

AI and Creativity: Redefining Copyright for Visual Works and Text

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ABSTRACT

Received: 04-2-2024

Revised: 17-2-2024

Accepted: 19-3-2024

Citation:

Hariyanto, R. L., Silaban, Kurniawan, R., Sudirman, L., & (2024).

AI and Creativity: Redefining Copyright for Visual Works and Text. *Barelang Journal of Legal Studies*, 2(1), 1-16.

This study explores the legal challenges in protecting copyright for visual and textual works generated by artificial intelligence (AI). The rapid advancement of AI technology has enabled the creation of works that closely resemble those produced by humans. However, Indonesia's copyright regulations, as stipulated in Law Number 28 of 2014, recognize only humans as creators. This creates a significant legal gap, particularly regarding copyright ownership and the protection of AI-generated works. The objective of this research is to identify the existing legal gaps and propose normative solutions to accommodate AI's role in creative processes. Employing a normative juridical method, this study uses statutory, case-based, and comparative approaches. The findings reveal that current regulations are inadequate to address the technological advancements in AI, highlighting the need for legal revisions that adopt the concept of co-authorship between humans and AI, alongside the use of blockchain technology for work registration. The implications of this research include theoretical contributions to the development of a more adaptive intellectual property rights framework and practical recommendations for policymakers in crafting inclusive and responsive regulations in the digital era.

Keywords: Artificial Intelligence; Copyright; Visual and Textual Works, Legal Regulations; Technological Innovation

DOI: <https://doi.org/10.37253/barjoules.v2i1.10176>

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INTRODUCTION

The advancement of artificial intelligence (AI) technology has significantly transformed various aspects of life, including the creation of visual and textual works. Today, AI technologies such as Deep Learning and Generative Adversarial Networks (GANs) enable the production of visual and textual content that realistically mimics human styles (Purba & Hendry, 2022). Over the past five years, the use of AI in the creative industry has risen by 35%, with applications such as MidJourney, DALL-E, and ChatGPT becoming indispensable tools for designers and writers (Michael & Sinaga, 2024). In Indonesia, a 2024 survey by the Ministry of Communication and Informatics revealed that more than 50% of digital content creators utilize AI in their production processes (Kominfo, 2024). While AI brings substantial benefits, such as enhanced efficiency and boundless creativity, its application in content creation raises serious concerns about copyright infringement.

This issue is further highlighted by data showing a 28% global increase in copyright infringement cases since AI became mainstream in the creative industry. Many lawsuits involve AI companies accused of using human creators' data or works without consent to train their models. For instance, in 2022, legal action was taken against AI firms for utilizing millions of artworks without compensating the original creators. In Indonesia, the situation is more complex due to the lack of comprehensive regulations regarding AI and copyright. According to data from the Directorate General of Intellectual Property (DJKI) in 2024, only 15% of AI-related copyright infringement cases were resolved through legal means, underscoring the weak legal protections for creators.

In the legal context, a significant gap exists between *das sein* (the current state of the law) and *das sollen* (the ideal legal norm). In practice, Indonesia's copyright regulations have yet to explicitly address the creation of works by artificial intelligence (AI). Law No. 28 of 2014 on Copyright governs the rights and obligations of human creators but does not account for non-human entities such as AI (Suhayati, 2014). Article 1 Paragraph (3) defines a creator as an individual, sparking debates regarding the status of AI-generated works. Furthermore, Article 5 Paragraph (1) emphasizes the perpetual moral rights of creators, but how do such rights apply to AI? Article 9 Paragraph (1) grants creators exclusive rights to reproduce and distribute their

works, yet AI-generated works often lack a clear human creator. Ideally, legal norms should encompass more comprehensive protections, including restrictions on data usage for AI training and compensation mechanisms for original creators. In contrast, the European Union introduced the Digital Services Act (DSA) in 2021 to regulate AI's use in the context of intellectual property, highlighting Indonesia's lag in addressing these developments (Cauffman & Goanta, 2021).

Previous studies provide valuable insights but leave critical gaps unaddressed. Comparative legal analyses of AI regulation in developed countries, such as the United States and the European Union, demonstrate a more proactive approach to copyright protection. However, these studies often lack depth when addressing the context of developing nations like Indonesia (Prihatin, 2024). Similarly, research by Rohmatullah and colleagues focused on the economic-legal perspective of copyright infringements caused by AI in Indonesia. While their findings reveal significant economic losses due to such infringements, the study does not directly explore the normative aspects of copyright regulation (Rohmatullah, 2022). Additionally, Lazuardi and Gunawan's research discusses ethical issues in AI development but does not delve deeply into its legal implications (Lazuardi & Gunawan, 2024).

This study offers a novel contribution by employing a normative and comparative legal approach that integrates legal theory with previous research conducted in Indonesia. It provides an in-depth analysis of how Indonesia's copyright law addresses emerging challenges posed by AI advancements, not merely by adopting practices from other jurisdictions but by incorporating local contexts into the discussion. As such, this article contributes to the development of legal scholarship that remains relevant in the digital age. The findings of this study are expected to have both theoretical and practical significance. Theoretically, it presents a comprehensive legal analysis of the interplay between AI and copyright, addressing gaps left unexplored by prior research. Practically, the results may serve as a valuable resource for policymakers in formulating regulations that are more adaptive to technological advancements in AI. Additionally, this research holds relevance for creative industry stakeholders and academics interested in the intersection of technology and law. However, the study is not without limitations, particularly regarding empirical data and the scope of its analysis.

METHOD

This study employs a normative legal research method, chosen for its relevance in analyzing the legal framework surrounding copyright protection for visual and textual works generated by artificial intelligence (AI). The normative approach enables a comprehensive evaluation of the legal principles, regulations, and precedents that govern this emerging issue. The research draws upon both primary and secondary legal materials. Primary sources include national legislation, such as Law No. 28 of 2014 on Copyright, relevant international copyright agreements, and court decisions that provide judicial interpretation of copyright laws. Secondary sources comprise scholarly journals, legal textbooks, and academic articles, including notable contributions such as [redacted], which provides significant insights into copyright issues in the digital age. The study adopts a descriptive qualitative analysis method, systematically presenting and evaluating legal materials based on their relevance and connection to the research issue (Tan, 2021). This method not only examines existing regulations but also critically evaluates their applicability and suggests normative solutions to address potential gaps or ambiguities in the law. Through this analytical framework, the study aims to offer concrete recommendations aligned with the intended goals of copyright regulation, ensuring that the legal framework remains robust and adaptive to technological advancements (Disemadi, 2022). By focusing on the intersection of AI and copyright, this research contributes to a deeper understanding of how current legal norms address or fall short in managing AI-generated works.

DISCUSSION AND ANALYSIS

Legal Implications of Visual and Textual Works Generated by Artificial Intelligence

The advancement of AI technology has brought about significant changes in the creative industry, particularly in the production of visual and textual works. This phenomenon is driven by technologies such as Deep Learning and Generative Adversarial Networks (GANs), which enable AI to produce art, graphic designs, writings, and digital content that closely resemble human creations. AI tools like MidJourney, DALL-E, and ChatGPT have become widely utilized by designers, artists, and writers to create works with remarkable precision and efficiency

(Pradhyumna, 2022). For instance, AI-generated visual art can mimic the styles of renowned paintings or create innovative design variations, while text-based AI is capable of producing articles, fiction, and even poetry that are indistinguishable from human-authored pieces. This phenomenon offers numerous advantages, including enhanced production efficiency and boundless creative potential. However, it also raises complex legal issues, particularly concerning copyright protection. In Indonesia, existing regulations, such as Law Number 28 of 2014 on Copyright, do not explicitly address works created by AI. Article 1 Paragraph (3) of the Copyright Law defines a creator as "a person or several people who independently or collectively produce a work based on intellectual capability, imagination, dexterity, skill, or expertise expressed in a distinctive and personal form." This definition unequivocally identifies humans as creators, excluding non-human entities like AI from such recognition (Mahendra, 2023). Consequently, AI-generated works do not qualify as legitimate objects of copyright under the current legal framework.

The legal implications of this phenomenon present a significant dilemma regarding copyright ownership. Copyright is a part of intellectual property, protecting the rights of creators over their literary, artistic, and other original works. Intellectual property refers to the legal rights granted to individuals or entities over their creations of the mind, such as inventions, literary and artistic works, designs, symbols, names, and images used in commerce (Disemadi, 2023; Disemadi, Al-Fatih, Silviani, Rusdiana, & Febriyani, 2024). Who holds the rights to works created by AI? Is it the AI developer, the AI user, or the AI itself? For instance, if a designer employs AI to produce artwork, does the copyright belong to the designer as the AI operator, or is it merely an output of the tool used? Current copyright laws lack a clear legal framework to address these questions, creating a legal gap. This gap has the potential to trigger ownership disputes, particularly when such works are utilized for commercial purposes. Furthermore, AI-generated works raise issues concerning moral rights. According to Article 5 of the Copyright Law, creators are entitled to moral rights, including the preservation of their work's integrity and the attribution of authorship. However, how can this principle be applied when a work is generated by AI? AI lacks identity or consciousness, making the concept of moral rights difficult to enforce. This issue becomes even more complex when AI-generated works incorporate data or creations from human creators without permission. AI systems trained on others' artworks or writings can produce outputs that blur the boundaries between originality and plagiarism (Mailangkay, 2020).

In the context of international law, some countries, such as the European Union, have begun addressing this phenomenon by developing clearer legal frameworks. The EU, through the Digital Services Act, emphasizes the need for regulations governing the use of AI in content production and copyright protection. In contrast, Indonesia lags behind in formulating such regulations (Caroline Cauffman & Goanta, 2021). According to 2024 data from the Directorate General of Intellectual Property (DJKI), only 15% of copyright infringement cases involving AI-generated works were resolved, highlighting the weak legal protections in addressing this technological advancement (DJKI, 2024). The legal ramifications of this issue also include economic losses and legal uncertainty for human creators (Akbari & Fithry, 2024). Consequently, the rise of AI-generated visual and textual works calls for progressive and responsive legal reforms to meet contemporary demands. The Indonesian government is urged to consider revising its Copyright Law to include specific provisions on works involving AI technology, including mechanisms for allocating rights among developers, users, and individuals whose data is used by AI (Fadillah, 2024).

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users, and individuals whose data is used by AI (Fadillah, 2024). According to Article 1, paragraph 1 of Law No. 28 of 2014 on Copyright, copyright is defined as the exclusive right of a creator that arises automatically based on a declarative principle once a work is manifested in a tangible form, without prejudice to the limitations stipulated by applicable laws and regulations. Under the Copyright Law, Artificial Intelligence (AI) is not considered a creator, as it is neither a person nor possesses individual or personal attributes that can be linked to the work. Instead, as specified in Article 1, paragraph 9 of the Copyright Law, AI is defined as a computer program comprising a set of instructions expressed in languages, codes, schemas, or other forms intended for computers to perform specific functions or achieve certain outcomes (Akbari & Fithry, 2024).

The protection of copyright for commercialized artistic works created using AI under Law Number 28 of 2014 remains limited and requires legal clarification. Firstly, the law does not explicitly regulate copyright for works generated using AI. Article 1, paragraph 2 of the Copyright Law defines a "creator" as "an individual" or "several individuals" who individually or collectively produce unique and personal works. Based on this definition, AI is not regarded as a legal subject capable of owning copyright. Consequently, AI-generated artistic works are not automatically recognized as protected copyrights under the law. Artistic works created using AI may be considered plagiarized if they imitate or adopt other works without permission. Article 8 of the Copyright Law stipulates that copyright includes the exclusive right of the creator to derive economic benefits from their creation. Article 9, paragraph 1 further elaborates that creators have the rights to publish, reproduce, translate, adapt, arrange, or transform their works. In the context of AI-generated art, if a work imitates or adopts another without authorization, it can be deemed plagiarism and constitute a copyright infringement. Addressing plagiarism of AI-generated artistic works necessitates specific regulations governing the use of AI in the context of copyright. Indonesia still lacks clear and specific legal frameworks to protect the copyright of AI-created artistic works. Such regulations should carefully redefine "creator" and "work" within the AI context and establish how copyright can be applied to creations made using this technology.

Challenges in Copyright Regulation in Indonesia: Addressing the Phenomenon of AI-Generated Visual and Textual Works

The primary challenge in copyright protection in the era of artificial intelligence (AI) arises from the ambiguity regarding authorship and copyright ownership. Traditional copyright regulations, including Indonesia's Law No. 28 of 2014 on Copyright, attribute authorship to human creators, emphasizing individual creativity and expression as prerequisites for intellectual property rights. Under these provisions, works entirely generated by AI systems are excluded from legal recognition as intellectual property. This legal gap is increasingly significant as AI technology advances, enabling the creation of complex and sophisticated works that rival human creativity. These AI-generated outputs, such as paintings, poetry, and music, demonstrate originality in form but lack the human element required for legal acknowledgment under the current framework. The absence of clear regulations addressing the copyright status of AI-generated works complicates their use, ownership, and distribution, raising questions about accountability and the equitable treatment of creators and AI developers. Without reform or clarity in the law, this ambiguity risks stifling innovation and discouraging the collaborative use of AI in creative industries (Rohmatullah, 2022).

Article 4 of Indonesia's Law No. 28 of 2014 on Copyright establishes that copyright encompasses exclusive moral and economic rights, granting creators comprehensive control over their works. Moral rights are deeply personal and reflect the creator's emotional and spiritual connection to their work. These rights include the entitlement to recognition as the original creator, the ability to associate their name or pseudonym with the work, and the right to preserve the integrity of the work by preventing unauthorized modifications that may harm their reputation. Additionally, creators retain the right to withdraw their work from publication if deemed necessary to protect its sanctity or their values. Economic rights, on the other hand, enable creators to monetize their work by granting permissions or licenses for reproduction, adaptation, or distribution. This dual framework ensures that creators are both morally and financially compensated, fostering a balance between personal acknowledgment and economic sustainability. By safeguarding these rights, the law provides a robust mechanism for creators to assert control over their intellectual property and defend against infringement, ensuring that their works remain protected in an increasingly digitized and interconnected world. However, the rapid evolution of technology, particularly AI, challenges the applicability of these provisions, as AI-generated content often lacks a clear creator, complicating the assignment of moral and economic rights. This tension underscores the need for updated regulations that address the

interplay between human creativity, technological innovation, and copyright law (Suhayati, 2022; Sofia, Disemadi, & Agustianto, 2024).

A critical issue in AI's interaction with copyright law lies in its reliance on pre-existing copyrighted works as training data. These works, unless their copyright protection has expired, remain under legal protection, requiring explicit permissions for their use. Indonesia's Copyright Law safeguards the exclusive rights of creators, covering both moral and economic dimensions. Moral rights are inherently tied to the creator, ensuring their association with the work and the ability to defend its integrity against modifications that may harm their reputation. These rights are non-transferable and persist regardless of changes in ownership or usage (Suhayati, 2022). Economic rights, meanwhile, allow creators to control and monetize their works, such as through licensing agreements or royalties. When AI systems use copyrighted works without authorization as training data, they potentially violate these rights. This raises complex legal and ethical questions, as AI often transforms the underlying data into derivative works, blurring the boundaries of infringement (Dominic, 2021). Without clear guidelines, creators may struggle to protect their intellectual property in the face of widespread AI adoption. Striking a balance between enabling AI innovation and safeguarding the rights of creators is imperative. Solutions may include implementing transparent licensing systems for training data or establishing fair use provisions tailored to AI development, ensuring that technological progress does not come at the expense of creators' rights and interests. These measures are essential to uphold the integrity of copyright law while fostering responsible AI development and usage in creative and commercial domains (Fadillah, 2024).

Copyright law establishes critical boundaries, allowing specific uses that are not considered copyright infringement. These permissible uses include research, education, or other non-commercial activities, provided they adhere to legal guidelines that protect the creator's rights and prevent harm to their interests. The utilization of copyrighted works in AI development without explicit consent is legally limited to academic or research purposes. This restriction ensures that copyrighted content is not exploited for unauthorized commercial benefits. Nonetheless, if a creator objects to their work being used or disseminated, such actions still constitute a violation of copyright law, even if they occur within an educational or research framework. This legal nuance underscores the necessity of obtaining explicit permission from the

creator to mitigate the risk of legal disputes and ensure compliance with copyright regulations. By securing such permissions, researchers and organizations can foster trust and ethical collaboration while avoiding the adverse consequences of infringement claims (Fadillah, 2024).

Moral rights, as defined in copyright law, are perpetual and inseparable from the creator. These rights provide creators with control over how their work is attributed, used, and represented publicly (Putra, Depari & Nainggolan, 2024). For instance, creators have the right to decide whether their name is included on copies of their work, use pseudonyms or aliases, or modify their work in accordance with societal norms. Additionally, they retain the authority to alter the title or subtitle of their work and to protect it from any form of distortion, mutilation, or modification that could damage their honor or reputation (Suhayati, 2022). The law also ensures creators are entitled to copyright management and electronic copyright information, further strengthening their control over their intellectual property. This framework is essential in the context of AI development, where copyrighted works often serve as training data for machine learning models. Balancing innovation and ethical practices crucial to respecting the rights of creators while enabling progress in AI research and development. Upholding these principles ensures a fair and equitable system that encourages creativity and innovation without compromising the legal and moral rights of original creators (Dominic, 2021).

Proposed Normative Solutions for Adapting Artificial Intelligence Advancements in the Context of Copyright Protection in Indonesia

Most European jurisdictions emphasize the intellectual investment of creators in their works, requiring that a creator must be a natural person, specifically a human being. This principle was affirmed in the case of *Infopaq International A/S v Danske Dagblades Forening*, which clarified that the originality of a work is contingent upon it being “the author’s own intellectual creation” (Union, 2009). Although the Court of Justice of the European Union (CJEU) has not explicitly addressed copyright regulation for computer-generated works, it has consistently emphasized that copyright protection necessitates human input, as the work must reflect the personality of its creator (Clarke, 2023). The primary regulation governing the duration of copyright in the European Union is Directive Number 2006/116/EC, which sets the general term of protection for literary and artistic works, such as books, music, paintings, and photographs. A Directive, as a

legislative tool within the EU, mandates member states to achieve specific objectives while allowing flexibility in how those objectives are implemented. Consequently, EU member states may adopt additional provisions or extend copyright protection beyond the minimum duration established by the Directive. Article 6 of Directive 2006/116 incorporates the Berne Convention's minimum standard for copyright protection, which spans the author's lifetime plus 50 years after death, ensuring rights protection for authors and two subsequent generations.

Verica Trstenjak, Advocate General of the CJEU, has provided significant interpretation of these provisions. In the case *Eva-Maria Painer v. Standard VerlagsGmbH*, Trstenjak concluded that copyright protection is limited to human-created works, including those produced using technical tools such as cameras (Union, 2011). In contrast, the United Kingdom's Copyright, Designs, and Patents Act (CDPA) offers a broader scope of protection. It safeguards literary, dramatic, musical, and artistic works (LDMA), as well as sound recordings, films, broadcasts, and published editions (entrepreneurial works). Unlike the EU, the UK grants copyright protection to works entirely generated by computers, provided they meet originality criteria. While the UK recognizes the creators of computer-generated works as authors, it does not extend moral rights to them. The duration of copyright protection for computer-generated works in the UK is 50 years from the date of creation, shorter than that for works involving AI as a technical tool used by human creators. According to Section 9(3) of the CDPA, the "person who makes the arrangements necessary for the creation" of an LDMA work generated by a computer is considered the author.

The rise of generative AI, encompassing applications and websites, introduces a complex issue of ownership determination. Questions arise over whether the programmer, the user, or even the program's sponsor should hold ownership rights, particularly in light of Section 9(3) of the Copyright, Designs and Patents Act (CDPA), which broadly includes individuals involved in "arrangements necessary for the creation of a work." While this issue can ultimately be left to the discretion of the judiciary, some experts argue for an alternative approach. They propose that computer-generated works should be protected similarly to entrepreneurial works, which do not require a significant degree of originality (Lee, 2021). Like sound recordings or broadcasts, computer-generated works could be attributed to a fictional author, eliminating the need for creative contributions by a real individual. Additionally, copyright protection for computer-generated works, like sound recordings and broadcasts, is generally shorter than for literary,

dramatic, musical, or artistic works (LDMA). This relatively weaker protection may also reflect the lower production costs typically associated with computer-generated outputs (Dominic, 2021).

The current copyright laws governing copyright and related rights, enacted in 2014, must evolve to address the rapid advancements in technology (Hutauruk, Disemadi, Sudirman & Tan, 2023). Intellectual property law is intricately connected to technological progress, requiring consistent adaptation to remain effective. The primary goal of copyright law is to ensure robust protection and legal certainty for copyright holders and related rights owners amidst the swift growth of knowledge, technology, art, and literature (Union, 2011). However, technological evolution often creates legal uncertainties, particularly in emerging fields such as generative AI. Addressing these challenges demands careful consideration to balance innovation with legal protections and to uphold the principles of copyright law. Policymakers must work to provide clear, equitable, and forward-thinking solutions that align with the dynamic nature of technology, safeguarding the rights of all parties affected while fostering an environment conducive to creativity and technological advancement (Fadillah, 2024).

Under Article 40 (1) of Indonesia's Copyright Law, a creative work is considered protected if it meets the criterion of being expressed in a tangible form. AI-generated works fulfill this requirement, as they produce tangible creative outputs. However, the same article stipulates that a "work" must also stem from inspiration, ability, thought, imagination, skill, or expertise to qualify for copyright protection. This condition poses a significant challenge when it comes to generative AI, which autonomously creates works without direct human input or creative intervention. As a result, AI-generated works often fail to meet this essential element of originality, leading to legal ambiguity regarding their protection (Lee, 2021). To address this uncertainty, the author advocates for a comprehensive reform of copyright law. Legislators should consider how other jurisdictions have addressed the copyright status of AI-generated works and adapt these approaches to establish a fair and effective framework. One critical aspect of reform should be the determination of the protection period for AI-generated works, ensuring it aligns with the unique nature of such creations. Furthermore, revisions to the copyright law must focus on clarifying the criteria required for a creative work to be recognized as protected under the law (Purba & Hendry, 2022).

CONCLUSION

This study concludes that the rapid advancement of AI technology has introduced significant challenges to copyright protection, particularly in Indonesia. Works generated by AI, whether textual or visual, are not recognized under current copyright regulations, which exclusively acknowledge humans as creators. This legal gap creates uncertainty that affects the creative industry, stifles innovation, and increases the risk of copyright infringement. Globally, developed nations have adopted more progressive regulations, such as the Digital Services Act (DSA) in the European Union, which provides clearer guidelines and better protection for AI-generated works. To address these challenges, this research proposes several normative solutions, including a call for reform of Indonesia's copyright law. The recommended amendments should focus on establishing specific criteria that define a "creative work" eligible for copyright protection, particularly in cases involving AI. By integrating these criteria, the law can adapt to the evolving technological landscape while maintaining its foundational principles. This study contributes to the development of more robust copyright laws by offering concrete steps to address the implications of AI technology. The proposed legal reforms aim to provide greater inclusivity and protection for Indonesia's creative industries, ensuring that innovation is encouraged while upholding the rights of creators in an increasingly AI-driven era.

ACKNOWLEDGMENTS

None.

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