

Gray Zone Copyright: Generative AI Images Modified by Human Creativity

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Abstract

Images constitute protected subject matter under intellectual property law, specifically copyright. The emergence of generative Artificial Intelligence (AI) technology has enabled the creation of images through text-to-image features. However, images produced by generative AI systems create a legal grey area within copyright regimes, particularly concerning legal protection and ownership attribution, especially when these outputs are further modified through human intellectual creativity. This study analyses the copyright protection of modified generative AI images under Indonesian Law No. 28 of 2014 concerning Copyright, in comparison with the Copyright Act 2023 of Bangladesh. This normative legal research employs statutory, comparative, and conceptual approaches. The study finds that the legal problem is one of normative ambiguity rather than legislative vacuum, and that the two jurisdictions arrive at that ambiguity by opposite routes: Indonesian law retains an originality requirement it has never defined, while the Copyright Act 2023 of Bangladesh no longer conditions subsistence upon originality in express terms. It argues that the applicable threshold is best expressed as the exercise of skill and judgment amounting to more than a mere mechanical exercise, and that on this standard the formulation of textual prompts does not constitute authorship, whereas post-generation modification through painting, drawing or editing techniques does. Protection extends only to the human contribution, the underlying machine-generated material remaining unprotected. The study proposes a four-factor test for assessing copyright eligibility in modified generative AI images, and recommends its adoption as a mandatory disclosure requirement at the point of copyright recordation.

Abstrak

Gambar merupakan objek yang dilindungi di bawah hukum kekayaan intelektual, khususnya hak cipta. Kemunculan teknologi Artificial Intelligence (AI) generatif telah memungkinkan pembuatan gambar melalui fitur text-to-image. Namun, gambar yang dihasilkan oleh sistem AI generatif menciptakan area abu-abu hukum dalam rezim hak cipta, khususnya mengenai

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perlindungan hukum dan atribusi kepemilikan, terutama ketika hasil tersebut dimodifikasi lebih lanjut melalui kreativitas intelektual manusia. Penelitian ini menganalisis perlindungan hak cipta atas gambar AI generatif yang dimodifikasi berdasarkan Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta di Indonesia, berbanding dengan Copyright Act 2023 Bangladesh. Penelitian hukum normatif ini menggunakan pendekatan perundang-undangan, komparatif, dan konseptual. Hasil penelitian menemukan bahwa permasalahan hukum yang terjadi merupakan ambiguitas normatif, bukan kekosongan hukum, dan kedua yurisdiksi mencapai ambiguitas tersebut melalui jalur yang berlawanan. Undang-undang Hak Cipta Indonesia tetap mempertahankan persyaratan orisinalitas yang tidak pernah didefinisikan, sementara Copyright Act 2023 Bangladesh tidak lagi mensyaratkan timbulnya hak cipta berdasarkan keaslian secara eksplisit. Penelitian ini berargumen bahwa ambang batas yang berlaku paling tepat dinyatakan sebagai penggunaan keterampilan dan pertimbangan yang melebihi sekadar tindakan mekanis. Berdasarkan standar ini, penyusunan perintah teks tidak dianggap sebagai penciptaan, sedangkan modifikasi pasca-generasi melalui teknik melukis, menggambar, atau menyunting dianggap memenuhi syarat penciptaan. Perlindungan hukum hanya mencakup kontribusi manusia, sementara materi dasar yang dihasilkan oleh mesin tetap tidak dilindungi. Penelitian ini mengusulkan uji empat faktor untuk menilai kelayakan hak cipta pada gambar AI generatif yang dimodifikasi, serta merekomendasikan penerapannya sebagai persyaratan pengungkapan wajib pada saat pencatatan hak cipta.

1. Introduction

Widespread technological advancements have fundamentally reshaped human habits and workflows, transitioning reliance away from traditional manual processes. Along with the development of technology, humans have abandoned habits that are done manually and have begun to get used to automatic and digital activities.¹ The advent of the digital era, driven by computerization, has revolutionized various domains, most notably the evolution of creative works. The digital era and digital creations cannot be avoided because, in fact, it has become a common thing that can no longer be separated from life.² One leading technology widely utilized to streamline human tasks is Artificial Intelligence (hereinafter referred to as AI).

AI represents a versatile technology that is seamlessly integrated into almost all dimensions of human activities and industrial sectors. Although AI has been around since the 1950s, there has been an increase in data and computing power as well as an increase in computer mathematical models as a sign of the widespread application of AI

¹ Hari Sutra Disemadi, "Urgensi Regulasi Khusus dan Pemanfaatan Artificial Intelligence dalam Mewujudkan Perlindungan Data Pribadi di Indonesia", *Jurnal Wawasan Yuridika* vol.5, no.2 (2021): 178. doi:doi.org/10.25072/jwy.v5i2.460.

² Khwarizmi Maulana Simatupang, "Tinjauan Yuridis Perlindungan Hak Cipta dalam Ranah Digital", *Jurnal Ilmiah Kebijakan* vol.15, no.1 (2021): 68, doi:10.30641/kebijakan.2021.V15.67-80.

technology.³ AI can be defined as computer program technology that has the ability to resemble human abilities in terms of thinking and acting perfectly or not, which in its actions can provide results in the digital/cyber world or the real world,⁴ a simulation of human intelligence in a machine; thus, the machine can work efficiently in identifying problems by using the correct knowledge at certain steps in solving a problem,⁵ AI is a machine performing a new or modify a task that would need human intelligence to complete.⁶

Historically, AI was primarily utilized for data analysis and predictive modeling. Over time, however, its capabilities have expanded to include generative functions, enabling systems to synthesize entirely new data that closely mirrors the patterns of their training sets. AI that can create a work is called Generative AI, which is a tool in the form of software that can create new content, such as text, computer code, images, audio, sound, and video, by responding to the user's input prompt.⁷ Generative AI possesses the ability to generate artwork by converting descriptive text inputs into custom visual outputs that align precisely with the provided data

Generative AI relies on machine learning algorithms, utilizing massive training datasets that often span billions of text pages and images. The composition of this training data depends on the developer's approach, ranging from open-source information and raw data to proprietary, copyrighted materials, or a hybrid of all three. The ability of Generative AI to create text or images can compete directly with artworks created by artists.⁸ Generative AI represents software powered by deep learning algorithms equipped with text-to-image capabilities. Having been trained on diverse visual datasets and specific parameters, these algorithms leverage their embedded deep learning architectures to accurately interpret complex textual prompts and synthesize them into coherent visual outputs. This capability is also referred to as the text-to-images feature.⁹

The text-to-image (T2I) capability of generative AI autonomously synthesizes visual imagery from descriptive textual inputs. This technology rapidly translates user specifications articulated through precise keywords or prompts into customized visual representations that align with the user's creative intent. Numerous prominent platforms leverage this feature to facilitate automated image generation, including Fotor, DeepAI,

³ WIPO, *WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI)* (Geneva: World of Intellectual Property Organization Secretariat, 2020): 2.

⁴ Galih Dwi Ramadhan, *Perlindungan Hukum atas Invensi Artificial Intelligence di Era Revolusi Industri 4.0 & Society 5.0* (Thesis: Magister Hukum Universitas Islam Indonesia, 2022): 57.

⁵ Amit Komar, *Artificial Intelligence and Soft Computing Behavioral and Cognitive Modeling of the Human Brain*, (Florida: CRC Press, 2000): 28.

⁶ Homaira Amzad, and K. Vijayalakshmi, "Tourism Recommendation System: A Systematic Review", *International Journal of Engineering Research & Technology*, vol. 10, no. 9 (2021): 390, doi:10.17577/IJERTV10IS090100.

⁷ WIPO, *Generative AI Navigating Intellectual Property*, (Geneva: World of Intellectual Property Organization, 2024): 2.

⁸ Simon Chesterman, "Good Models Brow, Great Models Steal: Intellectual Property Rights and Generative AI", *NUS Law Working Paper No. 2023/025*, (2024): 6, doi.org/10.1093/polsoc/puae006.

⁹ Enjellina, Eleonora, and Gisela, "A Review of AI Image Generator: Influences, Challenges, and Future Prospects for Architectural Field", *Journal of Artificial Intelligence in Architecture*, vol. 2, no.1 (2023): 56, doi.org/10.24002/jarina.v2i1.6662.

Craiyon, Melobytes, Canva, Picsart, JasperArt, Starry AI, Deep Dream Generator, Images.ai, Stablecog, and the generative features integrated within Adobe Photoshop.

A work of art in the form of an image is an object protected by intellectual property, specifically copyright. Under Indonesian law, Article 40(1)(f) of Law No. 28 of 2014 concerning Copyright expressly recognises images as protected creations. The Copyright Act 2023 of Bangladesh is to the same effect: section 14(1) provides that copyright subsists in artistic works, and section 2(40) defines an artistic work to include paintings, drawings, graphics, and designs created on digital or electronic devices.

The omission of AI within current copyright legislation creates significant legal challenges. A primary issue arises when creators utilize generative AI specifically text-to-image features either as a source of inspiration or to generate baseline works that are subsequently modified through human intervention. Although these hybrid works are refined to meet the statutory requirements of originality and fixation, their eligibility for intellectual property protection remains contested. Because positive law strictly limits copyright protection to works of human authorship, a regulatory gray area persists for artistic works resulting from human-AI collaboration

The gray zone became a legal issue first experienced by an artist named Jason M. Allen, who created a work in the form of image entitled *Théâtre D'opéra Spatial*. Allen's image was initially created using the Generative AI Images software Midjourney. Through the AI software, Allen maximized the text-to-images feature by including 624 text prompts to produce the desired image. After the image was created using AI, it was manually created in Photoshop. Through the combination of AI creations with Allen's creativity, he won the Colorado State Fair Art Contest. However, Allen's image was not copyrighted by the US Copyright Office. The Copyright Office refusal to register a work of visual art that was created with the assistance of AI.¹⁰

In comparison to the copyright recordation process conducted via the official portal of the Indonesian Directorate General of Intellectual Property (DGIP), there is currently a complete regulatory void regarding the utilization of AI when a creator or an intellectual property consultant registers a work. Consequently, under this existing administrative framework, it remains highly possible for the Indonesian copyright registry to issue a Letter of Copyright Recordation for works generated through the aid of AI technology. The Bangladeshi position is materially the same. Registration under the Copyright Act 2023 is not mandatory but carries evidential weight, and although the Registrar is required to enter particulars in the Copyright Register only after appropriate inquiry, neither the Act nor the applicable rules requires an applicant to disclose whether generative artificial intelligence was used in the creation of the work.¹¹ In both jurisdictions it therefore remains possible for a certificate to issue in respect of machine-generated output.

¹⁰ Matthew Hersh, "Is AI just a Part of an Artist's Toolkit, or does it have a mind of its own? A New Lawsuit Raises the Issue", <https://www.vitallaw.com/news/copyright-news-is-ai-just-a-part-of-an-artist-s-toolkit-or-does-it-have-a-mind-of-its-own-a-new-lawsuit-raises-the-issue/ipm018cd77d9ad00c42a096aca8b7c5d348d0?refURL=https%3A%2F%2Fwww.google.com%2F#>, accessed on February 2, 2025.

¹¹ Copyright Act 2023 (Act No. 34 of 2023) (Bangladesh), ss 53 and 57.

Prior research concerning the copyright of images generated by AI generative by examine by Doni Darma, Ida Ayu, and Michael Angelo with focused on comparative legal analysis of copyright regulation for AI generated images in Indonesia and the United States.¹² Furthermore, the complexities surrounding infringement have been explored by Jiaji Xing with focusing specifically on Copyright and Infringement of generative AI Issues,¹³ and Mark Lemley examines how generative AI Turns Copyright.¹⁴ The existing literature has, however, addressed the question predominantly within the framework of United States and European copyright doctrine. It has not examined how the threshold of protection operates in jurisdictions whose copyright statutes either leave the originality requirement undefined or omit it altogether, nor how such jurisdictions might construct an applicable standard from constitutional and comparative sources in the absence of judicial authority. This study addresses that gap by analysing the copyrightability of human-modified generative AI images under Indonesian Law No. 28 of 2014 in comparison with the Copyright Act 2023 of Bangladesh, and by proposing a standard capable of application by the courts and registration authorities of both jurisdictions.

The intersection of AI and human authorship in visual arts presents a distinct gray area within copyright law. This ambiguity is particularly evident when an initial image generated by AI is subsequently modified by a human creator who infuses original, creative elements. Consequently, this research examines the copyrightability of visual works (images) produced through generative AI and refined through human creativity.

2. Research Methods

This research uses a normative legal research combining statutory, comparative, and conceptual approaches through a literature review presented in a qualitative descriptive manner. The primary legal materials comprise Law No. 28 of 2014 concerning Copyright (Indonesia) and the Copyright Act 2023 (Bangladesh), supported by secondary material such as books, literature, documents, journal articles, and related commentary in conducting a study of legal issues on the legal protection of works of art images created with generative AI that have been manually modified with human creativity based on Indonesia Copyright Law. Bangladesh has been selected as the comparator jurisdiction on three grounds. First, both jurisdictions operate declaratory copyright regimes in which protection arises upon creation, registration serving evidentiary rather than constitutive functions. Second, both administer copyright registration through national offices of comparable institutional capacity, rendering the administrative feasibility of any proposed originality assessment directly comparable. Third, and most significantly, Bangladesh enacted comprehensive copyright legislation as recently as 2023 expressly to address technological development, and that legislation approaches the originality question by a route diametrically opposed to Indonesia's: where Indonesian law retains

¹² Made Doni D.D.R, Ida Ayu S, and Michael Angelo, "Copyright Regulation for AI-Generated Images Legal Approaches in Indonesia and the United States", *SASI* vol.30, no.4 (2024): 10.47268/sasi.v30i4.2228

¹³ Jiaji Xing, "The Future of Generative AI: Copyright and Infringement Issues", *Proceedings of the 3rd International Conference on International Law and Legal Policy* (2024): 1-7, DOI: 10.54254/2753-7048/69/20240143

¹⁴ Mark A. Lemley, "How Generative AI Turns Copyright Upside Down", *Science & Technology Law Review*, Vol 25 (2024): 21-44, dx.doi.org/10.2139/ssrn.4517702

an originality requirement it has never defined, the Bangladeshi statute does not expressly condition subsistence upon originality at all. The comparison therefore illustrates two distinct legislative routes to a single indeterminacy and permits the remedial implications of each to be distinguished.

3. Result and Discussion

3.1. Copyright of Images

Copyright is one of the classifications of intellectual property, copyright is an exclusive right of the creator that arises automatically based on the declarative principle after a creation is realized in a real form without reducing restrictions in accordance with the provisions of laws and regulations and copyright becomes a form of ownership that provides exclusive rights to supervise the use of a creative work.¹⁵ Intellectual property is a right that provides legal protection for the results of human creativity that have economic value.¹⁶

Copyright is fundamentally recognized as a natural right, guaranteeing legal protection throughout the creator's lifetime and for a specified duration posthumously. As an absolute right, the right can basically be defended against anyone who has the right to sue for any violation committed by anyone.¹⁷ Copyright is also recognized as an exclusive, automatic right granted to creators upon a work's fixation under the declarative principle, subject to statutory limitations. Under this definition, a creation represents any scientific, artistic, or literary output born from human intellect, imagination, and craftsmanship, and expressed in a tangible medium.

As a product of human intellect, an image constitutes a protected work under copyright law. Article 1, Number 3 of the Indonesian Copyright Law defines the subject matter of copyright protection as any creation within the realms of science, literature, and art that is manifested in a tangible form. Furthermore, Article 40, Paragraph (f) explicitly recognizes images as protected intellectual creations. Copyright law grants comprehensive legal protection to creators by conferring both exclusive moral and economic rights over their works

The protection of copyrighted works involves the DGIP, which issues a Letter of Copyright Recordation to creators who proactively register their works upon paying the prescribed administrative fees. However, unlike formal ownership certificates, this document serves merely as administrative proof of recordation rather than definitive proof of ownership. Under Article 1(2) of the Copyright Law, the subject of copyright is the creator defined as an individual or a group of individuals who collectively produce a distinctive and personal creation. To establish ownership, a creator must satisfy certain legal qualifications, identity, and status. Conversely, a copyright holder may refer to the

¹⁵ Tassaufi Ariefzani, "Legal Protection of The Creator of Online SKCK Computer Programs Which Hasn't Be Registered Under Law Number 28 Year 2024", *Veteran Justice Journal* vol.1, no.1 (2020): 24, doi:10.33005/vj.v1i1.17.

¹⁶ Sudjana, "Pembatasan Perlindungan Hak Kekayaan Intelektual (Hak Cipta) dalam Perspektif Hak Asasi Manusia", *Jurnal HAM*, vol.10, no.1 (2019): 72 dx.doi.org/10.30641/ham.2019.10.

¹⁷ Budi Agus Riswandi, *Doktrin Perlindungan Hak Cipta di Era Digital* (Yogyakarta: FH UII Press, 2016): 6.

creator as the original owner, a party who legally acquires the rights from the creator, or subsequent transferees. Furthermore, modifying a work directly intersects with the creator's moral rights, as codified in Article 5(1)(e) of the Copyright Law. A modification entails any alteration to the work's original form. Because moral rights are inherently bound to the creator, they entitle the author to defend the integrity of their work against unauthorized distortion, modification, mutilation, or any derogatory actions that may jeopardize their honor or reputation.

The Bangladeshi position invites comparison, but the comparison is instructive for its divergences as much as its similarities. Section 14 of the Copyright Act 2023, which repealed the Copyright Act 2000, provides that copyright shall subsist in literary, dramatic, musical, folkloric, and artistic works, in ICT-based digital works, in cinematograph films, and in sound recordings. "Artistic work" is defined to encompass paintings, drawings, graphics, and expressly designs created on digital or electronic devices. Images generated or modified by digital means therefore constitute protected subject matter. Protection arises upon creation; registration is available but not mandatory, and the particulars entered in the Register constitute prima facie evidence, with the person shown in the certificate as holding a right being treated as the holder of that right. The author of a work is the first owner of the copyright, subject to enumerated exceptions including works made under a contract of service and, notably, ICT-based digital works, first ownership of which vests in the person or institution that engaged the completion of the work absent agreement to the contrary.

The instructive divergence concerns originality. Section 14 does not condition subsistence upon originality, and the Bengali term corresponding to "original" appears in the Act on only three occasions, in each case bearing a different sense: twice denoting a substantial part of a performance or a published edition, and once denoting the authentic traditional form of folklore. The requirement expressed in the Copyright Act 1914, the Copyright Ordinance 1962, and the Copyright Act 2000, each of which conditioned protection upon the work being "original," does not appear in equivalent terms in the 2023 Act. A residual intellectual-creation standard survives for one category alone: a database is defined as a systematically arranged collection of independent works in which the author's own intellectual expression is present.

The comparison therefore yields a sharper problem than a shared silence. Indonesian law retains an originality requirement which neither the statute nor the courts have defined. Bangladeshi law, legislating expressly for the digital age, has ceased to state the requirement in express terms while creating a bespoke statutory category for digitally produced works. Two jurisdictions arrive at the same indeterminacy by opposite routes. The resulting legal problem is properly characterised not as a legislative vacuum — both legislatures have spoken, and recently — but as normative ambiguity (*kekaburan norma*) as to the threshold of protection. That characterisation determines the remedy, and the remedy differs by jurisdiction: for Indonesia what is required is an interpretive standard giving content to an existing term; for Bangladesh, the restoration of the term itself.

3.2. Copyright in AI Generative Images

The advent of AI with human-like capabilities enables technology to generate creative outputs, raising the debate of whether AI can be designated as a creator. However, the

Indonesian Copyright Law strictly adheres to the anthropocentric doctrine, which dictates that only natural persons can hold the status of a creator. This principle is reinforced by the legal thresholds of fixation, tangible form, and originality as the primary criteria for copyright eligibility. Under the declarative principle, copyright protection arises automatically upon the fixation of work. Nonetheless, closer scrutiny reveals that output generated by AI, particularly generative AI, generally lacks the requisite element of originality. In copyright jurisprudence, originality dictates that a work must reflect the unique, personal, and intellectual creation of its human author.

AI cannot be categorized as a legal subject, as it lacks the legal capacity to bear rights and fulfill obligations. A legal subject must be an entity capable of holding rights and duties, such as natural persons (*natuurlijk persoon*) and legal entities (*rechtspersoon*).¹⁸ Consequently, under Indonesian positive law, Artificial Intelligence can only be categorized as a legal object. Fundamentally, AI constitutes sophisticated software developed by a human programmer, who inherently retains the exclusive moral and economic rights over technology as its creator. This position aligns with the prevailing legal consensus in several European and American jurisdictions. Through landmark court rulings and rigorous statutory interpretation, these legal systems have firmly declined to recognize AI as an eligible creator or a subject of copyright. This global jurisprudence establishes that copyright eligibility requires human authorship, thereby maintaining that intellectual property rights cannot be vested in autonomous systems. This is due to the problem of moral rights inherent in intellectual property protection, as well as the problem of AI's ability to potentially implement and use economic rights within the copyright protection regime.¹⁹

While the generative AI itself cannot be recognised as a creator, it has been suggested that the proprietor of the software may hold copyright in all images the system produces. The argument proceeds from the premise that copyright is a species of property right, and that property rights are attended by the characteristic of *droit de suite*, by which the right continues to follow the object in which it subsists.²⁰ On this view, the absolute character of property rights, together with the principle of *droit de suite*, would extend the proprietor's entitlement from the software to its outputs. This argument requires examination, and for the reasons developed below it cannot be sustained.

Droit de suite in Black's Law Dictionary 9th Edition, which means "right to follow".²¹ *Droit de suite* is a characteristic of property rights, a right that continues to follow the owner of the object or a right that follows the object in anyone's hands. Property rights

¹⁸ Fence M Wantu, *Pengantar Ilmu Hukum* (Gorontalo: Reviva Cendekia, 2015): 40.

¹⁹ Richard Jatimulya Alam Wibowo, "Ciptaan dan Inovasi Hasil Kecerdasan Buatan dalam Perspektif Hak Cipta dan Paten", *Jurnal Iliah Kebijakan Hukum*, vol.17, no.3 (November 2023): 283, doi: 10.30641/kebijakan.2023.V17.269-288.

²⁰ OK Saidin, *Aspek Hukum Kekayaan Intelektual* (Jakarta: Rajawali Press, 2007): 22.

²¹ Black's Law Dictionary (9th edn, West 2009). The term is used in two distinct senses which require separation. In the civil-law of property, *droit de suite* (*zaaksevolg*) denotes the persistence of a real right in the object burdened by it as that object passes between holders. In copyright law, *droit de suite* denotes the artist's resale royalty right: Berne Convention, art 14ter; Directive 2001/84/EC of the European Parliament and of the Council of 27 September 2001 on the resale right for the benefit of the author of an original work of art [2001] OJ L272/32.

themselves are absolute rights, that is, rights that are inherent in an object, provide direct power over the object and can be defended against claims by anyone.²²

Applied to generative AI, the argument would run as follows. The developer holds moral and economic rights in the software as a protected work. If the principle of *droit de suite* attaches to those rights, then the entitlement would follow into every image the system generates, notwithstanding that the text-to-image function is operated by a user supplying input prompts. Copyright in the resulting images would vest in the developer rather than in the user, save where a specific agreement provides otherwise.

The practice of the industry does not bear the argument out. Terms and conditions of some AI have also determined the ownership status of images created by generative AI, either belonging to the user who uses it, belonging to the owner of the AI software, can't be copyrighted or possible the image produced by generative AI becomes an image with public domain status that can be used by anyone who uses it without having to pay attention to the copyright of the public domain image. Works, especially images that are public domain, can be used freely, but it is important to state that the creator who dedicates the work to the public domain is the copyright owner in the context of the moral rights of the work.

Generative AI presents a discernible risk of copyright infringement. Michael D. Murray identifies and analyzes this issue through the application of four distinct elements essential for establishing infringement in the context of AI-generated works, are²³:

- a. Act of Copying;
- b. The Creators of the AI Training Set, the creator of the training dataset and foundation model do not copy any of the images on the internet whose data was scraped to create the dataset. There is no images that are downloaded, copied or stored;
- c. The creator of the visual generative AI, Generative AI do not copy any of the images on the internet whose data was scraped to create the AI's training data and foundation model. The act of generation by the diffusion process does not involve selecting preexisting images from the training set to copy them.
- d. End-user of the visual generative AI, when user using the generative AI tool, end-users have no access to the actual image files whose data was used in the AI training data and foundation. But if the law turns a blind eye to this technicality and allows the concept of "access" to be stretched, the end-user still does not create a copy of a preexisting work without going to great lengths in prompt engineering.

The argument from *droit de suite* must nevertheless be rejected, on three grounds. First, it rests upon an equivocation. The expression bears two distinct meanings which its French form conceals. In the civil law of property, *droit de suite* denotes the persistence of a real right in the object burdened by it, as that object passes from hand to hand; it governs the same object throughout, and says nothing of things the object may produce. In copyright

²² Rahadian Sparba, "Dilema Droit De Suite Untuk Karya Seni Rupa" *Journal Intellectual Property*, vol.2, no.2 (2019): 39, doi: doi.org/10.20885/jipro.vol2.iss2.art4.

²³ Michael D Murray, "Generative AI Art: Copyright Infringement and Fair Use", *SMU Science and Technology Law Review*, Vol.26, No.2 (2023): 313, dx.doi.org/10.2139/ssrn.4483539

law, by contrast, *droit de suite* denotes the resale royalty right — the entitlement of an author or the author's heirs to a share of the proceeds when the original of a work is resold. Bangladeshi law gives the copyright sense express statutory form: section 21 of the Copyright Act 2023 confers upon the author or heirs a share of the resale price of the original of a painting, sculpture, drawing, film, musical or literary work, notwithstanding assignment of the copyright, capped at twenty per cent and extinguished upon expiry of the copyright term.²⁴ The right so conferred runs *to the author* and *against subsequent purchasers*. It is not a mechanism by which a proprietor's entitlement extends into derivative or downstream material, and it confers nothing whatever upon the developer of a tool.

Second, the argument proves too much. Copyright in a computer program does not extend to the output the program generates; were it otherwise, the developer of a word processor would hold copyright in every document composed with it. The proprietor's rights subsist in the software as a protected work, and the generation of an image is a use of that software, not a reproduction of it.

Third, the practice of developers is inconsistent with the claim. Generative AI providers routinely disclaim copyright in generated imagery and assign such rights as may exist to users by contract. A party does not assign by agreement what it already owns by operation of law, the recourse to contractual allocation is itself an acknowledgement that no antecedent entitlement exists.

It follows that the question of ownership cannot be resolved by reference to the character of the developer's property in the software and must instead be addressed as a question of authorship and of the threshold of protection. That is the subject of the section which follows. It should be noted separately that the outputs of generative AI carry a distinct risk of infringement where generated content substantially resembles protected works within the training dataset, a question of infringement rather than of subsistence, and one which lies outside the scope of the present analysis.

3.3. Doctrinal Standards for Assessing Originality

The Indonesian statute does not define originality; the Bangladeshi statute no longer states the requirement in express terms. Neither judiciary has developed a settled test, the originality requirement having never been the subject of judicial determination in independent Bangladesh.²⁵ In the absence of domestic authority, recourse to comparative doctrine is both necessary and legitimate. Two principal standards compete internationally, occupying opposite ends of a spectrum, with a third position emerging between them.

The sweat of the brow doctrine originated in the decision of the House of Lords in *Walter v Lane*, in which verbatim transcription of an oral speech was held to attract copyright

²⁴ Copyright Act (n 11) s 21. See also Berne Convention for the Protection of Literary and Artistic Works 1886 (as revised), art 14ter; Directive 2001/84/EC.

²⁵ Islam and Bhuiyan, observing that the originality requirement has never been the subject matter of any judicial decision in independent Bangladesh. The observation was made in relation to the Copyright Act 2000 and remains accurate under the 2023 Act.

because the transcriber had expended skill and labour in producing it.²⁶ The doctrine was elaborated in *University of London Press v University Tutorial Press*, where the court held that originality does not require the expression of original or inventive thought, but only that the work should originate from the author rather than being copied from another work.²⁷ On this standard, labour, skill, and capital expended in production suffice; creativity is not required. The doctrine was received throughout British India and consequently formed part of the law applicable in the territory of Bangladesh, and was for many years applied by the Indian judiciary.²⁸ Its structural weakness is that it extends protection to arrangements and compilations of unprotectable material, compelling subsequent authors to duplicate effort already expended.²⁹

The modicum of creativity doctrine emerged in response. In *Feist Publications, Inc. v Rural Telephone Service Co.*, the Supreme Court of the United States held that originality requires both independent creation by the author and at least some minimal degree of creativity, while emphasising that the requisite level of creativity is extremely low and that originality does not signify novelty.³⁰ The decision displaced the sweat of the brow doctrine in the United States and attracted substantial criticism as a departure from prior authority.³¹

Between these positions lies the standard articulated by the Supreme Court of Canada in *CCH Canadian Ltd v Law Society of Upper Canada*, which resisted the sweat of the brow doctrine while declining to adopt *Feist*.³² On this approach a work is original where it results from the author's exercise of skill and judgment, provided that exercise is more than trivial and amounts to more than a mere mechanical exercise.³³ It is this intermediate standard that offers the most workable criterion for assessing hybrid human-machine works, for the reason developed in section 3.4 below: it directs attention neither to the quantum of labour expended nor to the presence of artistic merit, but to whether the human contribution involved the application of judgment as distinct from the mechanical operation of a process.

²⁶ *Walter v Lane* [1900] AC 539 (HL).

²⁷ *University of London Press v University Tutorial Press* [1916] 2 Ch 601, 608–609.

²⁸ *McMillan v Suresh Chunder Deb* ILR 17 (Cal) 951, 961; *Govindan v Gopalakrishna* AIR 1955 (Mad) 391, 393; *Burlington Home Shopping Pvt v Rajnish Chibber* (1995) 61 DLT 6. The Indian position shifted subsequently in *Eastern Book Company v D.B. Modak* AIR 2008 SC 809.

²⁹ Nigel P Gravells, "Authorship and Originality: The Persistent Influence of *Walter v Lane*" (2007) 11 *Intellectual Property Quarterly* 267; Norman Siebrasse, "Copyright in Facts and Information: *Feist Publications* Is Not, and Should Not Be, The Law in Canada" (1994) 11 *C.I.P.R.* 191.

³⁰ *Feist Publications, Inc. v Rural Telephone Service Co.* (1991) 499 US 340, 345.

³¹ Gerard J Lewis Jr, "Copyright Protection for Purely Factual Compilations Under *Feist Publications, Inc. v. Rural Telephone Service Co.*" (1992) 8(1) *Santa Clara High Technology Law Journal* 169. On the continuing significance of the requirement, see Eleonora Rosati, "Why originality in copyright is not and should not be a meaningless requirement" (2018) 13(8) *Journal of Intellectual Property Law & Practice* 597.

³² *CCH Canadian Ltd v Law Society of Upper Canada* [2004] 1 SCR 339.

³³ *ibid* [16]. See further Carys J Craig, "Resisting 'Sweat' and Refusing *Feist*: Rethinking Originality After CCH" (2007) 40(1) *UBC Law Review* 69; Abraham Drassinower, "Sweat of the Brow, Creativity and Authorship: On Originality in Canadian Copyright Law" (2003–2004) 1 *University of Ottawa Law & Technology Journal* 105.

Whichever standard is adopted, both statutes attribute authorship to a person. This is not merely an inference from general principle. The Bangladeshi statute addresses digitally mediated creation directly: for literary, dramatic, musical or artistic creative works produced through ICT-based digital works, the author is the person who produced the work, and the same formulation governs ICT-based digital works themselves. An ICT-based digital work is in turn defined as creative work created directly or indirectly on a computer, mobile telephone or other digital device by the processing of data to obtain a specific result, expressly including images, moving images, designs, and text. The definition is therefore capable of extending to output produced through generative AI, but the authorship provision continues to require a producing person. It may be objected that "person" is defined to include firms, corporations, companies and associations, whether or not incorporated, and that first ownership of ICT-based digital works vests in the engaging person or institution. The objection does not disturb the analysis. Those provisions allocate ownership and confer legal personality; they do not dispense with the requirement that the work be produced by a person, and a corporate producer necessarily acts through natural persons. A generative AI is neither a natural nor a legal person, and the statute nowhere contemplates it as an author.

That the Act treats modification of digital material exclusively as a harm rather than as an authorial act reinforces the point. It is an infringement intentionally to alter, delete from, add to or distort information in a computer program, digital system or network so as to diminish its value or utility. The statute thus contemplates the alteration of digital works only in its destructive aspect, and provides no corresponding recognition of alteration as a creative act capable of generating rights an omission which the present analysis seeks to remedy.

In the Bangladeshi context, the choice of standard is governed by a constitutional provision without parallel elsewhere, and that provision assumes heightened importance precisely because the statute no longer states an originality requirement. Article 20(2) of the Constitution provides that the State shall endeavour to create conditions in which persons shall not be able to enjoy unearned incomes, and in which human labour in every form, intellectual and physical, shall become a fuller expression of creative endeavour and of the human personality. Read with Article 8(2), which renders the fundamental principles of state policy a guide to the interpretation of law, Article 20(2) is not merely a supporting consideration but the principal interpretive resource available to a court asked whether unmodified machine output attracts copyright. It operates in both directions: it counsels against the vesting of copyright where no human intellectual labour has been expended and supports protection where such labour has been applied to machine-generated material.

3.1. Copyright in Modified AI Generative Images

Under the Indonesian Copyright Act, computer programs are explicitly recognized as protected subject matter. Consequently, artificial intelligence as software architecture qualifies for copyright protection, wherein legal authorship vests exclusively in a natural person rather than the technological entity itself. Conversely, the legal status of end users utilizing text-to-image features remains highly contentious. While contractual provisions within a platform's Terms of Service may purport to allocate operational

rights to the user, current statutory frameworks fail to address the unauthorized ingestion of proprietary data by AI training models. As a result, downstream Generative AI illustrations struggle to qualify as protectable works under the current regime. This statutory lacuna arises because such outputs are synthesized by autonomous computational systems utilizing public datasets, inherently lacking the requisite human intellect, imagination, dexterity, and expertise mandated by traditional copyright law.³⁴

The Terms and Conditions of generative AI operate as the primary regulatory instrument determining the legal relations between the AI proprietor and the end-user. These agreements explicitly delineate ownership rights over the resulting imagery, define the parameters of commercial exploitation, and stipulate governing laws alongside dispute resolution frameworks. Additionally, they incorporate structured subscription models that condition the scope of utility and technological privileges accorded to the user.

The addition of value or renewal to an existing work raises directly the question of Originality. Originality shows that a creation/work is truly made by the creator. Originality does not suggest that a work has novelty but requires that creation is truly the result of the creator's creative thinking. It does not create copyright for a work that imitates the creation of other works or that are in the public domain.³⁵ The essence of a work of creation is originality. Therefore, originality is a more important element in copyright than novelty. Although the Copyright Law does not explicitly explain the criteria for Originality, in general, Originality is interpreted as self-made, unique, and personal, and the work created is produced by oneself without quoting, copying, or plagiarizing the work of others.

A work that is protected by copyright must be created by a person to be protected by copyright.³⁶ There is a gray zone if a human creates a work inspired by a work created by AI, or a human makes modifications to a work created by AI to create a work and obtain copyright for the created work.

The Copyright Act recognizes the concept of copyright modification. A person creates an image through Generative AI by inputting a text prompt to create the desired image and then manually modify it to make the image look different with a touch of creativity and the characteristics of its creator. Therefore, in theory, a person who modifies an image from Generative AI can obtain copyright for that work. However, there are 4 factors that must be considered by the creator of the image from the AI modification:

a. Disclosure claim of generative AI in the creative process

To ensure transparency in copyright recordation, the generative AI user must formally acknowledge that the creation of the work involved the integration of generative AI technology, specifically delineating its role either as a technological

³⁴ Avifah Annisa M.R, Andry Wikra W.M, and Aan Aswari, "Copyright Illustration Image by Artificial Intelligence", *Intellectual Law Review*, Vol.3, No.1, (2025): 19, 10.59108/ilre.v3i1.106

³⁵ Khoirul Hidayah, *Hukum Hak Kekayaan Intelektual* (Jawa Timur: Setara Press, 2017): 23.

³⁶ Iliana Tsiota, *The Evolution of U.S. Originality in Copyright Law and a Comparison with the E.U.* (Thesis: International Hellenic University, 2023): 15.

instrument utilized to manifest an initial creative concept or merely as a reference framework for artistic inspiration.

The statutory inquiry duty is significant for present purposes. Under the repealed legislation the Copyright Office in practice relied upon an undertaking furnished by the applicant as to the originality of the work, an allocation of the burden attributable to the resource constraints of the Office rather than to any considered policy judgment.³⁷ The 2023 Act instead imposes an express obligation of inquiry, without specifying its content. Neither the Act nor, so far as appears, the applicable rules requires an applicant to disclose whether generative artificial intelligence was used in the creation of the work. Nor does the Indonesian recordation framework. In both systems it therefore remains possible for a certificate to issue in respect of unmodified or minimally modified machine-generated output, the registering authority having no occasion and no instrument to inquire into the question.

The point is not academic. Because registration carries evidential consequences in both jurisdictions, a certificate obtained in respect of unprotectable machine output confers a litigation advantage upon a claim that ought not to succeed, and places the burden of displacing the certificate upon a defendant who may have no means of establishing how the work was made. A disclosure requirement is accordingly the minimum institutional response, and in Bangladesh it would give content to an inquiry duty the statute already imposes.

b. Purpose of using generative AI software

The purpose of a Generative AI user is to determine the originality of image work. The presence of AI software if viewed only as a tool for creativity, a tool for finding inspiration, and then the creator continues to use ideas and creativity in realizing an image, thus the Originality element can be maintained. However, if a Generative AI user uses it only to find a shortcut to create a work, then the Originality element of a work will fade away, eroded by the ease of AI technology.

c. Term and condition of generative AI software

If reviewed carefully, various AI software that is free access or prepaid/subscription fee provides different terms and conditions, especially regarding the ownership status of the images resulting from generative AI, which

³⁷ Islam and Bhuiyan (n 25), describing the registration procedure and the mandatory undertaking as to originality required of applicants under the Copyright Act 2000 and the rules made thereunder. The Copyright Board's treatment of the "Juboti Radhe" dispute, in which registration was revoked upon a subsequent finding that substantial portions of the lyrics had been reproduced from earlier published compilations, illustrates the system's reliance on ex post correction; see "Shorolpur loses copyright claims for 'Juboti Radhe'" *The Business Post* (Dhaka, 28 January 2022) <https://businesspostbd.com/show-biz/2022-01-28/shorolpur-loses-copyright-claims-for-juboti-radhe-2022-01-28> accessed 24 July 2026. The full reasoned decision is not publicly available.

can affect the copyright for someone who makes modifications to the images resulting from Generative AI.

d. Originality: skill and judgment in the human contribution

The decisive question is not the proportion of the final image attributable to machine generation as against human intervention, but the character of the human contribution. A quantitative measure of dominance is unworkable as a legal standard: it presupposes a metric that does not exist, invites arbitrary line-drawing, and would require recollection examiners to conduct comparisons they are not equipped to perform. The standard identified in section 3.3 above supplies a more tractable criterion. A modified generative AI image attracts protection where the human contribution constitutes an exercise of skill and judgment amounting to more than a mere mechanical exercise.³⁸

Applying that criterion yields a determinate answer to the question of prompt engineering. The formulation and refinement of textual prompts, however extensive, is properly characterised as mechanical exercise rather than as the exercise of skill and judgment in the production of the image. The prompt operates upon the system as an instruction; the resulting visual expression is determined by the model's parameters and training data rather than by the user's execution. The user specifies a desired outcome but does not execute it. This is so notwithstanding that the statutory definition of an ICT-based digital work extends to material created indirectly on a digital device, since the authorship provision requires a producing person, and the specification of a desired result is not its production.³⁹ That the process may require repeated iteration does not alter its character, since iteration of instructions is the expenditure of labour, and labour alone is insufficient under any standard other than the sweat of the brow doctrine a doctrine which, for the reasons given above, ought not to govern. This conclusion is consistent with the position taken by the United States Copyright Office, which has determined that prompts alone do not provide sufficient human control to make the user of an AI system the author of the resulting output, while affirming that protection extends to perceptible human contributions to AI-generated material, including creative modification of machine-generated output.⁴⁰

Post-generation modification stands differently. Where a human author applies digital or conventional painting, drawing, compositing, or editing techniques to machine-generated output, the author executes the expression directly. Such application involves choices as to composition, colour, form, and detail which are

³⁸ *CCH Canadian Ltd v Law Society of Upper Canada* (n 42) par. 16.

³⁹ Copyright Act (n 11), ss 2(10), 2(23)(f).

⁴⁰ United States Copyright Office, *Copyright and Artificial Intelligence, Part 2: Copyrightability* (January 2025) <https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-2-Copyrightability-Report.pdf> accessed 24 July 2026. See also *Thaler v Perlmutter* 687 F Supp 3d 140 (DDC 2023).

made and implemented by the author, and which demand technical skill refined through practical experience rather than the mere alteration of instructions articulated through text-based prompts. That is the exercise of skill and judgment in the relevant sense. The threshold is accordingly crossed where the human contribution is itself independently capable of constituting a protected artistic contribution, and it is not crossed by trivial or automated alterations such as cropping, resizing, format conversion, or the application of preset filters, which are mechanical in the same sense as prompting.

Two consequences follow. First, protection extends only to the human contribution, and not to the underlying machine-generated material, which remains outside the scope of protection for want of human authorship. Second, the creator may not claim the unmodified generative output as an original work of authorship. This constitutes a fundamental limitation upon copyright claims over works incorporating generative AI material.

Considering these 4 factors, it is possible to register copyright to the state on an image object produced by Generative AI, which is then modified by human creativity. Obtaining copyright protection does arise declaratively or automatically when a creation is created, but the aspect of originality needs to be considered in providing protection for a work of creation protected by copyright. In this case, the state plays a role in providing protection for the work of creation, but the assessment of originality turns on the character of the human contribution rather than on its proportion.

These 4 factors can be used by the DGIP before issuing a documentation letter or designated clause for disclosing the extent of Generative AI involvement is suggested as an enhancement to the existing copyright registration framework to ensure legal transparency and to facilitate the assessment of originality. Even if these four factors have been addressed by the creator, if the copyright examiner at the DGIP determines that the artistic work fails to satisfy these four criteria, the DGIP may refuse to issue the letter of copyright recordation. Furthermore, creators must refrain from claiming the raw generative AI output as their own original work, serving as a fundamental limitation on copyright claims over generative AI. It can be an anticipatory action against copyright problems arising from generative AI in the future. Although under the provisions of Indonesian copyright law, protection arises automatically upon creation rather than being determined by the DGIP.

The modification of generative AI outputs must align with copyright limitations and exceptions. It is necessary at this point to distinguish carefully between three regimes which the existing literature has tended to conflate. The doctrine of fair use, as developed under United States law, is an open-ended standard requiring case-by-case determination against statutory factors.⁴¹ The doctrine of fair dealing, characteristic of the British model and its Commonwealth derivatives, operates instead through a closed list of enumerated

⁴¹ Copyright Act 1976, 17 USC § 107 (United States); *United States v Elcom Ltd*, 203 F Supp 2d 1111 (ND Cal 2002).

permitted purposes, use beyond which constitutes infringement.⁴² Indonesian law follows neither model precisely: Articles 43 to 51 of Law No. 28 of 2014 provide a system of enumerated limitations and exceptions, structurally closer to the fair dealing model than to fair use. Article 44 accordingly does not codify the four-factor fair use analysis of United States law, and it would be incorrect to treat it as doing so.

Both models are constrained by the same international obligation. Article 9(2) of the Berne Convention, replicated in Article 13 of the TRIPS Agreement, establishes a three-step test permitting limitations only in certain special cases, which do not conflict with a normal exploitation of the work, and which do not unreasonably prejudice the legitimate interests of the rightsholder.

The Bangladeshi position is instructive for a different reason. Under section 72 of the repealed Copyright Act 2000, Bangladesh maintained a conventional enumerated list of exceptions on the fair dealing model. The Copyright Act 2023 does not replace that list with an open-textured standard so much as remove it from the statute altogether: section 70(1) provides that reproduction, adaptation, recording, broadcast, display, publication, translation or *sadbyabahaar* of a literary, dramatic, musical or artistic work does not infringe copyright where done in accordance with the purposes and conditions specified in the rules. The scope of permitted use is thereby delegated to subordinate legislation. *Sadbyabahaar* is defined as innocent commercial use of a protected work without permission which advances freedom of expression – a formulation of considerable breadth, undefined as to "innocent," and unaccompanied on its face by the three-step test. The Act simultaneously criminalises the parodic or satirical alteration of the national anthem and of patriotic and religious songs, a restriction upon transformative use with no evident counterpart in either the fair use or the fair dealing tradition. The Bangladeshi framework thus combines an unusually wide statutory concept with an unusually thin statutory specification, locating the boundary of infringement in rules rather than in the Act.

The analytical significance of this for the present study is twofold. First, the fair use factors discussed below are presented as comparative material illustrating how one jurisdiction assesses transformative use; they are not, and should not be treated as, the applicable law of Indonesia. Second, and more fundamentally, limitations and exceptions address the *permissibility of using* a protected work. They do not determine *whether a work is protected in the first place*. The question whether a modified generative AI image attracts copyright is a question of subsistence and authorship, governed by the analysis set out above, and it is logically prior to any question of fair use or fair dealing.

By way of illustration, the fair use doctrine of United States law permits the use of copyrighted works without the rightsholder's permission in defined circumstances, assessed against four factors. The following discussion applies those factors to the modification of generative AI outputs in order to demonstrate how the question would be approached in a jurisdiction operating an open-textured limitations regime; it does not represent the position under Indonesian law:

⁴² On the distinction, see Giuseppina D'Agostino, "Healing Fair Dealing: A Comparative Copyright Analysis of Canada's Fair Dealing to UK Fair Dealing and US Fair Use" (2008) 53(2) *McGill Law Journal* 309; Mohammad Towhidul Islam and Moniruz Zaman, "Protection of Copyright and Accessing Education Materials at Low Prices: Finding a Sustainable Solution for Bangladesh" (2021) 32(2) *Dhaka University Law Journal* 49.

- a. Purpose and character of your use;

Consider is whether the purpose and character of the use of the modified AI-made image is used for non-profit, educational, or personal use, even though the AI-made image has been modified and changed its form with a touch of creativity from its user, but if the modified AI image is used for commercial purposes, it has the potential to violate the economic rights of the owner of the AI software.

- b. Nature of the work used;

The modification of the work of AI-created images obtained from the official use of Generative AI software or subscribing to AI software features is an action that is classified as fair use. However, if the image created by AI is modified through pirated AI software, or through other unlawful means disregarding the moral and economic rights of the proprietor of the generative AI software, the use would fall outside fair use.

- c. Amount and substantiality of the work used;

The substance and portion of the use of the work. In this case, modification of the image created by Generative AI is permitted according to the provisions of the fair use principle. If the modification of the AI image is dominated by a touch of creativity mixed into the AI image, then this is permitted and has been in accordance with the provisions of fair use. However, if the modified AI-created image still tends to be dominated by the results of AI touches, this is contrary to the principle of fair use

- d. Effect of the use upon the potential market for or value of the copyrighted work;

The impact of AI image modification. In this case, the modification of AI images is very unlikely to affect the market potential of economic rights of generative AI software. This is because the use of modification is only for AI-created images, not the modification of AI software or the creation of similar generative AI-based Software to influence the market potential of other AI software.

On the application of these four factors, the modification of generative AI outputs by a user without the permission of the software proprietor would generally fall within fair use as understood in United States law. Under Indonesian law the same question falls to be determined under Articles 43 to 51, and under Bangladeshi law under section 70 read with the rules made thereunder; in neither case is the four-factor analysis directly applicable.

4. Conclusion

Modified generative AI images are capable of attracting copyright protection under the declarative principle, but protection depends upon a rigorous assessment of the originality of the modification. This study has proposed a four-factor test for that assessment: first, disclosure of the involvement of generative AI in the creative process; second, the purpose for which the generative system was used; third, the terms and conditions governing the software; and fourth, originality, understood as the exercise of skill and judgment in the human contribution. On the fourth factor, a distinction must be drawn as to the nature of the human intervention. Creativity in image modification consists in the application of digital or conventional painting and editing tools, demanding technical skill refined through practical experience; it is fundamentally different from the mere alteration of text-based prompts. The question is not the proportion of the work attributable to the machine, but whether the human contribution amounts to more than a mere mechanical exercise.

As to ownership, copyright in a modified generative AI image vests in the human author who performed the modification, and not in the proprietor of the AI generative. The proprietor's rights subsist in the software as a protected work and do not extend to its outputs; the contrary argument, resting upon the principle of *droit de suite*, has been rejected in section 3.2 above. Protection extends only to the human contribution, the underlying machine generated material remaining unprotected for want of human authorship. It follows that a creator may not claim unmodified generative output as an original work of authorship.

As to reform, the amendments required differ between the two jurisdictions. For Indonesia, three are proposed: that the definition of creation state expressly that a work must originate from a natural person, and that material generated autonomously by a computational system does not by itself constitute a protected creation; that a provision recognise works incorporating machine generated material, limiting protection in such works to the human authored contribution, on the model of derivative works; and that the originality requirement be given statutory content by reference to the exercise of skill and judgment amounting to more than a mere mechanical exercise. For Bangladesh, the anterior step is the restoration of an express originality requirement in section 14 of the Copyright Act 2023, defined by reference to the same standard.

In both jurisdictions the standard should be operationalised administratively. This study recommends that the Directorate General of Intellectual Property adopt the proposed four factor test as a mandatory disclosure requirement in the copyright recordation process, enabling examiners to assess the human contribution before issuing or refusing a letter of recordation. The same requirement is commended to the Bangladesh Copyright Office, where it would give content to the duty of inquiry already imposed by section 53(2) of the Copyright Act 2023. Such a mechanism does not displace the declarative principle, under which protection arises upon creation; it addresses the distinct question of what the State should be prepared to certify.

Reference:

Books

- Black's Law Dictionary*, Ed.9, St. Paul, MN: West, 2009.
- Hidayah, Khoirul. *Hukum HKI Hak Kekayaan Intelektual*. Jawa Timur: Setara Press, 2017
- Islam, Mohammad Towhidul, and Azhar U. Bhuiyan. "The Concept of Originality in Bangladesh's Copyright Jurisprudence." In *Handbook on Originality in Copyright*, edited by Indranath Gupta. Singapore: Springer Nature, 2023
- Konar, Amit. *Artificial Intelligence and Soft Computing: Behavioral and Cognitive Modeling of the Human Brain*. Boca Raton, FL: CRC Press, 2000.
- Riswandi, Budi Agus. *Doktrin Perlindungan Hak Cipta di Era Digital*. Yogyakarta: FH UII Press, 2016.
- Saidin, OK. *Aspek Hukum Kkekayaan Intelektual* . Jakarta: Rajawali Press, 2007.
- Wantu, Fence M. *Pengantar Ilmu Hukum*. Gorontalo: Reviva Cendekia, 2015.
- WIPO. *WIPO Conversation on Intellectual Property (IP) and Aritificial Intelligence (AI)*. Geneva: WIPO Secretariat, 2020.
- WIPO. *Generative AI Navigating AI Navigating Intellectual Property*. IP and Fronties Technologies, 2024.
- WIPO. *WIPO Conversation: Generative AI*. IP and Frontier Technologies, 2024.

Journal Articles

- Amzad, Homaira, and K. Vijayalakshmi. "Tourism Recommendation System: A Systematic Review." *International Journal of Engineering Research & Technology* 10, no. 9 (2021): 390-395. <https://doi.org/10.17577/IJERTV10IS090100>.
- Ariefzani, Tassaufi. "Legal Protection of the Creator of Online SKCK Computer Programs Which Hasn't Be Registered Under Law Number 28 Yahun 2014". *Veteran Justice Journal*, vol.1 no.1 (2014): 24-40. doi:10.33005/vjj.v1i1.17.
- Avifah Annisa M. R, Andry Wikra W.M, and Aan Aswari, "Copyright Illustration Image by Artificial Intelligence", *Intellectual Law Review*, Vol.3, No.1, (2025): 19, 10.59108/ilre.v3i1.106.
- Craig, Carys J. "Resisting 'Sweat' and Refusing Feist: Rethinking Originality After CCH." *UBC Law Review* 40, no. 1 (2007): 69-105.
- Chesterman, Simon. "Good Models Borrow, Great Models Steal: Intellectual Property Rights and Generative AI". *NUS Law Working Paper No.2023/925* (2024): 1-15. doi.org/10.1093/polsoc/puae006.
- Darma D.S, Made Doni, Ida Ayu S, and Michael Angelo. "Copyright Regulation for AI-Generated Images Legal Approaches in Indonesia and the United States". *SASI*, vol. 30, no.4 (2024): 355-368. 10.47268/sasi.v30i4.2228.
- D'Agostino, Giuseppina. "Healing Fair Dealing: A Comparative Copyright Analysis of Canada's Fair Dealing to UK Fair Dealing and US Fair Use." *McGill Law Journal* 53, no. 2 (2008): 309-363.
- Disemadi, Hari Sutra. "Urgensi Regulasi Khusus dan Pemanfaatan Artificial Intelligence Dalam Mewujudkan perlindungan Data Pribadi Di Indonesia". *Jurnal Wawasan Yuridika*, vol. 5, no.2 (2021): 177-199. <https://doi.org/10.25072/jwy.v5i2.460>.

- Drassinower, Abraham. "Sweat of the Brow, Creativity and Authorship: On Originality in Canadian Copyright Law." *University of Ottawa Law & Technology Journal* 1 (2003–2004): 105–123.
- Enjellina, Eleonora, and Anastasya. (2023). "A Review of AI Image Generator: Influence, Challenges, and Future Prospects for Architectural Field". *JARINA - Journal of Artificial Intelligence in Architecture*, vol.2, no.1, (2023): 53-65. <https://doi.org/10.24002/jarina.v2i1.6662>
- Gravells, Nigel P. "Authorship and Originality: The Persistent Influence of Walter v Lane." *Intellectual Property Quarterly* 11 (2007): 267.
- Homaira Amzad, and K. Vijayalakshmi. "Tourism Recommendation System: A Systematic Review. *International Journal of Engineering Research & Technology (IJERT)*, vol.10, no.9 (2021): 390-396. 10.17577/IJERTV10IS090100.
- Islam, Mohammad Towhidul, and Moniruz Zaman. "Protection of Copyright and Accessing Education Materials at Low Prices: Finding a Sustainable Solution for Bangladesh." *Dhaka University Law Journal* 32, no. 2 (2021): 49–70.
- Lemley, Mark A. "How Generative AI Turns Copyright Upside Down", *Science & Technology Law Review*, Vol 25 (2024): 21-44, [dx.doi.org/10.2139/ssrn.4517702](https://doi.org/10.2139/ssrn.4517702).
- Lewis Jr., Gerard J. "Copyright Protection for Purely Factual Compilations Under *Feist Publications, Inc. v. Rural Telephone Service Co.*" *Santa Clara High Technology Law Journal* 8, no. 1 (1992): 169.
- Murray, Michael D. "Generative AI Art: Copyright Infringement and Fair Use", *SMU Science and Technology Law Review*, Vol.26, No.2 (2023): 313, [dx.doi.org/10.2139/ssrn.4483539](https://doi.org/10.2139/ssrn.4483539).
- Rosati, Eleonora. "Why Originality in Copyright Is Not and Should Not Be a Meaningless Requirement." *Journal of Intellectual Property Law & Practice* 13, no. 8 (2018): 597.
- Siebrasse, Norman. "Copyright in Facts and Information: *Feist Publications* Is Not, and Should Not Be, The Law in Canada." *Canadian Intellectual Property Review* 11 (1994): 191–210.
- Simatupang, Khwarizmi Maulana. "Tinjauan Yuridis Perlindungan Hak Cipta dalam Ranah Digital". *Jurnal Ilmiah kebijakan Hukum* vol.15, no.1 (2021): 67-80. 10.30641/kebijakan.2021.V15.67-80.
- Sparba, Rahadian. "Dilema Droit De Suite Untuk Karya Seni Rupa". *JIPRO: Journal Intellectual property*, vol.2, no.2, (2019): 37-44. doi: doi.org/10.20885/jipro.vol2.iss2.art4.
- Sudjana. "Pembatasan Perlindungan kekayaan Intelektual (Hak Cipta) dalam Perspektif Hak Asasi Manusia". *Jurnal HAM*, vol.10, no.1 (2019): 69-84. doi:[dx.doi.org/10.30641/ham.2019.10](https://doi.org/10.30641/ham.2019.10).
- Wibowo, Richard Jatimulya Alam. "Ciptaan & Invensi Hasil Kecerdasan buatan Dalam perspektif Hak Cipta dan Paten". *Jurnal Iliah Kebijakan Hukum*, vol.17, no.3 (2023), 269-288. doi: 10.30641/kebijakan.2023.V17.269-288.
- Xing, Jiaji. "The Future of Generative AI: Copyright and Infringement Issues." In *Proceedings of the 3rd International Conference on International Law and Legal Policy* (2024): 1–7. <https://doi.org/10.54254/2753-7048/69/20240143>.

Scientific Papers

- Ramadhan, Galih Dwi. *Perlindungan Hukum atas Invensi Artificial Intelligence di Era Revolusi Industri 4.0 & Society 5.0*. Thesis: Magister Hukum Universitas Islam Indonesia, 2022.
- Tsiota, Iliana. *The Evolution of US Originality in Copyright Law and a Comparison with the EU*. Thessaloniki - Greece: University Center of International Programmes of Studies School of Economics, Business Administration and Legal Studies, 2023.
- United States Copyright Office. *Copyright and Artificial Intelligence, Part 2: Copyrightability*. January 2025.

Website Contents

Matthew Hersh. (2024). Is AI Just a Part of an Artist's Toolkit, or does it have a mind of its own? A New Lawsuit Raises the Issue. Retrieved from <https://www.vitallaw.com/news/copyright-news-is-ai-just-a-part-of-an-artist-s-toolkit-or-does-it-have-a-mind-of-its-own-a-new-lawsuit-raises-the-issue/ipm018cd77d9ad00c42a096aca8b7c5d348d0?refURL=https%3A%2F%2Fwww.google.com%2F#>, accessed on February 2, 2025.

The Business Post. "Shorolpur Loses Copyright Claims for 'Juboti Radhe.'" January 28, 2022. <https://businesspostbd.com/show-biz/2022-01-28/shorolpur-loses-copyright-claims-for-juboti-radhe-2022-01-28>.

State Gazette and Supplementary State Gazette

- Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta.
- Bangladesh Copyright Act 2023 (Act No. 34 of 2023)