
The Role of Artificial Intelligence in Telemedicine: Legal Considerations under Indonesian Health Laws

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ABSTRACT

The integration of Artificial Intelligence (AI) in Indonesia's healthcare system, particularly in telemedicine, presents both opportunities and challenges. AI enhances healthcare delivery by improving diagnostics and patient management, especially in underserved areas. However, its adoption raises legal concerns, particularly around data privacy, security, and professional accountability. Indonesia's regulatory framework, including the Personal Data Protection Law (UU PDP) and Health Ministerial regulations, governs healthcare and data use but has not fully adapted to the complexities of AI. This study aims to analyse the adequacy of Indonesia's legal framework in addressing the challenges posed by AI in telemedicine. A qualitative method was used, involving a comprehensive review of existing laws and case studies of AI application in healthcare both locally and globally. The results reveal that while Indonesian health laws provide a foundation for telemedicine regulation, they lack specific provisions for AI-related issues, such as algorithm transparency, liability for AI errors, and real-time data handling. The conclusion emphasizes the need for updated regulations that account for AI's unique characteristics, ensuring that its benefits in healthcare are fully realized while protecting patient rights and aligning with international legal standards. This research highlights the importance of legal reform to create a safer, more efficient, and ethically sound AI-driven healthcare system in Indonesia.

INTRODUCTION

An empty box in the context of elections refers to a situation where voters do not vote for any candidate and choose to leave the ballot box empty. This phenomenon is often seen as a form of protest or dissatisfaction with the available options. However, the legality and interpretation of an empty box in a democratic system is often debated. In many countries, elections are governed by strict laws stipulating that voters must vote for the candidate. However, the presence of an empty box raises questions about the right of voters to express dissatisfaction with the proposed candidate.

In the book *How Democracies Die* by Stevan Levitsky and Daniel Ziblatt (2019), it is stated that democracy can die from a coup or die slowly. The death can go unnoticed when it occurs step by step, for example by the election of authoritarian leaders, the abuse of government power and the total suppression of the opposition, including by dominating the nominations in elections.

Whether we realize it or not, democracy is slowly deteriorating. In the context of local elections in Indonesia, one of the things that will bring democracy to a slow death is the emergence of the empty box phenomenon in local elections. (Anggraini, 2024). The

phenomenon of a single candidate against an empty box will again occur in the 2024 regional elections, although the empty box phenomenon is not new, it still surprised the public, triggering a debate about its impact on democracy in Indonesia.

The empty box phenomenon in local elections can be seen from two sides. First, the empty box trend has a negative impact on the future of democracy in Indonesia because the presence of empty boxes shows the lack of competition and transparency in the implementation of regional elections, this condition makes the community have no ideal choice in choosing leaders in the regions. This phenomenon also reflects the failure of the democratic system, which is supposed to present diverse choices for the community in general elections. Democracy should be understood not only as procedural, but also as a system that guarantees healthy competition. A system that guarantees healthy and fair competition. The empty box phenomenon is not only a matter of political technicalities but also about the future of Indonesian democracy.

The democratic process that has been fought for at great cost and full of challenges is now threatened to be "manipulated" by political elites by encouraging the support of political parties in the name of coalitions. Democracy is reflected in the aspects of competition, participation, and freedom of the people in making choices in political contestation, including the opportunity to accept or reject people who will become leaders in a region. Secondly, empty boxes reflect complex political dynamics, where major parties unite in a coalition so that there is little room for other candidates to advance, large political parties in coalition control politics at the local level, but actually on the other hand also show the limitations of political parties in preparing qualified party cadres to compete in local elections.

Entering the reform era, there were changes to the 1945 Constitution. One of which changed the direct election mechanism to elect the president and vice president as well as to fill the seats of the legislative body. The organization of the government adheres to the system of constitutional democracy. The mechanism for filling certain political positions in the government is directly elected by the people. The choice of the mechanism for filling certain political positions by direct election is none other than so that the government formed has broad legitimacy. (Widodo, 2015). When the simultaneous election started the scene in the general election in Indonesia, the polemic of the single candidate phenomenon made the General Election Commission (henceforth KPU) make a decision Number 100/PUU-XIII/2015. The emergence of a single candidate is caused by the existence of dowries from various political parties that are very expensive, and immediately the background of this single candidate pair is a phenomenon in the history of elections in Indonesia. According to the Constitutional Court, Pilkada that is only followed by one pair must be placed as the last effort, solely for the sake of fulfilling the constitutional citizens, after previously attempting earnestly to find at least two pairs of candidates. (Widodo, 2015).

Voting participation is one of the needs so that the sustainability of democracy and the political system does not experience obstacles. Elections as the main instrument of democracy are one of the instruments that bridge the people's voice as the owner of sovereignty to give a mandate to someone as a representative of the people or as a ruler who will sit in government. It is not surprising that the issue of high and low participation rates is related to the level of legitimacy and trust of citizens in their representatives or people who are mandated to run the government and issue policies. As part of the sustainability of democracy, the level of voter turnout will also have an impact on who will win elections and govern the lives of many people.

Based on the explanation above, the research problem formulation can be stated: How does the impact of voters who choose empty boxes on the legitimacy of general election results?, and How is the legality and interpretation of empty boxes in a democratic system?

The rapid integration of Artificial Intelligence (AI) in healthcare, particularly in telemedicine, demands immediate legal and regulatory attention in Indonesia. While AI

promises to revolutionize healthcare delivery by improving diagnostic accuracy, patient management, and access to medical services, particularly in remote and underserved areas, its implementation presents critical legal and ethical challenges. Issues such as data privacy, accountability for AI errors, and algorithm transparency remain inadequately addressed in Indonesia's current legal framework. Without comprehensive and updated regulations, the adoption of AI in telemedicine risks compromising patient safety, violating data protection laws, and exacerbating healthcare inequalities, highlighting the urgent need for legal reform to ensure AI's ethical and effective utilization.

Several studies have explored the impact and challenges of Artificial Intelligence (AI) in healthcare, emphasizing both its potential and the legal complexities involved. For instance, McKinney et al. (2020) conducted a study on the use of AI algorithms in breast cancer diagnosis and found that AI outperformed radiologists in detecting tumors through imaging scans. Their findings highlight AI's ability to enhance diagnostic accuracy and reduce human error in healthcare. However, the study also underscores the challenges related to transparency and accountability, as AI systems often operate as "black boxes" with unclear decision-making processes. This research provides a strong foundation for understanding AI's clinical capabilities but does not address the legal implications, such as liability and data privacy, which remain critical for AI adoption in telemedicine, particularly in Indonesia.

Despite the increasing use of AI in healthcare globally, there is limited research focusing on the legal and regulatory aspects of AI adoption in telemedicine, particularly within the Indonesian context. Most existing studies concentrate on the technological advancements of AI or its clinical applications but fail to address the legal challenges, such as accountability for AI errors, data security, and ethical considerations specific to AI-driven healthcare services. This gap highlights the lack of a clear regulatory framework to govern AI in Indonesia's healthcare sector, leaving significant uncertainties regarding its implementation, oversight, and long-term impact on patients and healthcare providers.

This study contributes to the growing body of literature by offering a legal analysis of AI adoption in telemedicine within the Indonesian healthcare system, an area that remains largely unexplored. The novelty lies in identifying specific legal gaps in existing regulations, such as the lack of provisions for AI transparency, liability in cases of AI-driven errors, and ethical guidelines for AI-based medical decision-making. Furthermore, this research highlights the necessity of harmonizing Indonesia's healthcare laws with international legal standards to ensure the safe, effective, and ethical integration of AI, particularly in the rapidly growing telemedicine sector.

The primary aim of this study is to analyze the adequacy of Indonesia's current legal framework in addressing the challenges posed by AI in telemedicine, with a focus on data privacy, accountability, and ethical considerations. The research seeks to provide concrete recommendations for legal reforms that can bridge existing gaps, ensuring the safe and ethical implementation of AI-driven healthcare services. The benefits of this study include advancing theoretical understanding of AI regulation in healthcare, offering practical insights for policymakers to develop comprehensive AI-specific regulations, and ensuring that AI contributes to equitable healthcare access while protecting patient rights and fostering trust in AI technologies.

RESEARCH METHOD

This study employs a qualitative research approach to analyse the legal and regulatory framework governing the use of AI in Indonesia's healthcare sector, particularly in telemedicine (Creswell & Creswell, 2017). It begins with a comprehensive review of relevant laws, such as Law No. 27 of 2022 on Personal Data Protection (UU PDP) and Health Minister Regulation No. 46 of 2017 on National E-Health Strategy, to assess their adequacy in regulating AI use.

The study also analyses several case studies of AI applications in healthcare in Indonesia, including the use of AI in telemedicine platforms. The study concludes with a synthesis of the findings and provides recommendations for legal reforms to address regulatory gaps, aiming to enhance patient safety, ensure accountability, and promote the ethical use of AI in Indonesia's healthcare system (Creswell, 2007).

RESULTS AND DISCUSSION

The rapid development of AI in healthcare, particularly in telemedicine, presents new opportunities for enhancing healthcare delivery in Indonesia. AI is the simulation of human intelligence, replicated in machines and programmed to operate similarly to humans. McLeod and Schell define AI as the utilisation of machines, such as computers, that demonstrate intelligent, human-like behaviour (Pratama et al., 2022). In chatbot technology, AI takes on the role of providing quick and appropriate responses to user queries, even in the context of learning about country traditions. The chatbot uses various social media platforms such as WhatsApp, Telegram and Facebook to operate, offering a wide array of services that utilise its synthetic intelligence (Santoso et al., 2021).

AI is another area of study that is well documented in the current literature; the literature shows that AI can change the healthcare delivery system, especially in enhancing diagnostic technology and patient outcomes (Lindvall et al., 2020). McKinney and colleagues have shown that AI algorithms are better than radiologists at diagnosing some forms of cancer from imaging scans (McKinney et al., 2020). However, the adoption of AI also brings forward several legal and ethical challenges. Current Indonesian laws, while addressing some aspects of healthcare and data protection, have not fully adapted to the specific risks and requirements posed by AI technology.

Existing Regulations and Their Gaps

The rapid advancement of AI in healthcare offers both significant opportunities and challenges. AI has the potential to enhance diagnostic accuracy, enable personalized treatments, and improve the efficiency of healthcare delivery. However, Indonesia's current legal framework falls short in fully addressing the complexities associated with integrating AI into healthcare. Below is an analysis of key regulations and their limitations regarding the use of AI in this sector.

Personal Data Protection Law (*Undang-Undang No. 27 Tahun 2022 tentang Pelindungan Data Pribadi - UU PDP*). The UU PDP is a significant step towards ensuring the protection of personal data in various sectors, including healthcare. It provides comprehensive rules on how personal data should be collected, processed, and stored, focusing on the rights of individuals over their data. This law is essential in the context of AI in telemedicine, where vast amounts of sensitive health data are used for diagnosis and treatment recommendations.

Article 15 of the UU PDP specifies that data controllers (including healthcare providers using AI) must ensure the security of personal data, which directly impacts how AI systems handle health records. This article provides for the obligation to protect personal data from unauthorised access or processing. However, it does not explicitly regulate the use and processing of real-time data by AI systems, which are often used in telemedicine and remote monitoring. AI systems need quick access to data to provide accurate results, but this poses a data security risk if there are no specific rules addressing it. However, Article 15 does not explicitly address AI-driven decision-making or the algorithmic transparency required to guarantee that patient data is processed fairly and ethically. AI algorithms, which often operate as black-box systems, can make decisions without human intervention, raising questions about how these decisions are made and how accountable they are. Article 15 mandates data protection but does not specifically account for AI systems that rely on real-time data, such as those used in telemedicine or remote patient monitoring. These systems require continuous

access to patient data to function optimally, which introduces potential security vulnerabilities. The lack of explicit provisions for managing these risks leaves data security and patient privacy inadequately protected (Fikri & Rusdiana, 2023).

Article 17 requires data controllers to obtain informed consent from data subjects before processing their data. While important for privacy protection, there is no detailed explanation of how this consent applies in the context of AI systems, especially regarding the use of data to train AI models or improve their accuracy. It is also unclear whether and how patients can withdraw their consent after the data has been used by AI. This article emphasizes the importance of obtaining informed consent but provides no specific guidance on how it applies to AI. AI systems often analyse patient data to refine algorithms and improve their performance, yet patients may not fully understand how their information is being used. Furthermore, the law does not address whether or how patients can withdraw consent once their data has been incorporated into AI models, leaving them with limited control over the use of their personal information.

Health Minister Regulation No. 46 of 2017 on National E-Health Strategy (*Peraturan Menteri Kesehatan No. 46 Tahun 2017 tentang Strategi E-Kesehatan Nasional*). This regulation governs the management of National E-Health Strategy (EMR) in Indonesia and ensures that healthcare providers maintain accurate and secure records of patient information. In the context of AI, this regulation helps ensure that telemedicine platforms adhere to medical recordkeeping standards. Article 5 emphasizes the confidentiality of medical records, which is critical when using AI systems that analyse large datasets. This Permenkes encourages the adoption of technology to improve health services, including e-health systems. However, there are no specific guidelines or protocols governing the validation, interoperability, or monitoring of AI algorithms in e-health systems. This poses a risk if AI is not rigorously tested and monitored, as errors or biases in the algorithm may impact patient safety. The regulation does not explicitly address the role of AI in interpreting these records, nor does it account for potential AI errors in diagnoses or recommendations, leaving a gap in determining who is responsible if the AI makes a mistake.

Law No. 17 of 2023 on Health (*Undang-Undang No. 17 Tahun 2023 tentang Kesehatan*). Law No. 17 of 2023 provides a broad legal foundation for healthcare in Indonesia. While comprehensive in scope, it fails to address AI-specific issues, resulting in several regulatory gaps. This law regulates the practice of medicine, including the responsibilities of medical professionals. It emphasizes that diagnoses and treatments must be carried out by licensed healthcare providers. Article 50 stipulates that patients have the right to accurate medical information and care. However, the use of AI in making medical decisions introduces a challenge in maintaining transparency. Patients may not understand how AI arrived at a diagnosis, which could undermine their right to informed consent under Article 45. The law also fails to clarify the accountability of AI-generated medical advice. If an AI system incorrectly diagnoses a patient, it remains unclear whether the liability lies with the healthcare provider, the AI system's developer, or the institution using the AI.

Article 80 stipulates that the responsibility for the outcome of medical services rests with the health worker who performed the service. This means that if an error or malpractice occurs, the health professional (e.g. doctor or nurse) is liable for the medical consequences. However, there is no specific explanation of who is liable if medical decisions involve AI-based systems. Without clear rules, there is ambiguity as to whether AI errors are the responsibility of the developer, the hospital, or the medical personnel using it. Although Article 80 assigns responsibility to healthcare professionals for medical outcomes, it does not clarify accountability when AI systems influence medical decisions. This omission creates a legal grey area—should the responsibility lie with healthcare providers, the AI developers, or the institutions deploying the technology? Since AI systems are prone to errors despite offering

decision-making support, the absence of explicit liability provisions complicates accountability and may expose patients to unregulated risks.

The use of AI to aid clinical decisions is becoming widespread, yet the law offers no clear guidance on how these tools should be validated or supervised. The absence of standards for monitoring AI's role in diagnosis and treatment raises concerns about patient safety. There are no established protocols governing how healthcare professionals should integrate AI outputs into clinical practice, leaving critical ethical and safety issues unaddressed.

Missing Regulatory Provisions

AI in healthcare is fundamentally transforming the way medical services are delivered, particularly through telemedicine. AI systems use algorithms and machine learning to analyse vast amounts of medical data, providing insights and diagnoses that improve patient care. However, the current regulatory framework in Indonesia is not fully equipped to handle the complexities that AI introduces, particularly in terms of transparency, accountability, and ethics.

AI systems in healthcare typically work by processing large datasets to identify patterns, make predictions, and assist healthcare providers in decision-making (Parikh et al., 2019). For instance, machine learning algorithms can analyse medical images to detect abnormalities such as tumours or signs of disease more quickly and accurately than human experts in some cases. AI can also use natural language processing (NLP) to sift through unstructured medical records, extracting useful information to support patient management. Furthermore, AI-driven telemedicine platforms can diagnose common ailments based on user input, providing real-time consultation and treatment recommendations. For AI technologies to be implemented in healthcare organizations, a workforce must fully understand AI and its clinical applications (Amisha et al., 2019). However, many of today's healthcare providers are not trained sufficiently enough to harness the capabilities of AI tools entirely, and the results are not as good as they could be.

AI's effectiveness depends on the quality of the data it processes and the algorithms it uses. This raises several issues that require careful regulation. The "black-box" nature of many AI systems means that even developers may not fully understand how the AI reaches certain conclusions, which complicates transparency and accountability in medical decision-making. The use of AI in diagnosis has its problems in the context of health care. Anticipated high implementation costs are one of the significant potential difficulties, especially in LMIC (low- and middle-income countries). Low- and middle-income countries face challenges such as poor infrastructure, little or no funds, and scarcity of health professionals (Hamel et al., 2021). The cost of employing AI technologies, besides the first-time cost of hardware and software, is linked to the servicing, training, and data costs (Morley et al., 2020). Some costs mentioned can be prohibitive for small healthcare facilities, which puts the ability to adopt AI into question. Despite these foundational laws, there are several legal gaps that need to be addressed to ensure the safe and ethical use of AI in telemedicine:

AI Transparency and Accountability. One of the key issues in AI regulation is the transparency of decision-making processes. AI algorithms often operate in a black box, where neither the healthcare providers nor the patients fully understand how certain medical conclusions are reached. In healthcare, it is critical that AI systems provide explainable results, meaning the algorithm must offer clear and understandable reasoning behind its recommendations or diagnoses.

Existing laws do not mandate transparency in how AI algorithms process medical data and make decisions. There is no requirement for healthcare providers to explain or justify AI-driven decisions to patients or regulatory bodies. Future regulations should include provisions requiring AI systems to provide explainable results, ensuring that decisions made by AI are transparent and understandable by healthcare professionals and patients.

For example, if an AI system recommends a certain treatment or diagnosis, the healthcare provider should be able to understand the rationale behind the AI's suggestion to verify its accuracy. However, current regulations in Indonesia, such as Law No. 27 of 2022 on Personal Data Protection (UU PDP) and Health Minister Regulation No. 46 of 2017, do not mandate explainability or transparency in AI-driven decisions. Future regulations need to include provisions requiring AI systems to offer explainable, transparent results, allowing healthcare professionals to trust and verify the outcomes before making final decisions. This is particularly important for maintaining patient trust and ensuring informed consent.

Liability for AI Errors. The issue of liability is another critical aspect that is currently under-regulated. An action is considered a legal act if it has legal consequences that can be accounted for or recognised by the state (Hernanto & Amelia, 2024). If AI perpetrates an unlawful act or causes harm to another party, the responsibility for redressing the damage will fall upon the entity that owns or oversees the AI (Ravizki & Yudhantaka, 2022). In the case of medical errors caused by AI, such as an incorrect diagnosis or treatment recommendation, it is unclear who would be held accountable. The ambiguity in accountability creates legal uncertainty and potentially leaves patients without a clear avenue for redress.

Current regulations do not clearly define who is responsible if an AI system provides inaccurate or harmful medical advice. Should the liability rest with the healthcare provider who used the AI, the software developer who created the AI, or the institution that implemented it (Astiti, 2023)? A legal framework that addresses this ambiguity is crucial to prevent gaps in accountability and ensure that patients can seek redress if harmed by AI-generated diagnoses. Indonesian healthcare laws, such as Law No. 17 of 2023 on Health, emphasize the responsibility of licensed healthcare professionals in diagnosing and treating patients (Shen et al., 2019). However, the law does not address scenarios where AI plays a significant role in the decision-making process. If an AI system contributes to a wrong diagnosis, it is unclear whether the liability falls on the healthcare provider using the system, the developer of the AI software, or the hospital or institution that implements the AI solution. This creates a significant legal gap that needs to be addressed to ensure patients can seek compensation in the event of harm caused by AI-driven healthcare decisions.

Future regulations must clarify who is responsible when AI systems are integrated into healthcare. This could involve developing shared liability frameworks where responsibility is distributed among healthcare providers, AI developers, and institutions based on the degree of human oversight and system control involved in the decision-making process.

Ethical AI Use. Regulations and ethical issues also affect the adoption of AIM in health care. AI integrated into clinical care practice rouses key issues concerning responsibility, primarily when the machine's advice opposes human reasoning (Price & Cohen, 2019). The advent of AI has prompted concerns about its potential to perform activities in a manner that may encroach upon human domains (Ririh et al., 2020). Furthermore, the use of large datasets for the training of AI is problematic because it requires sensitive data for some people or in some countries with strict rules regarding data protection (Rajpurkar et al., 2022).

AI systems in healthcare need to be regulated to ensure ethical use, particularly to prevent biases in AI algorithms that could negatively affect patient care. Machine learning models are trained on historical data, and if that data is biased or not representative of diverse populations, the AI system may produce discriminatory or unequal healthcare outcomes (Pabubung, 2023). Although the UU PDP covers data privacy, there is no specific regulation on the ethical use of AI in medical decision-making. Ethical guidelines should be established to prevent bias in AI systems, ensure equitable access to AI-driven healthcare solutions, and protect vulnerable populations from discriminatory outcomes based on AI interpretations of health data.

In Indonesia, where the population is highly diverse, the risk of AI systems producing biased outcomes is significant. For instance, an AI system trained primarily on urban hospital

data may not perform as well in diagnosing conditions for patients in rural or underserved areas, where healthcare needs and challenges are different. There is also the risk that AI systems could unintentionally perpetuate existing healthcare disparities, such as those based on socioeconomic status or ethnicity, if they are not properly designed and tested.

Current Indonesian regulations, such as the UU PDP, focus primarily on data privacy and do not address the ethical considerations specific to AI. There is no formal requirement to ensure that AI systems are tested for fairness, bias, or representativeness before being deployed in healthcare settings. This is a significant oversight, as ensuring equitable access to AI-driven healthcare solutions is essential to avoid worsening health disparities in Indonesia. Ethical guidelines need to be developed that mandate rigorous testing for bias and require AI systems to be designed in ways that ensure they provide equal care across different patient demographics.

Data Privacy and Security. AI systems in healthcare require vast amounts of personal and sensitive medical data to function effectively. Personal data can be defined as information that is closely related to a person and is used to distinguish characteristics for each individual (Rosadi, 2015). While the Personal Data Protection Law (UU PDP) lays the groundwork for protecting personal data, it does not account for the specific complexities of AI. For instance, AI systems often need access to large datasets to train and improve, which raises concerns about how this data is stored, shared, and used. Accordingly, as postulated by Gustav Radbruch, the concept of law is comprised of three fundamental aspects: justice, finality/utility, and legal certainty (Tanya et al., 2018). The legal framework in Indonesia regarding data privacy and security in healthcare services reflects principles of justice, utility, and legal certainty.

Additionally, AI systems often rely on real-time data, particularly in telemedicine, where patients' medical information is collected remotely and analysed instantly. This introduces additional privacy risks, as sensitive health data may be vulnerable to breaches or unauthorized access. The government has an obligation to protect the interests of parties related to the delivery of health services (Susatya, 2023). However, current regulations do not provide detailed guidelines on how AI systems should handle, process, and protect this real-time data (Beam & Kohane, 2018).

Algorithm Testing and Validation. Another aspect of AI regulation that is currently lacking is the requirement for algorithm validation. AI could improve diagnoses by arriving at consistent diagnostic qualities that surpass human clinicians (Esteva et al., 2019). AI is gradually finding its way into diagnosis from images, prognosis of the outcomes of patients and assisting clinicians in making clinical decisions (Topol, 2019). datasets with genetic data, lifestyle parameters and clinical history when processed with AI, will enable physicians to predict individual treatments with the benefit of clinical outcomes and minimum adverse effects (Krittanawong et al., 2017). AI systems, particularly in healthcare, must undergo thorough testing to ensure their accuracy and safety before being implemented in real-world settings. Without such validation, there is a risk that untested or under-tested AI systems could produce erroneous medical recommendations, putting patient health at risk.

Indonesian regulations do not currently require that AI systems undergo specific testing or validation procedures before being deployed in healthcare settings. International best practices, such as those outlined in the European Union's proposed AI Act, emphasize the need for high-risk AI systems (such as those used in healthcare) to meet rigorous testing standards. Indonesia would benefit from adopting similar requirements to ensure that AI systems used in healthcare are safe, reliable, and validated before being put into use.

CONCLUSION

Indonesia's current legal framework provides a foundation for regulating AI in healthcare, particularly through the UU PDP and health-related ministerial regulations, it is clear that these regulations are insufficient to address the full scope of challenges presented by AI technologies. The lack of specific provisions on AI transparency, liability for AI errors, and ethical standards leaves significant legal and ethical concerns unaddressed. To optimize the potential of AI in telemedicine and ensure it aligns with international standards, Indonesia must enact new regulations that specifically govern AI in healthcare. These reforms should focus on protecting patient rights, clarifying accountability, and promoting ethical AI usage, ensuring that AI-driven healthcare advancements are both safe and equitable.

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