



Legal Analysis of Artificial Intelligence Utilization in The Formation of Authentic Deeds Under Indonesian Notarial Law

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ABSTRACT

Advancements in artificial intelligence (AI) had introduced new forms of automation into legal services, including notarial practice. This research examined the extent to which AI could be utilized in the formation of authentic deeds without violating the formal requirements stipulated under Indonesian law. Using a normative legal research methodology supported by a statute and conceptual approach, this study analyzed the Civil Code, the Notary Office Law, and the Electronic Information and Transactions Law, alongside recent scholarly literature. The findings showed that AI had no legal standing as a public official, could not verify the legal capacity or free will of the parties, and could not fulfill mandatory procedural requirements such as physical presence, reading of the deed, and witnessing. AI was therefore limited to administrative and analytical support, including drafting templates, conducting legal research, and managing electronic documents. The study concluded that the use of AI in creating authentic deeds remained legally impermissible, as the validity of such deeds depended on human supervision and direct involvement of a notary as mandated by statutory provisions.



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INTRODUCTION

The rapid expansion of artificial intelligence (AI) in legal work has reshaped how documents are produced, reviewed, and managed. While these developments have influenced many legal professions, their implications for notarial practice are far more complex. In Indonesia, the formation of an authentic deed is not merely a drafting task; it is a formal legal act that depends on procedures that only a notary, acting as a public official, may perform. This raises a central legal question: whether AI can be involved in any part of the deed-making process without undermining the statutory elements that give an authentic deed its binding evidentiary force.

Indonesian law provides a clear standard. Article 1868 of the Civil Code states that an authentic deed is valid only when made by or before a competent public official in a form prescribed by law. The Notary Office Law, Law No. 30 of 2004 as amended by Law No. 2 of 2014 which sets out obligations that require the notary's direct involvement, such as verifying the parties' identities, confirming their intention, ensuring their presence, reading the deed, and supervising the signing in the same place and at the same moment (Arts. 16 and 44). These duties are not technical steps; they embody the notary's responsibility to ensure that a legal act is genuine, voluntary, and understood by all parties. Without these elements, the status of a document as an authentic deed cannot be maintained.

Although Indonesian legislation on electronic systems particularly Law No. 11 of 2008 as amended by Law No. 1 of 2024 recognizes automated processes, it does not extend such recognition to acts that require legal discretion or the exercise of public authority. International literature likewise affirms that AI systems lack legal personhood and professional accountability, and therefore cannot undertake functions that involve legal responsibility or judgment (OECD, 2019; Russell & Norvig,

2021). AI can process and structure information, but it cannot evaluate the parties' capacity, ascertain their free will, provide legal explanation, or assume liability for the consequences of a legal act.

The tension between technological capability and legal requirements forms the core of this study. AI can assist with preliminary tasks such as supporting legal research or generating draft text but it cannot replace the notary in any function that requires presence, supervision, assessment, or responsibility. These functions are integral to the legal character of an authentic deed and cannot be delegated to a machine without removing the notarial element that the law explicitly demands.

This research examines the legal boundaries of AI use in the formation of authentic deeds under Indonesian law. The aim is to identify the specific aspects of the notarial process that may be supported by AI and to distinguish them from functions that must remain exclusively with the notary. By grounding the analysis in statutory requirements and recognized academic sources, the study offers a precise explanation of why AI cannot assume the role of a notary and clarifies the permissible scope of technological assistance in notarial practice.

RESEARCH METHODS

This study employed a normative legal research design. The choice of this method was based on the nature of the problem, namely the extent to which artificial intelligence (AI) may lawfully operate within the process of forming authentic deeds, a process that is itself strictly defined by statutory requirements. Normative legal research is appropriate because the validity of an authentic deed depends entirely on legal norms, not on empirical observations.

The analysis drew primarily on statutory materials. These included the Indonesian Civil Code; Law No. 30 of 2004 on the Notary Office as amended by Law No. 2 of 2014; Law No. 11 of 2008 on Electronic Information and Transactions as amended by Law No. 1 of 2024; and other regulations relevant to the exercise of public authority. These sources were examined to determine the legal conditions that define an authentic deed and the extent to which such conditions require human involvement by the notary.

Two analytical approaches were used. The statute approach was applied to interpret the provisions that regulate notarial duties and the formal requirements for authentic deeds. This approach was necessary to identify legal obligations that cannot be delegated to automated systems. The conceptual approach was used to examine the nature of AI and its legal implications, drawing from established scholarship on AI systems, responsibility, and legal personhood. Works such as Russell and Norvig (2021) and the OECD Principles on Artificial Intelligence (2019) provided the conceptual framework for determining the legal status of AI and distinguishing its technical functions from the functions of a public official.

The research relied on primary legal materials, complemented by secondary academic sources that discuss notarial responsibilities, evidentiary rules, and the governance of digital systems. All materials were analysed qualitatively. The qualitative analysis consisted of systematically comparing statutory requirements with the technical characteristics of AI to determine whether any overlap exists between the role of a notary and the capabilities of AI. Particular attention was given to requirements involving verification, intention, legal explanation, presence, and responsibility, as these elements form the core of a notary's authority.

Through this method, the study produced a structured assessment of the permissible and impermissible uses of AI in notarial practice. The design of the method ensures that the conclusions are grounded in the legal framework governing authentic deeds rather than in speculative or future-oriented assumptions about technology.

RESULTS AND DISCUSSION

Legal Characteristics of Authentic Deeds in Indonesian Law

The legal status of an authentic deed in Indonesia is rooted in a strict framework that combines substantive authority and procedural compliance, making its validity entirely dependent on the personal involvement of a notary as a public official. Article 1868 of the Indonesian Civil Code provides the foundational definition: an authentic deed must be made by or before an authorized public official and must comply with the form prescribed by law. This provision is not merely definitional, it establishes that the deed derives its legal force from the presence and responsibility of the official who creates or

acknowledges it. Without such involvement, any document, regardless of how well drafted or sophisticated its form, cannot achieve the probative strength associated with an authentic deed.

The Notary Office Law deepens this requirement by setting out detailed duties that only a notary may perform. The law requires personal verification of the identities of the parties, assessment of their legal capacity, confirmation of their intention, the reading of the deed aloud in the presence of all parties and witnesses, and the direct supervision of signing at the same time and place. These steps are designed to prevent misrepresentation, coercion, misunderstanding, and procedural defects. As a result, the evidentiary superiority of an authentic deed recognized by Indonesian law as having full and binding probative force emerges not from the text itself, but from the notary's fulfilment of these procedures and the assumption of legal responsibility for them.

This structure demonstrates that the legal characteristics of an authentic deed cannot be separated from human oversight. The notary's role is not mechanical; it involves evaluation based on perception, comprehension, and professional judgment. The law entrusts notaries with the task of ensuring that the deed accurately reflects the parties' intention and complies with all legal requirements. Because the legal force of the deed hinges on these human-centered processes, authentic deeds occupy a unique evidentiary category that cannot be replicated by automated systems or delegated to non-official actors.

Technical Nature and Limitations of Artificial Intelligence

Artificial intelligence operates through computational models designed to detect patterns, predict outcomes, and produce outputs based on statistical relationships within data. Although these systems may generate text that resembles human reasoning, the process behind the output remains entirely algorithmic. AI does not possess understanding, intention, judgment, or awareness. It does not evaluate meaning but merely correlates inputs with likely outputs. This distinction is crucial when considering whether AI can participate in legal acts that require comprehension of human intention or verification of legal capacity.

Large language models and other forms of AI can assist with the processing of information, summarizing legal materials, or identifying textual patterns. However, none of these abilities amount to the capacity to assess a person's state of mind, interpret situational context, detect coercion, or evaluate whether a party genuinely understands the legal consequences of a deed. These are not computational tasks; they are human functions grounded in perception, critical reasoning, and professional responsibility.

The limitations of AI become more pronounced when considered within the formal requirements of notarial work. A notary must interact directly with the parties, observe their demeanour, assess their competence, and confirm the authenticity of their intention. AI lacks the sensory faculties and interpretive judgment needed to perform such assessments. It cannot verify an identity beyond comparing text or images, and even then it does so without legal accountability. It cannot give legal explanations with responsibility, nor can it ensure that the parties understand those explanations. Even its most advanced capabilities do not transform it into an actor capable of fulfilling duties that the law assigns exclusively to a public official.

Academic literature supports this view. Russell and Norvig (2021), in one of the most authoritative texts on artificial intelligence, emphasize that AI systems execute predefined models and lack autonomous reasoning or comprehension. As such, they cannot be entrusted with functions that require accountability or legal discretion. International policy standards, including the OECD Principles on Artificial Intelligence (2019), similarly stress that AI systems are tools whose outputs must remain under human oversight and responsibility.

Because AI cannot exercise judgment, assume responsibility, or participate in human-centred verification processes, its technical nature is fundamentally incompatible with tasks that require the presence and evaluation of a public official. Its role, therefore, is limited to assisting with information processing, not acting as a decision-maker or authority figure within a legal process.

Incompatibility Between AI Capabilities and Notarial Duties

The duties assigned to notaries under Indonesian law hinge on a set of responsibilities that require human presence, perception, and judgment. These duties are not incidental; they form the core of the notarial function and are directly tied to the legal validity of an authentic deed. When these

statutory obligations are examined alongside the technical nature of artificial intelligence, the incompatibility becomes apparent. The law requires that notaries personally verify the identity of each party, ensure their legal capacity, confirm their free will, and provide explanations regarding the meaning and consequences of the deed. These tasks demand interaction, interpretation, and an ability to evaluate context, those elements that artificial intelligence cannot replicate.

AI systems cannot establish legal standing as a public official. The authority of a notary exists because the state appoints an individual to act as a neutral witness and guarantor of legal certainty. This authority cannot be transferred to a machine, as public office requires accountability, ethical responsibility, and the ability to be sanctioned for misconduct or negligence. Artificial intelligence is not capable of bearing such responsibility, nor does any legal framework recognize it as an actor capable of exercising public authority.

The statutory requirement of physical presence further underscores this incompatibility. Articles 16 and 44 of the Notary Office Law mandate that the notary must read the deed aloud before the parties and witnesses and must supervise the signing process directly. These procedural steps ensure that the act is voluntary and understood. They also allow the notary to observe the parties' demeanour, detect uncertainty or coercion, and provide clarification when needed. AI systems cannot satisfy any of these requirements. They cannot be "present" in the legal sense, cannot perceive physical cues, and cannot engage in dialogue that carries legal responsibility.

Moreover, notarial duties involve the exercise of legal judgment. A notary must determine whether the content of the deed complies with the law, whether the parties are competent to act, and whether the act they intend to perform is permissible. These decisions are value-laden and require a professional assessment that integrates legal knowledge with contextual interpretation. AI can process information and identify patterns, but it cannot engage in discretionary reasoning or assume liability for incorrect decisions.

Academic commentary on notarial responsibility reinforces this conclusion. Sjaifurrachman and Adjie (2011) emphasize that the probative value of an authentic deed derives not merely from formality but from the notary's personal responsibility for ensuring legality, accuracy, and voluntariness. An AI system cannot take on such responsibility, nor can it be held accountable for deviations that result in harm or legal disputes. Because the validity of an authentic deed depends on these duties, delegating them to AI would undermine the legal certainty that the notarial system is designed to provide.

In sum, the essential functions of a notary require qualities that artificial intelligence inherently lacks. These include the capacity to assume public office, to exercise legal judgment, to be physically present, to observe and interact with parties, and to bear responsibility for the consequences of legal acts. The statutory and doctrinal framework of notarial duties clearly demonstrates that AI cannot substitute the role of a notary in forming authentic deeds.

Permissible Scope of AI in Notarial Practice

Although artificial intelligence cannot perform the core duties that define the formation of authentic deeds, this does not mean that AI must be excluded entirely from notarial practice. Indonesian law allows the use of electronic systems in administrative and information-processing contexts, and the rapid development of digital tools has created opportunities for notarial offices to streamline internal workflows. The key distinction lies in separating tasks that support the notary's work from tasks that form part of the legal act of creating an authentic deed. Only the latter are strictly reserved for the notary as a public official.

Indonesian legislation provides room for this distinction. The Electronic Information and Transactions Law (Law No. 11 of 2008 as amended by Law No. 1 of 2024) recognizes electronic systems as tools that may assist in managing information, maintaining digital records, and facilitating communication. These provisions, however, stop short of granting electronic systems any role in decision-making or in performing acts that require legal evaluation or the exercise of public authority. AI systems may therefore be used within a notarial office insofar as they enhance efficiency in tasks that do not affect the validity of a legal act. This includes the processing of textual information, preliminary structuring of documents, and internal organization of data. Such activities remain administrative in nature and do not alter the requirement that the notary must personally supervise, verify, and authenticate all elements relevant to the execution of an authentic deed.

The use of AI for support activities is also consistent with international commentary on digital tools in legal environments. Mason and Seng (2020), in their work on electronic evidence, note that technological systems can enhance accuracy and organization in legal processes as long as they remain under the control and responsibility of a human decision-maker. This principle reinforces the view that AI can function as an auxiliary instrument, but it cannot assume the responsibilities associated with legally binding acts. The OECD Principles on Artificial Intelligence (2019) similarly emphasize that AI systems should operate within a framework of human oversight, especially when their outputs have legal or societal implications.

The limiting factor, therefore, is not the technical capability of AI but the legal structure that governs authentic deeds. Any involvement of AI must preserve the non-delegable duties of the notary, particularly those connected to verification, intention, understanding, presence, and legal accountability. When used appropriately, AI may help notarial offices manage information more efficiently, but it cannot be permitted to influence or replace the notary's direct involvement in the formation of the deed itself. The boundary is firm: AI may support, but it may not substitute. The authenticity and legal certainty that the notarial system is designed to protect depend on maintaining this distinction.

Overall Assessment

The analysis across the preceding sections demonstrates that the relationship between artificial intelligence and notarial practice is defined not by technological capability but by legal structure. Indonesian notarial law is built upon the premise that the notary's role is inseparable from human judgment, presence, and accountability. These elements govern every step in the creation of an authentic deed and constitute the legal foundation upon which its evidentiary force rests. No matter how advanced an AI system becomes, the defining features of the notarial function cannot be performed by a computational model.

The statutory framework makes this conclusion unavoidable. The Civil Code requires that an authentic deed be made by or before a public official, and the Notary Office Law specifies duties that the notary must personally execute. These duties are not incidental or procedural conveniences; they constitute the essence of the notary's mandate. Verification of identity, assessment of capacity, confirmation of intention, explanation of legal consequences, witnessing of signatures, and reading aloud of the deed all depend on human involvement. Any deviation from these requirements compromises the legal status of the deed, reducing it to the level of a private document without the authoritative probative effect accorded to an authentic deed. Attempts to insert AI into these functions would therefore disrupt the legal certainty the notarial system is intended to uphold.

Moreover, the notary's responsibility is both legal and ethical. A notary may be held accountable through civil, administrative, or even criminal mechanisms when performing their duties improperly. This accountability reinforces the integrity of the notarial process. In contrast, artificial intelligence lacks the capacity to bear responsibility. It cannot be sanctioned, disciplined, or held liable for errors or misconduct. Legal scholars such as Sjaifurrachman and Adjie (2011) emphasize that the notary's personal responsibility is an intrinsic element of the deed's legitimacy. The absence of such responsibility in AI systems underscores why they cannot assume notarial duties.

The broader regulatory context supports this interpretation. Although the Electronic Information and Transactions Law accommodates digital systems, it does not authorize them to exercise public authority or legal discretion. Likewise, international frameworks such as the OECD Principles on AI (2019) insist on maintaining human oversight in all AI-assisted decision-making, especially where legal rights or obligations are concerned. These principles are aligned with Indonesia's notarial system, which already embeds safeguards that rely on human assessment and state-backed authority.

The overall assessment is therefore clear. Artificial intelligence may serve as a tool within the notary's office, assisting with tasks that do not affect the legal fulfilment of the notarial function. However, AI cannot replace or participate in any part of the process that contributes to the formation of an authentic deed. The legal structure surrounding notarial duties is intentionally human-centred, and the notary's role is not merely administrative but fundamentally tied to the protection of legal certainty, voluntariness, and the reliability of legal acts. As such, the integration of AI into notarial practice must remain strictly limited to auxiliary functions that do not intersect with the statutory requirements that define the authenticity of a deed.

CONCLUSION

The findings of this study demonstrate that the use of artificial intelligence in the formation of authentic deeds is legally impermissible under Indonesian law. The statutory structure governing notarial practice is built on duties that cannot be delegated to automated systems. The validity of an authentic deed depends on the notary's direct involvement in verifying the identity and capacity of the parties, confirming their intention, reading and explaining the contents of the deed, and supervising the execution of signatures in the presence of witnesses. These duties require human perception, legal judgment, and accountability, these qualities that artificial intelligence does not possess.

Artificial intelligence may be capable of processing information or producing text, but these functions do not equate to an ability to perform legal acts that rely on personal responsibility and the exercise of public authority. Because AI lacks legal standing, cannot be held accountable for misconduct, and cannot satisfy the procedural requirements attached to the creation of an authentic deed, any attempt to involve AI in the deed-making process would undermine the legal certainty that the notarial system is designed to guarantee.

At most, AI can serve as a supportive tool within the notary's internal workflow, assisting with information management or preliminary drafting so long as these tasks do not affect legal validity and remain fully under the control of the notary. Such use is consistent with the recognition of electronic systems under the Electronic Information and Transactions Law, which permits technological assistance but does not authorize the delegation of core public functions.

Overall, the legal framework of notarial duties in Indonesia is intentionally human-centred. The notary's role cannot be replaced or supplemented by artificial intelligence in any way that affects the authenticity or evidentiary force of a deed. Maintaining this boundary is essential to protecting the reliability, voluntariness, and legal certainty of agreements documented through authentic deeds.

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