



Intellectual Property Rights Violations in Data Generated by Artificial Intelligence: A Comparative Analysis between Indonesian Law and International Practices

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Article Process Abstract

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This article examines the issue of intellectual property rights (IPR) violations arising from the use of Artificial Intelligence (AI) in generating creative works. While AI technologies have advanced rapidly and are capable of producing outputs comparable to human creations, legal frameworks remain underdeveloped. Some jurisdictions restrict copyright ownership to humans, while others explore whether AI or its owners may hold rights. The Indonesian Copyright Law (Law No. 28/2014)¹ does not explicitly regulate AI-generated works, resulting in a legal vacuum. This study adopts a normative legal research method with statute, comparative, and case approaches to analyze Indonesia's regulatory gaps alongside practices in the United States, European Union, and Japan. Findings show that Indonesian law remains limited to conventional notions of human authorship, while international cases such as *Thaler v. Copyright Office*² and *Getty Images v. Stability AI*³ illustrate ongoing disputes about AI creativity and copyright. The article contributes by proposing policy reforms in Indonesia, emphasizing the need for adaptive legislation, clearer liability mechanisms, and harmonization with global standards. Implications: Strengthening protection for creators, ensuring fair use of data in AI training, and advancing international dialogue on AI's legal status.

Keywords: Artificial Intelligence, Intellectual Property Rights, Copyright Law, Indonesia, Comparative Law

I. Introduction

AI has significantly reshaped the realm of creativity and innovation. From generating text and composing music to creating visual art, AI can produce works that rival, and even surpass, human creativity. This raises profound questions for intellectual property rights (IPR), which traditionally assume that only human beings or legal entities may be authors or rights holders. Technological advancements have also transformed the way people work, shifting from manual

processes to more automated and digital systems. One of the main factors influencing this change is the presence of artificial intelligence (AI).¹

Technological developments have impacted in all aspects, including intellectual property rights. The characteristic of AI has the ability to imitate human intelligence; that has become a significant concern for human life, where humans, as legal subjects, have rights to their creations, intellectual property rights and are protected by law. Intellectual Property Law has undergone a long development. Its existence is estimated to be hundreds of years old, and its system has undergone changes and developments in accordance with the progress of the times.²

In Indonesia, Law No. 28 of 2014 on Copyright maintains this anthropocentric approach, leaving AI-generated works outside clear legal recognition. Internationally, the issue has gained prominence. The United States Copyright Office has rejected copyright registration for AI-only works, arguing that human authorship is indispensable. In contrast, debates in the European Union and Japan suggest a gradual shift toward acknowledging AI's role, at least indirectly through the rights of AI system owners or users.

Cases such as *Thaler v. Copyright Office*³ in the US and *Getty Images v. Stability AI* in the UK demonstrate the growing friction between traditional copyright law and AI technologies. Despite the relevance of these issues, scholarly works in Indonesia remain limited, often focusing narrowly on the general concept of copyright without addressing AI's transformative role.

II. Research Problems

The rapid advancement of artificial intelligence (AI) has produced new forms of creative works that challenge traditional copyright concepts, particularly in determining authorship, ownership, and liability. In Indonesia, it remains uncertain whether existing copyright law adequately regulates AI-generated works, leaving potential gaps in protection and enforcement. Meanwhile, various international jurisdictions have adopted different approaches to address these issues, creating both opportunities for comparative learning and risks of legal inconsistency in cross-border contexts. Against this backdrop, Indonesia faces the pressing need to reform its copyright policy to align with international developments while ensuring that domestic creators remain protected and incentivized in the evolving digital landscape.

III. Research Methods

This research employs normative legal methods, emphasizing doctrinal analysis of statutes, cases, and academic literature. Three legal approaches are utilized:

- a) Statute approach: Indonesian Copyright Law (Law No. 28/2014) the Berne Convention⁴, and the TRIPS Agreement⁵.
- b) Comparative approach: Evaluation of US, EU, and Japanese laws, highlighting similarities and divergences.
- c) Case approach: *Thaler v. Copyright Office*² (US), *Getty Images v. Stability AI*³ (UK), and Japan's evolving policy on AI-generated manga⁶

¹ Bagus Gede Ari Rama et al., "Urgensi Pengaturan Artificial Intelligence (AI) Dalam Bidang Hukum Hak Cipta Indonesia," *Jurnal Rechtens* 12, no. 2 (2023): 21.

² Sujana Donandi S, *Hak Kekayaan Intelektual Di Indonesia* (Yogyakarta: Budi Utama, 2019).

⁴ *Berne Convention for the Protection of Literary and Artistic Works* (1886).

⁵ *Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)*, 1994.

⁶ OECD, *AI and Intellectual Property: Policy Implications* (Paris: OECD Publishing, 2020).

Normative legal research also refers to legal regulations. The research data is in the form of data from legal materials used through legal material searches or literature studies of primary, secondary and tertiary legal materials.⁷ The study of legal materials is conducted using qualitative analysis methods, which aim to describe legal events, legal materials, and legal products in depth to facilitate the process of legal interpretation.⁸ In qualitative research, the collection of data aligned with the research objectives or problems is analyzed in depth using a comprehensive and holistic approach.⁹ Qualitative analysis is used to interpret these materials, identify legal gaps, and propose reforms. By triangulating these approaches, the study ensures analytical rigor and replicability consistent with international academic standards.

IV. Result and Discussion

1. AI as Tool vs. AI as Creator

Most jurisdictions treat AI as a tool akin to a camera or brush. Human involvement remains essential for copyright eligibility. However, deep learning models demonstrate creative autonomy, challenging this view. Scholars debate whether AI should be recognized as a legal subject or whether rights should always be mediated through human stakeholders.¹⁰

The debate over whether artificial intelligence (AI) should be considered merely as a tool or as an autonomous creator lies at the heart of contemporary copyright discourse.¹¹ Most jurisdictions continue to regard AI as an instrument, comparable to a camera, musical instrument, or paintbrush, where the creativity and originality stem from human input, direction, and intent. In this framework, copyright subsists only when a human being exercises sufficient control and demonstrates creative choices that can be attributed to the final work. For example, if an artist uses AI to enhance an image or generate variations based on their design parameters, the human author remains the legal rights holder, and the AI functions only as an extension of the author's creative process.

However, the rapid development of machine learning and generative models, such as large language models, generative adversarial networks (GANs), and diffusion models has complicated this traditional view. Unlike traditional tools, AI systems can produce outputs that may not be fully anticipated or directly controlled by the human user. This "creative autonomy" challenges the anthropocentric foundation of copyright law. When an AI system produces a poem, painting, or musical composition without specific detailed instructions, questions arise: is the human still the true author, or does authorship become ambiguous?

Scholars are divided on how to address this dilemma. One perspective argues that AI can never be an author in a legal sense because authorship presupposes personhood, creativity, and accountability qualities that AI lacks.¹² According to this view, copyright should always be mediated through human stakeholders, such as the programmer, the system owner, or the user, who bear responsibility for deploying the AI. Another perspective, however, contends that AI's increasing autonomy necessitates a rethinking of authorship. Some legal theorists propose

⁷ Ida Hanifah and Ismail Koto, "Problema Hukum Seputar Tunjangan Hari Raya Di Masa Pandemi COVID-19," *Jurnal Yuridis* 8, no. 1 (2021): 23.

⁸ Zainuddin and Rahmat Ramadhani, "The Legal Force Of Electronic Signatures in Online Mortgage Registration," *Jurnal Penelitian Hukum De Jure* 21, no. 2 (2021): 244.

⁹ Rahimah and Ismail Koto, "Implications of Parenting Patterns in the Development of Early Childhood Social Attitudes," *IJRS: International Journal Reglement & Society* 3, no. 2 (2022): 129-33.

¹⁰ Jane C. Ginsburg, "People Not Machines: Authorship and AI-Generated Works," *Columbia Journal of Law & the Arts* 45, no. 2 (2022): 123-145.

¹¹ Hristov, K. (2016). Artificial intelligence and the copyright dilemma. *Idea*, 57, 431.

¹² Craig, C., & Kerr, I. (2025). The death of the AI author. *In Robot Law: Volume II* (pp. 250-285). Edward Elgar Publishing.

recognizing AI as a form of “electronic personhood,” analogous to corporate personhood, which would allow AI systems to hold rights and obligations in a limited capacity. Although controversial, this approach reflects the growing acknowledgment that AI’s creative capacity is fundamentally different from traditional tools.

International practices highlight this divergence. The United States Copyright Office has consistently rejected applications for works generated exclusively by AI, reinforcing the principle that human authorship is indispensable. In contrast, the European Union has initiated debates on whether rights could be indirectly attributed to the operator or owner of an AI system, acknowledging that human involvement may be minimal but still significant in shaping the work. Japan has similarly considered *sui generis* protection for AI-generated outputs, which would protect the value of AI works without redefining authorship. These differing approaches demonstrate the lack of global consensus and the ongoing struggle to balance technological realities with long-standing legal principles.

For Indonesia, the choice between treating AI solely as a tool or recognizing it as a creator has profound implications. If AI remains classified strictly as a tool, then copyright protection will hinge on human input, ensuring that human creativity remains central to the legal framework. However, these risks leaving entirely AI-generated works outside the scope of protection, potentially discouraging innovation and commercialization.¹³ Conversely, if AI is afforded recognition as a creator – whether directly or indirectly it could open new pathways for protecting AI-driven creativity, but it may also undermine the philosophical foundation of copyright, which is built on the moral and economic rights of human authors.

Therefore, the debate over AI as tool versus AI as creator is not merely theoretical but has direct implications for copyright policy, innovation, and the creative economy. It forces legal systems, including Indonesia’s, to confront fundamental questions: Should copyright law evolve to accommodate non-human creators, or should it preserve its human-centered essence while developing alternative frameworks for AI-generated works?

2. Indonesia’s Legal Vacuum

Indonesian copyright law requires human authorship. As a result, works generated purely by AI lack recognition. Furthermore, the use of copyrighted datasets for AI training without consent risks infringement under Articles 9 and 40.¹⁴ Yet enforcement is unclear, reflecting doctrinal gaps.

Indonesia’s copyright regime, codified in Law No. 28 of 2014 on Copyright, is grounded in an anthropocentric understanding of authorship.¹⁵ The law explicitly stipulates that copyright arises automatically upon the manifestation of a work created by a person, either an individual or a legal entity. This framework leaves no room for recognizing works generated autonomously by artificial intelligence (AI). As a result, creative outputs produced without meaningful human intervention fall outside the scope of copyright protection, effectively placing AI-generated works in a legal vacuum.

This legal gap has two major consequences. First, it creates uncertainty for creators, businesses, and innovators who rely on AI in the production of creative content. Since copyright protection does not extend to works generated solely by AI, stakeholders may be reluctant to

¹³ Li, W., Song, R., Zhang, B., & Yu, K. (2025). AI Creativity and Legal Protection for AI-Generated Works in Posthuman Societal Scenarios. *Sustainable Futures*, 100749.

¹⁴ Bagus Gede Ari Rama et al., “Urgensi Pengaturan Artificial Intelligence (AI) dalam Bidang Hukum Hak Cipta Indonesia,” *Jurnal Rechtens* 12, no. 2 (2023): 115-132.

¹⁵ Sun, H. (2021). Redesigning copyright protection in the era of artificial intelligence. *Iowa L. Rev.*, 107, 1213.

commercialize or invest in such outputs, fearing that they will not be able to assert or defend ownership claims. Second, the absence of recognition risks diminishing the value of creative industries that increasingly depend on AI technology, as potential economic benefits may be lost in the absence of legal certainty.

The issue becomes even more complex when considering the use of pre-existing copyrighted works in AI training. Machine learning models often rely on massive datasets scraped from the internet, which may include protected literary, artistic, or audiovisual works. Under Indonesian Copyright Law, particularly Article 9 (which enumerates the exclusive rights of authors) and Article 40 (which specifies the categories of protected works), the reproduction or adaptation of such works for commercial purposes generally requires authorization from the rights holder. Thus, if an AI model is trained using copyrighted material without consent, the process may constitute infringement.

However, enforcement in this domain remains highly problematic. Current copyright law does not explicitly regulate the use of data for AI training, nor does it provide clear guidance on whether such use qualifies as “fair use” (fair dealing) or an infringement. This doctrinal gap leaves both rights holders and AI developers uncertain about their legal positions. For instance, while rights holders may argue that unauthorized data scraping violates their exclusive rights, AI developers may claim that the process constitutes permissible use, given its transformative and non-expressive character. The lack of jurisprudence or authoritative interpretation exacerbates this uncertainty, leading to inconsistent enforcement and the potential for disputes without clear legal resolution.

Moreover, Indonesia lacks a specific regulatory framework to address the liability of stakeholders involved in AI-generated works.¹⁶ Questions such as whether the programmer, the user, or the AI owner bears responsibility for potential infringements remain unanswered. This ambiguity not only hinders effective enforcement but also exposes stakeholders to legal risks that may discourage innovation.¹⁷

In sum, Indonesia’s copyright law reflects a clear doctrinal vacuum in responding to AI-related challenges. While the law is effective in protecting human-centered creativity, it is silent on how to regulate the creation, use, and commercialization of AI-generated works. This vacuum has practical consequences: it undermines legal certainty, complicates enforcement, and risks leaving Indonesia behind in global debates on intellectual property reform. Bridging this gap will require both legislative reform and doctrinal clarification to ensure that the law keeps pace with technological advancements while safeguarding the interests of domestic creators.

3. Comparative Jurisdictions

The challenges posed by AI-generated works have triggered diverse legal responses across jurisdictions, reflecting different philosophical and policy orientations. Examining these comparative approaches is crucial for Indonesia as it considers potential reforms to address its own legal vacuum.

a. United States

¹⁶ Amiludin, A., & Rokhmawati, S. (2025). Ensuring Legal Certainty of Copyright for AI-Generated Works in Indonesia. *MIMBAR YUSTITIA: Jurnal Hukum dan Hak Asasi Manusia*, 9(1), 71-80.

¹⁷ Setiawati, D., & Huang, N. K. (2024). Intellectual Property Rights Analysis in the Context of Artificial Intelligence Development in the Indonesian Legal Context. *E-Justice: Journal of Law and Technology*, 1(1), 81-94.

Maintains strict human authorship; *Thaler v. Copyright Office* reaffirmed this.¹⁸ The United States adopts one of the most conservative positions on AI-generated works, consistently affirming the necessity of human authorship as a prerequisite for copyright protection. The U.S. Copyright Office has rejected applications for copyright registration where the claimed work was produced exclusively by AI. This stance was reaffirmed in the case of *Thaler v. Copyright Office* (2023), in which the court upheld the denial of copyright protection for an image created by Dr. Stephen Thaler's "Creativity Machine," on the grounds that authorship under the U.S. Copyright Act presupposes human creativity.¹⁹

While this strict approach preserves the anthropocentric foundation of copyright, it also creates challenges for AI-driven industries. Works generated autonomously by AI are excluded from protection, meaning they may fall into the public domain. However, the U.S. Copyright Office has clarified that works involving "sufficient human creative input" in the selection, arrangement, or editing of AI outputs may still qualify for protection. This reflects an attempt to balance human creativity with the realities of AI assistance, but leaves entirely AI-generated works outside the law's scope.

b. European Union

Considering sui generis protections and dataset transparency. The European Union (EU) has pursued a more flexible and experimental approach. While EU copyright law continues to require human authorship, policymakers have recognized the growing role of AI in creative production. Debates within the European Parliament have suggested the possibility of introducing sui generis protections for AI-generated outputs, akin to the EU's existing protections for databases. Such a system would not redefine authorship but would provide limited, utility-based protection to ensure that investments in AI creativity are legally safeguarded.

Another significant EU development relates to dataset transparency. Under the proposed Artificial Intelligence Act and related copyright directives, developers of AI systems may be required to disclose information about the datasets used to train their models. This initiative seeks to strike a balance between fostering AI innovation and protecting the rights of original creators whose works may have been used in training. While this framework is still under discussion, it represents an effort to harmonize AI regulation with broader principles of accountability, fairness, and transparency.

c. Japan

Allows broad use of copyrighted materials for AI training under fair use principles. Japan offers one of the most progressive models in dealing with AI and copyright. Its copyright system explicitly allows for the use of copyrighted materials in AI training under flexible fair use principles. Japanese law recognizes that the act of data processing and machine learning does not directly compete with the expressive use of copyrighted works, and therefore permits broad utilization of protected content for non-expressive purposes, such as algorithmic training.

¹⁸ Mainini, J. (2023). *Stephen Thaler v. Shira Perlmutter, et al.*-No. 22-1564 (BAH)(DDC 2023). *Intell. Prop. & Tech. LJ*, 28, 65.

¹⁹ Gibson, J. (2024). People or patents, inventors or owners: why the Supreme Court decision on artificial intelligence and invention in *Thaler* is significant for all intellectual property. *Queen Mary Journal of Intellectual Property*, 14(1), 1-6.

This permissive approach has positioned Japan as a favorable environment for AI research and development.²⁰ By reducing legal barriers to data access, Japan encourages innovation while still maintaining protections against the unauthorized commercial exploitation of copyrighted works in expressive forms.²¹ However, this model has raised concerns among rights holders who argue that the lack of restrictions may erode their control and economic benefits derived from copyrighted content.

4. Case Law Developments

One of the most prominent disputes highlighting the legal complexities of AI and copyright is *Getty Images v. Stability AI*. Getty Images alleged that millions of its copyrighted photographs were used without authorization to train Stability AI's generative model, raising fundamental questions about the boundaries of copyright in the context of machine learning. This case underscores the inherent tension between fostering technological innovation and protecting the rights of copyright holders. Courts are now confronted with determining whether the unlicensed use of copyrighted works for training purposes constitutes infringement, or whether such practices can be justified under doctrines like fair use or fair dealing.

For Indonesia, the absence of similar litigation does not imply the absence of risk. On the contrary, the lack of explicit regulation leaves creators, AI developers, and courts without clear guidance should such disputes arise in the future. Without legal certainty, Indonesia risks both undermining copyright protection for its domestic creators and discouraging innovation by creating unpredictable liabilities for AI developers. Anticipating these challenges, Indonesia must closely observe international jurisprudence and proactively establish regulatory mechanisms to strike an appropriate balance between innovation and protection.

In the case of *Getty Images versus Stability AI*, the plaintiff claimed that millions of copyrighted images were used without permission in AI training datasets. This illustrates tensions between innovation and protection. Indonesia has no similar litigation yet, but the lack of regulation poses risks.

5. Policy Implications

Indonesia must revise its copyright law: (1) Explicitly address AI-generated works; (2) Clarify liability for developers, owners, and users; (3) Establish dataset transparency rules; (4) Harmonize with international standards.

Intellectual property rights (IPR) mean rights that arise from the results of thinking that produce a work/product/object that has economic value that can be enjoyed.²² In the current legal system, Intellectual Property Rights (IPR) are generally granted to humans as creators or rights holders of a work. However, with the development of artificial intelligence (AI), debate has arisen about whether AI can be considered a legal subject with rights to the works it produces. Some argue that AI, especially those based on machine and deep learning, has achieved a high enough level of creativity to deserve legal recognition as creators. However, most current legal

²⁰ Scott, G. R. (2006). Comparative View of Copyright as Cultural Property in Japan and the United States. *Temp. Int'l & Comp. LJ*, 20, 283.

²¹ Arai, Y., & Kinukawa, S. (2014). Copyright infringement as user innovation. *Journal of Cultural Economics*, 38(2), 131-144.

²² Nanda Dwi Rizkia, *Hak Kekayaan Intelektual : Suatu Pengantar* (Bandung: Widina Bhakti Persada, 2020).

systems still adhere to the principle that IPR can only be granted to the human or legal entity responsible for AI.²³

If a dispute or copyright infringement occurs, it can be resolved in various ways; in accordance with Article 95 of Law Number 28 of 2014 concerning Copyright, these include Alternative Dispute Resolution, Arbitration, or through the Court. Alternative dispute resolution is the resolution of disputes without going through a formal Court, by offering advantages such as, cheaper, faster, flexible (can be adjusted to the parties). Disputes can be resolved through various methods, including Negotiation, Mediation, Conciliation, and Arbitration. If resolved through the court system, it is done by filing a lawsuit. In cases of copyright disputes, the competent court is the Commercial Court, as stipulated in Article 95 paragraphs 1, 2, and 3 of the Copyright Law, provided that the disputing parties are within the territory of the Unitary State of the Republic of Indonesia.

The criminal provisions in this case are regulated under Article 112 of Law Number 28 of 2014 concerning Copyright, which stipulates that anyone who unlawfully performs acts as referred to in Article 7 paragraph (3) and/or Article 52 for commercial purposes may be punished with imprisonment of up to 2 years and/or a fine of up to IDR 300,000,000. Article 7 paragraph (3) states that copyright management information and electronic copyright information owned by the creator must not be removed, altered, or damaged. This includes, under paragraph 1, methods or systems to verify the originality of the work and its creator, as well as information and access codes, and under paragraph 2, works displayed electronically in connection with the announcement of the creation, the creator's name, alias, or pseudonym, the creator as the copyright holder, the period and conditions of use of the work, identification numbers, and information codes.

Based on the copyright perspective, those who train and develop artificial intelligence are considered copyright holders for the works produced by that artificial intelligence. In accordance with "Article 4 Paragraph (1) of Law No. 28 of 2014 concerning Copyright", copyright holders are fully responsible and can be held accountable if the artificial intelligence is involved in copyright infringement of other parties in the future. However, some experts argue that legal responsibility related to copyright infringement committed by artificial intelligence can be imposed on various parties, especially the users of the artificial intelligence. Copyright restrictions are essentially designed to ensure a fair balance between the interests of creators and users of copyrighted works. Each country has the authority to regulate, in its copyright laws, the conditions under which copyrighted works may be used without the creator's permission, either with or without compensation.²⁴

V. Conclusion

The rise of artificial intelligence (AI) challenges the anthropocentric foundation of copyright law, which traditionally assumes human authorship as indispensable. In Indonesia, the current Copyright Law (Law No. 28/2014) leaves AI-generated works without legal recognition, while the use of copyrighted datasets for AI training raises potential infringement risks without clear enforcement mechanisms. This creates a significant legal vacuum.

²³ Baskoro Suryo Banidro, *Implementasi Hak Kekayaan Intelektual (Hak Cipta, Merek, Paten) Di Indonesia* (Yogyakarta: Budi Utama, 2019).

²⁴ Gema Juliano Ari, "Masalah Penggunaan Ciptaan Sebagai Data Masukan Dalam Pengembangan Artificial Intelligence Di Indonesia," *Technology and Economics Law Journal* 1, no. 1 (2022): 88.

Comparative analysis reveals three models: the United States maintains strict human authorship, the European Union explores sui generis protection and dataset transparency, while Japan adopts a permissive approach by allowing broad fair use for AI training. These divergent approaches highlight the absence of global consensus.

For Indonesia, this situation underscores the urgent need for policy reform. A balanced framework is required—one that preserves the moral and economic rights of human creators, provides legal certainty for AI-driven innovation, and aligns with international developments. Without such reform, Indonesia risks falling behind in the global digital and creative economy.

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