

Artificial Intelligence and Human Rights in Indonesia: Regulating Algorithmic Discrimination in Public Services

Muhammad Auliya*^{ID}

Telkom University, Bandung, Indonesia

auliya_muh@gmail.com

DOI: <https://doi.org/10.65815/az98zv98>

Submitted: 28-01-2026

Revised: 28-04-2026, 30-06-2026

Accepted: 15-07-2026

*Corresponding Author

Abstract

The increasing use of artificial intelligence in public administration may improve efficiency but also create risks of discrimination, opacity, and arbitrary decision-making. Algorithmic systems used for social assistance, public services, risk assessment, or law enforcement may affect individuals without providing adequate explanations or opportunities to challenge automated outcomes. This article examines algorithmic discrimination in Indonesian public services from a human rights perspective. Using normative juridical and policy analysis, the study evaluates equality rights, data protection, administrative law, and emerging AI governance principles. The article argues that automated decision-making should remain subject to human rights standards, particularly non-discrimination, transparency, accountability, and procedural fairness. The study proposes an algorithmic accountability framework requiring impact assessments, explainability standards, human oversight, independent audits, and effective remedies for affected individuals. Particular attention is given to vulnerable groups who may experience disproportionate consequences from biased datasets or poorly designed systems. The article concludes that Indonesia's AI governance framework should integrate human rights safeguards before algorithmic systems are widely deployed in high-impact public decisions.

[Meningkatnya penggunaan kecerdasan buatan (AI) dalam administrasi publik dapat meningkatkan efisiensi tetapi juga menciptakan risiko diskriminasi, ketidaktransparanan, dan pengambilan keputusan yang sewenang-wenang. Sistem algoritmik yang digunakan untuk bantuan sosial, layanan publik, penilaian risiko, atau penegakan hukum dapat memengaruhi individu tanpa memberikan penjelasan yang memadai atau kesempatan untuk menantang hasil otomatis. Artikel ini mengkaji diskriminasi algoritmik dalam layanan publik Indonesia dari perspektif hak asasi manusia. Dengan menggunakan analisis yuridis dan kebijakan normatif, studi ini mengevaluasi hak kesetaraan, perlindungan data, hukum administrasi, dan prinsip-prinsip

tata kelola AI yang sedang berkembang. Artikel ini berpendapat bahwa pengambilan keputusan otomatis harus tetap tunduk pada standar hak asasi manusia, khususnya non-diskriminasi, transparansi, akuntabilitas, dan keadilan prosedural. Studi ini mengusulkan kerangka akuntabilitas algoritmik yang membutuhkan penilaian dampak, standar penjelasan, pengawasan manusia, audit independen, dan solusi efektif bagi individu yang terdampak. Perhatian khusus diberikan kepada kelompok rentan yang mungkin mengalami konsekuensi yang tidak proporsional dari kumpulan data yang bias atau sistem yang dirancang dengan buruk. Artikel ini menyimpulkan bahwa kerangka tata kelola AI Indonesia harus mengintegrasikan perlindungan hak asasi manusia sebelum sistem algoritmik diterapkan secara luas dalam keputusan publik yang berdampak tinggi.]

Keywords: Artificial intelligence, algorithmic discrimination, human rights, public services, Indonesia

Introduction

Artificial intelligence is increasingly transforming the relationship between public institutions and citizens. Government agencies can use algorithmic systems to process large quantities of information, identify potential beneficiaries of social assistance, detect patterns of fraud, support healthcare administration, manage transportation, process civil registration, and assist policy implementation. These technologies may improve efficiency and reduce administrative delays, particularly where public institutions face large populations and complex data environments. Research concerning AI adoption in Indonesian public services identifies significant opportunities for improving administrative efficiency, transparency, and inclusivity. Nevertheless, the same research also emphasizes persistent concerns relating to algorithmic bias, limited transparency, unequal digital infrastructure, and data security (Chairuddin et al. 2024). The central human rights issue is therefore not whether artificial intelligence should be prohibited from public administration, but whether public institutions can deploy such systems without allowing automated processes to undermine equality, dignity, and procedural fairness.

Algorithmic discrimination arises when automated or data-driven systems produce systematically unequal outcomes for individuals or groups. Discrimination may occur because training data reflects historical inequalities, because proxies are used for protected characteristics, because particular communities are underrepresented in datasets, or because system designers adopt variables and optimization objectives that create disproportionate effects. An algorithm does not need to contain an explicit instruction to discriminate in order to produce discriminatory outcomes. Seemingly neutral variables, including geographic location, employment history, access to technology, language, or patterns of public

service use, may operate as indirect proxies for social disadvantage. Ramadhan et al. (2024) argue that algorithmic discrimination presents serious challenges for Indonesian legal regulation because artificial intelligence can reproduce gender bias, stereotyping, privacy violations, and unequal treatment. These concerns become particularly significant when algorithms are used by the state because individuals may depend on public decisions for access to fundamental rights and essential services.

The use of AI in public administration should therefore be examined through Indonesia's constitutional and human rights framework. Article 28D paragraph (1) of the 1945 Constitution guarantees recognition, protection, legal certainty, and equal treatment before the law. Article 28I paragraph (2) further guarantees freedom from discriminatory treatment, while Article 28F protects the right to obtain and communicate information. These constitutional guarantees are directly relevant when public institutions use algorithmic systems to classify citizens or determine eligibility for government services. If an automated system places certain groups at a systematic disadvantage without adequate justification, transparency, or corrective procedures, the resulting inequality may implicate constitutional principles even when no individual official intended to discriminate. The automation of public decision-making cannot remove governmental responsibility for the fairness and legality of administrative outcomes.

Law No. 39 of 1999 concerning Human Rights reinforces the constitutional principles of equality and non-discrimination. Indonesia's ratification of the International Covenant on Civil and Political Rights through Law No. 12 of 2005 also requires the state to respect and ensure equal protection of the law and protection against discrimination. These obligations must be interpreted in light of technological developments. Human rights principles are not limited to decisions made manually by public officials. Where government institutions delegate or rely upon algorithmic systems, the public institution remains responsible for ensuring that technological processes do not create arbitrary or discriminatory consequences. Mahidol and Adinda (2025) argue that Indonesia's emerging AI regulatory environment must place human dignity and digital rights at the center of technological development. This position is especially persuasive in the public sector, where technological efficiency must remain subordinate to constitutional obligations.

The development of AI governance in Indonesia has also accelerated through national digital transformation and the National Strategy for Artificial Intelligence, which identifies public services, healthcare, education, food security, and bureaucratic reform as important areas for AI development. However, policy ambitions to expand technological innovation must be accompanied by legal safeguards appropriate to high-impact decision-making. Research on AI and public governance in Indonesia shows that the expansion of automated systems raises concerns concerning data privacy, transparency, cybersecurity, and algorithmic bias (Agustian et al. 2025). Consequently, the principal regulatory challenge is not

merely to encourage responsible technological development in general terms, but to establish enforceable safeguards before AI systems are deployed in decisions capable of substantially affecting individual rights and access to public services.

This article examines algorithmic discrimination in Indonesian public services through four principal analytical dimensions. The first discussion evaluates the constitutional and human rights foundations for regulating automated discrimination. The second analyzes the mechanisms through which algorithmic systems can produce discriminatory public-service outcomes. The third considers the adequacy and limitations of Indonesia's existing regulatory framework concerning data protection, administrative law, electronic systems, and emerging AI governance. The final discussion proposes an algorithmic accountability framework based on impact assessments, transparency, human oversight, independent auditing, and accessible remedies. The article argues that public institutions should not treat AI as an autonomous or neutral source of administrative authority. Algorithmic systems must remain subject to human rights standards because technological automation cannot replace the state's obligation to ensure equal, fair, transparent, and accountable public administration.

Human Rights, Equality, and the Regulation of Automated Public Decisions

The principle of equality constitutes the normative foundation for regulating algorithmic discrimination in public services. Equality does not merely require public institutions to apply identical procedures to every person. It also requires the state to examine whether formally neutral rules and technologies produce unjustified disproportionate effects. This distinction is important because algorithmic systems frequently operate through statistical classifications rather than explicit categories of discrimination. A system designed to identify individuals at high risk, low priority, or low eligibility may use historical patterns that correlate with socioeconomic disadvantage. As a result, algorithmic decision-making can reproduce structural inequalities while appearing objective because decisions are generated through computational processes. Ramadhan et al. (2024) emphasize that the assumption of technological neutrality can obscure the social biases embedded within AI systems and the data used to develop them.

Article 28D paragraph (1) of the 1945 Constitution provides a particularly important standard because it protects equality before the law and legal certainty. Automated public decisions must therefore be sufficiently understandable and predictable to allow citizens to determine how their interests are affected. Where an algorithm denies social assistance, assigns an unfavorable risk classification, or deprioritizes access to public services without meaningful explanation, the individual may be unable to challenge the factual or legal basis of the decision. This creates a problem of procedural inequality. The government may possess extensive technical knowledge regarding the system, while the affected citizen has

little or no access to the criteria that produced the outcome. The use of opaque algorithms can therefore intensify the power imbalance between public institutions and citizens.

Article 28I paragraph (2) of the Constitution also provides protection against discriminatory treatment. Algorithmic discrimination should be understood within this constitutional framework even when the discriminatory effect is indirect. A public system that systematically disadvantages individuals from particular regions, socioeconomic backgrounds, ethnic communities, gender groups, or persons with disabilities may raise constitutional concerns if the disparity cannot be justified through objective and proportionate criteria. Sitinjak et al. (2025), in examining AI and access to healthcare in rural and underdeveloped areas, demonstrate that unequal technological conditions can create discriminatory effects when AI systems are designed or implemented without sufficient attention to social determinants and geographic inequality. This insight is relevant beyond healthcare because public-service algorithms may produce unequal outcomes whenever marginalized communities are inadequately represented in data.

The human rights implications of automated discrimination extend beyond equality to human dignity and autonomy. Individuals affected by algorithmic systems may experience decisions as arbitrary when they are unable to understand why a particular classification was assigned or how incorrect information can be corrected. Mahidol and Adinda (2025) argue that AI governance should recognize human dignity as a central principle because technological decision-making may otherwise reduce individuals to data profiles and predictive categories. This concern is especially significant when public institutions use algorithms to determine eligibility, risk, or priority. Administrative efficiency cannot justify treating individuals exclusively as statistical objects when decisions have substantial consequences for social welfare, healthcare, education, or legal rights.

The right to privacy is similarly connected to algorithmic equality. AI systems frequently depend upon extensive personal data, including identity information, location data, financial information, health records, behavioral patterns, and administrative histories. Law No. 27 of 2022 concerning Personal Data Protection establishes a legal framework for personal data processing and recognizes important obligations concerning the lawful handling of personal information. However, privacy protection should not be understood solely as preventing unauthorized disclosure. Algorithmic systems can generate new risks through the inference of sensitive characteristics from apparently non-sensitive information. An AI system may therefore affect an individual based not only on information directly provided to the government but also on predictions generated from patterns across multiple datasets. The governance of AI must consequently address both the collection of data and the potentially harmful conclusions drawn from that data.

Algorithmic Discrimination and the Risks of AI in Public Services

Algorithmic discrimination can originate at multiple stages of the AI development process. The first source of risk is data. Historical administrative data may reflect existing patterns of exclusion, unequal access to public services, or institutional bias. If such data is used without critical examination, an algorithm may learn to reproduce the same patterns. For example, communities that historically received less access to formal services may appear in administrative datasets as having lower engagement or eligibility. A predictive system may then interpret this historical absence as a legitimate basis for further exclusion. The result is a feedback cycle in which past inequality becomes a source of future automated decision-making. Research on AI and social equity confirms that algorithmic systems can reinforce social disparities when technological development is not accompanied by inclusive governance and equitable access to resources (Judijanto et al. 2025).

A second source of discrimination concerns model design and the selection of variables. Government institutions may choose criteria intended to maximize efficiency, reduce costs, predict risk, or identify irregularities. However, these objectives may conflict with human rights principles when systems prioritize administrative optimization over substantive fairness. A social assistance algorithm, for example, might reduce administrative costs by excluding applicants with incomplete data, even though vulnerable individuals are more likely to lack complete digital records. Similarly, a risk-assessment system may produce apparently accurate statistical predictions while creating disproportionate burdens for communities already subject to heightened monitoring. Wahyudi and Wiredarme (2023) demonstrate that machine-learning systems used in the selection and distribution of social assistance can implicate constitutional rights to equality, social security, welfare, legal certainty, and protection against discrimination. High levels of statistical performance therefore do not automatically demonstrate legal or ethical acceptability.

The opacity of complex algorithms creates an additional problem. Citizens may receive a decision without understanding the data, criteria, or computational processes that produced it. Public institutions may also be unable to provide meaningful explanations when AI systems are procured from private vendors or developed using highly complex models. This creates an accountability gap in which neither the affected individual nor the responsible institution can clearly identify why a particular decision occurred. Yeung (2018) describes algorithmic regulation as a significant transformation of governance because automated systems can influence behavior and decision-making through forms of power that are difficult to observe or contest. In public administration, such opacity is especially problematic because government authority must remain subject to legal justification and public accountability.

Algorithmic systems can also create discriminatory consequences through digital exclusion. Citizens with limited internet access, low digital literacy,

disabilities, linguistic differences, or inconsistent civil registration records may interact differently with government systems. An AI model may interpret these differences as evidence of risk, low reliability, or low priority rather than as indicators of structural disadvantage. Chairuddin et al. (2024) observe that AI implementation in Indonesian public services remains affected by unequal infrastructure and digital literacy between urban and remote regions. The resulting inequality is not necessarily produced by the algorithm alone; it can arise from the interaction between automated systems and unequal social conditions. Effective regulation must therefore assess the social environment in which AI operates rather than evaluating the technology solely through technical performance indicators.

Public reliance on AI also creates risks associated with automated eligibility systems. Social assistance, healthcare prioritization, scholarship distribution, public employment screening, and law-enforcement risk assessment may directly affect access to fundamental rights or opportunities. When an individual is adversely affected by an automated decision, the absence of a meaningful appeal mechanism can transform a technical error into a human rights violation. Research on algorithmic discrimination in public service provision demonstrates that public perceptions of responsibility remain central when discriminatory outcomes are produced through automated systems (Araujo et al. 2025). From a legal perspective, responsibility cannot be transferred to technology. The state remains accountable for the systems it selects, deploys, and relies upon in exercising public authority.

These risks are particularly severe for vulnerable groups. Persons with disabilities may be excluded when systems are not designed for accessibility. Rural communities may be disadvantaged because datasets and infrastructure are concentrated in urban areas. Women and minority groups may experience adverse outcomes where historical discrimination is reflected in administrative data. Children may be affected by automated educational or welfare profiling without sufficient capacity to understand or challenge the process. The risk-based approach proposed in this article therefore requires public institutions to examine whether specific populations are likely to experience disproportionate consequences before AI systems are deployed. Non-discrimination should be treated as a substantive design requirement rather than merely as a legal remedy available after harm occurs.

Indonesia's Legal Framework and the Accountability Gap in AI Governance

Indonesia does not yet possess a single comprehensive statute specifically regulating artificial intelligence across all sectors. Instead, AI governance is distributed across constitutional principles, human rights law, data protection, administrative law, electronic systems regulation, sectoral policies, and national strategic documents. This fragmented structure provides several legal principles relevant to algorithmic accountability but does not yet establish a comprehensive

framework for high-impact automated decision-making. Syahril et al. (2024) argue that existing Indonesian regulations remain inadequate because they do not specifically regulate accountability, transparency, discrimination, and human rights risks associated with AI. This regulatory gap becomes increasingly significant as public institutions adopt more sophisticated automated systems.

Law No. 25 of 2009 concerning Public Services provides an important legal basis for evaluating AI-based public administration. The law establishes principles concerning legal certainty, equal rights, accountability, participation, transparency, and special facilities for vulnerable groups. These principles should apply regardless of whether a service is delivered by a human official or supported by algorithmic technology. A public institution cannot avoid its obligations under the Public Service Law by arguing that an unfavorable outcome was generated automatically. Where AI influences a decision, the responsible institution should remain obligated to ensure that the service is fair, accountable, transparent, and responsive to complaints.

Law No. 30 of 2014 concerning Government Administration is equally relevant because it establishes principles governing governmental decisions and actions. Administrative decisions must be based on legal authority and comply with the General Principles of Good Governance. The introduction of AI does not eliminate the requirement that public decisions have a legal basis and can be subjected to review. If an algorithm substantially determines an administrative outcome, the legal status of that process must be clarified. Citizens should know whether the algorithm provides a recommendation or effectively makes the decision. Where automated systems have a decisive influence, administrative authorities must ensure that the resulting decision remains reviewable and that affected individuals can challenge inaccurate data or unjustified classifications.

Law No. 27 of 2022 concerning Personal Data Protection provides another essential component of AI governance. AI systems used by public institutions may process personal data on a large scale, creating risks of excessive collection, secondary use, and inaccurate profiling. The law establishes principles of lawful processing and obligations relating to data protection. However, data protection alone cannot fully address algorithmic discrimination. A system can comply with data-security requirements while still producing unfair outcomes. The regulation of AI therefore requires an integrated approach that connects privacy with equality, procedural fairness, and administrative accountability. Data protection should be treated as a necessary but insufficient safeguard.

Government Regulation No. 71 of 2019 concerning the Implementation of Electronic Systems and Transactions also establishes important obligations concerning the reliability and security of electronic systems. However, AI systems require additional governance measures because reliability in technical terms does not necessarily guarantee fairness or non-discrimination. An algorithm may operate consistently and accurately according to its programming while systematically disadvantaging particular groups. Consequently, technical compliance should not

be confused with human rights compliance. Mahidol and Adinda (2025) argue that emerging technology regulation in Indonesia requires a stronger integration of human dignity, privacy, and algorithmic accountability. This approach is particularly important for public institutions because government decisions possess legal authority and may affect citizens who have no realistic alternative service provider.

The national strategy on artificial intelligence provides policy direction for Indonesia's technological development but requires stronger implementation mechanisms in relation to high-impact systems. OECD (2024) observes that governments increasingly use AI to improve public administration while also facing distinctive risks concerning trust, accountability, and governance. The public sector requires particularly strong safeguards because algorithmic failures can affect large populations and involve the exercise of governmental power. Indonesia should therefore move beyond general ethical principles toward enforceable obligations. High-risk systems should not be governed solely through voluntary commitments or internal technical guidelines. Where AI can influence access to rights, benefits, or public sanctions, legal safeguards should be mandatory and subject to independent oversight.

Building a Human Rights-Based Algorithmic Accountability Framework

A rights-based framework should begin with mandatory algorithmic impact assessments before high-impact AI systems are deployed. The assessment should identify the purpose of the system, the legal basis for its use, the categories of individuals affected, the nature of the data processed, and the potential consequences of error or discrimination. Public institutions should also examine whether the same objective could be achieved through less intrusive or less discriminatory methods. Impact assessments should not be treated as purely technical documents. They should include human rights analysis concerning equality, privacy, due process, accessibility, and potential effects on vulnerable communities. Systems presenting serious risks should be subject to stricter requirements before deployment.

Data governance should form the second component of accountability. Public institutions should examine whether datasets are representative, accurate, relevant, and sufficiently current for the intended purpose. Historical data should not be assumed to provide an objective foundation simply because it was generated through prior administrative processes. If historical systems were unequal, their data may reproduce the same inequalities in automated form. Data quality assessments should therefore include examinations of missing information, geographic imbalances, demographic representation, and potential proxy variables. Where significant bias cannot be mitigated, the system should not be deployed for high-impact decisions. Sitinjak et al. (2025) demonstrate that attention to unequal social

and geographic conditions is necessary to prevent AI from deepening existing disparities.

Transparency and explainability should also be legally required, although the required level of explanation should correspond to the impact of the decision. Citizens do not necessarily need access to source code, but they should receive meaningful information about the role of AI in decisions affecting them. An affected person should be able to know whether an algorithm was used, what type of data influenced the outcome, and what principal criteria or factors contributed to an adverse decision. This information is necessary for the exercise of procedural rights. Without meaningful explanation, individuals cannot effectively identify factual errors or challenge potentially discriminatory outcomes. Explainability should therefore be understood as a condition of accountability rather than merely a technical preference.

Meaningful human oversight is equally essential. The concept should not mean that a public official automatically approves an algorithmic recommendation without independent review. Human oversight must include sufficient authority, knowledge, and institutional responsibility to question or override automated outputs. High-impact decisions concerning social assistance, healthcare, education, law enforcement, or other fundamental interests should not rely exclusively on automated determinations. The responsible official should consider whether the result is legally and factually justified in the individual circumstances of the case. This approach reflects the broader principle that technology should assist public administration rather than displace the state's responsibility for lawful and fair decision-making.

Independent auditing should complement internal oversight. Public institutions may lack incentives or technical capacity to identify discrimination in systems they have already invested in or procured. Independent auditors can evaluate algorithmic performance across demographic and socioeconomic groups, examine data governance practices, and test whether systems produce disproportionate adverse outcomes. Audit findings should be reported to an independent supervisory authority and, where appropriate, summarized publicly. Ramadhan et al. (2024) emphasize the need for stronger legal responses to algorithmic discrimination, while Agustian et al. (2025) identify transparency and bias as central governance concerns. Regular auditing would convert these general concerns into an institutional mechanism for continuous accountability.

Finally, Indonesia should establish effective remedies for individuals harmed by automated public decisions. Citizens should have the right to request human review, correct inaccurate data, challenge discriminatory outcomes, and seek administrative or judicial remedies. Complaint mechanisms must be accessible to persons with limited digital literacy or resources and should not require technical expertise to understand the AI system. A rights-based framework must also recognize collective harms. If an audit reveals that an algorithm systematically disadvantages a particular community, the remedy should extend beyond

individual correction and require modification, suspension, or withdrawal of the system. Algorithmic accountability is meaningful only when legal institutions can respond effectively to both individual and structural discrimination.

Conclusion

The expansion of artificial intelligence in Indonesian public services presents substantial opportunities for improving administrative efficiency, responsiveness, and the management of complex information. However, these benefits cannot justify the assumption that automated systems are neutral or inherently objective. Algorithms are created through human decisions concerning data, classification, variables, and institutional objectives. As a result, AI systems can reproduce existing inequalities or generate new forms of discrimination, particularly when historical biases, unequal datasets, opaque models, and structurally unequal access to technology are not adequately addressed. The use of AI in high-impact public decisions must therefore remain subject to the constitutional principles of equality, non-discrimination, legal certainty, and human dignity.

Indonesia already possesses several legal instruments relevant to algorithmic accountability, including the 1945 Constitution, Law No. 39 of 1999 concerning Human Rights, Law No. 25 of 2009 concerning Public Services, Law No. 30 of 2014 concerning Government Administration, Law No. 27 of 2022 concerning Personal Data Protection, and Government Regulation No. 71 of 2019 concerning Electronic Systems and Transactions. Nevertheless, these instruments do not yet create a comprehensive framework specifically addressing automated discrimination in public decision-making. The current regulatory challenge is therefore not simply the absence of relevant legal principles, but the lack of integrated and enforceable procedures governing the design, deployment, review, and contestation of high-impact algorithmic systems.

A human rights-based AI governance framework should require mandatory impact assessments, rigorous data-quality controls, meaningful transparency, human oversight, independent audits, and accessible remedies. Vulnerable groups must receive particular attention because the consequences of algorithmic error are rarely distributed equally across society. Public institutions should also remain legally responsible for automated systems used in their decision-making, including systems developed or supplied by private technology providers. Indonesia's AI governance should therefore adopt a risk-based approach in which stronger safeguards apply as the potential impact on rights and public interests increases. Artificial intelligence can support more effective public administration, but only when technological innovation remains subordinate to constitutional accountability and the protection of human rights.

References

- Agustian, Dimas, S. Y. Regif, Hendrikus Hironimus Botha, Andre Pattipeilohy, and Samsul Ode. 2025. "Artificial Intelligence in the Implementation of Public Governance: Public Data Security Vulnerabilities in Indonesia." *Jurnal Kebijakan Publik* 16 (1).
- Araujo, Ricardo, et al. 2025. "Algorithmic Discrimination in Public Service Provision: Understanding Citizens' Attribution of Responsibility for Human versus Algorithmic Discriminatory Outcomes." *Journal of Public Administration Research and Theory*. <https://doi.org/10.1093/jopart/muaf024>.
- Chairuddin, A., et al. 2024. "The Role of Artificial Intelligence in Enhancing Efficiency, Transparency, and Inclusivity of Public Services in Indonesia: Opportunities, Challenges, and Strategic Approaches." *Jurnal Ilmiah Ilmu Administrasi Publik* 14 (2). <https://doi.org/10.26858/jiap.v14i2.67932>.
- Indonesia. 1945. *The 1945 Constitution of the Republic of Indonesia*.
- Indonesia. 1999. *Law No. 39 of 1999 concerning Human Rights*.
- Indonesia. 2005. *Law No. 12 of 2005 concerning the Ratification of the International Covenant on Civil and Political Rights*.
- Indonesia. 2009. *Law No. 25 of 2009 concerning Public Services*.
- Indonesia. 2014. *Law No. 30 of 2014 concerning Government Administration*.
- Indonesia. 2019. *Government Regulation No. 71 of 2019 concerning the Implementation of Electronic Systems and Transactions*.
- Indonesia. 2022. *Law No. 27 of 2022 concerning Personal Data Protection*.
- Judijanto, Loso, Adam Mudinillah, Rashid Rahman, and Nikhil Joshi. 2025. "AI and Social Equity: Challenges and Opportunities in the Age of Automation." *Journal of Social Science Utilizing Technology* 3 (1). <https://doi.org/10.70177/jssut.v3i1.2117>.
- Mahidol, Eunike Putri, and Fadhel Arjuna Adinda. 2025. "Artificial Intelligence, Digital Rights, and Human Dignity in Indonesia's Tech Regulation." *Contemporary Issues on Indonesian Human Rights Law and Policy* 2 (1). <https://doi.org/10.65815/5ef5c858>.
- OECD. 2024. *Governing with Artificial Intelligence: Are Governments Ready?* OECD Artificial Intelligence Papers No. 20. Paris: OECD Publishing. <https://doi.org/10.1787/26324bc2-en>.
- Ramadhan, Muhammad Syahri, Meria Utama, Irsan Irsan, Ariesta Wibisono Anditya, and Serlika Aprita. 2024. "Algorithmic Discrimination and the Challenges of Artificial Intelligence Regulation in Indonesia: A Pluralistic Justice Perspective." *Jurnal Studi Sosial dan Politik* 8 (2). <https://doi.org/10.19109/jssp.v8i2.36617>.
- Sitinjak, Ris Heskiel Najogi, Silvi May Angelia Purba, Salma Majidah, and Natasya Anggraeni Azis. 2025. "Towards a Non-Discriminatory Artificial Intelligence

- in Healthcare: Ensuring Equal Access and Utilization for Rural and Underdeveloped Areas." *Jurnal HAM* 16 (2): 177–196. <https://doi.org/10.30641/ham.2025.16.177-196>.
- Syahril, Muh. Akbar Fhad, A. Darmawansya TL, Murdiono Murdiono, and Arini Asriyani. 2024. "Artificial Intelligence dan Hak Asasi Manusia: Kajian Hukum tentang Potensi Bahaya di Indonesia." *Jurnal Litigasi Amsir* 11 (3): 359–364.
- United Nations. 1966. *International Covenant on Civil and Political Rights*.
- Wahyudi, Erfan, and Wiredarme. 2023. "Constitutional Implications of the Use of Machine Learning in Indonesia's Social Assistance Selection and Distribution System." *Jurnal Kecerdasan Buatan dan Teknologi Informasi* 2 (3).
- Yeung, Karen. 2018. "Algorithmic Regulation: A Critical Interrogation." *Regulation & Governance* 12 (4): 505–523. <https://doi.org/10.1111/rego.12158>.
- Zarsky, Tal. 2016. "The Trouble with Algorithmic Decisions: An Analytic Road Map to Examine Efficiency and Fairness in Automated and Opaque Decision Making." *Science, Technology, & Human Values* 41 (1): 118–132.

Acknowledgment

None

Funding Information

None

Conflicting Interest Statement

The authors state that there is no conflict of interest in the publication of this article.

Publishing Ethical and Originality Statement

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

Generative AI Statement

N/A