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Law and Artificial Intelligence: The Concept of Liability and Legal Certainty under Indonesian Legal Frameworks

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ABSTRACT
The rapid advancement of Artificial Intelligence (AI) across key societal sectors presents profound legal challenges, particularly regarding liability attribution and legal certainty. Operating autonomously with non-deterministic decision-making capabilities, AI deployment gives rise to risks such as copyright infringement, privacy breaches, and misinformation. This article evaluates whether AI can be recognized as an independent legal subject under Indonesian law and assesses the capacity of existing statutory frameworks to govern AI-induced harm. Employing a normative juridical research method, the study analyzes primary legal materials, including the Copyright Law, the Personal Data Protection Law, the Electronic Information and Transactions Law, the new Penal Code, the Civil Code, the Government Regulation on Operation of Electronic Systems and Transactions, and the non-binding Circular Letter of the Minister of Communication and Information Technology No. 9 of 2023. The analysis demonstrates that Indonesian jurisprudence does not recognize AI as an independent legal subject, as it lacks moral agency and free choice. Consequently, legal responsibility remains anchored in traditional legal subjects—natural persons and corporate entities—operating in the capacity of Electronic Agent operators or Electronic System Providers (ESPs). Furthermore, while Indonesia currently lacks a standalone AI statute, legal certainty is partially maintained through a fragmented, piecemeal statutory framework. Practically, the existing statutory frameworks and policies provide enforceable sanctions and ethical AI guidelines emphasizing that legal subjects must maintain strict compliance to mitigate technology-induced harm.

Keywords: Artificial Intelligence; Indonesian Law; Legal Certainty; Legal Liability

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1. Introduction

The Artificial Intelligence (AI) Incident Database, which keeps track of instances involving the improper use of AI, shows that there were 362 cases reported in 2025 (Sajadieh et al., 2026). While in 2023, there were 123 incidents, a 32.3% rise from 2022. The number of AI accidents has increased by more than 20 times since 2013 (Maslej et al., 2024). In Indonesia, the development of AI is closely linked to internet usage, which reached over 77% of the population in 2023, approximately 213 million people. However, there is a potential that around 17% of jobs in Indonesia could be automated by AI, and the uncontrolled use of AI could have negative impacts (Agustini, 2023). In everyday life, AI is being increasingly and widely utilized by society. AI-generated content, such as that produced by Grammarly, Resume AI, Google Gemini, Deepfake, and ChatGPT, is a noteworthy example.

Based on this data, AI has made significant strides in a number of spheres of life. Numerous scientific investigations and real-world applications of AI continue to show its worth as a topic of discussion. The goal of AI is to give machines the ability to perceive, think, and make decisions (Xu et al., 2021). It is called “Artificial Intelligence” because AI utilizes advanced computational capabilities, such as deep

learning, machine learning, and natural language processing, to collect, analyze, and interpret data (Ramadhana & Nasution, 2024).

Discussing a few significant current topics in AI and law are worth mentioning (Surden, 2019). Current legal systems might find it difficult to keep up with AI's quick developments. Clear regulations must be established in order to control matters such as liability, security, and data privacy. A fragmented legal environment could result from the lack of consistent regulations, which would present difficulties for consumers, businesses, and legislators (Akpuokwe et al., 2024).

A rigorous review of existing literature is essential to situate this study within contemporary legal scholarship, identify existing research gaps, and establish the novelty of the author's inquiry. Prior study has explored various dimensions of the intersection between law and artificial intelligence. In Sulistio and Salsabilla's research (2023), the similarity between AI entities and humans has implications for the actions taken, particularly those that may have negative impacts or violate legal interests. Therefore, it is necessary to consider incorporating AI as a legal subject in the future, with the hope that AI can be held criminally accountable for actions that infringe on legal interests. Surden (2019) concluded that AI is likely to have an influence on the administration and practice of law, it also helps us understand where it is not likely to have such an impact. Surden's research focuses more on the use of AI in the field of law.

As previously mentioned, AI carries significant risks when viewed from legal and ethical perspectives. In the context of illegal consequences caused by AI, accountability cannot be immediately assigned. We must first ascertain if AI qualifies as a subject that may be held legally responsible for its deeds. The next issue that comes up is how the legal system can hold people accountable for things that AI does (Qurrahman et al., 2024). Ultimately, although the age of rapidly advancing AI holds potential for revolutionary developments, there are also legal issues. Proactive legal remedies are crucial due to liability problems, ethical considerations, and the requirement for strong regulatory frameworks (Akpuokwe et al., 2024). In addition, without the existence of AI-related legal instruments, legal certainty remains unclear.

This research addresses a critical juncture in academic legal research and literature by evaluating how responsibility is attributed when autonomous systems inflict damage. Central to this inquiry is the jurisprudential debate surrounding AI's legal classification—specifically, whether it operates as a legal subject or a legal object—which directly governs the mechanics of law enforcement. Interrogating the surrounding regulatory framework is equally vital, as legislative lacunae undermine legal certainty and erode statutory remedies for aggrieved parties. By synthesizing these key dilemmas, this research introduces a distinct novelty into contemporary legal science.

2. Method

The study is conducted using a normative legal research method with a normative juridical approach. Normative legal research involves the examination of existing literature or secondary data (Soekanto & Mamudji, 2013). This normative legal research is the process of discovering legal rules, principles, and legal doctrines to address legal issues (Marzuki, 2007). The normative juridical approach conceptualized law as what is explicitly stated in legal regulations (law in books) or as norms and standards that serve as guidelines for human behavior (Amiruddin & Asikin, 2012). This approach, also known as legal literature, relies on the analysis of relevant

and applicable legal regulations pertaining to the legal issues under the research (Benuf & Azhar, 2020).

Primary legal materials in the study are the authoritative legal instruments governing digitalization, data protection, copyright, and criminal and civil liability in Indonesia. These comprise the Law Number 28 of 2014 on Copyright (the Copyright Law), the Law Number 27 of 2022 on Personal Data Protection (the PDP Law), the Electronic Information and Transactions Law (the ITE Law), the Law Number 1 of 2023 on the Criminal Code (the new Penal Code) the Indonesian Civil Code, the Government Regulation on Operation of Electronic Systems and Transactions, and the Circular Letter of the Minister of Communication and Information Technology on Artificial Intelligence Ethics. The secondary legal materials include peer-reviewed journal articles, authoritative commentaries, and AI law literature providing theoretical context on legal liability and legal personhood.

The temporal scope of statutory materials is benchmarked to legislative developments up to early 2026, incorporating the Second ITE Amendment (Law No. 1 of 2024) and referencing the implementation context of the new Criminal Code (Law No. 1 of 2023, effective January 2, 2026). Academic literature and data are indexed through the 2026 reporting period. Equally important, the analysis of the study is conducted to answers the AI legal issues—liability and legal certainty concerning the use of AI, particularly when it causes harm to its users.

3. Results and Discussion

a. The Concept of Liability of AI

Law enforcement is one of the many industries where AI is being used in daily life. AI is increasingly being integrated as an assisting tool to help with case data organization, legal document analysis, legal precedent searches, and streamlining court administrative processes (Jadiningsih et al., 2026). Even while AI technology is widely used and has many advantages, identifying legal liability may be difficult due to its independent operation (Putri et al., 2025). Furthermore, without the need for manual reprogramming, AI is capable of learning from data, adjusting to its surroundings, making judgments, and enhancing its performance. These skills may lead to unpredictable actions. However, AI is still a human-made and human-controlled technology that uses data and algorithms to function (Jadiningsih et al., 2026). Therefore, AI cannot yet be acknowledged as a separate legal entity since it lacks moral ability and free choice (Mecca et al., 2025).

Legal subjects that have rights and obligations under the law, such as individuals and legal entities, are typically subject to responsibility. When technologies possess human-like intelligence, such as AI, inflict harm, this creates a serious legal issue. As a result, the question of whether AI can be acknowledged as a legal subject and held accountable when it commits crimes and causes harm emerges (Qurrahman et al., 2024). Therefore, examining the idea of legal subjects under Indonesian law is crucial.

A legal subject is an entity capable of holding rights and obligations. In this context, legal subjects under Indonesian law are generally divided into two categories: individuals and legal entities (Putra, 2022). In the biological sense, individual is a legal subject since they are both cultural and natural beings with free choice, feelings, and reason. In contrast, a legal entity is a legal subject in the legal sense that emerges in

social life as a human-created entity with rights and obligations similar to those of a natural person due to the law (Abdulkadir, 2000).

According to Indonesian criminal law, criminal activities performed by legal subjects must be predicated on the existence of a criminal conduct, the existence of an error committed intentionally or negligently, the existence of a culpability, and the absence of an excuse (Qurrahman et al., 2024). A closer look at the nature of AI is required to determine whether or not it is a legal subject. Indonesia does not currently have a specific legislation or regulation governing AI (Ghozali et al., 2022). Nonetheless, a number of laws or legal instruments address AI's position and interpretation (Hasanuddin et al., 2026). Accordingly, examining the legal status of artificial intelligence can be approached from the perspectives of various legal disciplines (Purnamasari, 2025).

The Electronic Information and Transactions Law (the ITE Law) is the primary legislation governing digitalization in Indonesia. It was first enacted in 2008 and has since undergone two amendments, in 2016 and 2024. Although the ITE Law does not explicitly define artificial intelligence (AI), its information-processing capabilities may provide a basis for interpreting AI systems as Electronic Agents (Respati, 2024). Article 1(8) of the ITE Law expressly defines an Electronic Agent as follows (Republic of Indonesia, 2016):

"Electronic Agent is an automated electronic means that is used to initiate an action to certain Electronic Information, which is operated by Persons."

Under said Article, the operation of AI is conducted by a person or entity possessing status as a legal subject, wherein these "persons or operating entities" acts in the capacity of the "Electronic Agent" operator. In addition to Electronic Agents, AI operations are also carried out by "Electronic System Providers (ESPs)", which similarly hold the status of legal subjects (Amelia et al., 2024). Pursuant to the ITE Law, an ESP is defined as any individual, state administrator, corporate entity, or community that provides, manages, and operates electronic systems for users (Republic of Indonesia, 2016).

In criminal law, two established doctrines governing accountability are "strict liability" and "vicarious liability". The doctrine of strict liability dictates that criminal responsibility may be imposed without requiring proof of fault, whether in the form of intent or negligence. Under this doctrine, an actor may still be held accountable for an unlawful act despite lacking *mens rea* or malicious intent. Conversely, vicarious liability permits an individual or legal entity to be held responsible for unlawful acts committed by another party with whom a specific legal relationship exists—such as employment, command, or supervisory oversight. This doctrine holds corporations or supervising entities legally liable for acts performed by parties under their authority. In the context of artificial intelligence, this concept offers substantial analytical value: legal infractions resulting from AI deployment can be legally channeled back to the software developers or corporations that created, maintained, or operated the underlying system (Nurhalija, 2026).

The responsibility for AI-driven actions, in practice, is channeled to human legal subjects through doctrines of vicarious or delegated liability regimes. This framework ensures that natural persons or corporate entities overseeing the creation, operation, or supervision of AI technology bear ultimate accountability for any legal violations (Taniady, 2025). In instances where AI operations result in harm or legal infractions, fault is assigned to the underlying developers, operators, or institutional entities as the Electronic Agents or ESPs (Ruhtiani et al., 2026). Nevertheless, when

AI causes harm to others, liability may not rest solely with the provider but may also extend to the user, depending on the circumstances of its use. Such cases may give rise not only to criminal liability but also to civil liability, particularly where the user's conduct results in harm or loss to another party.

The user is primarily responsible for the legal violation if an AI system is implemented lawfully but a single user purposefully triggers or manipulates the tool to produce defamatory content or commit fraud (Bobula, 2024; Gunawan & Dewi, 2025). These intentional violations by users do not always result in criminal or civil liability for the Electronic Agents operators or ESPs (Nurhalija, 2026; Bobula, 2024). By relying on traditional framework principles, the law maintains that legal responsibility remains strictly anchored to legal subjects (individuals and legal entities) (Zakiyah et al., 2026).

b. The Legal Certainty of AI under Indonesian Laws

Integrating AI into the Indonesian legal system presents substantial opportunities to expedite and streamline legislative and judicial proceedings. However, persistent technological constraints, notably the "accuracy and reliability" of underlying data, must be overcome to ensure that these systems operate securely and effectively. Compounding these technical concerns, the scarcity of comprehensive regulatory frameworks remains one of the foremost structural barriers to deploying AI in the legal domain (Pasaribu, 2024). Despite the expanding integration of artificial intelligence into critical sectors, Indonesia's regulatory apparatus lacks the requisite mechanisms to effectively mitigate the systemic risks and legal intricacies surrounding AI.

The public must be cognizant of the fact that unmonitored use of AI can cause significant harm or loss to third parties. Prevalent forms of AI misuse within society include plagiarism, copyright infringement, privacy concerns, and misinformation (Bobula, 2024). In addressing these complex acts of AI misuse, law enforcement authorities must employ appropriate legal instruments tailored to the specific conduct committed by the user, whether an individual or a legal entity. Consequently, each of these issues must be analyzed in conjunction with applicable statutory laws and regulations in Indonesia.

There are significant gaps in protecting privacy, non-discrimination, accountability, and legal certainty in AI governance. In attempting to address these normative deficiencies, Indonesia currently relies on laws such as the Law Number 28 of 2014 on Copyright (the Copyright Law), the Law Number 27 of 2022 on Personal Data Protection (the PDP Law), the Electronic Information and Transactions Law (the ITE Law), the Penal Code, the Government Regulation on Operation of Electronic Systems and Transactions, and the Circular Letter of the Minister of Communication and Information Technology on Artificial Intelligence Ethics.

Issues concerning copyright infringement arising from AI misuse fall squarely under the governance of the Copyright Law. Users of AI systems are expected to understand the essential tenets of the Copyright Law to avoid copyright liabilities during AI deployment. This requirement directly stems from the statutory protections granted to creators over their original works. Because AI systems function autonomously, their generated outputs can be unpredictable, occasionally resulting in substantial "similarity" to or "plagiarism" of pre-existing copyrighted creations (Gunawan & Dewi, 2025). Such conduct constitutes a legal infraction when an AI user appropriates another party's work and attributes it to themselves (Tanujaya, 2024). Ultimately, reproducing and commercially exploiting a copyrighted work without the

author's authorization is strictly prohibited under Article 9(3) of the Copyright Law (Republic of Indonesia, 2014).

For instance, a commercial Generative AI (GAI) platform is prompted by a user to produce copied text for a commercial book publication. According to Article 9(3) of the Copyright Law, the person who took and used the work for commercial purposes is in violation of the law (Tanujaya, 2024; Republic of Indonesia, 2014). As long as the platform works under ordinary terms that forbid copyright theft and complies with statutory content notice-and-takedown responsibilities under the Government Regulation No. 71 of 2019 on the Operation of Electronic Systems and Transactions (PP No. 71 of 2019), the AI developer is not inherently criminally culpable (Indonesian Government, 2019).

Privacy concerns surrounding AI further compound the threats faced by the users. Commonly used AI platforms, such as GAI, systematically gather information during user interactions, conversations, and query responses. The data harvested by GAI is subsequently utilized by AI providers as training material to enhance the detail and accuracy of future system outputs. Such data collection practices, which frequently encompass personal data, are inherently vulnerable to misuse and infringe upon privacy rights, primarily because the collection process conducted by GAI systems often proceeds without explicit, lawful consent (Abdullah, 2024).

In 2022, Indonesia enacted the PDP Law as an overarching legal framework governing personal data management (Adela et al., 2025). Under the PDP Law, personal data processing must adhere to core protection principles, requiring that processing be conducted lawfully, transparently, and strictly for specified purposes (Republic of Indonesia, 2022). Additionally, data processing must be carried out with clear accountability and demonstrable proof of compliance (Republic of Indonesia, 2022). To prevent privacy infractions against individuals (Abdullah, 2024), data controllers—encompassing natural persons, public bodies, corporate entities, and international organizations—are mandated to establish a valid legal basis for processing and strictly comply with the provisions of the PDP Law (Republic of Indonesia, 2022).

Prohibited conduct governing personal data under the PDP Law includes unlawfully obtaining personal data belonging to others for self-enrichment, illegally disclosing and utilizing third-party personal records, and falsifying personal data to the detriment of others (Republic of Indonesia, 2022). For example, an unapproved public data breach occurred when a healthcare provider used an automated AI system to gather patient personal records without obtaining legitimate explicit authorization. In this case, the PDP Law directs culpability for violations of Data Controller obligations to the corporate ESP (Republic of Indonesia, 2022). Civil liability attaches under tort doctrine (Article 1365 of the Civil Code) and PP No. 71 of 2019 for failing to operate a secure and reliable electronic system (Republic of Indonesia, 1847; Indonesian Government, 2019).

Beyond privacy concerns, information processing via AI is inherently susceptible to generating erroneous or inaccurate outputs (Burger et al., 2023). Within the Indonesian legal framework, the dissemination of false or unverified information constitutes a distinct legal infraction. Prohibitions against spreading false information are codified under Article 28(1) and (3), read in conjunction with Article 45A(1) and (3) of the ITE Law. These provisions explicitly prohibit the distribution of false, deceptive, or misleading information that results in consumer loss or public disturbance, while establishing corresponding criminal penalties for violators (Republic of Indonesia,

2024). The ITE Law is mentioned as a key regulation for violations in the digital world and the internet (Rahmat et al., 2021). As noted previously, under the provisions of the ITE Law, AI operations are executed by an entity possessing status as legal subjects, wherein the entity functions in the capacity of Electronic Agent operators and ESPs**.** Within the Indonesian legal framework, the statutory duties and liabilities of the ESPs are explicitly governed under the PP No. 71 of 2019 (Amelia et al., 2024).

The statutory prohibition against spreading false or unverified information is also regulated under Article 263(1) and (2), Article 264, and Article 506 of Law Number 1 of 2023 on the Criminal Code (the new Indonesian Penal Code). Beyond penal statutes, Indonesia has established ethical guidelines for artificial intelligence intended for all legal subjects utilizing AI, promulgated through Circular Letter of the Minister of Communication and Information Technology Number 9 of 2023. The Circular Letter serves as administrative guidance (*beleidsrege*l) or non-binding soft law. Under this Circular, AI implementation must adhere to core ethical principles, including inclusivity, humanity, safety, accessibility, transparency, credibility and accountability, personal data protection, sustainable development and environment, and intellectual property (Indonesian Minister of Communication and Information Technology, 2023). Based on the statutory provisions outlined above, a disjointed, patchwork legal system only partially preserves legal certainty, and the lack of specific AI legislation leaves large regulatory and attribution gaps. Consequently, legal subjects engaging with AI technologies are expected to maintain strict compliance with existing regulatory frameworks, thereby preventing technology-induced harm and fostering positive societal advancements.

4. Conclusion

The rapid advancement of artificial intelligence poses significant challenges for modern legal systems, which frequently struggle to keep pace with technological innovation. To effectively manage risks surrounding liability, system security, and data privacy, clear regulatory standards are essential. While AI offers widespread societal benefits, its capacity for autonomous learning, environmental adaptation, and non-deterministic decision-making complicates traditional models of legal attribution. Nevertheless, because AI remains a human-engineered technology operating on data and algorithms, Indonesian jurisprudence does not recognize AI as an independent legal subject, as it lacks moral agency and free choice. Liability therefore remains anchored in traditional legal subjects, namely individuals and legal entities, that are capable of bearing statutory rights and duties. In practice, the unmonitored deployment of AI has manifested in widespread legal challenges, including copyright infringement, plagiarism, privacy violations, and the dissemination of misinformation. Furthermore, there are significant gaps in protecting privacy, non-discrimination, accountability, and legal certainty in AI governance. To address these normative deficiencies, Indonesia currently relies on a multi-layered statutory regime, encompassing the Copyright Law, the PDP Law, the ITE Law, the Penal Code, the Government Regulation on Operation of Electronic Systems and Transactions. Furthermore, the non-binding Circular Letter of the Minister of Communication and Information Technology Number 9 of 2023 establishes key principles for AI use, including inclusivity, humanity, safety,

transparency, accountability, data protection, sustainability, and intellectual property protection.

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