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Legal Reform in Village Law-Making Process Using Artificial Intelligence: Is It Necessary?

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Abstract

This article aims to discuss how Village Regulation should be implemented in the digital age, whether using artificial intelligence or conventional methods. Indonesia is a big country with too many villages, such as the small Regency/City of Malang, which has almost 390 villages (with different terms, both *desa* and *kelurahan*). The problem was raised while those villages were drafting Village Regulation. By using a legal research method, this research examines how AI could help in the village law-making process. To do that, this article combines both normative and empirical studies by analyzing the norms and literature, as well as understanding the respondent answers spread out by Google Forms. As a result, this paper finds that some AIs are necessary for drafting village regulations, such as ChatGPT, Gemini, Scopus AI, and so on. However, those AI should be used responsibly, with an honest principle, an open mind, and the avoidance of plagiarism.

Keywords

Village Regulation, Law Making Process, Artificial Intelligence.

Introduction

The governance of villages in Indonesia is a complex issue marked by significant advancements and persistent challenges. Juridically, the introduction of the Village Law in 2014 aimed to enhance local governance by empowering villages with greater autonomy and financial resources.[1] However, the implementation of this law has revealed numerous obstacles that hinder effective governance.[2] In fact, philosophically, good governance is an ideal mandate of the Indonesian constitution, both at the central government level and at the village government level.[3]

Sociologically, one of the most serious issues is corruption within village administrations. Since the distribution of village funding (*Alokasi Dana Desa*) began in 2015, there have been over 850 corruption incidents, many of which involve village heads misappropriating cash for personal gain. This has resulted in significant financial losses, emphasizing the crucial need for robust accountability procedures.[4] The Indonesian Corruption Eradication Commission (*Komisi Pemberantasan Korupsi*/KPK) has classified this as one of the largest corruption scandals in the handling of state funds. Of course, corruption at the village level is ironic because village government is the scope of state administration, which is at the lowest level in the practical realm of community life.

Despite the implementation of financial management systems like *Sistem Keuangan Desa (Siskeudes)* to increase accountability and

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[1] Betha Rahma Sari, "Pengelolaan Keuangan Desa Ditinjau Dari Undang-Undang Desa Menuju Masyarakat Yang Mandiri," *Jurnal Lex Renaissance* 5, no. 2 (April 2020), https://doi.org/10.20885/JLR.vol5.iss2.art15.

[2] Ratri Novita Erdianti and Sholahuddin Al-Fatih, "Mewujudkan Desa Layak Anak Sebagai Bentuk Perlindungan Hukum Terhadap Anak Di Indonesia," *Justitia Jurnal Hukum* 3, no. 2 (October 29, 2019): 305–18, https://journal.um-surabaya.ac.id/index.php/Justitia/article/view/3648.

[3] Noory Okthariza, " Democracy for Sale: Elections, Clientelism, and the State of in Indonesia ," *Bulletin of Indonesian Economic Studies* 56, no. 1 (January 2020): 129–30, https://doi.org/10.1080/00074918.2020.1742957.

[4] Roy Marthen Moonti and Yusrianto Kadir, "Pencegahan Korupsi Dalam Pengelolaan Dana Desa," *Jurnal IUS Kajian Hukum Dan Keadilan* 6, no. 3 (2018): 430, https://doi.org/10.29303/ius.v6i3.583.

transparency, many communities continue to struggle with effective financial governance.[5] The Siskeudes system was intended to improve reporting and compliance, but it did not address the root causes of mismanagement and a lack of oversight.[6] Furthermore, the quality of village governance varies greatly throughout Indonesia, with many communities lacking the infrastructure and skills required to handle their funds efficiently. This weakness needs to be solved immediately.

The Village Law emphasizes participatory governance, mandating village leaders to consult with residents on major decisions.[7] However, non-elite candidates continue to face impediments to participation in village head elections, resulting in a governance structure controlled by local elites who may prioritize personal interests over community needs.[8] This situation creates a schism between village leaders and inhabitants, jeopardizing efforts to promote true community participation in governance. Low community participation can result in unimplementable products.[9] Have no binding power and are difficult for the community itself to comply with.

Central government rules frequently place bureaucratic limits on village governments, reducing their autonomy and ability to respond to local needs effectively.[10] Many villages are stuck in a labyrinth of restrictions that do not uphold their democratic traditions or allow them to make independent decisions. This bureaucratic control can discourage

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[5]   Arif Rivan et al., "Penerapan Sistem Keuangan Desa (Siskeudes) Dalam Pengelolaan Keuangan Desa," *Jurnal Administrasi Publik (Public Administration Journal)* 9, no. 2 (November 24, 2019): 92–100, https://doi.org/10.31289/jap.v9i2.2487.

[6]   Nurlinah, Haryanto, and Erwin Musdah, "The Problem of Public Accountability in Village Governance in Rural Enrekang, Indonesia," *MIMBAR* 34, no. 2 (2018): 332–40, https://doi.org/10.29313/mimbar.v34i2.3578.332-340.

[7]   Dody Eko Wijayanto, "Hubungan Kepala Desa Dengan Badan Permusyawaratan Desa Dalam Pembentukan Peraturan Desa," *Jurnal Independent* 2, no. 1 (June 1, 2014): 40–50, https://doi.org/10.30736/JI.V2I1.17.

[8]   Puji Astuti and Neny Marlina, "Politik Uang Dalam Pemilihan Kepala Desa: Benarkah Penentu Pilihan Bagi Pemilih?," *JIIP: Jurnal Ilmiah Ilmu Pemerintahan* 7, no. 2 (October 2022): 151–62, https://doi.org/10.14710/jiip.v7i2.16035.

[9]   Fitria Esfandiari and Sholahuddin Al-Fatih, "Village Laws Dilemma: What Can the Village of Indonesia Do?," in *International Conference on Law Reform (INCLAR 2019)*, vol. 121, 2020, 13–16, https://doi.org/10.2991/aebmr.k.200226.003.

[10] Rira Nuradhawati, "Dinamika Sentralisasi Dan Desentralisasi Di Indonesia," *Jurnal Academia Praja* 2, no. 01 (2019): 152–70, https://doi.org/10.36859/jap.v2i01.90.

local initiatives and reduce community participation in government processes.[11] When this role is reduced, the public's sense of belonging to a government policy will also be reduced.

Based on the problem above, this paper will focus on how the quality of village government affects the product and its implementation. High-quality village regulation products will provide a great program for villagers. However, some village governments don't have enough human resources.[12] This article proposes implementing artificial intelligence to help the village government draft village regulations. It is unique and can generate new ideas for future researchers, especially regarding the implementation of AI in legal drafting.

According to the previous study written by Zouhaier Nouri, Walid Ben Salah, and Nayel AlOmran,[13] AI can increase the efficiency of the administrative justice system, eliminate backlogs, and improve the uniformity and predictability of judicial decisions. However, the report also reveals significant hazards as well as substantial ethical and legal concerns about incorporating AI capabilities into the justice system. Artificial intelligence, in particular, has the potential to dehumanize justice and endanger its independence and impartiality. While AI can provide enormous benefits to all stakeholders in the administrative justice system, its implementation must be handled with caution. A proactive and cautious strategy for AI implementation is required to protect judicial legitimacy and core justice ideals. That study, published in 2024, takes France as a country to be observed. That study is far different from this article in that it is related to the region (where the author takes part) and the focus of the study.

The topic of AI also influences the European Union with the GDPR regulation. Seldağ Güneş Peschke and Lutz Peschke stated in their research that these technologies, together with the notions of big

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[11] Rosidin, "Partisipasi Masyarakat Desa Dalam Proses Pembentukan Peraturan Desa Yang Aspiratif."

[12] Lia Sartika Putri, "Village Authority and the Issuance of Village Regulation," *Jurnal Legislasi Indonesia* 13, no. 02 (2016): 161–76.

[13] Zouhaier Nouri, Walid Ben Salah, and Nayel AlOmran, "Artificial Intelligence and Administrative Justice: An Analysis of Predictive Justice in France," *Hasanuddin Law Review* 10, no. 2 (July 2, 2024): 119–43, https://doi.org/10.20956/HALREV.V10I2.5541.

data and artificial intelligence, have been widely explored, and the development of new electronic gadgets and the increased usage of robots has raised certain legal concerns.[14] Recently, numerous new policies have emerged that appear to be likely to join EU legislation in the coming years, including the Artificial Intelligence Act, Data Governance Act, Data Act, and European Health Data Space. In the coming years, it will be unclear how new legislation, particularly GDPR, will affect one another.

The point view by Tim Wu in 2019 stated that many traditional human activities, such as capturing speeders or piloting planes, have been largely or completely replaced by software, and it has demonstrated the ability to outperform humans in select tournaments, such as Chess and Go. What are the chances that human courts will be replaced as the primary source of legal decision-making? Based on a case study of hate speech control on major tech platforms, particularly Twitter and Facebook, this Essay concludes that the displacement of human courts is a long way off, but that hybrid machine-human systems are the predicting future of legal adjudication and that there is some hope in that combination if done well.[15] The Tim Wu idea is a prevention model to avoid risk in the law-making process using social media as a tool to examine the results.

Recent work published by Grant David in 2025, related to AI and Law, under the title Populism, Artificial Intelligence and Law, finds that the implementation of AI perhaps faces serious problems in social, religious, political, and economic studies.[16] This study provides a toolbox of ideas for confronting these challenges. This is a book of originality and significance that will be fascinating to academics and researchers working

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[14] Z Seldağ, Güneş Peschke, and Öğr Üyesi Lutz Peschke, "ARTIFICIAL INTELLIGENCE AND THE NEW CHALLENGES FOR EU LEGISLATION," *Yıldırım Beyazıt Law Review* 10, no. 2022–2 (September 12, 2022): 1267–92, https://doi.org/10.33432/YBUHUKUK.1104344.

[15] Tim Wu, "WILL ARTIFICIAL INTELLIGENCE EAT THE LAW? THE RISE OF HYBRID SOCIAL-ORDERING SYSTEMS," Columbia Law Review, 2019, https://columbialawreview.org/content/will-artificial-intelligence-eat-the-law-the-rise-of-hybrid-social-ordering-systems/.

[16] David Grant, *Populism, Artificial Intelligence and Law*, *Populism, Artificial Intelligence and Law: A New Understanding of the Dynamics of the Present* (Taylor & Francis, 2025), https://doi.org/10.4324/9781003428176.

in socio-legal studies, legal philosophy, political science, theology, AI, and neuroscience. The difference between that book and this article is about the scope. That book provides a wide point of view between AI and law, while this article focuses on how AI will be necessary for drafting village regulations. The closest and most recent article, which took place in Indonesia, was written by Nabila Fitri Amelia et al., who found that it is possible to use AI without replacing lawmakers' responsibility.[17] In their opinion, they agreed that AI could not replace any human or lawmaker's job.

All five previous studies used Artificial Intelligence as the object of their study. However, the location of their study was not in Indonesia (4 previous studies), namely in France, the European Union, and on the social media Twitter (now X) and Facebook. Furthermore, previous studies did not reflect AI as a tool for a specific purpose in legislation but focused on how justice should be as a purpose of law. This article, written by the authors, will be used as a tool in legislation fields, specifically for village regulations. More specifically, this research may point out that the village in Malang is a place to be observed and implemented. Thus, this article is very specific, produces a very strong novelty, and has the potential to attract many readers and citations from subsequent researchers.

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[17] Nabila Fitri Amelia et al., "Implementasi Artificial Intelligence (AI) Dalam Pembentukan Peraturan Perundang-Undangan Di Indonesia," *Eksekusi : Jurnal Ilmu Hukum Dan Administrasi Negara* 2, no. 1 (December 1, 2024): 56–70, https://doi.org/10.55606/EKSEKUSI.V2I1.789.

Method

By legal research method,[18] this research examines how AI could help in the village law-making process. To do that, this article combines both normative and empirical study, also well-known as socio-legal research,[19] by analyzing the norms and literature (related to the concept of AI, the Law-Making process, and Village Regulation), as well as understanding the respondent's answers that Google Forms spread out. The respondent will be placed out as anonymous. The limitation of this research is based on the regulations type made by the village government, that is village regulation (because in a village government, as the author knows, the possible regulations made more than it, such as the head of village regulation (*Peraturan Kepala Desa*), the head of village decision (*Keputusan Kepala Desa*), and BPD regulation) in Indonesia, especially in Malang. Then, the AI tools chosen by respondents are limited to the little scope (or brand) that is familiar to respondents.

Result and Discussion

Juridically, this article aims to realize the mandate in Law Number 6 of 2014 concerning Villages to enhance local governance by empowering villages with greater autonomy and financial resources. If this mandate is fulfilled, then the philosophical goal of realizing good governance at the village government level will also be realized. Thus, wealth loss or corruption cases at the village level can also be minimized as the ultimate goal from a sociological perspective. Issuing high-quality village regulations, which have strong marketability, utility, and binding power, will be more effective and efficient in managing village finances, and the implementation of village programs will be more targeted.

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[18] Sholahuddin Al-Fatih, *Perkembangan Metode Penelitian Hukum Di Indonesia*, 1st ed., vol. 1 (Malang: UMM Press, 2023), https://books.google.co.id/books/about/Perkembangan_Metode_Penelitian_Hukum_di.html?id=EObiEAAAQBAJ&redir_esc=y.

[19] Sholahuddin Al-Fatih and Ahmad Siboy, *Menulis Artikel Karya Ilmiah Hukum Di Jurnal Nasional Dan Internasional Bereputasi* (Malang: Inteligensia Media, 2021).

The incorporation of artificial intelligence (AI) into the legislative process is drastically altering legal processes, increasing efficiency, and posing new obstacles. Artificial intelligence technologies, such as natural language processing and predictive analytics, are being used in legal research, document analysis, and decision-making to streamline procedures and enhance accuracy. However, increased reliance on AI poses ethical concerns and involves a trade-off between technical efficiency and human judgment. To deal with the advantages and disadvantages issues above, this article will lead some discussion and deliver the results below.

A. Understanding Artificial Intelligence

Artificial intelligence (AI) is a multidisciplinary field that tries to automate jobs that previously required human intelligence.[20] AI comprises a variety of technologies and approaches that allow robots to perform complicated tasks like data analysis, language processing, and decision-making. It has advanced significantly in recent years, affecting a wide range of industries, including healthcare, education, and finance. While AI provides enormous prospects for innovation and efficiency, it also creates difficulties that necessitate continual inspection and ethical consideration. The balance between utilizing AI's potential and mitigating its risks remains a significant topic in the industry.

Artificial intelligence (AI) is the ability of machines to do tasks that normally require human intelligence.[21] This encompasses a variety of processes like reasoning, learning, problem-solving, perception, and language comprehension. AI systems can process massive volumes of data, identify patterns, and make decisions based on that knowledge. Core characteristics of AI include: 1). Learning and Adaptation: AI systems utilize algorithms to learn from data and improve their performance over time. This is often achieved through techniques like

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[20] Omar Ali et al., "A Systematic Literature Review of Artificial Intelligence in the Healthcare Sector: Benefits, Challenges, Methodologies, and Functionalities," *Journal of Innovation & Knowledge* 8, no. 1 (January 2023): 100333, https://doi.org/10.1016/J.JIK.2023.100333.

[21] Pei Wang, "On Defining Artificial Intelligence," *Journal of Artificial General Intelligence* 10, no. 2 (2019): 1–37, https://doi.org/10.2478/jagi-2019-0002.

machine learning, where computers are trained on large datasets to recognize patterns and make predictions without being explicitly programmed for specific tasks.[22] Algorithms will help village governments with up-to-date topics, gain new insights, and find relevant solutions related to the Problem Inventory List (*Daftar Inventaris Masalah*/DIM) in thwarting Village Regulations.

2). Natural Language Processing (NLP): AI can understand and generate human language, enabling applications such as chatbots and virtual assistants. NLP allows machines to interpret context, sentiment, and intent in conversations, facilitating more natural interactions between humans and computers.[23] Through this approach, AI can be more localized in terms of language so that it can produce products in the form of Village Regulations that are appropriate to the needs of each village. 3). Perception: AI systems can process sensory data from the environment, such as images or sounds. For example, computer vision technologies enable machines to identify objects within images or videos, which is crucial for applications like autonomous vehicles and facial recognition systems; and 4). Autonomous Decision-Making: Advanced AI systems can make decisions independently based on their analysis of data. This capability is evident in areas like finance for fraud detection or in healthcare for diagnosing diseases based on patient data.[24] Decisions made by AI can be fairer and more just than those made by humans. Thus, with the help of AI, Village Regulations can be drafted closer to the main objectives of the law, namely justice, certainty, and benefit.

Based on *Kamus Besar Bahasa Indonesia/KBBI*, the phrase artificial intelligence is translated as a computer program to imitate human intelligence, such as making decisions, providing a basis for reasoning, and other human characteristics.[25] However, that phrase is not found in the Black Law Dictionary and is suggested to be similar to

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[22] Cole Stryker and Eda Kavlakoglu, "What Is Artificial Intelligence (AI)?," IBM, 2024, https://www.ibm.com/think/topics/artificial-intelligence.

[23] NASA, "What Is Artificial Intelligence?," NASA, 2019, https://www.nasa.gov/what-is-artificial-intelligence/.

[24] B. J. Copeland, "Artificial Intelligence," Britannica, 2025, https://www.britannica.com/technology/artificial-intelligence.

[25] KBBI, "Kecerdasan Buatan," KBBI Online, 2025, https://kbbi.kemdikbud.go.id/entri/kecerdasan buatan.

machine learning, neural networks, etc.[26] On the other side, kompas translated artificial intelligence in *Bahasa Indonesia* as *"akal imitasi".*

Emi Sita Ariana and Afrizal Zein, in their book, stated that Artificial Intelligence (AI) is a branch of computer science that aims to develop systems and machines capable of carrying out tasks that usually require human intelligence. AI involves the use of algorithms and mathematical models to enable computers and other systems to learn from data, recognize patterns, and make intelligent decisions. In the context of AI, there are several important concepts, such as machine learning, neural networks, natural language processing, and many more. The development of AI has had a major impact in various fields, such as voice recognition, facial recognition, autonomous cars, medicine, and many more.[27] The phrase "many more" implies an opportunity for open implementation in other scopes and fields of work, one of which is legal drafting.

Moreover, Imam Robandi Artificial Intelligence (AI) is an imitation intelligence that is based on efforts to help human life, which is often inspired by the intelligence of animals around humans, which makes the system work more efficiently, that is, faster time and less risk.[28] From the discussion above, the authors might underline the term of artificial intelligence as;

1. Computer science or computer program;
2. Try to develop a machine or robot;
3. Multidisciplinary aspect;
4. Imitate human intelligence;
5. Provide to help human activities.

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[26] The Law Dictionary, "Search Result 'Artificial Intelligence,'" The Law Dictionary, 2025, https://thelawdictionary.org/?s=artificial+intelligence.

[27] Emi Sita Ariana and Afrizal Zein, *Artificial Intelligence (AI)*, 1st ed. (Prubalingga: CV. Eureka Media Aksara, 2023), https://repository.penerbiteureka.com/id/publications/567027/artificial-intelligence-ai.

[28] Imam Robandi, *Artificial Intelligence: Mengupas Rekayasa Kecerdasan Tiruan* (Yogyakarta: Andi Publisher, 2019).

B. Artificial Intelligence in Law-Making Process

The integration of Artificial Intelligence (AI) into the law-making process signifies a paradigm shift in how legislation is conceived, drafted, and implemented.[29] Estonia, Singapore, the United States of America, Canada, and the European Union are some countries that introduced the use of AI in their legislative drafting activities.[30] Why do they use AI? Because AI's capabilities offer unprecedented opportunities to enhance the efficiency, accuracy, and transparency of legislative activities. This analysis explores the multifaceted role of AI in law-making, examining its applications, benefits, challenges, and implications for democratic governance and legal frameworks. AI encompasses a range of technologies that simulate human intelligence processes, including machine learning, Natural Language Processing (NLP), and data analytics. In the context of law-making, AI can assist lawmakers by automating routine tasks, analyzing large datasets, and providing insights that inform policy decisions. The application of AI can be categorized into three primary functions: assistive AI, enhancing AI, and decision-making AI. Each function has distinct implications for the legislative process.[31] Including its potential to be implemented partially without having to replace the role of lawmakers-man.

AI involves tools that support human lawmakers by providing research assistance, drafting suggestions, and identifying inconsistencies in legal texts. For example, AI can help streamline the legislative drafting process by suggesting improved wording or flagging potential legal conflicts within proposed bills. This capability not only saves time but also enhances the quality of legislation by ensuring clarity and coherence. AI also goes beyond mere support to augment human capabilities. It can

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[29] Annemarie Drahmann and Anne Meuwese, "AI and Lawmaking: An Overview," in *Information Technology and Law Series* (T.M.C. Asser Press, The Hague, 2022), 433–49, https://doi.org/10.1007/978-94-6265-523-2_22.

[30] Fitri Amelia et al., "Implementasi Artificial Intelligence (AI) Dalam Pembentukan Peraturan Perundang-Undangan Di Indonesia."

[31] D. A. Pashentsev and Yu G. Babaeva, "Artificial Intelligence in Law-Making and Law Enforcement: Risks and New Opportunities," *Vestnik Sankt-Peterburgskogo Universiteta. Pravo* 15, no. 2 (2024): 516–26, https://doi.org/10.21638/spbu14.2024.214.

analyze existing laws for compliance with higher-level norms or simulate the real-world impact of proposed regulations. By leveraging data-driven insights, enhancing AI can help lawmakers understand the potential consequences of their decisions before they enact new laws.[32] Thus, lawmakers make regulations not to fulfill obligations but based on the needs of a village.

AI systems are authorized to make binding decisions within the law-making framework without human intervention. While this raises significant ethical and constitutional questions, such systems could theoretically streamline processes by automatically generating legislation based on predefined criteria or public input. The incorporation of AI into the law-making process offers several key advantages, such as significantly reducing the time required for legislative drafting and analysis. By automating routine tasks such as bill summaries and document reviews, lawmakers can focus on more complex issues that require human judgment and expertise. For instance, algorithms can quickly analyze vast amounts of data related to policy issues, enabling lawmakers to make informed decisions based on comprehensive insights.

Moreover, AI can minimize human error in legislative drafting.[33] By identifying inconsistencies or gaps in legal texts, AI ensures that proposed laws are more precise and aligned with existing regulations. This accuracy is particularly crucial in complex areas such as tax reform or environmental legislation, where even minor errors can have significant implications. Then, AI tools can analyze public data related to lobbying efforts and campaign financing, helping identify potential conflicts of interest within the legislative process. This transparency is essential for fostering public trust in governmental institutions and ensuring that laws are made in the public interest rather than for special interests. At least, dedicated digital platforms powered by AI facilitate the crowdsourcing of legislative proposals from citizens. By processing

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[32] Hary Abdul Hakim, Chrisna Bagus Edhita Praja, and Sung Ming-Hsi, "AI in Law: Urgency of the Implementation of Artificial Intelligence on Law Enforcement in Indonesia," *Jurnal Hukum Novelty* 14, no. 1 (April 30, 2023): 122–34, https://doi.org/10.26555/NOVELTY.V14I1.A25943.

[33] Rute Saraiva, "Rules and Nudging as Code: Is This the Future for Legal Drafting Activities?," *Economic Analysis of Law in European Legal Scholarship* 15 (2023): 307–85, https://doi.org/10.1007/978-3-031-25059-0_12.

feedback from diverse stakeholders, lawmakers can better understand public sentiment and incorporate community needs into their proposals. This participatory approach enhances democratic accountability and responsiveness.

While the benefits of integrating AI into law-making are substantial, several challenges must be addressed, such as;[34] Ethical questions about accountability and transparency. If an AI system generates legislation or makes binding decisions without human oversight, it becomes difficult to attribute responsibility for those decisions. Ensuring that human judgment remains central to the law-making process is crucial for maintaining democratic principles. AI systems trained on historical data may inadvertently perpetuate existing biases present in that data. For example, if passed legislation reflects discriminatory practices or policies, an AI system could replicate those biases in new laws. Rigorous testing and validation are necessary to mitigate these risks and ensure fairness in legislative outcomes. The current legal frameworks may not adequately address the complexities introduced by AI in law-making. Questions surrounding liability for errors made by AI systems or the validity of AI-generated legislation require careful consideration by lawmakers and legal scholars alike.[35] So, perhaps it would be more appropriate to say that AI and lawmakers will collaborate on drafting village regulations.

Legal regulation of embodied (robotic) and swarm (collective) artificial intelligence should be implemented with caution and predictability in terms of technical standards and controlled legal experiments, following extensive ethical consultation. When developing the concept of artificial intelligence integration into the legal system, a number of fundamental factors must be considered, including the legal continuity of doctrinal legal knowledge, the differentiation of legal regimes, and the cultural and civilizational code, as well as the psychology

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[34] Yulia A. Gavrilova, "The Concept of Integrating Artificial Intelligence into the Legal System," *RUDN Journal of Law* 25, no. 3 (August 23, 2021): 673–92, https://doi.org/10.22363/2313-2337-2021-25-3-673-692.

[35] Zaki Priambudi, Namira Hilda Papuani, and Ramdhan Prawira Mulya Iskandar, "Optimizing Omnibus Law in Indonesia: A Legal Enquiry on the Use of Artificial Intelligence for Legislative Drafting," *Indonesian Journal of Law and Society* 2, no. 1 (March 3, 2021): 79–104, https://doi.org/10.19184/IJLS.V2I1.21787.

and mentality of the society in which such legal regulation is developed and implemented.[36]

C. Adopting AI in Village Law-Making Process,

Paulus Peringatan Gulo, in his research in 2024, stated that Law No. 6 of 2014 concerns Villages as statutory regulations that are recognized and have permanent law. Obstacles in drafting village regulations are that human resources and community participation in developing the village and the role of the village government are not well developed. Efforts made include increasing human resources and understanding the law of making village regulations.[37]

Another research study by Muhammad Torikul Jalal found that the formation of village regulations has not gone well due to the lack of community involvement in making village regulations. The obstacles faced by the village government are the low level of education of village officials in making village regulations so that they are not optimal, lack of support from the surrounding community, and lack of socialization and training are also the main obstacles in forming village regulations. Requesting the regional government to create a training program for forming regulations within the village scope.[38]

The problem of human resources in village government is important in realizing quality village regulations. The challenge arose not only about the human resources issue but also the future risk regarding low-quality village regulations, such as allegations of corruption, lack of implementation, and loss of public trust. Some solutions should be shouted up, such as educating the village administrators in formal

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[36] Gavrilova, "The Concept of Integrating Artificial Intelligence into the Legal System."

[37] Paulus Peringatan Gulo, "Problematika Terhadap Pembuatan Peraturan Desa Ditinjau Dari Undang-Undang Nomor 6 Tahun 2014 Tentang Desa (Studi Di Desa Simaeasi Kecamatan Mandrehe Kabupaten Nias Barat)" (Universitas Islam Sumatera Utara, 2024), https://repository.uisu.ac.id/handle/123456789/3126.

[38] Muhammad Torikul Jalal, "PROBLEMATIKA DALAM PEMBENTUKAN PERATURAN DESA (Studi Kasus Di Desa Malinau Kota)" (Universitas Borneo Tarakan, 2022), chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://repository.ubt.ac.id/repository/UBT18-10-2022-235140.pdf.

education (such as in law or political study programs for a bachelor's degree), giving them legal drafting skills, or the instant ways by using AI tools.

The solution option via educational ways seems to take time and require additional costs. So, the option of using AI could be a middle way amidst the deadlock in the quality of village government human resources in drafting village regulations. The formation of regulations electronically or with the help of AI in writing has a legal basis. Namely, Article 97B of Law No. 13 of 2022 on the Second Amendment to Law No. 12 of 2011 on the Formation of Legislative Regulations stipulates that the formation of statutory regulations can be done electronically.[39] The government calculates that one regulation made with AI can save IDR 541 million in costs and time.[40]

Thus, Article 97B Number (6) stated that further provisions regarding procedures for the Formation of Legislative Regulations electronics as intended in paragraph (1) are regulated in DPR Regulations, DPD Regulations, and Presidential Decree. Unfortunately, until this article was written (6/2/2025), the author, through searches using the Google search engine, had not found technical regulations (well-known as delegated legislation in the type of DPR Regulations, DPD Regulations, and Presidential Decree) in accordance with the mandate in Article 97B Number (6). So, it is important in the future to draft the delegated legislation related to Article 97B Number (6) Law No. 13 of 2022 on the Second Amendment to Law No. 12 of 2011 on the Formation of Legislative Regulations.

Apart from that, as an effort to concretize the adoption of AI in the field of legislation, the government also needs to draft an AI Bill. Why? The definition of AI in Law Number 1 of 2024 concerning the second amendment to Law Number 11 of 2008 concerning Information Electronic and Transactions (hereinafter referred to as IET Law) does not correspond to its very universal designation, even though historically, the IET Law was intended to fill the legal void for electronic transactions

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[39] Heru Pambudi, "Pemerintah Bakal Gunakan Teknologi AI Untuk Rancang Peraturan," Hukumonline.Com, 2024, https://www.hukumonline.com/berita/a/pemerintah-bakal-gunakan-teknologi-ai-untuk-rancang-peraturan-lt66a882f55e3a4/.

[40] Pambudi.

only. Furthermore, the AI tools provide strict and straight justice without any interruption from human feelings. This means that AI has an independent way of achieving fairness and justice in Indonesia.[41]

Then, how should AI be implemented in the law-making process of village regulations? This article proposes an idea based on an expert assessment. The survey was taken from 28 December 2024 until 7 February 2025, with 7 respondents using Google Forms and WhatsApp chat. The respondents were chosen as their experts and experienced in legal drafting. The identity of respondents will be anonymous. However, their home base or affiliation will be displayed, namely, Religious Court (previously legal drafter experts for some DPRD), University of Muhammadiyah Sidoarjo (previously in Universitas Narotama), Ministry of Villages and Development of Disadvantaged Regions (*Kementerian Desa dan PDT*), Universitas Jambi, Universitas Wijaya Kusuma Surabaya, General Secretariat of DPR RI, and Universitas Brawijaya. As a disclaimer, the answer and point of view from the respondent may not be an institutional decision and reflect their perspective regarding the question.

The educational background of the respondents is (as displayed in Figure 1 below): bachelor (1), master (4), and doctor (2). Most of them have graduated from the faculty of law and are engaged in the topic of legislation. However, only 2 of 7 respondents have the legal drafter certificate. However, the 6 respondents have experience as legal drafters for more than 1 year (as displayed in Figure 2 below), with details: 2 years (2 respondents), 4 years (1 respondent), 5 years (1 respondent), 6 years (1 respondent), 10 years (1 respondent) and with no answer (1 respondent). They also ever drafting village regulations (4 answers), while another one is never (3 answers).

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41 Denico Doly, "PEMANFAATAN ARTIFICIAL INTELLIGENCE DALAM PENEGAKAN HUKUM DI INDONESIA," 19 (Jakarta, 2023), chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://berkas.dpr.go.id/pusaka/files/info_singkat/Info Singkat-XV-19-I-P3DI-Oktober-2023-208.pdf.

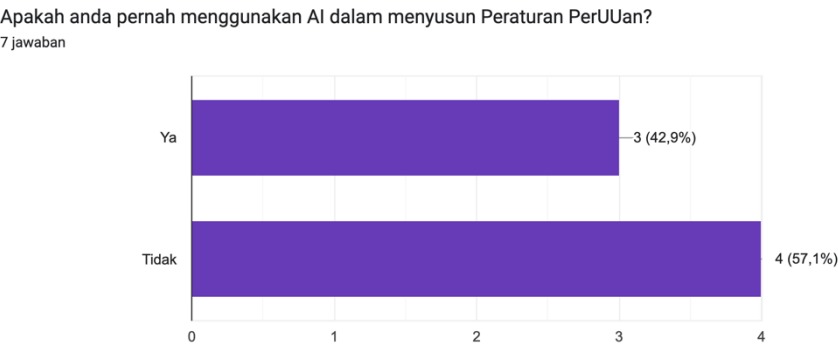**FIGURE 1.** Educational Background of Respondents

Pendidikan Terakhir
7 jawaban
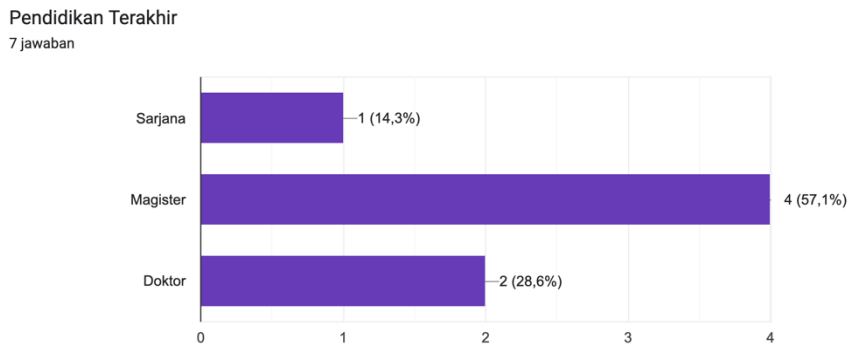
Source: Author, 2025

FIGURE 2. Certified Legal Drafter Background of Respondents

Apakah memiliki sertifikasi Legal Drafter?
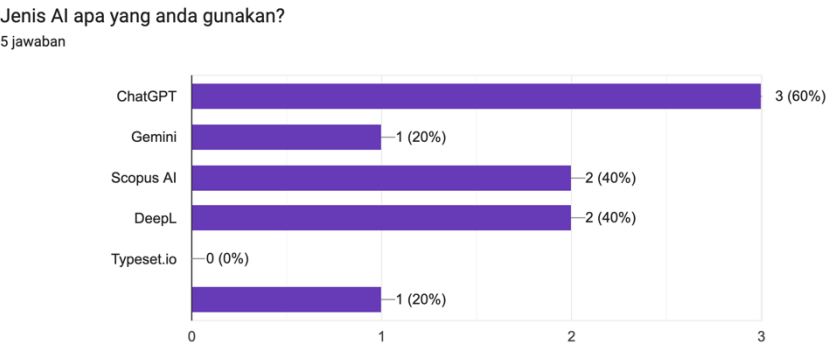7 jawaban
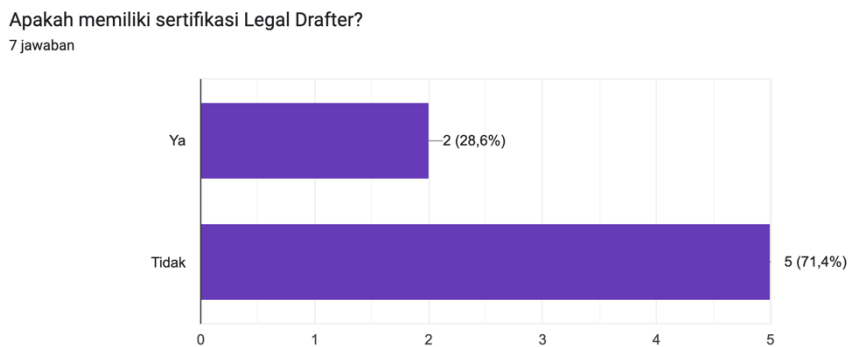
Source: Author, 2025

At that point, they were asked yes and no questions related to whether they were using AI while drafting a Bill (as displayed in Figure 3 below). Three respondents answered yes, but 4 respondents answered no. The next question is related to the name of the AI tools that they used (as displayed in Figure 4 below). The most popular AI is ChatGPT (3 answers), Scopus AI and DeepL (each of 2 answers), Gemini (1 answer), and no-name AI tool (1 answer). The answer is multiple answer mode, so each respondent might answer more than one AI tool that they used in drafting a Bill.

FIGURE 3. Probability of Using AI in Drafting a Bill from Respondents' Experiences

Apakah anda pernah menggunakan AI dalam menyusun Peraturan PerUUan?
7 jawaban

Ya	3 (42,9%)
Tidak	4 (57,1%)

Source: Author, 2025

FIGURE 4. Type of AI tools or brands from Respondents' Experiences

Jenis AI apa yang anda gunakan?
5 jawaban

ChatGPT	3 (60%)
Gemini	1 (20%)
Scopus AI	2 (40%)
DeepL	2 (40%)
Typeset.io	0 (0%)
	1 (20%)

Source: Author, 2025

Based on the respondents' points of view, most of them agree that AI tools could help in the forming of village regulations (6 answers). However, one respondent said not. The suggestions and opinions from the respondents related to the implementation of AI in drafting village regulations will displayed in Table 1 below;

TABLE 1. Pros and Contra of AI Implementation

No.	Suggestion	
	Pro	Contra
1.	Perhaps AI can be used to draft village regulations because the regulatory structures are similar.	
2.	The content material is from village regulations, but it still requires a human touch to make it.	
3.	To create an academic manuscript, AI helps obtain data, although it must be verified again for the correctness of the data.	
4.	It is possible to use AI, but it is necessary to examine and pay attention to the village typology and adjust it to the results of initial research or initial opinion polls.	
5.		AI is a human-made program whose truth/validity must still be tested through human reason/science. AI cannot be used as a dependency. Data processing in AI is the result of various sources/materials, such as research results, expert opinions, or other articles and scientific works that have been uploaded and spread on the internet. The power of AI is in the "resource"/data center. AI

		will not be able to explore optimally without data. Based on this brief description, use at the village regulation level, or other regulations in the present or data period, is indeed possible, but NOT TO be relied on.
6.	As long as it is processed carefully and does not become the final result, AI can be a tool that really supports the drafting of NA and village regulations.	
7.	The potential is great because AI will help drafters of Village Regulations clarify many things that need to be understood accurately and in-depth in the process of drafting the thematic Draft Village Regulations.	

Sources: Respondents, 2024-2025 (edited)

Based on the data above, most of the respondents believed that AI could help the village government to draft village regulations. However, it did not belong to the final process; it was only for obtaining data. Most of the respondents agreed that AI will provide many data. However, the final stage of a village regulation bill should be processed by a human. Simply put, it is necessary to use AI as a tool to provide data or legal sources when drafting a bill (in this context, it is a village regulation bill). This legal reform will help some village governments with limited human resources in legal drafting skills to issue or draft village regulations properly. Finally, to strengthen the idea, the central government should amend Village Law, which provides AI as a tool for drafting village

regulations. Moreover, as previously discussed, the delegated legislation related to the implementation of Article 97B Number (6) of Law No. 13 of 2022 concerning the Second Amendment to Law No. 12 of 2011 concerning the Formation of Legislative Regulations should be realized as well.

Conclusion

Based on the discussion above, it can be concluded that legal reform in the village law-making process using artificial intelligence is necessary. However, the use of AI is only limited to obtaining data or legal materials, not creating complete village regulations. Some AI tools are most popular among legal drafters, such as ChatGPT, Gemini, Scopus AI, DeepL, or DeepSeek. To strengthen and realize this idea, legal reform is needed in the form of amendments to the Village Law and IET Law, drafting a Bill on AI, and drafting DPR Regulations, DPD Regulations, and Presidential Decrees regarding the formation of electronic regulations as a mandate from Article 97B number (6) of Law No. 13 of 2022 concerning the Second Amendment to Law No. 12 of 2011 concerning the Formation of Legislative Regulations should be realized as well. For further research, perhaps similar research can be developed by taking different objects of study, such as the preparation of regulations at the regional or even central level. This includes research related to Indonesia's potential to develop AI specifically made in Indonesia for the benefit of government tasks.

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All authors declared that this work is original and has never been published in any form or any media, nor is it under consideration for publication in any journal. All sources cited in this work refer to the basic standards of scientific citation.