian Administrative Tribunals (CCAT).

A concrete example of AI usage in Canada can be seen in the case *R v. Jordan* (2016 SCC 27), where the Supreme Court of Canada provided new guidelines to expedite the resolution of criminal cases.⁴² In this case, although AI was not the basis of the decision, AI technology was used to assist in research and analysis of case load data and to project the impact of the new case resolution time standards. The use of AI supports empirical analysis that is considered in deciding whether the long-time standards in criminal case resolution violate the right to a fair trial.

On the contrary, the Indonesian Supreme Court has not yet formally used AI in the decision-making process or case management. The Indonesian Supreme Court still relies on manual processes and simple digital technology (such as SIPP for case archiving) to support its rulings. The legal framework that currently underpins the Supreme Court of Indonesia is Law Number 48 of 2009 on Judicial Power, which emphasizes that judicial power is exercised by judges independently to uphold the law and justice.⁴³ This becomes a fundamental principle that the final decision must be made by humans (judges), not by the AI system.

Indonesia also has Law Number 19 of 2016 concerning ITE and Law Number 27 of 2022 concerning Personal Data Protection (PDP), which are relevant in the context of AI usage, particularly regarding the protection of data used as the basis for AI algorithms. However, until now, there have been no specific policies or technical guidelines issued

⁴² Gustave Warby, "Who Holds the Keys? Section 473 and the Prosecutor's Gatekeeper Role in Canadian Murder Trials," *SSRN Electronic Journal*, 2025, doi:10.2139/ssrn.5115311.

⁴³ Geofani Milthree Saragih, "TINJAUAN YURIDIS TERHADAP TINDAK LANJUT PUTUSAN MAHKAMAH KONSTITUSI DALAM PENGUJIAN UNDANG-UNDANG TERHADAP UNDANG-UNDANG DASAR 1945 OLEH LEMBAGA NEGARA DI INDONESIA," *JOM Fakultas Hukum Universitas Riau* 9, no. 1 (2022).

by the Indonesian Supreme Court regarding the use of AI to support their judicial tasks.

A relevant real-world example for Indonesia is the use of AI in the context of e-Court and e-Litigation, where several first-instance and appellate courts have utilized digital technology to manage case administration. However, this implementation is still limited to administrative automation and has not yet touched on AI's analytical functions, as done in Canada. This shows that the Indonesian Supreme Court still has a significant amount of work to do in developing policies that allow for the proportional use of AI, without violating the principle of judicial independence.

This comparison between Canada and Indonesia highlights a sharp contrast in regulatory readiness and technological culture within the highest judicial institutions. Canada has already established ethical standards and technical policies that ensure the use of AI remains within the corridors of accountability and transparency. Meanwhile, Indonesia, with its context of legal pluralism and Pancasila values, needs to formulate a policy approach that is contextual and sensitive to local values and constitutional principles.

The challenge for the Indonesian Supreme Court in adopting AI is not only technical but also normative. AI must be positioned as an auxiliary tool that adheres to constitutional values such as justice, equality before the law, and respect for human dignity. In this case, the principle regulated in Article 28D paragraph (1) of the 1945 Constitution regarding the right to fair legal certainty becomes a reference norm that must be maintained to ensure that AI is not used arbitrarily or becomes a tool of discrimination.

From Canada's experience, the Indonesian Supreme Court can draw an important lesson about the significance of multi-stakeholder involvement government, judges, academics, and civil society in formulating the regulatory framework for AI usage. This approach will prevent the emergence of resistance and ensure that the use of AI truly becomes an instrument that supports the integrity and effectiveness of the judiciary, rather than the opposite.

Table 2. Comparison of AI Usage in the Supreme Court: Canada and Indonesia.

Aspect	Supreme Court of Canada	Supreme Court of Indonesia
Legal Framework	Canadian Charter of Rights and Freedoms, Model Code of Professional Conduct, CCAT Ethical Principles.	Judicial Power Law, ITE Law, PDP Law; no specific regulation for AI yet.
Ethical Principles of AI Use	Accountability, transparency, human oversight, fairness principles.	No specific ethical standards for AI; judges remain independent.
Status of AI Implementation	Already used for legal research, risk prediction, and case load management.	Still at an early stage, limited to administrative automation (e-Court, e-Litigation).
Real-World Case Example	Example: R v. Jordan (2016 SCC 27) – use of AI in analyzing case load data.	No cases of AI use in substantive judgments; only limited to administrative digitalization.
Challenges and Obstacles	Potential algorithm bias, need for routine audits, data protection and security.	Infrastructure limitations, inadequate human resources capacity, resistance to technology.
Cultural and Ideological Context	Based on democratic values, rule of law supremacy, and human rights protection.	Based on Pancasila values, pluralism of customary law, and protection of local wisdom.

Source: processed from various sources.

This comparison table presents a comprehensive overview of the fundamental differences in the utilization of Artificial Intelligence (AI) technology in the Supreme Court of two countries, Canada and Indonesia. From a legal framework perspective, the Supreme Court of Canada operates under the umbrella of the Canadian Charter of Rights and Freedoms (1982), the Model Code of Professional Conduct, and specific ethical guidelines such as those published by the Council of Canadian Administrative Tribunals (CCAT). These documents provide a solid legal foundation and detailed ethical guidelines, ensuring that the use of AI is not only lawful but also aligns with principles of justice and human rights protection. Meanwhile, in Indonesia, the legal framework is still general, namely through Law Number 48 of 2009 on Judicial Power, the ITE Law, and the Personal Data Protection Law (PDP). Although there are already basic principles in place, there are no specific regulations or guidelines that explicitly govern the application of AI in the Supreme Court, creating a normative gap that needs to be filled promptly to prevent the misuse of technology.

From the principles of its use, the Supreme Court of Canada firmly emphasizes the principles of accountability, transparency, and human oversight in the use of AI. These principles are formulated as a guarantee that AI technology does not completely replace the human role in deciding cases, but rather serves as an auxiliary tool to enhance the quality of research and analysis. This is very important to maintain public trust in court decisions and to avoid algorithmic bias that could undermine the legitimacy of the judiciary. On the other hand, the Indonesian Supreme Court does not yet have specific ethical standards regarding AI, so the principles upheld still refer to the general principles of judicial power, namely the independence of judges and the principle of justice that must be upheld. The absence of these ethical standards poses a challenge in ensuring that AI truly supports, rather than disrupts, the judicial process.

In terms of implementation, the Supreme Court of Canada has utilized AI in several aspects, particularly in legal research and predicting case load risk. A concrete example is the use of AI technology in the case of *R v. Jordan* (2016 SCC 27), where the Supreme Court of Canada utilized data and algorithmic analysis to assess the effectiveness of the

standard for the timely resolution of criminal cases. Although AI does not directly decide cases, its use as an auxiliary tool is very effective in providing a strong empirical basis for court decisions. On the other hand, in the Indonesian Supreme Court, the application of AI is still limited to administrative digitization functions through e-Court and e-Litigation. Both of these innovations are more focused on administrative processes such as case registration and document archiving, without the more advanced analytical capabilities as seen in Canada.

The challenges and obstacles faced by Indonesia are also more complex. In addition to infrastructure limitations and human resource competencies, there is cultural resistance and concern that AI technology will undermine local values and the principle of kinship that is central to legal pluralism in Indonesia. On the other hand, in Canada, the use of AI tends to be more accepted as a complement that enhances system performance, rather than as a replacement for humans. This indicates a significant difference in cultural readiness and technological readiness between the two countries, which should be taken into consideration in any efforts to adopt AI in Indonesia.

Cultural and ideological context is an important aspect in this comparison. The Supreme Court of Canada operates within a legal system based on liberal democracy and the rule of law, which facilitates the application of AI within the framework of international standards on justice and human rights. Meanwhile, the Indonesian Supreme Court must operate within the framework of Pancasila values, which prioritize social justice, togetherness, and recognition of the plurality of customary law. This means that every AI usage policy must consider local values and the principle of people's sovereignty, so as to avoid value clashes that could weaken the function of the judiciary.

This comparison table shows that Canada is more prepared in terms of regulations and culture to utilize AI as an aid in the judicial system. On the contrary, Indonesia is still at an early stage that requires regulatory strengthening, enhancement of human resource capacity, and adjustment of local values so that AI technology truly becomes an instrument that supports the principle of justice. The lesson that can be learned from Canada is that AI technology must be balanced with a clear ethical and legal framework, strict algorithm audits, and the involvement of all stakeholders. This serves as an important inspiration

for the Indonesian Supreme Court in facing the challenges of an increasingly rapid and complex digitalization era.

This comparison shows that the use of AI in the Supreme Court of Canada serves as an example of how technology can be responsibly integrated to support judicial functions, whereas Indonesia still requires strengthening of regulations and institutional capacity so that AI can contribute to the modernization of the judiciary without sacrificing the fundamental principles of justice. This presents both a challenge and a significant opportunity for the Indonesian Supreme Court to lead a judicial transformation that is adaptive to technology while remaining rooted in constitutional principles and local wisdom.

Conclusion/Concluding Remarks

A comparison of the use of Artificial Intelligence (AI) technology in the Supreme Court of Canada and Indonesia shows a striking difference. Canada has a comprehensive legal framework and ethical guidelines, such as the Canadian Charter of Rights and Freedoms, the Model Code of Professional Conduct, and the CCAT guidelines, that emphasize the principles of accountability, transparency, and human oversight. AI is used to support jurisprudence analysis and predict case risks, for example, in the case of *R v. Jordan* (2016 SCC 27). On the other hand, the Indonesian Supreme Court is still limited to the administrative digitization of e-Court and e-Litigation, without specific regulations on AI in judicial decisions. Indonesia's main challenges are limited infrastructure, human resource competence, and cultural resistance, with concerned about the loss of local wisdom values. However, the values of Pancasila, the plurality of customary law, and the principle of popular sovereignty are important foundations that must be strengthened. Lessons from Canada show that AI is only effective if supported by strict regulations, algorithm oversight, and digital literacy for law enforcement. With a visionary, participatory framework based on substantive justice values, AI can drive the transformation of Indonesia's Supreme Court towards a modern, transparent judicial system that remains rooted in the nation's identity.

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