

Legal Protection of Digital Copyrighted Works Traded Through NFTs in the Perspective of Intellectual Property Rights

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Abstract

The emergence of NFTs as digital marketplace technology has created new opportunities for artists and creators to monetize their works efficiently. Although Copyright Law Number 28 of 2014 serves as the primary legal framework for intellectual property protection in Indonesia, no specific regulations currently govern NFTs or digital copyrighted works traded through NFT platforms. This study examines the legal framework and protection of digital copyrighted works traded through NFTs under Indonesian copyright law. It employs a normative juridical method using statutory and conceptual approaches. The legal materials consist of primary, secondary, and tertiary legal sources collected through library research. The primary legal materials include international treaties, Copyright Law Number 28/2014, ITE Law Number 19/2016, and Constitutional Court Decision Number 84/PUU-XXI/2023. The findings show that Copyright Law implicitly protects digital copyrighted works traded through NFTs through provisions concerning moral rights, economic rights, reproduction, distribution, and technology-based copyrighted works. However, the absence of specific NFT regulations creates legal uncertainty. Furthermore, NFT marketplaces, as Electronic System Providers, have legal responsibilities regarding content traded on their platforms. Therefore, specific NFT regulations and strengthened marketplace policies are required to ensure effective legal protection for digital copyrighted works traded through NFTs.

Keywords: copyright, digital copyrighted works, non-fungible token

Abstrak

Kemunculan NFT sebagai teknologi pasar digital memberikan peluang bagi seniman dan kreator untuk memonetisasi karya mereka secara cepat, efektif, dan efisien. Meskipun Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta menjadi landasan utama perlindungan hak kekayaan intelektual di Indonesia, belum terdapat pengaturan khusus mengenai NFT. Penelitian ini bertujuan mengkaji pengaturan hukum dan perlindungan hukum terhadap karya cipta digital yang diperjualbelikan melalui NFT berdasarkan UUHC. Metode penelitian yang digunakan adalah yuridis normatif dengan pendekatan perundang-undangan dan konseptual. Bahan hukum yang digunakan meliputi bahan

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hukum primer, sekunder, dan tersier yang diperoleh melalui studi kepustakaan. Bahan hukum primer terdiri perjanjian internasional, UUHC, UU ITE 19/2016, dan Putusan Mahkamah Konstitusi Nomor 84/PUU-XXI/2023. Hasil penelitian menunjukkan bahwa UUHC telah mengakomodasi perlindungan karya cipta digital yang diperjualbelikan melalui NFT secara implisit melalui pengaturan hak moral, hak ekonomi, penggunaan, pendistribusian, dan jenis ciptaan berbasis teknologi digital. Namun, belum adanya pengaturan khusus mengenai NFT menimbulkan kekosongan hukum yang berpotensi mengurangi kepastian hukum. NFT yang diperdagangkan melalui marketplace sebagai PSE menimbulkan tanggung jawab hukum bagi penyelenggara platform terhadap konten yang diperdagangkan. Oleh karena itu, diperlukan regulasi khusus mengenai NFT serta penguatan kebijakan marketplace guna menjamin perlindungan hukum terhadap karya cipta digital yang diperjualbelikan melalui NFT.

Kata kunci: hak cipta, karya cipta digital, non-fungible token

1. INTRODUCTION

The emergence of NFTs as a digital marketplace has provided opportunities for artists and creators to trade their works by monetizing them in digital form in a fast, effective, and efficient manner.¹ A specific example can be seen in the viral video “Charlie Bit My Finger” on YouTube, which was subsequently converted into an NFT and sold for USD 760,999, or approximately IDR 11 billion.² This transaction demonstrates how NFTs can serve as an alternative mechanism for commercializing digital content by transforming digital works into tradable tokens.

The legal status of copyright over digital artworks purchased through the NFT system requires particular attention. Technically, tokens and digital artworks are two separate entities that are integrated through a cryptographic system.³ The purchase of digital copyrighted works through NFTs does not result in the transfer of copyright ownership to the buyer, as it essentially only represents ownership of a digital token rather

¹ Fahrul Pakaya, “Legalitas NFT (Non-Fungible Token) dalam Sengketa Hak Kekayaan Intelektual di Indonesia,” *Al-Zayn: Jurnal Ilmu Sosial & Hukum* 3, no. 3 (2025): 3106–3115, <https://doi.org/10.61104/alz.v3i3.1723>.

² Niko Wijaya and Urbanisasi, “Problematika Dan Perlindungan Hukum Karya Seni Dalam Praktik Non-Fungible Token (NTF),” *QISTINA: Jurnal Multidisiplin Indonesia* 2, no. 2 (2023): 1133.

³ Gabriel Rhema Chrisnando, Budi Santoso, and Bagus Rahmanda, “Kedudukan Karya Seni Digital Dalam Sistem Non-Fungible Token (NFT) terhadap Undang-Undang Nomor 28 Tahun 2014 Tentang Hak Cipta,” *Law, Development & Justice Review* 6, no. 3 (2023): 219–35, <https://doi.org/10.14710/ldjr.6.2023.219-235>.

than the transfer of economic or moral rights over the copyrighted work.⁴ In practice, many buyers still assume that purchasing digital works through NFTs means that full ownership of the copyrighted work has been transferred to them. This misunderstanding may lead to potential legal issues.

Although Copyright Law Number 28 of 2014 serves as the primary reference for intellectual property protection in Indonesia, there are currently no specific provisions regulating the legal treatment of NFTs. This lack of regulation creates legal ambiguity, particularly regarding the ownership of copyright over digital works sold as NFTs and the scope of legal rights attached to token owners.⁵ The issue becomes more complex when NFTs are used as a means of reproducing or distributing digital copyrighted works without clear verification of the authenticity of the works and authorization for their use.

Previous studies have examined digital copyrighted works and Non-Fungible Tokens (NFTs). Research by M. Iqbal Syaanggi M.⁶ in 2025 entitled “*Legal Protection of Photographic Copyright Through Non-Fungible Token (NFT) Technology on the OpenSea Marketplace*” found that the transfer of copyright in the form of NFTs through OpenSea is legally valid, provided that it complies with the contractual requirements under the Indonesian Civil Code and Article 16(2) of the Copyright Law.

Research by M. Sahrul Andrean⁷ in 2024 entitled “*Artistic Works Created as Non-Fungible Tokens (NFTs) from the Perspective of Law Number 28 of 2014 concerning Copyright and Islamic Law*” concluded that digital artworks traded as NFTs are vulnerable to copyright infringement, particularly plagiarism. Research by Devina Yakub⁸ in 2023 entitled “*Copyright Protection for Non-Fungible Token (NFT) Works*”

⁴ Baiyang Xiao, “Copyright Law and Non-Fungible Tokens: Experience From China,” *International Journal of Law and Information Technology* 30, no. 4 (2022): 444–471, <https://doi.org/10.1093/ijlit/eaad007>.

⁵ Pakaya.

⁶ M. Iqbal Syaanggi M, “Perlindungan Hukum atas Hak Cipta Fotografi melalui Teknologi Non-Fungible Token (NFT) pada Marketplace Open Sea” (Universitas Medan Area, 2025).

⁷ M. Sahrul Andrean, “Karya Cipta Seni yang Dijadikan Karya Non-Fungible Token (NFT) dalam Perspektif Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta dan Hukum Islam” (UIN Imam Bonjol Padang, 2024).

⁸ Devina Yakub, “Perlindungan Hak Cipta Pada Karya Cipta Non-Fungible Token (NFT)” (Universitas Hasanuddin, 2023).

found that NFTs may serve as evidence of ownership of digital copyrighted works, although such ownership is limited to the rights recognized under the Copyright Law.

This study aims to analyze the legal framework governing digital copyrighted works under Law Number 28 of 2014 concerning Copyright and the legal protection afforded to digital copyrighted works traded through NFTs based on Indonesian law. The findings are expected to provide a clearer understanding of the scope and limitations of the rights held by creators and NFT buyers, as well as to serve as a reference for the future development of regulations governing digital copyright in Indonesia.

2. RESEARCH METHOD

This research employs a normative juridical method using statutory and conceptual approaches. The study relied on primary, secondary, and tertiary legal materials collected through library research.⁹ The primary legal materials consisted of international treaties, Law Number 28 of 2014 concerning Copyright, Law Number 19 of 2016 concerning Electronic Information and Transactions, and Constitutional Court Decision Number 84/PUU-XXI/2023. Secondary legal materials included books, journal articles, theses, mass media publications, and other legal documents containing legal opinions, legal facts, and legal principles relevant to the research.¹⁰ While tertiary legal materials served to support and explain the primary and secondary legal materials. The collected legal materials were classified according to the research issues and analyzed qualitatively to draw conclusions.

3. RESULTS AND DISCUSSION

3.1. Regulation of Digital Copyrighted Works under Law Number 28 of 2014 concerning Copyright

The Preamble to Law Number 28 of 2014 concerning Copyright states that copyright encompasses the fields of science, art, and literature, all of which play a

⁹ Muhaimin, *Metode Penelitian Hukum* (Nusa Tenggara Barat: Mataram University Press, 2020).

¹⁰ Sri Fatimah Azzahra Sulaeman, "Analisis Terhadap Klausul-Klausul yang menjadi Pertimbangan dalam Menentukan Upah Minimum (Kajian Terhadap Pasal 43 PP No. 78 Tahun 2015 Tentang Pengupahan)" (Universitas Sunan Kalijaga Yogyakarta, 2019).

strategic role in supporting national development and promoting public welfare as mandated by the 1945 Constitution of the Republic of Indonesia.¹¹ Copyright is an exclusive right vested in the creator that arises automatically upon the creation of a work, as stipulated in Article 1(1) of the Copyright Law.

The creator's exclusive rights consist of moral rights and economic rights, both of which are exclusively vested in the creator.¹² Economic rights refer to the rights to obtain economic benefits from a copyrighted work. These economic rights include:¹³

1. The right of reproduction
2. The right of adaptation
3. The right of distribution
4. The right of public performance

Moral rights, as provided under Article 4 of the Copyright Law, consist of two main components: the right of attribution and the right of integrity.¹⁴ The right of attribution entitles the creator to have their name acknowledged in every use of their copyrighted work, while the right of integrity protects the work against any modification or other acts that may prejudice the creator's honor or the integrity of the work.

Digital transformation has changed both the form of and the process by which copyrighted works are created through the use of digital applications and websites.¹⁵ Digital works include visual artworks such as digital illustrations, animations, graphic designs, and digital photography, all of which are created using software and digital

¹¹ Ramadhio Adi Prasetyo, "Hak Kekayaan Intelektual (Hak Cipta) sebagai Objek Waris dalam Hukum Perdata," *JIPRO: Journal of Intellectual Property* 5, no. 1 (2022): 58–75, <https://doi.org/10.20885/jipro.vol5.iss1.art4>.

¹² Ayu Indirakirana and Ni Ketut Millenia Krisnayanie, "Upaya Perlindungan Hak Cipta Konten Youtube WNA yang dijiplak Oleh WNI dalam Perspektif Bern Convention," *Ganesha Law Review* 3, no. 2 (2021): 88–97, <https://doi.org/10.23887/glr.v3i2.444>.

¹³ NicoSancho Liman, "Kedudukan Hukum Creative Commons dalam Dunia Maya Berbasis 'Publik Domain' ke dalam Undang-Undang No. 19 Tahun 2002 Tentang Hak Cipta (Kajian Yuridis Normatif)" (Universitas Brawijaya, 2014); Magdariza, "Analisa Yuridis terhadap Hak Ekonomi dan Hak Moral Berdasarkan Undang-Undang Hak Cipta Dalam Rangka Liberalisasi Perdagangan," *UNES law review* 5, no. 4 (2023): 2150–2159. <https://doi.org/10.31933/unesrev.v5i4.590>.

¹⁴ Yalon Madar, "Moral Rights in Copyrights: Modern Philosophical Approaches," *Open Journal for Legal Studies* 8, no. 2 (2025): 61–70, <https://doi.org/10.32591/coas.ojls.0802.02061m>.

¹⁵ Ridhwan Listiyo Nugroho and Yudho Taruno Muryanto, "Perlindungan Hukum Pemegang Hak Cipta Karya Digital Terhadap Praktik Pelanggaran Hak Cipta Digital," *Birokrasi: Jurnal Ilmu Hukum Dan Tata Negara* 3, no. 1 (2025): 57–67, <https://doi.org/10.55606/birokrasi.v3i1.1820>.

technologies.¹⁶ The legal protection of digital copyrighted works has been accommodated within the framework of international copyright law.

This principle is reflected in Article 9(1) of the *Berne Convention* (1886), which provides: “*Authors of literary and artistic works protected by this Convention shall have the exclusive right of authorizing the reproduction of these works, in any manner or form.*” This provision is further clarified in the *Agreed Statements Concerning the WIPO Copyright Treaty* (1996) relating to Article 1(4), which affirm that the right of reproduction under Article 9 of the *Berne Convention* remains applicable in the digital environment.¹⁷ Accordingly, the storage or reproduction of copyrighted works in digital form on electronic media constitutes an act of reproduction protected by copyright. This demonstrates that the provisions of the *Berne Convention* continue to apply *mutatis mutandis* in the digital environment.

Although Law Number 28 of 2014 concerning Copyright does not explicitly use the term “digital copyrighted works,” it implicitly governs copyrighted works in digital form through several of its provisions, as follows:

Table 1. Copyright Law Provisions Related to Digital Copyrighted Works

Copyright Law	Regulatory Aspect	Related to Digital Copyrighted Works
Article 1(3)	Definition of a copyrighted work	The phrase “in a tangible form” is not limited to physical form and may therefore encompass works in digital format.
Article 1(12)	Definition of reproduction and/or phonograms	1. The phrase “in any form whatsoever” indicates that reproduction is not limited to physical copies but also includes digital reproduction. 2. The phrase “permanently or temporarily” accommodates digital

¹⁶ Dinas Pendidikan Pemuda dan Olahraga Kabupaten Buleleng, “Menggambar dan Melukis Dengan Teknologi,” 2025, https://disdikpora.bulelengkab.go.id/informasi/detail/artikel/65_menggambar-dan-melukis-dengan-teknologi.

¹⁷ World Intellectual Property Organization, “Ekspresi Kreatif: Pengantar Hak Cipta dan Hak Terkait untuk Usaha Kecil dan Menengah,” n.d., https://www.wipo.int/export/sites/www/sme/en/documents/guides/translation/creative_expression_indo.pdf.

		processes such as electronic storage, copying, and data uploading.
Article 9	Economic rights of the creator	The phrases “in all forms” and “through any means, including the Internet” indicate legal protection for the digital exploitation of copyrighted works. ¹⁸
Article 40(1)	Categories of protected works	Recognizes copyright protection for digital works, including databases, video games, and computer programs.

Source: Law No. 28 of 2014 on Copyright

The foregoing analysis demonstrates that the existing legal framework has accommodated digital copyrighted works, despite the absence of an explicit reference to them in the Copyright Law. The application of legal norms to digital copyrighted works does not rely on a single provision rather, it requires a systematic interpretation of interconnected provisions to achieve a comprehensive understanding of the law.

The relatively new nature of NFT technology in Indonesia, coupled with the absence of specific regulations governing its use, further complicates the legal protection of digital copyrighted works traded through NFTs.¹⁹ Although Law Number 28 of 2014 concerning Copyright provides protection for creators' rights, its application to NFT-based transactions presents particular challenges, especially concerning ownership and unauthorized minting practices.²⁰

One of the main issues in NFT transactions concerns the distinction between ownership of an NFT and ownership of copyright in the underlying work. An NFT represents a digital token recorded on the blockchain and does not, in itself, constitute a transfer of copyright in the underlying work.²¹ Buyers assume that ownership of an NFT

¹⁸ Khairil Fahmi, Muhammad Daud, and Akbar, “Perlindungan Hukum atas Hak Cipta Digital dalam Era Ekonomi Kreatif” 19, no. 3 (2025): 1547–1555, <https://doi.org/10.46576/wdw.v19i3.7312>.

¹⁹ Recca Ayu Hapsari, Aprinisa Aprinisa, and Rachel Anzani Putri, “Perlindungan Hukum Terhadap Teknologi Non-Fungible Token (NFT) sebagai Identitas Karya Intelektual,” *Amsir Law Journal* 4, no. 2 (April 30, 2023): 236–45, <https://doi.org/10.36746/alj.v4i2.189>.

²⁰ Ranti Fauza Mayana et al., “Intellectual Property Development & Komersialisasi Non-Fungible Token (NFT): Peluang, Tantangan dan Problematika Hukum dalam Praktik,” *Acta Diurnal Jurnal Ilmu Hukum Kenotariatan* 5, no. 2 (2022): 204–218, <https://doi.org/10.23920/acta.v5i2.812>.

²¹ A. Yuda Triantanto et al., “Interplay antara Habitus Dan Meme Budaya Agen pada Swafoto Digital ”Ghozali Everyday” di NFT,” *Jurnal Media Penyiaran* 2, no. 2 (2022): 79–80, <https://doi.org/10.31294/jmp.v2i2.1555>.

grants them the right to use, reproduce, or commercially exploit the associated work. Such rights remain vested in the creator unless they have been expressly transferred.²²

This highlights the limitations of the existing copyright legal framework in regulating NFT based transactions. Although Law Number 28 of 2014 concerning Copyright provides protection for economic and moral rights, its provisions do not specifically regulate the application of such rights to NFT transactions, which are characterized by their decentralized, anonymous, and cross-jurisdictional nature.²³ Therefore, the increasing use of NFTs as a means of commercializing copyrighted digital works demonstrates the need for a more specific legal framework to provide legal certainty and ensure effective protection for creators, copyright holders, and buyers.

3.2. Legal Protection of Digital Copyrighted Works Traded through NFTs Based on Indonesian Law

L.J Taylor emphasizes that the object of copyright protection is the concrete expression of an idea that has been materialized.²⁴ This is consistent with Article 9(2) of the TRIPS Agreement, which provides that copyright protection extends to expressions and not to ideas, procedures, methods of operation, or mathematical concepts as such. Copyright protection arises automatically based on the declarative principle under Article 5(2) of the Berne Convention (1886).

The legal protection provided under the Copyright Law consists of the creator's exclusive rights, namely moral rights (Article 5 of the Copyright Law) and economic rights (Article 8 of the Copyright Law). NFTs are closely related to the copyright legal regime, particularly in the context of legal protection and ownership of digital copyrighted works. Transactions within the NFT ecosystem generally involve the sale and purchase of digital copyrighted works represented and traded through blockchain technology in the

²² Pranav Darshan et al., "Intellectual Property Rights and Entrepreneurship in the NFT Ecosystem: Legal Frameworks, Business Models, and Innovation Opportunities," *ArXiv*, 2025, 2–6, <https://doi.org/10.48550/arXiv.2507.00172>.

²³ Muhammad Asrul Maulana and Khalisah Leticia Ailani, "Implikasi Hukum Kontrak Elektronik Internasional Berbasis Blockchain pada Platform Illuvium," *Simbur Cahaya* 32, no. 1 (2025): 168–181, <https://doi.org/10.28946/sc.v32i1.4258>.

²⁴ Jessica Djaja Putra et al., "Speech Composing menurut Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta," *Jurnal Cendekia Hukum* 5, no. 1 (2019): 54–55, <https://doi.org/10.33760/jch.v5i1.174>.

form of unique tokens on specialized platforms.²⁵ Commonly used NFT marketplaces include OpenSea, Rarible, and KnownOrigin.²⁶ In Indonesia, NFT marketplaces include TokoMall, Paras.id, Enevti, Kolektibel, Ballola, Artsky, and Metaroid.²⁷

Although NFTs have developed as part of the digital trading ecosystem, their regulation within the Indonesian legal system still reflects a legal vacuum, particularly in the field of copyright law. This legal vacuum creates legal uncertainty for both creators and buyers in NFT transactions. Creators have not yet obtained optimal protection against copyright infringement within NFT marketplaces, while buyers lack clarity regarding the rights they acquire over the purchased works. Moreover, this condition may give rise to potential legal infringements.

3.2.1 Ownership of Digital Copyrighted Works Traded through NFTs

Article 1(2) of the Copyright Law defines: *“the creator as one or more persons who, individually or collectively, produce a work that is distinctive and personal in nature.”* Accordingly, the creator is the initial holder of copyright in the work. Copyright may be transferred to another party through the mechanisms of copyright transfer and licensing in accordance with the applicable legal provisions. A party who lawfully receives such rights may qualify as a Copyright Holder as defined in Article 1(4) of the Copyright Law.

Economic rights that may be transferred are regulated under Article 9(1) of the Copyright Law. Copyright ownership may be transferred in whole or in part, as stipulated in Article 16(2) of the Copyright Law, through:

- a) inheritance;
- b) grant;
- c) waqf;
- d) testament;

²⁵ Ruth Ardianti and Ely Andra Widharta, “Persepsi Estetika Masyarakat Indonesia terhadap Karya NFT Populer,” *Jurnal Ilmiah Komputer Grafis* 15, no. 2 (2022): 429–443, <https://doi.org/10.51903/pixel.v15i2.913>.

²⁶ Markus Putnings, “Non-Fungible Token (NFT) in the Academic and Open Access Publishing Environment: Considerations Towards Science-Friendly Scenarios,” *JEP: The Journal of Electronic Publishing* 25, no. 2 (2022): 23, <https://doi.org/10.3998/jep.2574>.

²⁷ Mayana et al.

- e) written agreement; and
- f) other lawful means in accordance with the provisions of laws and regulations.

The licensing agreement mechanism is expressly regulated under Article 1(20) of the Copyright Law, which grants the rights holder the authority to exercise economic rights over the copyrighted work under certain conditions. Permitted acts include those regulated under Article 9(1), Article 23(2), Article 24(2), and Article 25(2) of the Copyright Law. Pursuant to Article 80(3) of the Copyright Law, the licensee is obliged to pay royalties to the creator for the use of the copyrighted work during the term of the licensed activities.

It should be understood that NFTs are designed to represent proof of ownership through cryptographic tokens on the blockchain. The buyer receives a verified hash token to metadata files describing the digital copyrighted work, as well as a URL linking to the work itself. The token represents the creator's digital asset as a form of property, without constituting a transfer of copyright in the underlying work.²⁸ The purchase does not grant the buyer the right to reproduce the work or create derivative works from the digital copyrighted work being traded.²⁹

As stated in *Pope v. Curl* (England, 1741): "Just because you own a physical object (or have access to it in some electronic form) does not mean you own the copyright in it, and so you are not necessarily free to do things such as reproducing it without express." This principle has been widely recognized in international copyright law provisions, particularly in relation to ownership of works in both physical and digital forms.³⁰

3.2.2. Copyright Infringement of Digital Copyrighted Works in NFTs

Copyright infringement may occur during the conversion of digital copyrighted works into NFTs, particularly at the minting and sale without the creator's consent.³¹

²⁸ Xiao; Devin Finzer, "The Non-Fungible Token Bible: Everything You Need to Know about NFTs," 2020, <https://opensea.io/blog/articles/non-fungible-tokens>.

²⁹ Michael D. Murray, "NFT Ownership and Copyrights," 2022, 18, <https://doi.org/10.2139/ssrn.4152468>.

³⁰ Charles Oppenheim, "A Copyright Overview," *El Profesional de La Información* 29, no. 1 (2019): 4–5, <https://doi.org/10.3145/epi.2020.ene.06>.

³¹ Cheong Ghil Kim, "A Study on Technology to Counter Copyright Infringement According to NFT Transaction Types," *Journal of the Semiconductor & Display Technology* 20, no. 4 (2021): 189–191; Jeon Jae-rim, "Recent Issues over Non Fungible Token (NFT) and Copyright Issues," *Copyright Issue*

Minting constitutes a form of digital reproduction involving the transformation of a work into a blockchain-based token format. Where such acts are carried out without the authorization of the creator, they clearly infringe the reproduction right, which forms part of the creator's economic rights as protected under Article 9(1) of the Copyright Law.

The offering of NFTs to the public constitutes an infringement of the distribution right as regulated under Article 9(1)(e) of the Copyright Law, as well as the public transmission right under Article 9(1)(h) of the Copyright Law. This occurs because NFT transactions involve the dissemination of digital data through a blockchain network that is inherently cross-border in nature. Accordingly, unauthorized minting and sale of NFTs give rise to multiple infringements of the creator's economic rights as protected under the Copyright Law.

Article 9(2) of the Copyright Law explicitly requires authorization from the creator or copyright holder for any acts referred to in Article 9(1). This provision is mandatory in nature and does not recognize exceptions based on ignorance. In the absence of valid authorization, any act falling within the scope of Article 9(1) constitutes copyright infringement.

3.2.3. Legal Protection of Digital Copyrighted Works in NFTs

The declarative principle serves as a fundamental basis for copyright protection, as regulated under Article 1(1) of the Copyright Law. This principle also applies to digital copyrighted works, which obtain protection from the moment they are first created or published in digital form. Such protection remains valid even if the work has not yet been converted into or traded through NFTs. Accordingly, the creator retains copyright over the digital work from the moment of its creation. The United States has regulated the protection of digital copyrighted works through the Digital Millennium Copyright Act (DMCA), which governs copyright protection in the digital ecosystem. This regulation is relevant to the trade of digital works through NFTs, as it provides a mechanism for

Report, 2021, https://www.copyright.or.kr/eng/doc/etc_pdf/COPYRIGHT_ISSUE_REPORT_2021-00.pdf.

protecting works from unauthorized use. The DMCA sets out fundamental principles as a basis for copyright protection in the digital environment, including:³²

1. Notice and takedown (*Section 512 (c) DMCA*)

The service provider is obligated to remove or disable access to such content. This mechanism enables the prompt handling of copyright infringement without the need for judicial proceedings.³³

2. Safe harbor (*Section 512 (m) DMCA*)

Privilege for service providers, provided that they comply with the procedures prescribed under the DMCA upon receiving a copyright infringement notice. Service providers may be held liable if it can be proven that the operator knew, and knowingly allowed, infringing content to remain on the platform under its management.

The principles of the DMCA indicate that the protection of digital copyrighted works is not solely the responsibility of the creator, but also involves the role of digital platforms as service providers. Within the NFT ecosystem, marketplaces function as online service providers that facilitate the minting, storage, marketing, and trading of blockchain-based digital works.

The trade in copyrighted works is regulated under Article 10 of the Copyright Law, which prohibits operators of commercial premises from allowing the sale or reproduction of goods resulting from copyright and/or related rights infringement. Through Constitutional Court Decision Number 84/PUU-XXI/2023, the term “goods” has been expanded to include not only physical works but also digital works. In addition, “commercial premises” are no longer interpreted strictly as physical locations but also encompass technology-based digital trading platforms. Accordingly, NFT marketplaces that trade digital copyrighted works fall within the scope of “commercial premises” under Article 10 of the Copyright Law.

³² Ratna Patria, “Manfaatkan DMCA Untuk Lindungi Konten Digitalmu,” 2024.

³³ Silky Jain and Dr. Lakshmi Priya Vinjamuri, “DMCA: A Global Law with Differential Patterns of Enforceability,” *International Journal for Multidisciplinary Research (IJFMR)* 6, no. 3 (2024): 2–10, <https://doi.org/10.36948/ijfmr.2024.v06i03.21034>.

According to Philipus M. Hadjon, legal protection consists of preventive and repressive protection. Preventive protection in copyright law is implemented through the regulation of the use of works under Articles 4, 8, and 9 of the Copyright Law. The recording of copyrighted works under Article 64 of the Copyright Law may serve as administrative evidence of ownership, while the use of watermarks can strengthen the identification of the creator. In addition, the government is authorized to prevent copyright infringement through technological supervision under Articles 54–56 of the Copyright Law.

The main issue of copyright protection in the NFT trading ecosystem does not lie in the absence of copyright recognition for digital works, but rather in the lack of an effective digital enforcement mechanism within the Copyright Law framework. The absence of such a mechanism results in weak preventive protection in NFT-based transactions.

Repressive protection constitutes legal protection after an infringement occurs through the imposition of sanctions and dispute resolution mechanisms. Under Articles 56–58 of the Copyright Law, the government is authorized to block websites that infringe copyright. Dispute resolution may be conducted through both non-litigation and litigation channels, as regulated under Article 95 of the Copyright Law. In addition, Articles 99 and 106 of the Copyright Law grant creators the right to claim damages and to obtain a provisional injunction from the Commercial Court to prevent further harm

Copyright regulation in Indonesia is not yet fully aligned with Philipus M. Hadjon's theory of legal protection in the context of NFT transactions. Although the Copyright Law provides both preventive and repressive protection, it does not specifically accommodate the blockchain-based and cross-jurisdictional characteristics of NFTs.

Pursuant to Article 1(6a) of Law No. 19 of 2016 on Electronic Information and Transactions, NFT marketplaces may be classified as Electronic System Providers as they provide, manage, and operate electronic systems for the trade of digital works. The elements of an ESP in NFT marketplaces include:

1. Business entities, as NFT marketplaces are generally operated by companies or digital platforms.

2. Provision and management of electronic systems through blockchain technology to support NFT minting, storage, and transactions.
3. Service to electronic system users, namely creators, sellers, and buyers engaging in digital transactions.
4. Use for the benefit of third parties, namely as a medium for trading digital copyrighted works and exploiting the economic value of NFTs.

Article 16(1)(e) of the ITE Law requires Electronic System Providers to implement clear and responsible system management mechanisms. NFT marketplaces as ESPs are obligated to provide mechanisms to prevent, detect, and respond to copyright infringement. Such platforms cannot disclaim responsibility where copyrighted digital works traded on their systems infringe the rights of creators.

Although NFT regulations have not been specifically established in Indonesia, NFT marketplaces are still required to comply with the Ministry of Communication and Informatics Press Release Number 9/HM/KOMINFO/01/2022 concerning the supervision of Non-Fungible Token (NFT) trading activities in Indonesia, namely:³⁴

1. Ensuring that NFT platforms do not facilitate content that violates laws and regulations.
2. Conducting supervision of NFT transactions and coordinating with the Commodity Futures Trading Regulatory Agency (BAPPEBTI).
3. Ensuring that the platform is not used for unlawful activities and may be subject to administrative sanctions in the event of violations.
4. Coordinating with relevant government authorities for law enforcement against violations in NFT transactions.

Based on the regulation of digital copyrighted works within the NFT trading ecosystem, there are significant differences in the implementation of NFT marketplace policies, particularly between OpenSea (United States) and TokoMall (Indonesia), as follows:

³⁴ Fani Budi Kartika et al., "Pengawasan Pasar NFT di Indonesia: Perlindungan Hukum Hak Cipta dan Mekanisme Penyelesaian Sengketa," *Law Jurnal* 5, no. 2 (2025): 136– 145, <https://doi.org/10.46576/lj.v5i2.5420>.

Table 2. Comparison of NFT Market Policies

Aspect	OpenSea	TokoMall
Marketplace Policy	Digital Millennium Copyright Act (DMCA) as the primary framework for copyright protection.	Continues to rely on Law Number 28 of 2014 concerning Copyright and the Electronic Information and Transactions Law as the applicable legal framework.
Ownership	Clearly distinguishes ownership of the NFT from ownership of the underlying copyright.	Does not provide any clarification regarding the distinction between NFT ownership and copyright ownership.
Content Removal Mechanism	Copyright infringement may be reported through a DMCA takedown notice or a DSA notice-takedown procedure.	Does not yet provide a formal mechanism to remove content for copyright infringement.
Marketplace Responsibility	Responds promptly to reports of copyright infringement and takes appropriate action against infringing content.	Does not specify the marketplace's responsibilities in handling copyright infringement
Copyright Authenticity Verification	Provides verification services for creators uploading digital works as well as verification features for buyers to ensure the authenticity of NFTs.	Does not provide any copyright authenticity verification mechanism.
Dispute Resolution	Disputes may be resolved through ODR mechanisms, including the submission of DMCA claims, notifications to the marketplace, as well as non-litigation and litigation procedures.	Does not establish a dispute resolution mechanism for copyright infringement related to NFT transactions.
Legal Certainty	Provides comprehensive copyright protection policies supported by the DMCA,	The existing policies do not provide sufficient legal certainty regarding copyright

thereby ensuring a greater protection within the NFT degree of legal certainty. ecosystem.

Source: OpenSea (2025), TokoMall and Prananda et al. (2023).

The legal gap in the regulation of NFT marketplaces in Indonesia demonstrates that the existing legal framework has not yet adequately addressed the rapid development of digital technology. Although the Copyright Law provides legal protection for copyright holders, it does not specifically regulate the distinctive characteristics of NFTs, including their decentralized, blockchain-based, and cross jurisdictional nature. Meanwhile, the ITE Law governs electronic systems only in general terms, leaving the scope of NFT marketplaces liability for copyright infringement legally uncertain.

Furthermore, Part III of the TRIPS Agreement, particularly Article 41, requires Member States to establish effective enforcement procedures for intellectual property rights infringements, including copyright infringement. Such procedures must provide expeditious legal remedies to prevent such infringements and impose sanctions that constitute an effective deterrent against future acts of infringement.

Based on the foregoing discussion, the Government should establish a specific legal framework to protect digital copyrighted works within the NFT ecosystem. Such a framework should clarify the legal status of NFTs and distinguish ownership of an NFT from ownership of copyright in the underlying digital work, including the conditions under which copyright may be transferred or licensed. It should also establish rules concerning the minting and commercialization of copyrighted works, particularly by requiring authorization from the copyright holder before a work is minted as an NFT.

In addition, NFT marketplaces should be subject to clear obligations to verify the legitimacy of digital works, respond to copyright infringement claims through notice-and-takedown mechanisms, and provide accessible procedures for resolving disputes. These measures are necessary to provide legal certainty and ensure effective protection for creators, copyright holders, and buyers involved in NFT transactions.

CONCLUSION AND SUGGESTION

Law Number 28 of 2014 concerning Copyright provides legal protection for digital copyrighted works through Article 4, Article 9, Article 1(12), and Article 40. However, it does not specifically regulate NFTs, resulting in legal uncertainty regarding copyright protection in NFT transactions. Although NFT marketplaces are classified as Electronic System Providers under Article 1(6a) of the ITE Law, the existing policies of Indonesian NFT marketplaces remain insufficient to ensure effective copyright protection.

Based on the results of this study, it is recommended that the Government establish a specific legal framework governing copyright protection within the NFT ecosystem, including clear provisions on the relationship between NFT ownership and copyright ownership. The framework should also define the responsibilities of NFT marketplaces as Electronic System Providers by adopting the principles embodied in the DMCA. Furthermore, strengthening Online Dispute Resolution (ODR) mechanisms and digital enforcement is necessary to enhance legal certainty and establish a secure and transparent NFT trading ecosystem.

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