GIJLSS
Greenation International Journal of Law and Social Sciences
+62 81210467572 https://research.e-greenation.org/GIJLSS greenation.info@gmail.com
GREENATION RESEARCH

DOI: https://doi.org/10.38035/gijlss.v4i2

The Use of Artificial Intelligence by Judges in Adjudicating Cases

Andereas Eno Tirtakusuma[1*], Eleazar Josiah Tirtakusuma[2]
[1]Universitas Pancasila, Jakarta, Indonesia, andreaseno@univpancasila.ac.id
[2]Universitas Airlangga, Surabaya, Indonesia, eleazar.josiah.tirtakusuma-2023@fh.unair.ac.id

*Corresponding Author: andreaseno@univpancasila.ac.id[1]

Abstract: The increasingly massive development of artificial intelligence has touched the judicial sphere and raised fundamental questions about how the law should respond. This article examines the relationship among judges, the law, and artificial intelligence through normative studies, using statutory and conceptual approaches, combined with a sociolegal approach grounded in Social Construction Theory, especially the Social Construction of Technology (SCOT). The study's results indicate that artificial intelligence technology is not a neutral, stand-alone entity, but rather is shaped by the values, norms, and interests of the social actors interacting within it. In the judicial context, judges, as social actors, have an active role in shaping how technology is adopted and used, rather than simply being passive recipients of technological innovation. The Indonesian legal system still faces a significant gap in norms governing artificial intelligence in the judicial environment, necessitating a legal construction grounded in constitutional values while being sensitive to the dynamics of the social construction of technology. Artificial intelligence should be positioned as an instrument that supports judges' capacity, not a substitute for judicial authority, accompanied by ethical oversight mechanisms, algorithmic accountability, and strengthened technological literacy for all judicial officials.

Keywords: Adaptive Law, Judicial Independence, Artificial Intelligence, Social Construction

INTRODUCTION

The rapid development of information technology in recent decades has brought fundamental changes to nearly every aspect of human life, including the legal and judicial worlds. The emergence of artificial intelligence, one of the products of this century's greatest technological revolution, has presented a variety of new, previously unimaginable possibilities, including its potential use in law enforcement and judicial decision-making. Artificial intelligence is not merely a simple tool, but a sophisticated technological system capable of processing massive amounts of data, recognizing patterns, making predictions, and even simulating human-like thought processes. In the legal context, these capabilities open up vast opportunities, from automated jurisprudential searches and contract analysis to predictive court ruling systems, which are now being developed in various developed countries (Pramesti et al., 2025).

In several countries, artificial intelligence has begun to be applied effectively in the justice system. The United States, for example, has used the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) system to help judges assess a defendant's risk of recidivism during sentencing (Muhana et al., 2025). European countries are also experimenting with the use of artificial intelligence systems to support case management in courts. Indonesia, as a nation governed by the rule of law, is also not immune to this trend. The Supreme Court of the Republic of Indonesia has taken various steps to modernize its judiciary, including the implementation of a case tracking information system, electronic trials, and various other digital innovations. This demonstrates that the Indonesian justice system is gradually opening up to technological integration, including the potential future use of artificial intelligence (Wardani et al., 2023).

In the judicial system, online trials and e-filing have also become commonplace in several countries, including Indonesia. Yet, everyday life is increasingly reliant on artificial intelligence, which is increasingly being used to expedite the completion of various legal tasks, such as scanning judgments, drafting contracts, and predicting case outcomes. The careless use of artificial intelligence can have negative impacts. Without risk assessment, the use of artificial intelligence can lead to legal issues, necessitating proactive risk audits (Stevie Bonifield, 2024). However, despite the various opportunities it offers, the use of artificial intelligence in the judicial sphere also presents several fundamental issues that cannot be ignored. Questions about accountability, transparency, and fairness in algorithm-based decision-making have become a major focus for legal academics, practitioners, and human rights activists worldwide (Wala & Tesalonika, 2024). How to ensure that decisions made by artificial intelligence systems are free from bias and legally accountable is a challenge that has not yet been fully addressed. Judges, as state officials carrying out judicial functions, hold a very central and strategic position in the legal system. Judges are not merely mechanical interpreters of laws, but also legal subjects who consider human values, a sense of justice, and the social context in every decision. Judicial independence is one of the main pillars of a democratic state based on the rule of law, any form of interference with the freedom of judges in deciding cases must be scrutinized very seriously (Aprilia & Rifai, 2025).

It is in this context that the crucial question arises about what the position of judges will be if artificial intelligence begins to be integrated into the judicial process (Bima & Bima, 2025). Can artificial intelligence serve as a partner that strengthens the judge's abilities, or does it have the potential to diminish the judge's human role in upholding justice? The relationship between judges, the law, and artificial intelligence is an increasingly pressing topic requiring in-depth academic study. From a legal philosophy perspective, the use of artificial intelligence in the judiciary also touches on fundamental debates about the nature of justice itself. Justice is not merely a matter of procedural accuracy or logical consistency, but also involves a very human moral and ethical dimension. The question is whether artificial intelligence systems, which essentially operate on mathematical logic and historical data, are capable of adequately capturing the complexity of these values (Kristianti & Rolando, 2025).

The use of artificial intelligence in the judicial system has the potential to raise serious human rights issues. If an algorithm produces discriminatory recommendations or even decisions due to bias in its training data, an individual's right to a fair and impartial trial could be jeopardized (Tambe et al., 2025). This requires a strong regulatory framework and effective oversight mechanisms to ensure that the use of technology in the judiciary does not become a new source of injustice. Based on the above description, an in-depth study of the relationship between judges, the law, and artificial intelligence is highly relevant and urgent. This research seeks to fill the gap in Indonesian legal literature that specifically addresses the legal, philosophical, and practical dimensions of the integration of artificial intelligence into the judicial system, as well as its implications for the independence and function of judges as

enforcers of justice (Zafriana, 2025).

Based on the background that has been described, in this study, the problem is formulated, first, how is the position and role of artificial intelligence in the judicial system is viewed from the perspective of Indonesian positive law, and to what extent the integration of this technology can be legally justified without sacrificing the basic principles of the rule of law. The second problem that is the focus of the research is how the implications of the use of artificial intelligence on the independence of judges and the fulfillment of the right to a fair trial, and how the ideal regulatory framework should be built to ensure the use of artificial intelligence in the judiciary remains within the corridor of justice and respect for human rights.

This study aims to comprehensively analyze the position of artificial intelligence in the Indonesian judicial system from the perspective of positive law and legal philosophy, so that the limits and opportunities available for the integration of this technology can be understood without violating the fundamental principles of a democratic state based on the rule of law. Furthermore, this study also aims to formulate an ideal regulatory framework for the use of artificial intelligence in the judicial process in Indonesia, while identifying the necessary protection mechanisms to ensure the maintenance of judicial independence and the right of every citizen to an honest, fair, and impartial trial.

Theoretically, this research is expected to provide a significant contribution to the development of legal science in Indonesia, particularly in the fields of procedural law and legal philosophy, by presenting a new perspective on the relationship between artificial intelligence technology and the judicial system, which has so far received little in-depth attention in Indonesian legal academic literature. Practically, the results of this research are expected to serve as a useful reference for policymakers, judicial institutions, and legal practitioners in formulating strategic steps and appropriate regulations related to the use of artificial intelligence in the judicial environment, so that the modernization of the legal system can proceed in line with the continued maintenance of the values of justice and legal certainty.

METHOD

Types of research

This research employs a normative juridical method, namely legal research conducted by reviewing and analyzing written legal norms, doctrines, and applicable legal principles. This approach was chosen because the problem being studied is conceptual and regulatory in nature, namely, examining how Indonesian positive law regulates or should comprehensively regulate the use of artificial intelligence in the judicial system. As a normative juridical research, the main focus of this research lies in the analysis of legal materials, rather than empirical field data. This research seeks to identify normative gaps, regulatory ambiguities, and conflicts between norms related to the integration of artificial intelligence in the judicial process. The results of this analysis are then used to formulate an ideal legal construction for regulating artificial intelligence in the Indonesian judicial system.

Research Approach

This research employs a statutory approach by examining all relevant laws and regulations, such as the Judicial Powers Law, the Supreme Court Law, and various regulations related to information and electronic technology. This approach allows researchers to map the existing normative framework and assess its adequacy in addressing the challenges of integrating artificial intelligence into the judiciary. Furthermore, this research employs a conceptual approach by referring to legal doctrines, expert opinions, and fundamental concepts such as judicial independence, procedural fairness, and legal

accountability. This conceptual approach is crucial because there are no regulations explicitly governing artificial intelligence in the judiciary, thus requiring conceptual construction as a basis for analysis.

A normative study using a statutory approach and a conceptual approach is combined with a sociolegal approach. This combination was chosen because the issue of the use of artificial intelligence in justice is not solely normative-regulatory, but also a social phenomenon shaped by the interaction between actors, institutions, values, and interests operating simultaneously within society. The sociolegal approach is used to examine legal issues using social theory, particularly social construction theory (Social constructionism) and Social Construction of Technology (SCOT) developed by Trevor Pinch and Wiebe Bijker. Social construction theory views reality, including legal and technological reality, as not existing objectively and independently, but rather as being collectively constructed through social interaction, language, and culture. In this context, the laws governing artificial intelligence are essentially social constructions that reflect the dominant values and interests of a particular historical period.(Dania et al., 2024).

Meanwhile, SCOT is used as an analytical framework to understand how artificial intelligence as a technological artifact is accepted, adapted, or rejected by the judicial community. SCOT emphasizes that there is no single trajectory in technological development; rather, various relevant social groups, including judges, legislators, legal practitioners, and the public, actively negotiate the meaning and function of the technology. Thus, this study not only maps the existing normative framework but also analyzes the social dynamics that influence how artificial intelligence will be accepted and regulated within the Indonesian judicial system (Berau, 2025).

Sources of Legal Materials

This research utilizes three sources of legal materials hierarchically. Primary legal materials include applicable Indonesian laws and regulations, Supreme Court decisions, and relevant international legal instruments. These materials serve as the primary references because they are legally binding and reflect positive legal norms directly related to the research object. Secondary legal materials in this research include scientific literature, legal journals, textbooks, and previous research findings on artificial intelligence and the judicial system. Tertiary legal materials include legal dictionaries, encyclopedias, and various glossaries used to support understanding of technical terms, both in the legal and information technology fields, used throughout the research.

Legal Material Collection Techniques

The legal materials collected in this study were obtained through systematic and structured library research. Researchers explored various sources of legal materials through online legal databases, academic libraries, and national and international scientific journal repositories that comprehensively cover relevant studies on artificial intelligence, legal technology, and the modern justice system. The legal materials were collected using strict selection criteria to ensure the relevance and up-to-dateness of the sources used. The collected legal materials were then classified based on their hierarchy and function in the research, namely as a normative basis, conceptual reference, and comparative legal material from various jurisdictions that have already regulated the use of artificial intelligence in the judiciary.

Legal Material Analysis Techniques

The analysis of legal materials in this study was conducted using an analytical prescriptive method, which not only describes existing norms but also assesses and provides recommendations on how laws should be formulated. The legal interpretation techniques used include grammatical, systematic, and teleological interpretations to obtain a complete and comprehensive understanding of the legal norms relevant to the research object. Furthermore, this study also uses legal construction techniques to fill in the gaps in norms identified in the analysis. If there are legal issues that are not explicitly regulated in applicable laws and regulations, the researcher constructs legal arguments based on general legal principles, doctrine, and comparisons of regulations from other countries that are more advanced in regulating the use of artificial intelligence in the judiciary.

RESULTS AND DISCUSSION

The Position of Artificial Intelligence in the Indonesian Legal System

The Indonesian legal system currently lacks regulations that specifically and comprehensively address the role of artificial intelligence in the judicial process. Law No. 48 of 2009 concerning Judicial Power, the constitutional foundation of the Indonesian judicial system, makes no mention whatsoever of the use of artificial intelligence technology in the judicial process. This situation creates a significant legal vacuum amidst the increasingly rapid and unavoidable development of technology (Ikawati et al., 2024). Nevertheless, several existing regulations can serve as a starting point for understanding the position of artificial intelligence within the Indonesian legal framework. Law No. 11 of 2008 concerning Electronic Information and Transactions, as amended by Law No. 19 of 2016, provides a general basis for the recognition of electronic documents and processes in the legal system. However, these regulations are still very general and far from adequate to accommodate the complexity of using artificial intelligence in the specific context of the judiciary. The absence of specific regulations does not mean that the use of artificial intelligence in the judiciary is completely prohibited, but rather that it exists in a gray area that requires further legal construction. From a normative juridical perspective, this normative vacuum must be filled through mechanisms of legal interpretation and construction that are based on general legal principles, constitutional values, and the spirit of progressive legal reform to realize a modern yet just judicial system.

The Concept of Judicial Independence and the Challenges of Technology

Judicial independence is one of the most fundamental principles in a democratic state governed by the rule of law. This principle ensures that judges decide cases solely based on law and justice, without pressure from any party, including the executive, legislative, or other external interests (Nabila Fitri Amelia et al., 2023). The Indonesian Constitution, through Article 24 of the 1945 Constitution of the Republic of Indonesia, expressly guarantees an independent judiciary to administer justice to uphold law and justice. The presence of artificial intelligence in the judicial process presents new, unprecedented challenges to the principle of judicial independence. If a judge relies too heavily on recommendations generated by an artificial intelligence system in making decisions, their independence can be substantially reduced. What must be wary is that the use of artificial intelligence in legal practice is at risk of delusion, because artificial intelligence machines can produce false information that appears convincing. This can trap legal practitioners (including judges) because of arguments based on fictitious precedents, which ultimately has the potential to damage case handling and even violate ethics. If judges, in examining and adjudicating cases using artificial intelligence technology, must be able to act as verifiers, to maintain integrity by validating information and distinguishing between facts and illusions derived from

artificial intelligence (Hadas Gold, 2025). The ability to validate information and distinguish authentic insights from illusions of artificial intelligence is crucial for the integrity of legal practice. Nvidia CEO emphasized that the presence of artificial intelligence will ultimately make humans busier (Rayhan Fairuz, 2025).

Legal professionals must now simultaneously act as curators and validators of truth, focusing on verifying data generated by artificial intelligence. They must be able to identify errors in rapid analysis, as failure to verify can undermine arguments in court and public confidence in law enforcement. While artificial intelligence can speed up processes, humans still play a crucial role in maintaining the accuracy and integrity of the information provided by artificial intelligence. Humans must remain in control and ensure that the use of artificial intelligence does not end in the abyss of fiction. Judges, who should be the sole profession of making decisions based on legal considerations and conscience, can become validators of algorithmic decisions generated by machines, a situation that is fundamentally at odds with the nature of the judicial function. Therefore, it is crucial to establish a clear boundary between the function of artificial intelligence as an aid and the judge's authority as the ultimate decision-maker in the judicial process. Artificial intelligence should be positioned as an instrument that assists judges in managing information, exploring jurisprudence, or identifying relevant precedents, but not in a position to determine or even dominantly influence the substance of judicial decisions. This delimitation of roles is not merely a technical issue but a constitutional imperative that cannot be compromised (Ardhi et al., 2025).

Artificial Intelligence and the Right to a Fair Trial

The right to a fair trial is a universally recognized human right, stated in various international legal instruments such as the International Covenant on Civil and Political Rights which has been ratified by Indonesia through Law Number 12 of 2005. This right includes a number of important guarantees, including the right to be tried by an independent and impartial court, the right to receive an explanation of the basis for a decision, and the right to file an objection to a decision that is considered unfair (Ravizki & Lintang Yudhantaka, 2022). The use of artificial intelligence in the judicial process has the potential to pose a serious threat to the right to a fair trial, particularly if the system is not transparent or contains bias in its algorithm. This phenomenon, known as algorithmic bias, occurs when an artificial intelligence system produces recommendations or predictions that indirectly discriminate against certain groups based on race, gender, economic background, or other demographic characteristics that should not be relevant in legal judgment. The use of the COMPAS system in the United States provides a valuable lesson that deserves serious attention. Research conducted by various independent institutions found that the system tends to give defendants from certain racial groups a higher risk rating than other groups with similar case characteristics. These findings demonstrate that excessive reliance on artificial intelligence systems without adequate oversight mechanisms can lead to systemic injustice that undermines the very foundations of the rule of law (F. Law et al., 2023).

Comparison of Artificial Intelligence Regulation in the Judiciary in Various Countries

Various countries around the world have begun formulating regulatory frameworks for the use of artificial intelligence in their respective justice systems. The European Union, through its Artificial Intelligence Act, passed in 2024, places artificial intelligence systems used in the administration of justice and law enforcement in a high-risk category requiring strict oversight, mandatory transparency, and accountability that can be independently verified by interested parties (Rosyadi & Hoesein, 2025). In Asia, countries like China and Singapore have taken more progressive steps in integrating artificial intelligence into their

judicial systems. China has even developed an AI-based court system that allows for the online resolution of certain cases, supported by sophisticated algorithmic analysis. Singapore, on the other hand, has developed a more cautious approach, emphasizing the use of AI limited to administrative functions and legal research, rather than direct judicial decision-making. A comparison of regulations from these jurisdictions clearly demonstrates that no single approach can be universally adopted. Each country responds to the challenges of AI in the judiciary based on its own legal, cultural, and socio-political context. For Indonesia, learning from the experiences of these countries is invaluable in formulating a regulatory framework that aligns with the values of Pancasila, the national legal system, and the concrete needs of strengthening a just and efficient judicial system (Hasanah et al., 2025).

Ethical and Philosophical Dimensions of the Use of Artificial Intelligence in Justice

From a legal philosophy perspective, the question of the legitimacy of using artificial intelligence in the judiciary touches on a fundamental debate between two major schools of thought: legal positivism and natural law theory. Legal positivism, which emphasizes the certainty and consistency of norms, may find relevance in the ability of artificial intelligence to systematically and consistently process legal rules. However, the natural law school, which emphasizes the moral dimension and substantive justice, questions whether machines are capable of truly capturing the essence of justice (Hariri, 2025). The ethical issues surrounding the use of artificial intelligence for judicial purposes are also closely related to the concept of accountability. When a court decision is influenced by the erroneous recommendations of an artificial intelligence system, a fundamental question arises: who should be held accountable for the error? Should that responsibility rest with the judge who received the recommendation, the developer of the algorithmic system, the judicial institution that adopted the technology, or the state as a whole, the executor of judicial power?

While artificial intelligence can accelerate processes, humans still play a crucial role in maintaining the accuracy and integrity of the information provided by AI. Humans must maintain control and ensure that the use of AI does not end in the abyss of fiction. Human control is necessary to prevent errors in AI, which remains merely a program without autonomy, or psychological errors (Topo Santoso, 2023). These elements, whether in the form of intent (dolus) or negligence (culpa), cannot be found in AI, which essentially lacks a soul, consciousness, or psychological state. The fundamental principle of "no crime without fault" (geen straf zonder schuld) prevents AI from being held criminally responsible independently (Ridwan, 2007).

If an error occurs, especially if it causes damage or loss, the responsibility will still be attached to the human operating the artificial intelligence, who must accept the legal consequences. It's like a person who gives a mandate to artificial intelligence, who, when deciding to utilize artificial intelligence, has already calculated the benefits and losses. Artificial intelligence's working methods focus more on efficiency without morality. Abusers can be punished, and artificial intelligence is merely a tool according to Article 20 of the new Criminal Code (Law No. 1/2023). Abusers can also be sued under Article 1367 of the Civil Code (applying the vicarious principle). This is something that can be presented to a judge when using artificial intelligence in judicial practice if it does not maintain ethical boundaries.

Another equally important ethical dimension is the issue of transparency and explainability of artificial intelligence systems. Many advanced artificial intelligence models, particularly those based on deep learning, operate as black boxes, producing output without being able to explain in detail the logical processes behind their decisions. This situation is particularly problematic in the judicial context, as one of the fundamental requirements for a valid court decision is the presence of clear, structured legal reasoning that is understandable

to both the parties and the wider public, ensuring judicial accountability (Syahra et al., 2025).

Legal Construction for the Regulation of Artificial Intelligence in Indonesian Justice

Given the lack of comprehensive regulations, a systematic legal framework is needed to fill the gap in norms regarding the use of artificial intelligence in Indonesian justice. This legal framework can be built on several basic principles, namely the principle of judicial supremacy as the highest decision-maker, the principle of algorithmic transparency, the principle of non-discrimination, and the principle of accountability, which guarantees a corrective mechanism if the artificial intelligence system produces erroneous or detrimental output. Within Indonesia's positive legal framework, the regulatory framework for artificial intelligence in the judiciary can be developed through several regulatory channels (Study et al., 2025). First, through amendments or additions to provisions in the Judicial Power Law that explicitly regulate the limits of technology use in the judicial process. Second, through the issuance of a Supreme Court Regulation that technically and operationally regulates the use of artificial intelligence systems as judicial aids. Third, through the establishment of a specific law on artificial intelligence that encompasses regulations for its use in various strategic sectors, including the legal and judicial sectors. In addition to the regulatory framework, a comprehensive legal framework must also include the establishment of an independent supervisory institution with sufficient technical competence in the field of artificial intelligence. This institution is tasked with ensuring that every artificial intelligence system used in the judicial process meets the required standards of transparency, accuracy, and non-discrimination. Without a strong oversight mechanism and institutional framework, even the best-formulated regulations will be difficult to implement effectively in practice (Gardhita et al., 2024).

Implications and Prospects for the Development of Artificial Intelligence in Indonesian Justice

The integration of artificial intelligence into the Indonesian justice system, if implemented in a planned, regulated, and responsible manner, has the potential to have a significant positive impact. Utilizing this technology can help address the backlog of cases, which has been one of the biggest challenges facing the Indonesian justice system. With the help of artificial intelligence in jurisprudence research and legal document analysis, judges can work more efficiently, significantly shortening case resolution times. However, the success of AI integration in the judiciary depends heavily on the readiness of human resources within the judiciary itself (Harahap et al., 2025). Judges, clerks, and all judicial officials need to be adequately equipped with technological literacy, an understanding of how artificial intelligence systems work, and a critical awareness of the limitations and potential biases inherent in such systems.

Legal practice needs to involve collaboration between the legal profession and artificial intelligence technology. Like it or not, legal practitioners (including judges) must transform themselves by not only becoming familiar with artificial intelligence but also by being able to manage the risks of this technology, establish its governance (AI governance), conduct algorithmic audits, and understand data protection regulations for innovation and regulatory compliance. While increasingly modern technology has brought efficiency, it also carries ethical risks, necessitating ethical and regulatory adaptation. Law schools and legal professional organizations must provide training to ensure legal practitioners are fully literate in technology, including artificial intelligence. Modernization of the legal system is also necessary to address the legal vacuum caused by technological disruption, increase legal certainty, involve practitioners as legal architects, and create adaptive regulations to keep the profession relevant.

Without the readiness of qualified human resources, no matter how sophisticated the technology, it will not be able to provide optimal benefits to the justice system. Ultimately, the prospects for developing artificial intelligence in the Indonesian judiciary must always be oriented towards the primary, unchanging goal of achieving fair, fast, simple, and low-cost justice, as mandated by law. Artificial intelligence should be treated as an instrument to strengthen, not replace, the human capacity of judges in upholding justice. With the right paradigm, a strong regulatory framework, and consistent institutional commitment, artificial intelligence can be a catalyst for positive transformation of the Indonesian justice system into a new, more modern and just era (Purnamasari, 2025).

Artificial Intelligence in the Framework of Social Construction and SCOT

Understanding the role of artificial intelligence in the judiciary cannot be done solely through a normative lens. A broader perspective is needed, namely the social constructionist perspective, which allows us to see that the adoption of artificial intelligence in the courts is a complex social process, not simply the mechanical application of technology. There is an interconnectedness between artificial intelligence (as technology) and innovation (as new ideas), which are shaped by the social, cultural, and societal contexts, giving rise to social constructionism. Innovation is the result of human interaction, not simply a technical discovery or new technology. Unlike instrumentalism and substantivism, which separate technology from ethics, social constructionism allows ethics to shape the direction of technological development (Charles, 2011). From a social constructionist perspective, reality, including the reality of how a technology is "right" or "useful," is constructed collectively by interacting social actors. This means that whether artificial intelligence is considered a legitimate instrument in the judiciary or a threat to justice is determined not by the technology itself, but by the social negotiation process that takes place among judges, legislators, legal academics, practitioners, and the wider community.

Whether artificial intelligence is considered a legitimate instrument in the judiciary or a threat to justice is determined not by the technology itself, but by the social negotiation process that takes place among judges, legislators, legal academics, practitioners, and the wider public. Technology is a neutral entity meant to meet human needs, while ethics emerge during its use, not during its development. For example, with firearms, ethics lie with the user, not with the design of the firearm, which can be misused to injure or even kill someone (Inadiklus, 2014). Technology is an autonomous force that shapes human life and society, sometimes bringing negative impacts, overriding moral values, and dominating social behavior, such as the impact of social media (Feenberg, 2006). Social constructionism, which suggests that humans shape technology, not the other way around, underpins the role of ethics and social values in technological design, enabling society to guide technological development in accordance with ethical principles. The Social Construction of Technology (SCOT) theory understands that human actions shape technology, not the other way around. The use of technology must understand its social context, addressing technological determinism (Bijker, 2015). SCOT adopts constructivism in the sociology of scientific knowledge, focusing on actor networks. Understanding technology acceptance requires a social perspective. Values, norms, and ethics influence technology adoption decisions. The development of ethical artificial intelligence is driven by social pressures, not just technical needs. Unlike other approaches, SCOT demonstrates that social and ethical factors play a role in shaping the direction of technology.

Within the SCOT framework, every technological artifact, including artificial intelligence systems, possesses interpretive flexibility, meaning it can be interpreted differently by different social groups. In the judicial system, senior judges might perceive artificial intelligence as a threat to judicial independence, while younger judges might see it

as a tool that accelerates and improves the quality of legal reasoning. Lawmakers might see it as an opportunity for modernization, while civil society groups might focus more on the risks of algorithmic bias and human rights violations. SCOT teaches that this "closure," or stabilization of technological meaning, will only be achieved through a long process of negotiation and social consensus, not through purely technical decisions (Mohaghegh, 2024).

In the context of adjudicating cases, judges are no longer merely passive users of technology. They are active social actors in the process of constructing the meaning of artificial intelligence within the judicial system. A judge's decision to utilize or reject algorithmic recommendations, how they validate or challenge AI output, and their ethical choices in maintaining judicial independence in the face of technological pressures are all social acts that collectively shape new norms. This is what is meant by human actions shaping technology, not the other way around, as is the core of the SCOT perspective. The implications of this social construction perspective for regulation are significant. Effective regulation cannot be formulated top-down without involving relevant social actors. A sound legislative process must be participatory and deliberative. Law, in this perspective, is not only an instrument of social control, but also a product of the social construction process itself. Regulations that emerge without an adequate social construction process will face resistance from actors in the field (Rochmawati et al., 2023).

Furthermore, algorithmic bias, as documented in the COMPAS case in the United States, is not simply a technical error, but rather a reflection of the values and prejudices embedded in human-generated training data. Bias in artificial intelligence is a social bias encoded in the algorithm. Therefore, the Indonesian justice system must establish a mechanism for ongoing social audits, not just technical audits, to ensure that artificial intelligence reflects the values of inclusive and democratic justice. Thus, a social constructionist approach views artificial intelligence neither as a threat to be avoided nor as a blessing to be taken for granted. Judges who understand this perspective will not simply reject or accept artificial intelligence, but will instead be critical and reflective in every interaction. This is true technological literacy: not simply the ability to operate a system, but the ability to understand, question, and shape the system itself according to the demands of justice (Putri & Amalia, 2024).

CONCLUSION

The integration of artificial intelligence into the Indonesian justice system is a historical inevitability. However, how that integration occurs who determines it, what values it embodies, and what mechanisms ensure its accountability is entirely a social and legal choice that rests with humans. Social construction theory and SCOT teach that there is no single path to technology adoption; rather, there are various possibilities that are opened or closed through processes of social negotiation, legal regulation, and collective ethical choices. Artificial intelligence should be an instrument that enhances, not replaces, the human capacity of judges to uphold justice.

REFERENCES

Aprilia, D., & Rifai, A. (2025). *Kedudukan Visum et Repertum : Studi Kasus Beberapa Putusan Tindak Pidana Terhadap Hewan*. *14*. https://doi.org/10.37893/jbh.v14i1.1028

Ardhi, A., Sitorus, M., Khairani, D. A., Nawawi, I., & Nasution, N. (2025). *Hukum Menggunakan Artificial Intelligence (AI) dalam Kehidupan Umat Muslim*. *9*, 5228–5235.

Berau, U. M. (2025). *Budaya Algoritmik : Bagaimana AI Membentuk Identitas Manusia dan Norma Sosial*. *8*, 176–184.

Bijker, Wiebe E. (2015), "Social Construction of Technology," in Wright, James D. (ed.). International Encyclopedia of the Social & Behavioral Sciences (Second Edition). Elsevier. 135–140

Bima, U. M., & Bima, K. (2025). *JPK : Jurnal Pendidikan dan Kebudayaan JPK : Jurnal Pendidikan dan Kebudayaan*. *02*(01), 59–65.

Ngangi, Charles R. (2011). *Konstruksi Sosial dalam Realitas Sosial*. **Agri-SosioEkonomi**, 7(2), 1–4. E-Journal UNSRAT. https://doi.org/10.35791/agrsosek.7.2.2011.85

Dania, A., Dewi, M., Mukti, A. K., Ainun, M., Pangestu, D., & Aludya, R. (2024). *Gudang Jurnal Multidisiplin Ilmu Konstruksi Pelanggaran dan Perlindungan Hak Cipta Karya Visual Artificial Intelligence*. *2*(2022), 234–237.

Feenberg, A. (2006), What Is Philosophy of Technology?. In: Dakers, J.R. (eds) Defining Technological Literacy. Palgrave Macmillan, New York. https://doi.org/10.1057/9781403983053_2

Gardhita, I. N., Putra, A., Parlindungan, J. K., & Mada, G. (2024). *Penerapan Kecerdasan Artifisial dalam Pengawasan Kekuasaan Kehakiman sebagai Upaya Mereduksi Disparitas Putusan Pidana di Indonesia yang harus ditaati hakim adalah asas objektivitas . Asas ini dapat dilihat secara konkrit pada kasus OTT KPK pada November 2023*. *5*.

Hadas Gold, (2025). *They thought they were making technological breakthroughs. It was an AI-sparked delusion*, CNN Business, 05 September. https://edition.cnn.com/2025/09/05/tech/ai-sparked-delusion-chatgpt

Harahap, A., Tiono, R., & Pariyono, B. A. (2025). *Analisis Diskresi Hakim dalam Mengintegrasikan Rekomendasi Penalaran Hukum Berbasis Kecerdasan Buatan (AI) di*. *4*(9), 734–744.

Hariri, A. (2025). *Fairness and Justice : Jurnal Ilmiah Ilmu Hukum Tantangan dan Peluang AI dalam Mewujudkan Keadilan Hukum di Era Teknologi*. *23*, 9–23.

Hasanah, N. R., Mega, I. P., & Nurchalik, I. (2025). *Rekonstruksi Teori Penemuan Hukum di Era Digital Terkait Peran AI dalam Proses Peradilan (Studi Perbandingan Indonesia dan Tiongok)*. *5*(3), 29371–29380.

Hukum, F., Putra, P. S., Fernando, Z. J., Nunna, B. P., & Anggriawan, R. (2023). *Kosmik Hukum Judicial Transformation : Integration of AI Judges in Innovating Indonesia ' s Criminal Justice System*. *23*(3), 233–247. https://doi.org/10.30595/kosmikhukum.v23i3.18711

Hukum, S., Judijanto, L., Madah, R., & Harsya, K. (2025). *Etika dan Hukum dalam Penggunaan Artificial Intelligence terhadap Privasi Digital di Indonesia*. *3*(3), 141–149. https://doi.org/10.58812/shh.v3.i03

H. R. Ridwan (2007), Hukum Administrasi Negara, 1st ed., Jakarta: Raja Grafindo Persada.

Ikawati, L., Sulaiman, S., & Huseini, M. F. (2024). *Masa Depan Penegakan Hukum Indonesia : Sistem Peradilan Pidana Berbasis Kecerdasan Buatan (AI)*.

Kristianti, N., & Rolando, B. (2025). *Pemanfaatan Artificial Intelligence dalam Praktik Hukum : Peluang dan Tantangan Regulasi di Indonesia*. *15*(1), 82–95.

Mohaghegh, S. (2024). *Engineering Application of Artificial Intelligence*. *01*(01), 174–180. https://doi.org/10.18260/1-2--44906

Muhana, A. F., Yamani, A. Z., Agama, I., Darul, I., Kandangan, U., & Selatan, K. (2025). *Legal Drafting : Optimalisasi Hukum Melalui Artificial Intelligence (AI) di Indonesia Legal Drafting : Optimalisasi Hukum Melalui Artificial Intelligence ... | 16*. *02*(01), 15–30.

Nabila Fitri Amelia, Diva Maura Marcella, Hening Jiwa Semesta, Sabrina Budiarti, & Saskiana Fitra Usman. (2023). Implementasi Artificial Intelligence (AI) Dalam Pembentukan Peraturan Perundang-Undangan Di Indonesia. *Eksekusi : Jurnal Ilmu*

Hukum Dan Administrasi Negara, *2*(1), 56–70. https://doi.org/10.55606/eksekusi.v2i1.789

Pramesti, N. A., Saputra, D. A., Islam, U., Raden, N., & Lampung, I. (2025). *Legal Drafting Berbasis Artificial Intellegence : Peluang dan Tantangan di Indonesia*.

Purnamasari, A. (2025). *Kedudukan Hukum Atas Kecerdasan Buatan di Indonesia Perspektif Kecerdasan Buatan Sebagai Subjek dan Objek Hukum Dalam konferensi Dathmouth , kecerdasan buatan bertujuan untuk memahami dan*. *2*(September).

Putri, P., & Amalia, Z. (2024). *Pengaruh Kecerdasan Buatan Terhadap Hak Cipta (Analisis Karya Kreatif yang Dihasilkan dari Bing Image Creator)*. *03*(01), 77–83.

Ravizki, E. N., & Lintang Yudhantaka. (2022). Artificial Intelligence Sebagai Subjek Hukum: Tinjauan Konseptual dan Tantangan Pengaturan di Indonesia. *Notaire*, *5*(3), 351–376. https://doi.org/10.20473/ntr.v5i3.39063

Rayhan Fairuz, (2025). *Bos Nvidia: kecerdasan buatan Bukan Berarti Bisa Santai, Manusia Malah Makin Sibuk*, Kompas Tekno, 2 September. https://tekno.kompas.com/read/2025/09/02/10020087/bos-nvidia-ai-bukan-berarti-bisa-santai-manusia-malah-makin-sibuk

Rochmawati, D. R., Arya, I., & Zakariyya, A. (2023). Manfaat Kecerdasan Buatan Untuk Pendidikan. *Jurnal Teknologi Komputer Dan Informatika*, *2*(1), 124–134. https://doi.org/10.59820/tekomin.v2i1.163

Rosyadi, S. Y., & Hoesein, Z. A. (2025). *Pembaruan Hukum di Era Digital : Aspek Hukum terhadap Validitas Hasil Analisis Artificial Intelligence Sebagai Alat Bukti Dalam Penegakan Hukum Pidana Pertambangan*. *06*(03), 563–577.

Stevie Bonifield, (2024). Chicago man sues Home Depot, alleging it's secretly using kecerdasan buatan facial recognition at self-checkout, PC Gamer, 27 September. https://www.pcgamer.com/software/ai/chicago-man-sues-home-depot-alleging-its-secretly-using-ai-facial-recognition-at-self-checkout/

Syahra, A., Mecca, P., Hidaya, W. A., Tuasikal, H., & Sorong, U. M. (2025). *BUATAN (ARTIFICIAL INTELLIGENCE) DALAM SISTEM PERADILAN*. *5*(6), 1730–1746.

Tambe, A. W., Nasution, A., & Almadea, N. F. (2025). *Keterlibatan Artificial Intelligence sebagai Katalisator Perancangan Putusan Perkara Perdata di Indonesia*.

Temanimadiklus. (2014, April 11). *Filsafat ilmu: Etika dalam pengembangan ilmu dan teknologi*. IMADIKLUS

Topo Santoso (2023), Asas-Asas Hukum Pidana: Dilengkapi Uraian KUHP Nasional, Depok: Rajawali Pers.

Wardani, A., Delasa, N., & Pasundan, U. (2023). *Keadilan Hukum Indonesia : Thomas Aquinas mengenai Keadilan Hukum Dalam Kehidupan Sebagai Bangsa Pluralis*. 1–17. https://doi.org/10.11111/

Zafriana, L. (2025). *Integrasi Kecerdasan Buatan Dalam Penegakan Hukum : Peluang Inovasi Dan Tantangan Keadilan Prosedural Di Indonesia*. *0*, 24–36.