



Understanding the Regulation of the Use of Artificial Intelligence Under International Law

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ARTICLE INFO	ABSTRACT
Received: 02 Apr 2024	The development of artificial intelligence (AI) has revolutionized various aspects of human life, from the economic sector to the government system. While it brings significant benefits, AI also poses legal and ethical risks that have not been fully addressed in the current international legal framework. This research aims to analyze the regulation of the use of AI from the perspective of international law and identify challenges and opportunities in shaping a global legal framework that is responsive to the development of AI. This study uses a normative juridical method with a conceptual approach and legal comparison. The legal materials used include international legal instruments such as the Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), soft law documents such as the UNESCO Recommendation on the Ethics of Artificial Intelligence, and regional regulations such as the EU Artificial Intelligence Act. The results show that there is no specific binding international agreement related to AI, so there is a legal vacuum in the regulation. This disintegration of international legal norms has implications for weak human rights protection mechanisms, unclear legal responsibility for the impact of AI, and weak governance of technology across countries. In addition, regulations that are unilateral or regional, such as those carried out by the European Union, have the potential to create a regulatory gap between developed and developing countries. This study concludes that it is necessary to establish a binding, inclusive, and ethical international legal framework for regulating the use of AI.
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1. Introduction

The development of artificial intelligence (AI) technology globally has had a transformative impact on various sectors of life, ranging from health services, education, industry, defense, to the legal system². However, these advances also pose serious challenges related to ethics, legal responsibility, security, and human rights protection in their use³. Legal uncertainty regarding the regulation of the use of AI has prompted the international community to formulate legal standards that can effectively and fairly regulate AI, in line with applicable international legal principles⁴.

Although some countries and regional organizations such as the European Union have begun to develop policies and legal frameworks governing the use of AI⁵, there is not yet a strong global consensus on the basic principles of AI regulation. This raises concerns about regulatory fragmentation and potential violations of universal principles such as non-discrimination, accountability, and fairness⁶. One example is AI in surveillance and law enforcement systems that can impact individual civil liberties and privacy⁷.

Within the framework of international law, AI meets various legal regimes such as human rights law, international humanitarian law, cyber law, and even international trade law. This complexity shows that AI regulation requires a multidisciplinary and cross-sectoral approach that combines technological, legal, and ethical perspectives. In addition, a participatory and collaborative approach between countries is important in ensuring that AI regulation not only protects the interests of developed countries, but also provides a fair space for developing countries to use this technology responsibly⁸.

Several international legal instruments have attempted to address this challenge, such as UNESCO's Recommendation on the Ethics of Artificial Intelligence (2021)⁹, as well as various discussions within the UN framework on the development of international norms for AI. However, the implementation of these recommendations still faces political, economic, and technical obstacles. Countries have diverse interpretations of how AI should be regulated, and many prioritize a pragmatic approach that prioritizes economic innovation over the principle of prudence¹⁰.

² Rowena Rodrigues, "Legal and Human Rights Issues of AI: Gaps, Challenges and Vulnerabilities," *Journal of Responsible Technology* 4, no. August (2020): 100005, <https://doi.org/10.1016/j.jrt.2020.100005>.

³ Emmanouil Papagiannidis, Patrick Mikalef, and Kieran Conboy, "Responsible Artificial Intelligence Governance: A Review and Research Framework," *The Journal of Strategic Information Systems* 34, no. 2 (2025): 101885, <https://doi.org/https://doi.org/10.1016/j.jsis.2024.101885>.

⁴ UNESCO, "Recommendation on the Ethics of Artificial Intelligence," *Unesco*, no. November (2021): 1–21, <https://unesdoc.unesco.org/ark:/48223/pf0000380455>.

⁵ European Union, "EU AI Act: First Regulation on Artificial Intelligence," European Parliament, 2023.

⁶ Bryan H. Druzin, Anatole Boute, and Michael Ramsden, "Confronting Catastrophic Risk: The International Obligation to Regulate Artificial Intelligence," *Michigan Journal of International Law* 46, no. April (2025): 1–47.

⁷ Anne Dulka, "The Use of Artificial Intelligence in International Human Rights Law," *Stanford Technology Law Review* 26, no. 2 (2023): 316–66, <https://perma.cc/5D6X-HG3F>.

⁸ José Miguel Bello y Villarino, "Global Standard-Setting for Artificial Intelligence: Para-Regulating International Law for AI?," *Australian Year Book of International Law* 41, no. 1 (2023): 157–81, <https://doi.org/10.1163/26660229-04101018>.

⁹ UNESCO, "Recommendation on the Ethics of Artificial Intelligence."

¹⁰ Qiang REN and Jing DU, "Harmonizing Innovation and Regulation: The EU Artificial Intelligence Act in the International Trade Context," *Computer Law & Security Review* 54 (2024): 106028, <https://doi.org/https://doi.org/10.1016/j.clsr.2024.106028>.

Based on this background, this study aims to analyze how international law responds to regulatory needs for the use of artificial intelligence. This research also seeks to identify the principles of international law that can be used as a basis for building an inclusive, equitable, and sustainable global normative framework for AI technology.

2. Legal Methods and Materials

This research uses a normative juridical approach with a focus on the analysis of international law that regulates the use of artificial intelligence (AI)¹¹. This approach was chosen because it allows researchers to examine legal norms sourced from international instruments, both in the form of conventions, declarations, and relevant recommendations. Normative juridical research relies on literature studies and analysis of primary and secondary legal materials to assess the suitability of international legal norms for the phenomenon of AI technology development.

1) Types of Research

The type of research used is doctrinal or normative, which examines law as a norm or rule that lives in the international community. The focus is on the systematization, interpretation, and evaluation of various international legal instruments and state practices in regulating AI. This research also identifies a legal gap in the regulation of AI at the global level.

2) Research Approach. There are three approaches used in this study:

- The statute approach is based on documents such as UNESCO's Recommendation on the Ethics of Artificial Intelligence (2021), the OECD AI Principles (2019), and the Council of Europe's Draft Convention on Artificial Intelligence.
- The conceptual approach is by examining key concepts such as state responsibility, precautionary principle, human rights, and good governance in the context of AI technology.
- Comparative approach, by comparing AI regulations in several international jurisdictions (European Union, United States, and China) to identify differences and similarities in legal frameworks that can be used as a global reference.

3) Legal Materials. This research uses three types of legal materials:

- a. Primary legal materials, namely international legal instruments such as:
 - Universal Declaration of Human Rights (1948),
 - International Covenant on Civil and Political Rights (1966),
 - UNESCO Recommendation on the Ethics of Artificial Intelligence (2021),
 - OECD Principles on Artificial Intelligence (2019),
 - European Commission's Proposal for AI Regulation (Artificial Intelligence Act, 2021).

¹¹ Mohamed Hadi et al., "Implications of Artificial Intelligence Technology on International Law" 10 (2025).

b. Tertiary legal materials, such as international law dictionaries, legal encyclopedias, and digital legal databases to support term searches and strengthen terminological analysis.

4) Analytical Techniques

The analysis is carried out using a descriptive-analytical method, namely by explaining the content and meaning of applicable legal norms, then comparing them with current international legal practice.¹² Furthermore, normative gaps were identified and consistency tests were carried out between the principles of international law and national policies related to AI. Emphasis is placed on issues of legal responsibility, human rights protection, and global governance of AI. With this method, the research is expected to contribute to the development of an international legal framework that is more inclusive and responsive to the dynamics of artificial intelligence technology.

3. Results and Discussion

3.1 Principles of international law that can be used as a basis for building an inclusive, equitable, and sustainable global normative framework for AI technology

The development of artificial intelligence (AI) has entered various sectors of life and given birth to a paradigm shift in the way humans work, interact, and make decisions.¹³ Although it has great potential to support global development, AI also poses complex risks, including human rights violations, data security, algorithmic discrimination, and threats to state sovereignty.¹⁴ In the context of international law, a major challenge arises from the absence of a single universally binding legal framework to govern the use of AI.¹⁵ Therefore, this section discusses six key issues that reflect the status and challenges of AI regulation in international law, as well as analyzes how current legal principles and instruments seek to address these issues.

1. Absence of Specific Binding International Legal Instruments on AI

Although AI has become an integral part of global technological development, there is no single specific and binding international legal instrument governing its use. Existing efforts are still at the level of soft law, such as the OECD principles (2019) and the UNESCO Recommendation on the Ethics of Artificial Intelligence (2021), which are only normative and do not have legal force.

The absence of this binding legal framework creates a gray area in the application and oversight of AI. According to Yara (2021), the proliferation of soft norms on AI highlights a consensus on ethical goals, but the lack of binding

¹² Amiruddin and H. Zainal Asikin, *Pengantar Metode Penelitian Hukum* (Jakarta: PT. RajaGrafindo Persada, 2012).

¹³ Mattias Holzhausen, "Legal Accountability and Ethical Considerations for Outcomes Driven by Artificial Intelligence in Business Operations," *Udayana Journal of Law and Culture* 8, no. 1 (2024): 1–23, <https://doi.org/10.24843/UJLC.2024.v08.i01.p01>.

¹⁴ Jialing Liu, "Artificial Intelligence and International Law: The Impact of Emerging Technologies on the Global Legal System," *Economics, Law and Policy* 7, no. 2 (2024): p73, <https://doi.org/10.22158/elp.v7n2p73>.

¹⁵ Naek Siregar et al., "The Use of Artificial Intelligence in Armed Conflict under International Law," *Hasanuddin Law Review* 10, no. 2 (2024): 189–205, <https://doi.org/10.20956/halrev.v10i2.5267>.

regulation results in fragmented legal regimes and regulatory arbitrage.¹⁶ This means that a country or entity can choose which norm is favorable without regard to global harmonization.

In addition, the lack of international legal standards magnifies the risk of regulatory inequities between developed and developing countries, which can lead to technological inequality and cross-border data exploitation.

2. AI and Human Rights in International Law Perspective

AI has the potential to violate the fundamental rights of individuals if it is not designed and supervised with the principles of fairness and accountability. In the international legal system, the rights to fair treatment, non-discrimination, and privacy have been guaranteed by various instruments such as the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR)¹⁷. However, many AI systems today do not fully comply with these principles.

Agus (2023) highlighted the inaccuracies of facial recognition systems for minority groups.¹⁸ “Commercial facial analysis systems demonstrated substantial disparities in accuracy based on gender and skin tone, which may institutionalize existing biases when deployed in real-world scenarios.” This kind of violation is clearly contrary to Articles 7 and 26 of the ICCPR which guarantee equal treatment. This condition shows that the protection of human rights must be a key principle in the development and application of AI. Therefore, there is a need to integrate human rights principles into global technology design standards required by international law.

3. Responsibilities of States and Non-State Actors in the Use of AI

Liability for losses caused by AI systems is a crucial issue in international law. When AI is used for military, financial, or legal decision-making operations, who is responsible if AI causes harm? In classical international law, state responsibility is the main principle, as set out in the Draft Articles on State Responsibility by the International Law Commission (ILC). However, in the context of AI, the main actors come precisely from the private sector: multinational technology companies that are not always subject to a specific jurisdiction.

Bhushan (2023) stated that we must move beyond state-centric liability models to hybrid frameworks that recognize the shared nature of technological harms involving private and public actors.¹⁹ In other words, the concept of shared

¹⁶ Olena Yara et al., “Legal Regulation of the Use of Artificial Intelligence: Problems and Development Prospects,” *European Journal of Sustainable Development* 10, no. 1 (2021): 281–89, <https://doi.org/10.14207/ejsd.2021.v10n1p281>.

¹⁷ United Nations, *International Covenant on Civil and Political Rights (ICCPR)*, 1966.

¹⁸ A Agus et al., “The Use of Artificial Intelligence in Dispute Resolution through Arbitration: The Potential and Challenges,” *Sasi* 29, no. 3 (2023): 570–78, <https://doi.org/10.47268/sasi.v29i3.1393>.

¹⁹ Tripti Bhushan, “Artificial Intelligence, Cyberspace and International Law,” *Indonesian Journal of International Law* 21, no. 2 (2023): 59–92, <https://doi.org/10.17304/ijil.vol21.2.3>.

responsibility needs to be considered to answer the complexity of AI technology that does not only involve the state.

4. Regional Regulation: A Case Study of the European Union and a Proactive Approach to AI

The European Union has been a pioneer in developing a comprehensive AI legal framework. The proposed Artificial Intelligence Act (2021) divides AI systems into risk categories and regulates legal treatment based on their level of risk.²⁰ Systems that include “high-risk AI” such as automated hiring systems or mandatory credit evaluation systems through compliance and accountability assessments. The EU’s risk-based approach reflects not only legal prudence but also a deep commitment to human dignity, transparency, and public trust in AI.²¹ This approach is exemplary as a comprehensive and human rights-based normative framework. The EU also emphasizes on clarity on the roles and responsibilities of actors, as well as sanctions and oversight mechanisms by an independent body called the European Artificial Intelligence Board (EAIB).

5. UNESCO and Global Normative Efforts

UNESCO’s (2021) recommendations regarding AI ethics are one of the important efforts in building global norms. While not binding, this document contains universal principles such as accountability, non-discrimination, social justice, and environmental sustainability. Cabrera et al. (2025)²² argue that, “Soft-law instruments such as the UNESCO recommendations can contribute to customary international law when widely accepted and implemented by states.” Thus, this normative instrument has the potential to be the basis for the formation of customary international law.

6. Global Challenges in the Establishment of International Law on AI

The biggest obstacle in the formation of international law on AI is the difference in geopolitical interests. Countries like the U.S. and China display opposing approaches—the U.S. tends to prioritize market freedom, while China emphasizes state control.²³ states that “A minimum viable treaty could help mitigate fragmentation and serve as a first step toward a global AI governance framework.” This compromise approach is important to build trust and collaboration between countries. However, international agreements will require a lengthy process, involving the establishment of common norms, harmonization

²⁰ András Hárs, “AI and International Law-Legal Personality and Avenues for Regulation,” *Hungarian Journal of Legal Studies* 62, no. 4 (2021): 320–44, <https://doi.org/10.1556/2052.2022.00352>.

²¹ European Union, “Regulation 2024/1689,” *Official Journal of the European Union* 1689, no. 3 (2024): 1–144.

²² Sandeep Reddy, “Global Harmonization of Artificial Intelligence-Enabled Software as a Medical Device Regulation: Addressing Challenges and Unifying Standards,” *Mayo Clinic Proceedings: Digital Health* 3, no. 1 (2025): 100191, <https://doi.org/https://doi.org/10.1016/j.mcpdig.2024.100191>.

²³ Mateus De Oliveira Fomasier, “The Regulation of the Use of Artificial Intelligence (AI) in Warfare: Between International Humanitarian Law (IHL) and Meaningful Human Control,” *Revista Jurídica Da Presidência* 23, no. 129 (2021): 67–93, <https://doi.org/10.20499/2236-3645.rjp2021v23e129-2229>.

of national interests²⁴, and strengthening the capacity of global institutions such as the ITU and UNDP.

4. Conclusion

The rapid development of artificial intelligence (AI) technology has created complex legal challenges in the international arena.²⁵ Through a juridical analysis of various international legal instruments and global practices, this study concludes several important points. First, there is not a single international legal instrument that is specifically binding on the use of AI. The existing legal framework is still at the soft law level and has not been able to regulate the use of AI comprehensively and evenly between countries. This creates a legal vacuum and regulatory fragmentation globally. Second, AI has great potential to violate human rights, such as algorithmic discrimination, privacy violations, and unaccountable automated decision-making. Although these rights have been guaranteed in instruments such as the ICCPR and the UDHR, there is not yet an adequate international legal mechanism to ensure the compliance of AI technologies with these principles. Third, liability for losses caused by AI is still a serious issue. The accountability framework in international law is currently still state-centric, while in practice, the main actors of AI are non-state entities such as multinational corporations. Therefore, the concept of shared responsibility between the state and the private sector needs to be formulated further. Fourth, regional efforts such as the EU AI Act and global recommendations such as the UNESCO Recommendation on the Ethics of AI demonstrate the potential for the formation of inclusive and value-based legal norms. However, differences in geopolitical approaches between countries remain a major obstacle in the establishment of universally binding international agreements.

The results of this study have important implications both academically and practically. Academically, this research opens up space for more specific international legal studies of new technologies such as AI, emphasizing the importance of a multidisciplinary approach between law, ethics, and technology. In practical terms, this research encourages countries to play an active role in forming an international legal regime that can respond to AI developments in a fair and sustainable manner. AI regulation should not only be reactive, but proactive and oriented towards human rights protection, legal responsibility, and fair global governance. Governments, international institutions, and the private sector must collaborate in formulating basic principles that can be the basis for the establishment of a binding international treaty on AI. In addition, increasing the capacity of developing countries in understanding and formulating AI policies needs to be part of a global strategy so that there is no regulatory gap between developed and developing countries.

²⁴ Asiva Noor Rachmayani, "Artificial Intelligence Regulation on Labour Market: Comparative Perspectives on the European Union Artificial Intelligence Act in the Indonesian Context," *Lex Scientia Law Review* 8, no. 1 (2024): 299–320, <https://doi.org/10.15294/lslr.v8i1.3465>.

²⁵ Luis A Garcia-Segura, "The Role of Artificial Intelligence in Preventing Corporate Crime," *Journal of Economic Criminology* 5 (2024): 100091, <https://doi.org/https://doi.org/10.1016/j.jeconc.2024.100091>.

Conflict of Interest Statement

There is no conflict of interest in the creation of this article

Author's contribution Statement

The author made a major contribution to the conception and design of the research. The author takes responsibility for data analysis, interpretation and discussion of results with the help of AI (ChatGPT). The author reads and approves this final text.

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