

The Digital Notary: Harnessing Artificial Intelligence in the Transition to Society 5.0

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Article	Abstract
<p>How to cite: Ahmad Muhajir Firrizqi Mubaroq & Auliya Safira Putri, 'The Digital Notary: Harnessing Artificial Intelligence in the Transition to Society 5.0' ((2025) Vol. 6 No. 2 Rechtenstudent Journal Sharia Faculty of KH Achmad Siddiq Jember State Islamic University.</p> <p>DOI: 10.35719/rch.v6i2.350</p> <p>Article History: Submitted: 10/04/2025 Reviewed: 10/06/2025 Revised: 03/07/2025 Accepted: 21/08/2025</p> <p>ISSN: 2723-0406 (printed) E-ISSN: 2775-5304 (online)</p>	<p>The rapid development of digital technology has propelled humanity from the era of the Industrial Revolution 4.0 into Society 5.0, which adopts a human-focused approach aiming for a synergy between technology, humanity, and data. The sophistication of technology has led to the creation of artificial intelligence (AI), which is designed to enable computer systems to simulate several functions of the human brain. The utilization of AI has been adopted across various professional sectors, including the legal profession. Notaries, as public officials authorized to draw up authentic deeds, perform their duties in accordance with the Notary Position Act. This statutory obligation, which requires a physical meeting for the execution of authentic deeds, has hindered notaries from fully utilizing digital media in the process of deed-making. Therefore, this study aims to analyze the development of AI as a catalyst for the emergence of Digital Notaries in the future. The result of this analysis indicates that the development of Digital Notaries utilizing AI can be realized through legal reforms that offer both preventive and repressive legal protections, as well as through the readiness and creativity of notaries to compete globally in the digital realm.</p> <p>Keywords: <i>Artificial Intelligence (AI), Digital Notary, Society 5.0.</i></p> <p>Abstrak</p> <p>Perkembangan teknologi digital yang semakin pesat membawa manusia dari era revolusi industri 4.0 menuju society 5.0 dengan pendekatan human focused yang menginginkan adanya kombinasi antara teknologi, manusia dan data. Kecanggihan teknologi menciptakan sebuah kecerdasan buatan (artificial intelligence/AI) yang dibentuk untuk membuat sistem komputer dapat menirukan beberapa fungsi otak manusia. Pemanfaatan AI telah digunakan diberbagai bidang pekerjaan, termasuk profesi hukum. Notaris sebagai pejabat umum pembuat akta autentik dalam menjalankan fungsi jabatannya terikat oleh Undang-Undang Jabatan Notaris. Keterikatan terhadap undang-undang yang menghendaki adanya pertemuan fisik dalam pembuatan akta autentik menjadikan Notaris mengalami keterlambatan dalam pemanfaatan media digital pada pembuatan akta. Maka penelitian ini bertujuan untuk menganalisis perkembangan AI dalam mendorong lahirnya Notaris Digital di masa depan. Adapun hasil pembahasan ini adalah bahwa lahirnya Notaris Digital dengan memanfaatkan perkembangan AI dapat diwujudkan dengan adanya dukungan pembaharuan hukum yang memberikan perlindungan secara preventif dan represif serta kesiapan dan kreatifitas Notaris dalam menghadapi persaingan global dalam ruang digital.</p> <p>Kata Kunci: <i>Artificial Intelligence (AI), Notaris Digital, Society 5.0.</i></p>

Introduction

In the modern era, marked by rapid technological advancement, humanity has increasingly relied on its own capacity for continuous development within the scope of its civilization. This confidence is evident in the willingness to explore new frontiers through critical inquiry across diverse scientific disciplines. The pursuit of knowledge has reached a stage where technological breakthroughs have fundamentally transformed worldviews, concepts, and ways of life. Realities once considered unattainable have now become integral to everyday existence.¹

Humanity's current stage of development has been preceded by several industrial revolutions. The First Industrial Revolution (Industry 1.0) in the 18th century was characterized by the invention of mechanical weaving machines powered by steam engines, enabling large-scale production.² This was followed by the Second Industrial Revolution (Industry 2.0) in the early 20th century, marked by the advent of electricity through the pioneering work of Nikola Tesla and Thomas Alva Edison.³ The Third Industrial Revolution (Industry 3.0) witnessed rapid technological progress, particularly in information systems and electronics, with the introduction of computer-controlled automated systems.⁴ Today, the world is in the midst of the Fourth Industrial Revolution (Industry 4.0), in which technological advancements driven by high-speed internet have permeated nearly every aspect of human life.⁵

The accelerating pace of digital technology has ushered humanity into the so-called "disruption era," a period characterized by the breakdown of traditional structures and a shift from physical and geographical realities to digital domains. This transformation has reshaped communication, information exchange, entertainment, and spatial mapping. As a direct outcome of the massive expansion of information technology during the Fourth Industrial Revolution, the disruption era has brought distant realities into immediate reach and introduced intangible yet tangible actors both allies and adversaries into human interaction.⁶

Amid this transformation, advanced technologies, particularly artificial intelligence (AI), have begun replacing many human roles with intelligent machines, raising concerns over the diminishing value of human contribution. It is within this context that the concept of Society 5.0 emerged.⁷ Society 5.0 envisions a human-centered, knowledge-rich society capable of identifying and addressing complex social challenges, including environmental issues, with the ultimate goal of fostering a sustainable symbiosis between humanity and nature. This model promotes collaboration and idea-sharing among individuals from diverse backgrounds, uniquely blending digital transformation with human creativity to drive problem-solving and value creation for a better future.⁸

¹ Yoyon M Darusman and Bambang Wiyono, *Teori dan Sejarah Perkembangan Hukum* (Tangerang Selatan: UNPAM PRESS, 2019), 2.

² Banu Prasetyo and Utami Trisyanti, 'Revolusi Industri 4.0 dan Tantangan Perubahan Globalisasi', *IPTEK Journal of Proceedings Series* 5, 2018, 22, <https://iptek.its.ac.id/index.php/jps/article/view/4417/3156>.

³ Edward O. S. Hiarij, 'Perlindungan Kekayaan Intelektual dan Kecerdasan Artifisial' (Seminar Kecerdasan Artificial dan Tantangannya terhadap Pengaturan Hak Kekayaan Intelektual di Indonesia, daring, 2021).

⁴ Amalia Annisa, 'Sejarah Revolusi Industri dari 1.0 sampai 4.0', 2021, 2, <https://doi.org/10.13140/RG.2.2.20215.24488>.

⁵ Prasetyo and Trisyanti, 'Revolusi Industri 4.0 dan Tantangan Perubahan Globalisasi', 24.

⁶ Bambang Wibisono, 'Perilaku Berbahasa Masyarakat pada Era Disrupsi', *Prosiding Seminar Nasional: Jember University Press* Vol. 1, no. No. 1 (2020): 31, <https://prosiding.jurnal.unej.ac.id/index.php/prosiding/article/view/19968>.

⁷ H.R. Benny Riyanto, 'Pembangunan Hukum Nasional di Era 4.0', *Rechtsvinding* Vo. 9, no. No. 2 (2020): 164.

⁸ Devanny Gumulya S Sn, 'Pentingnya Perencanaan Manajemen Pada Era Society 5.0', 2021, 383.

Although such technologies have yet to be fully implemented in Indonesia, their eventual role in the legal profession appears inevitable. Among the various legal professions, however, the notarial field remains relatively insulated from technological disruption, particularly AI integration. Notaries, as public officials authorized to produce authentic deeds, operate under the Position of Notary Act (Undang-Undang Jabatan Notaris, UUJN).⁹ The Act imposes specific limitations on the application of technology, notably in Article 16 letter m, which requires that a notary “read aloud the deed before the appearers in the presence of at least two witnesses, or four witnesses for a holographic will, and have it signed by the appearers, the witnesses, and the notary at the same time.” This provision explicitly mandates a physical meeting between the notary and the parties involved, thereby constraining the potential adoption of AI in notarial practice.¹⁰

Although such technologies have not yet been applied in Indonesia, it is undeniable that, over time, AI will play a significant role in the legal profession. Among legal professions in Indonesia, the notary remains relatively untouched by technological advancements, particularly AI. Notaries, as public officials authorized to create authentic deeds, operate under the Position of Notary Act (UUJN). This law limits the application of technology in the notarial profession, especially Article 16 letter m, which requires notaries to: “read aloud the deed before the appearers in the presence of at least two witnesses, or four witnesses for a holographic will, and have it signed by the appearers, the witnesses, and the notary at the same time.” This provision clearly mandates a physical meeting between the notary and the parties involved.¹¹

Currently, a notary’s role in the digital realm is limited to the certification of electronic transactions (cyber notary).¹² The notary profession in Indonesia has been known since the Dutch colonial era, long before Indonesia's independence. Initially, the presence of notaries was needed by the European community in Indonesia to make authentic deeds, especially in the trade sector. The notary institution in Indonesia has its roots in the *Notaris Reglement* established through the *Staatsblad* 1860 Number 3, and one of its early figures, Melchior Kerchem, carried out the task of serving various document creation needs, such as private wills (*codicil*), preparation of information, trade contract deeds, marriage agreements, wills (*testament*), as well as various other necessary deeds and provisions, including those related to municipal administration.¹³

The discourse on notaries and technology has been a recurring theme among legal practitioners and academics, particularly regarding the opportunities and challenges posed by increasing technological sophistication. However, practical implementation remains difficult due to statutory limitations. Meanwhile, globalization continues to accelerate and cannot be

⁹ ‘Law Number 2 of 2014 Concerning the Amendment to Law Number 30 of 2004 on the Position of Notary.’ (n.d.).

¹⁰ Widodo Dwi Putro, ‘Disrupsi dan Masa Depan Profesi Hukum’, *Mimbar Hukum - Fakultas Hukum Universitas Gadjah Mada* Vol. 32, no. No. 1 (15 February 2020): 22, <https://doi.org/10.22146/jmh.42928>.

¹¹ Refer to Article 1868 of the Indonesian Civil Code (KUHPerdota), which states:

"An authentic deed is a deed that is drawn up in the form prescribed by law, made before public officials authorized to do so at the place where the deed is executed." If the meeting is conducted virtually, the formal requirements stipulated in this provision are not met, thereby reducing the probative value of the notarial deed to that of a private deed.

¹² Furthermore, as stated in the Elucidation of Article 15 of Law No. 2 of 2014 on the Amendment to Law No. 30 of 2004 concerning the Position of Notary (UUJN):

"Other authorities include the authority to certify electronic transactions (cyber notary), to draw up deeds of waqf pledge, and to draw up deeds of aircraft mortgage."

¹³ Qurrota Uyun, “Implikasi Yuridis Akta Notaril yang Memuat Klausul Fiktif terhadap Notaris” *Rechtenstudent Journal* Vol. 3 No. 1 (2022): 93.

ignored.¹⁴ Therefore, in response to technological advancements, it is essential to develop legal resources equipped with the ability to utilize technology in transitioning toward Society 5.0.¹⁵ Supported by comprehensive legal reform, AI development could significantly shape the future of the notarial profession.

In line with the background outlined in the preceding paragraphs, this article aims to examine a core legal issue. The principal research question addressed is: To what extent can the development of Artificial Intelligence (AI) foster the emergence of Digital Notaries in the era of Society 5.0. This question is of particular relevance considering the rapid advancement of digital technology and its normative implications for the notarial profession in Indonesia. The study seeks to provide a doctrinal analysis of the legal prospects and regulatory challenges associated with the implementation of Digital Notaries, particularly in anticipation of future legislative developments.

From a normative perspective, the emergence of Digital Notaries raises fundamental questions regarding the nature of authentic deeds (*akta otentik*) under Indonesian civil law, the authority of notaries as regulated under Law No. 30 of 2004 and its amendments, and the potential for harmonizing conventional legal frameworks with emerging digital practices such as cyber notary and electronic certification.

Research Method

This study employs a doctrinal legal research method. Doctrinal legal research is a scientific method aimed at discovering legal truths through the analysis of primary and secondary legal materials.¹⁶ The primary objective of employing doctrinal legal research is to systematically expose specific legal rules, analyze the interrelation among various legal norms, and examine court decisions and positive law to determine legal consistency and certainty.¹⁷

To deepen the analysis, this study adopts two approaches: the statutory approach and the conceptual approach. The statutory approach is essential, as the subject matter of this research is regulated by legislation, making it easier to examine and interpret relevant legal texts. Meanwhile, the conceptual approach refers to legal principles derived from legal scholars' academic paradigms and legal doctrines.¹⁸

Results and Discussion

Legal Theory in the Context of Digital Legal Transformation

This study employs selected legal theories as critical frameworks to analyze the existing legal system and to assess its capacity in addressing the issues under examination. Satjipto Rahardjo's Progressive Legal Theory emphasizes the importance of a responsive and humanistic orientation of law, moving beyond rigid positivism toward the realization of

¹⁴ Muhammad Ricky Ilham Chalid, 'Hambatan dan Prospek Hukum Penyelenggaraan Jasa Notaris Secara Elektronik di Indonesia Memasuki Era Society 5.0', *Jurnal Hukum & Pembangunan* Vol. 52, no. No. 1 (31 March 2022): 395, <https://doi.org/10.21143/jhp.vol52.no1.3332>.

¹⁵ Riyanto, 'Pembangunan Hukum Nasional di Era 4.0'.

¹⁶ A'an Efendi, Dyah Ochtorina Susanti, and Rahmadi Indra Tektona, *Penelitian Hukum Doktrinal*, 1st ed. (Yogyakarta: Laksbang Yustitia, 2020), 18.

¹⁷ Uul Fathur Rahmah, "The Effect of Political Configuration on Legal Products: A Critical of Resposinve Legal Concepts and Orthodox Conservative Law" *Rechtenstudeng Journal*, Vol, 4 No. 2 (2023): 137.

¹⁸ Dyah Ochtorina Susanti and A'an Efendi, *Penelitian Hukum (Legal Research)*, Cetakan ketiga (Jakarta: Sinar Grafika, 2018), 115.

substantive justice. Meanwhile, Fitzgerald's Theory of Legal Protection underscores the role of law as a safeguard for individual rights against potential abuses of authority. The integration of these perspectives not only enriches the doctrinal depth of the argumentation but also provides a normative foundation and methodological guidance for re-evaluating current legal provisions and proposing more equitable and effective reforms.

1. Progressive Legal Theory

The theory of progressive law emerged from the thoughts of Prof. Satjipto Rahardjo. The term *progressive* implies a desire for continuous advancement. Satjipto Rahardjo's *Progressive Legal Theory* emerged as a response to the perceived stagnation in legal formalism and the inadequacy of law in addressing the real-life problems of society. According to Rahardjo, law is not merely a set of static norms, but a dynamic process oriented towards justice, social welfare, and the public interest. The term *progressive* signifies an aspiration for continuous reform and contextual responsiveness. Thus, law must be seen as "law in the making" rather than a rigid, final authority.¹⁹

Progressive legal theory, developed by Satjipto Rahardjo, is rooted in the idea that law must always aim to progress and serve humanity. Progressive law refers to rules that regulate societal relationships, formulated by those with the authority to legislate, and guided by the aspiration for continuous advancement. Law, therefore, is seen as a dynamic process law as a process, law in the making.²⁰ The emergence of progressive legal theory stems from concern over the limited contribution of Indonesian legal science. It seeks to enlighten society and elevate legal knowledge to respond to both national and global challenges. Legal science, according to this theory, cannot remain sterile or isolated from societal and technological transformations. It must serve and enlighten the society it governs.²¹

The key characteristics of progressive law are: It is human-centered; law exists for the benefit of people, not the other way around. It rejects maintaining the status quo in legal implementation.²² It recognizes the need to anticipate risks and barriers in applying written law. It emphasizes the importance of human behavior in legal application. While offering a transformative perspective, progressive legal theory does not dismiss the normative legal system. Instead, it complements it by advocating legal reform to enhance the relevance of law in the context of scientific and technological progress.²³

2. Legal Protection Theory

Law plays a crucial role in maintaining societal order and ensuring public welfare. Its primary function is to provide protection for human interests, expressed through legal norms. Legal protection emerges from legal rules and social consensus, establishing relationships among community members and between individuals and the state. Legal protection arises from legal norms and the body of regulations established by society, which themselves originate from a collective agreement to govern relationships among members of society between individuals and the state, which is deemed to represent the public interest.²⁴ The fundamental

¹⁹ Satjipto Rahardjo, *Ilmu Hukum* (Bandung: Citra Aditya Bakti, 2012).

²⁰ Liky Faizal, 'Problematika Hukum Progresif Di Indonesia', *Ijtima'iyya* Vol. 9, no. 2 (2016): 4–5.

²¹ Sayuti, 'Arah Kebijakan Pembentukan Hukum Kedepan Pendekatan Teori Hukum Pembangunan, Teori Hukum Progresif, Dan Teori Hukum Integratif', *Al-Risalah Jish* Vol. 13, no. 2 (2013): 9–10.

²² Mahrus Ali, 'Mahkamah Konstitusi Dan Penafsiran Hukum Yang Progresif', *Jurnal Konstitusi* Vol. 7, no. 1 (2010): 71–73.

²³ Satjipto Rahardjo, *Hukum Dalam Jagat Ketertiban* (Jakarta: Nuansa Cipta Warna, 2006), 9.

²⁴ Philipus M Hadjon, *Perlindungan Hukum Bagi Rakyat Di Indonesia* (Surabaya: PT. Bina Ilmu, 1987), 1.

purpose of law as a means of protecting human interests is to establish an orderly social structure, thereby enabling a secure and balanced way of life.²⁵

According to Fitzgerald's theory of legal protection, the law aims to safeguard certain interests by limiting the interests of others. The function of legal norms is to regulate human rights and interests; therefore, the law possesses the highest authority to determine which human interests should be regulated and protected.²⁶ Legal protection is not only a guarantee of one's own rights but also entails an obligation to respect and uphold the rights of others.²⁷ Legal protection afforded to the public may be classified into two categories; first, Preventive legal protection, which serves as a precautionary measure to prevent disputes before they occur; and Repressive legal protection, which serves as a remedial mechanism for resolving disputes that have already arisen.²⁸

The Development of Artificial Intelligence (AI) in Supporting the Emergence of Digital Notaries in the Era of Society 5.0

The concept of Artificial Intelligence (AI) is not entirely new. In the last two decades, AI has advanced significantly and is expected to transform life faster than previously imagined.²⁹ AI systems can process and identify thought patterns in large volumes of data (big data), emulate human reasoning, and make decisions based on risk analysis. According to Lasse Rouhiainen (2018), AI refers to systems that act like humans, think rationally, and act rationally.³⁰ The rapid advancement of science and technology has expanded the role of AI across various fields. Research and development in AI will continue to evolve, driven by its intelligent characteristics, which are increasingly valuable in many disciplines.³¹

In the context of Society 5.0, technology development is centered around a human-focused approach. The digital space accumulates vast information from physical-world sensors, which is then analyzed by AI and returned to humans in various physical forms. In future legal applications, AI systems must be designed to incorporate moral and legal reasoning principles. While some may view AI as a threat to human roles, its presence should be seen as an opportunity to foster collaboration between humans and technology.

In the notarial profession, AI holds potential to support the future emergence of Digital Notaries. Currently, notaries serve as public officials authorized to create authentic deeds. However, their use of technology is still lagging behind other legal practitioners. The full implementation of cyber notaries remains constrained, particularly in authentic deed-making, due to legal provisions such as Article 16 of the Notary Position Act (UUJN) and Article 1868 of

²⁵ Sudikno Mertokusumo, *Mengenal Hukum Suatu Pengantar* (Yogyakarta: Liberty, 2003), 39.

²⁶ Hapendi Harahap, *Hukum Jaminan: Perlindungan Hukum Pihak Ketiga Dalam Pelaksanaan Parate Eksekusi Hak Tanggungan* (Jakarta: Warta Mandiri Multimedia, 2018), 35.

²⁷ Soetandyo Wignjosoebroto, *Pergeseran Paradigma Dalam Kajian-Kajian Sosial Dan Hukum* (Malang: Setara Press, 2013), 71.

²⁸ Hadjon, *Perlindungan Hukum Bagi Rakyat Di Indonesia*, 2–3.

²⁹ Daron Acemoglu and Pascual Retrepo, *Artificial Intelligence, Automation, and Work* (National Bureau of Economic Research: University of Chicago Press, 2019), 197.

³⁰ N. Nurlaela Arief and M.Arkan Ariel Saputra, 'Kompetensi Baru Public Relations (PR) Pada Era Artificial Intelligence: Case Study Praktisi PR di Indonesia', *Jurnal Sistem Cerdas* 2, no. 1 (30 April 2019): 2, <https://doi.org/10.37396/jsc.v2i1.19>.

³¹ Kusumawati, 'Kecerdasan Buatan Manusia (Artificial Intelligence): Teknologi Impian Masa Depan', 268.

the Indonesian Civil Code, which require physical presence. If notaries do not adhere to these legal requirements, the probative value of the deed may be reduced to that of a private deed.³²

According to Article 15:(1) of the UUJN, notaries have the authority to prepare authentic deeds concerning legal acts, agreements, and stipulations mandated by law or requested by interested parties, as well as to ensure the date, safekeeping, and issuance of copies of such deeds. Furthermore, Article 15:(3) allows notaries to certify electronic transactions, implying that provisions of the Electronic Information and Transactions Act (Law No. 19 of 2016) are also applicable.

The enactment of the EIT Law opens opportunities for digital transformation in the notarial profession. Notaries must also adapt to digital systems such as electronic land registration, online certificate verification, and online mortgage registration. It is imperative for notaries to embrace technology and utilize AI in fulfilling their professional responsibilities.³³ Thus, notaries are expected to contribute meaningfully by fostering strong synergy and harmony with the rapid pace of legal and technological development in Indonesia. Their role is not merely administrative, but also strategic bridging the gap between conventional legal practices and emerging digital innovations. In this way, notaries can serve as key agents in ensuring that the evolution of Indonesia's legal infrastructure remains adaptive, inclusive, and responsive to the demands of a digital society.³⁴

Accordingly, notaries are positioned to serve as legal intermediaries who facilitate the transition between traditional legal mechanisms and the demands of an increasingly digitalized society. In this capacity, notaries are expected to generate strong synergy and institutional harmony with the accelerating pace of legal and technological development in Indonesia. Their evolving role is not only administrative but also strategic and transformative ensuring that legal institutions remain responsive and adaptive to rapid digital innovation.

This functional transformation aligns with the broader framework of Society 5.0, a concept originally developed in Japan, which envisions a human-centered society that balances economic advancement with the resolution of social challenges through the integration of cyber and physical systems.³⁵ In such a framework, legal actors including notaries must adapt by embracing regulatory innovation and contributing to access to justice in the digital era.

As holders of public trust, notaries play a critical role in preserving legal certainty, particularly in areas related to electronic transactions, digital authentication, and cross-border legal services, as recognized in the Elucidation of Article 15 of Law No. 2 of 2014, which formally introduces the authority of notaries in the field of cyber notary practices. This normative foundation implies that notaries must be equipped not only with legal competence but also with digital literacy and technological awareness to effectively fulfill their duties in a modern legal ecosystem.

The development of Digital Notaries using AI presents a challenge that demands notaries to integrate legal knowledge with technological innovation. Notaries must possess the necessary skills to remain relevant while complying with existing laws. Digital Notaries, in this context, are not AI-based robots replacing notaries, but rather AI-driven systems or applications

³² Ghansham Anand, *Karakteristik Jabatan Notaris di Indonesia*, Cetakan ke-1 (Jakarta: Prenadamedia Group, 2018), 18.

³³ Qisthi Fauziyyah Sugianto and Widhi Handoko, 'Peluang Dan Tantangan Calon Notaris Dalam Menghadapi Perkembangan Disrupsi Era Digital', *Notarius* Vol. 12, no. 2 (2019): 665.

³⁴ *Ibid.*, 662.

³⁵ Government of Japan, 'Society 5.0', Cabinet Office Home Page, accessed 10 July 2025, https://www8.cao.go.jp/cstp/english/society5_0/index.html.

that enhance notarial work through online platforms. The envisioned Digital Notary system includes:

- a. Certification of electronic transactions through a multi-featured application for faster and more efficient service;
- b. Online services providing information, consultation, and document drafting in the field of notarial law;
- c. A digital deed storage platform (big data) for easier access;
- d. Electronic deed creation and signing³⁶ through virtual meeting applications.

Such innovations not only streamline the work of notaries but also benefit clients and potentially expand the jurisdiction of notarial services beyond provincial boundaries.³⁷ Some AI-based features could directly interact with users, while the notary supervises and manages the system through digital media. To realize this vision, strong regulatory support is needed.

The current UUJN does not accommodate such technological advancements, and the Indonesian Civil Code originating from Dutch colonial law remains unchanged.³⁸ By contrast, the Netherlands has adopted provisions on electronic contracts in the New Dutch Civil Code (Articles 6:227a–6:234 NBW). Hence, legal reform in contract and notarial law is necessary for Indonesia to remain aligned with global progress. In the process of legal reform, in addition to the enactment of new legislation, improvements are also made to existing laws and regulations.³⁹ In line with progressive legal theory, law must evolve to serve human needs and keep pace with scientific and technological advancement.⁴⁰ Reforming legal frameworks in response to technological change must also include legal protection, both against digital threats (such as viruses that damage or delete digital documents) and cybercrimes (such as hacking and data breaches). Cyber threats pose risks such as:⁴¹

- a. Misuse of personal or contractual data;
- b. Breach of deed confidentiality;
- c. Data manipulation leading to harm for parties and notaries.

Preventive measures, such as robust cybersecurity systems and antivirus protection, must be adopted, along with repressive legal measures, including strict sanctions for cybercrime as stipulated in Articles 42 – 52 of Law No. 19 of 2016 on Electronic Information and Transactions. Therefore, if legal frameworks are reformed and notaries are prepared to develop their competencies and embrace global digital competition, the establishment of Digital Notaries through the integration of AI is not only feasible but essential in the Society 5.0 era.

³⁶ The regulation concerning the validity of electronic signatures (digital signatures) is stipulated in Article 11 of Law Number 19 of 2016 concerning the Amendment to Law Number 11 of 2008 on Electronic Information and Transactions.

³⁷ In addition, Article 17 of Law No. 2 of 2014, which amends Law No. 30 of 2004 on the Position of Notary, should also be considered in relation to notarial duties and authentication of digital documents.

³⁸ The Indonesian Civil Code (*Kitab Undang-Undang Hukum Perdata* or *Burgerlijk Wetboek*) has been in effect in Indonesia since 1848. See: Titiek Triwulan Tutik, *Hukum Perdata Dalam Sistem Hukum Nasional* (Jakarta: Kencana, 2015), 15.

³⁹ Abdul Manan, *Aspek-Aspek Pengubah Hukum* (Jakarta: Kencana, 2018), 14.

⁴⁰ Rahardjo, *Hukum Dalam Jagat Ketertiban*.

⁴¹ Regina Natalie Theixar and Ni Ketut Supasti Dharmawan, 'Tanggung Jawab Notaris Dalam Menjaga Keamanan Digitalisasi Akta', *Acta Comitas* 6, no. 01 (30 March 2021): 5–6, <https://doi.org/10.24843/ac.2021.v06.i01.p01>.

Conclusion

A Digital Notary is a system or application developed using AI technologies to facilitate notarial tasks through online platforms, providing services such as legal consultations, electronic drafting of deeds, and digital signatures supported by big data storage. However, realizing Digital Notaries in Indonesia requires notaries to possess technological competencies and the capacity to compete on a global scale. Additionally, legal reforms in the fields of notarial practice and contract law are necessary to establish regulations that ensure legal certainty in the use of AI, while also providing legal protection against digital disruptions and cybercrimes. Legal protections can be offered both preventively and repressively, including cybersecurity measures to secure Digital Notary systems and sanctions against perpetrators of cybercrime.

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