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Civil Law Aspects of Infringement on Two-Dimensional Art Copyright Works Made into Non-Fungible Tokens (NFT)

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ABSTRACT

NFTs, or Non-Fungible Tokens, are digital assets referring to objects, such as art, music, in-game items, videos, and any other type of work represented in digital form. Twodimensional artworks, including paintings, drawings, and sculptures, gain legal protection as copyrighted works. The use of NFTs is identified as a potential tool in preventing copyright infringement, verifying authenticity, and providing legal certainty for owners and buyers of digital artworks. This research aims to identify the regulation and protection of copyright for two-dimensional artworks in the context of the use of Non-Fungible Tokens (NFTs) under Law No. 28/2014 on Copyright (UUHC). Through normative research with a statutory approach, this research aims to examine the regulation of copyright infringement of two-dimensional artworks embodied in NFTs and comprehend the legal aspects related to their infringement. The research findings indicate that, although NFTs offer a mechanism to strengthen proof of ownership and authenticity, there remains a lack of effective legal and policy frameworks to protect copyright and support the growth of the digital art industry. The findings underscore the importance of concerted efforts in strengthening copyright protection in the digital age and raising public awareness on the significance of respecting and abiding by copyrighted artworks.

Keywords: Copyright Law, Legal Aspects, Non-Fungible Tokens

INTRODUCTION

NFTs, or Non-Fungible Tokens, are digital assets referring to objects, such as art, music, in-game items, videos, and any other type of work represented in digital form. NFT assets are traded online using cryptocurrencies. Currently, trading two-dimensional artwork through online platforms or cyberspace is one of the growing types of digital business. However, with the advancement of information technology, copyright infringement on two-dimensional artworks is increasingly taking place. This is of particular concern due to the digital trading of artworks.

Once the artwork is converted into an NFT and recorded on the blockchain, it is permanently bound and cannot be deleted. However, it is possible for irresponsible individuals to take advantage of this weakness. Therefore, it is necessary to implement stricter protection measures to prevent copyright infringement in the use of NFTs. Although NFTs can provide benefits to artists and creators of works, it is necessary to be well regulated and closely monitored to prevent misuse and counterfeiting of artworks.

One example of copyright infringement of two-dimensional art that was converted into NFTs is the plagiarism case by crypto artist Twisted Vacancy against the work of Kendra Ahimsa (Ardneks). The case exposed a flaw in the NFT system, where Twisted Vacancy took elements of Kendra's work without permission and registered them as NFTs in advance. This caused Kendra's original work to be considered fake by the blockchain system. The case highlights the necessity for better copyright protection in the NFT ecosystem to prevent exploitation of artworks. If the issue of copyright infringement in the use of NFTs is not addressed, it is likely that artists such as Kendra Ahimsa who created their artworks wholeheartedly will be disadvantaged and struggle to make a living from art. This goes against the original purpose of creating crypto art and NFTs. Without NFTs, artworks are not completely safe when displayed on social media or in digital formats.

Violation of moral rights occurs when a work is cut up without producing a new work.² This is different from distortion and correction regulated in Article 5 Paragraph 1 letter e of the Copyright Law. Violation of moral rights can occur when the name of the creator is replaced in a work of art. Distortion and correction occur when the work is altered but does not harm the reputation of the creator. Plagiarism is also a form of distortion, where a person copies the work of another and claims to be the creator. Copyright protection is necessary to maintain the honor and reputation of artists, especially in the use of NFT technology.

¹ Daniet Dhaulagiri, "NFT Dan Seni Kripto Dianggap Masa Depan, Kasus Kendra Membuktikan Ada Lubang Besar Di Sana," Whiteboard Journal, 2021,

https://www.whiteboardjournal.com/ideas/art/nft-dan-seni-kripto-dianggap-masa-depan-kasus-kendra-membuktikan-ada-lubang-besar-di-sana/.

² Ferol Mailangkay, "Kajian Hukum Tentang Hak Moral Pencipta Dan Pengguna Menurut Undang-Undang Nomor 28 Tahun 2014 Tentang Hak Cipta," *Lex Privatum* 5, no. 4 (2017).

If the creator has economic rights over the works used in NFTs, Article 9 Paragraph 1 of the Copyright Law protects those rights, such as publishing, copying, and distributing.³ NFTs enable direct buying and selling transactions through auctions or digital apps, with the value of the object depending on market valuation and the object's aesthetics, uniqueness, creativity, and rarity. Transactions are recorded by blockchain cryptography.

Initially, the NFT concept was created to appreciate artworks and prevent intellectual property rights infringement. The NFT platform is designed with a strict security system to guarantee the authenticity of the artwork being sold. However, there is a lack of clarity between NFTs and CryptoArt. The question is why should one buy NFTs if the assets can be accessed through IPFS and downloaded for free? Nonetheless, token holders have passwords to open different files from IPFS. If artists wish to transfer copyrights, the process will have to go through smart contracts, which are still in the technical and legal stages of development. Smart contracts are transaction protocols that allow computerized contracts to be executed automatically when conditions are met.⁴

The purpose of such efforts is to avoid any malicious conduct by irresponsible parties, reduce administrative and service costs by utilizing a decentralized system on the blockchain that can be activated automatically, and improve efficiency in business processes through automated financial trade settlements.⁵ While smart contracts are considered an alternative to traditional contracts, there are operational risks such as breach of contract or errors in smart contracts that cannot be addressed due to the immutable nature of blockchain.⁶ Both parties must be aware of the technical and legal issues when creating and implementing agreements through smart contract systems. This poses a challenge as blockchain users have different backgrounds, hence not everyone is familiar with the technical and legal risks of smart contract systems. Copyright infringement is an example of cybercrime aimed at the intellectual property rights of others on the internet.

The plagiarism case by Twisted Vacancy exemplifies the importance of paying attention to copyright in selling digital artworks as NFTs. Copyright infringement can result in lawsuits, payment of hefty damages, and damage the reputation of digital art industry players and NFTs in general. Therefore, it is imperative for digital artists and NFTs to be mindful of copyright and protect their copyrighted works ethically and legally.

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³ Pemerintah Pusat Indonesia, "Undang-Undang (UU) Nomor 28 Tahun 2014 Tentang Hak Cipta" (Jakarta, 2014), https://peraturan.bpk.go.id/Details/38690.

⁴ Hikma Dirgantara, "Mengenal Teknologi Smart Contract," PINTU, 2022, https://pintu.co.id/academy/post/apa-itu-dapps-dan-smart-contract.

⁵ Zibin Zheng et al., "An Överview on Smart Contracts: Challenges, Advances and Platforms," *Future Generation Computer Systems* 105 (April 2020): 475–91, https://doi.org/10.1016/j.future.2019.12.019.

⁶ Muhammad Ilman Abidin, "Legal Review of the Validity of the Use of Smart Contracts in Business Transactions in Indonesia and Its Regulation in Various Countries," *Unnes Law Journal* 9, no. 2 (October 31, 2023): 289–310, https://doi.org/10.15294/ulj.v9i2.74957.

The objective of this research is to comprehend how creators of twodimensional works of art in digital media are legally protected and provide solutions to resolve copyright infringement disputes in digital media. In the NFT context, there are numerous legal issues related to civil, intellectual property, and other aspects. Therefore, the researcher will address the civil law aspects of transactions using NFTs in this research. In this case, a proper understanding of the ownership rights and use of NFTs in digital artwork trading transactions is essential.

LITERATURE REVIEW

Two-dimensional art is artwork that consists of only length and width with no third dimension. Copyright protects works such as art, literature, and computer programs, restricting illegal duplication.⁷ With the development of the creative economy and information technology, Copyright Law should be updated to protect and develop the creative economy of the country. Adequate Copyright Law is expected to contribute optimally to the country's economy.

Twinc is an NFT social marketplace application that allows users to buy, sell, and interact with NFTs, utilizing blockchain technology to ensure authenticity and ownership. However, there are cases where NFTs are used by irresponsible parties to sell artworks belonging to others. Therefore, it is important to comprehend the difference between ownership of NFTs and ownership of the underlying intellectual property rights. The rights granted by sellers of NFTs vary depending on the license or assignment of rights associated with the NFTs.

For instance, one might purchase a video clip of LeBron James in NFT format, yet the original ownership rights remain with the NBA. Copyright ownership can only be transferred if the creator of the original work consents to such transfer to the NFT owner. Copyright issues in contemporary art are concerned more with legal aspects than aesthetics, and these challenges can be overcome with comprehensive and unified protection from the country.

Copyright is granted automatically with no requirement for registration, however, registration is still required for legal purposes. In the digital age, copyright protection is increasingly important as works are easily copied and distributed. Blockchain technology and NFTs can strengthen copyright protection by ensuring authenticity of works and clear ownership.

Article 2 of Law No. 19/2002 states that copyright is the exclusive right to publish or reproduce the work once the work is created. 10 Copyright can be

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⁷ Fitri Murfianti, "Hak Cipta Dan Karya Seni Di Era Digital," *Acintya Jurnal Penelitian Seni Budaya* 12, no. 1 (August 3, 2020): 44–58, https://doi.org/10.33153/acy.v12i1.3147.

⁸ Haya R. Hasan et al., "Using NFTs for Ownership Management of Digital Twins and for Proof of Delivery of Their Physical Assets," *Future Generation Computer Systems* 146 (September 2023): 1–17, https://doi.org/10.1016/j.future.2023.03.047.

⁹ Hasan et al.

¹⁰ Pemerintah Pusat Indonesia, "Undang-Undang (UU) Nomor 19 Tahun 2002 Tentang Hak Cipta" (Jakarta, 2002), https://peraturan.bpk.go.id/Details/44465/uu-no-19-tahun-2002.

transferred through inheritance, grants, wills, written agreements, and other actions allowed by laws and regulations. Although NFT technology is a relatively new technology, some aspects of its use are not yet fully regulated. When a work of art is made into an NFT to prove its authenticity, the copyright to the work is still valid, however, there are weaknesses in the NFT system that can be exploited by irresponsible parties. NFTs have special characteristics that create a new distribution pattern for monetizing intellectual property ownership.

RESEARCH METHODOLOGY

This research applies a normative research method with a focus on a statutory approach to examine the main issue of copyright infringement of two-dimensional artworks presented in the form of non-fungible tokens (NFTs). Normative research method involves understanding and analyzing legal issues based on established norms, principles, or standards without relying on human reasoning. The analysis focuses on the implications of digitization of artworks on copyright, legal protection, and legal responses to this issue in the context of society and the economy. Secondary data used includes the Copyright Law, the Electronic Information Technology Law, as well as relevant regulations. The information is systematically collected to be organized in chapters and sub-chapters that follow a logical sequence to then be analyzed using the normative method, resulting in an analytical description of the regulations relevant to the subject of this research.

RESULT AND DISCUSSION

Regulation of Infringement of Copyrighted Works on Two-Dimensional Art

Law No. 28/2014 on Copyright regulates copyright infringement of two-dimensional fine art. Copyright infringement occurs when someone commits an act that violates the exclusive rights of the copyright owner in the absence of the copyright owner's permission or consent. Several acts that can be considered as two-dimensional fine art copyright infringement include:

- 1. Reproduction, or imitation of a work without the copyright holder's permission (Article 9 of the Copyright Law).
- 2. Act of selling, lending, or buying and selling a copyrighted work without the permission of the copyright holder (Article 19 of the Copyright Law).
- 3. Reproduction of a work, selling it in its original form, or selling it separately without the permission of the copyright holder (Article 21 of the Copyright Law).
- 4. Modification or representation that damages the honor or dignity of the work (Article 12 of the Copyright Law).

¹¹ Rissa Dwi Novita and Muhammad Abdul Razak, "Personal Data Protection in Falsification of Covid-19 Vaccination: A Juridical Review," *YURIS (Journal of Court and Justice)* 1, no. 3 (2022): 25–37.

5. Publishing or distributing a work without the copyright holder's permission (Article 14 of the Copyright Law). 12

In cases of copyright infringement, the copyright owner may choose to file a civil suit and claim compensation for material and immaterial losses incurred. The Copyright Act not only regulates copyright infringement in two-dimensional art, but also any other matters related to copyright in two-dimensional art, such as:

- 1. Copyright Recognition: Copyright Law stipulates that copyright is an exclusive right granted to the creator or copyright owner to regulate and control the use of a work.
- Copyright Protection Requirements: Copyright Law also regulates the
 conditions that must be met in order for a work to be protected by
 copyright. These requirements include that the work must be original,
 have aesthetic or economic value, and be realized in a form that can be
 produced continuously.
- 3. Moral and Economic Rights: Copyright Law also distinguishes between moral rights and economic rights in copyright. Moral rights include the right to be recognized as the creator of a work, the right to decide how the work is used, and the right to preserve the integrity of the work. Economic rights include the right to derive economic benefits from the work.
- 4. Term of Copyright Protection: Copyright Law stipulates that the term of copyright protection for two-dimensional fine arts is 70 years from the date of the creator's passing.
- 5. Use of Copyrighted Material: Copyright Law also regulates the use of copyrighted materials by other parties, including use for teachings, research, and other public purposes. The use of copyrighted material must consider the moral and economic rights of the copyright owner.¹³

Nevertheless, the Copyright Law has not explicitly regulated the validity of NFTs. The law does not distinctively differentiate between the ownership rights of NFTs and the rights of the creator. The provision that can be used to define each right and legal status can be found in Article 1 Paragraph 4, which states that "The Copyright Holder is the Creator as the owner of the Copyright, the party who received the right legally from the Creator, or any other parties who receive further rights from the party who received the right legally." Therefore, the void and ambiguity of the regulation may lead to legal uncertainty among the parties involved and must be regulated in clear provisions.

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¹² Indonesia, "Undang-Undang (UU) Nomor 19 Tahun 2002 Tentang Hak Cipta."

¹³ Rachmad Abduh and Fajaruddin Fajaruddin, "Intellectual Property Rights Protection Function in Resolving Copyright Disputes," *International Journal Reglement & Society (IJRS* 2, no. 3 (September 30, 2021), https://doi.org/10.55357/ijrs.v2i3.154.

Cybercrime regulation is a set of regulations and laws that govern criminal acts that occur through the internet or computer networks. Among the types of crime considered under cybercrime regulation are online fraud, identity theft, cyberattacks, the spread of computer viruses, and child pornography. ¹⁴ The purpose of cybercrime regulation is to protect the public from criminal acts occurring over the internet and computer networks.

Cybercrime regulation includes laws and regulations established by the government to regulate criminal acts that occur through the internet and computer networks. Several laws related to cybercrime regulation include the Electronic Information and Transaction Law, the Copyright Law, and the Personal Data Protection Law. Cybercrime regulation also includes prevention and countermeasures against cybercrime, such as the provision of strong security systems and training for the public to be able to recognize and report cybercrime. In addition, cybercrime regulation also includes law enforcement actions against cybercriminals, including international law enforcement in the case of international cybercrimes. The followings are several prevention efforts that can be taken to protect oneself from cybercrime:

- 1. Use updated and reliable security software, such as antivirus, firewall, and anti-malware software. Ensure that your software is updated to the latest version to avoid security breaches.
- 2. Use a strong and complex passcode for your account. A good password should consist of a mix of upper and lowercase characters, numbers, and symbols.
- 3. Never use the same password for multiple online accounts. In case one of your accounts is hacked, then the rest of the accounts with the same password might also be hacked.
- 4. Never buy e-mails or attachments from strangers or suspicious people. Do not click on unauthorized or unsafe newsletters.
- 5. Do not share personal information such as credit card number, phone number, or home address to strangers or via email.
- 6. Confirm that the website you are visiting uses the secure HTTPS protocol. This can be seen by the lock icon in the address bar of the browser.
- 7. Be cautious when using public Wi-Fi networks. Do not conduct financial transactions or carry out online credentials while connecting to an unsecured public Wi-Fi network.
- 8. Check your credit report regularly to ensure there is no suspicious or unauthorized activity on your account.

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¹⁴ Dhimas Joeantito Hartono and Sugiharto, "The Criminal Responsibility for Pornography Video Maker Through Digital Forensics on Social Media," *YURIS: Journal of Court and Justice* 1, no. 2 (2022)

- 9. Do not click on links or attached files from unknown or unauthorized senders.
- 10. Learn how to identify and avoid phishing techniques, which are online fraud attempts using email or instant messaging to obtain personal or financial information from you.

Cybercrime is an act of crime committed by utilizing computer and internet technology that continues to progress.¹⁵ One example of harmful cybercrime is copyright infringement, which aims to harm intellectual property rights owners in cyberspace.¹⁶ Cyber crime has different characteristics from conventional crime, such as:

- 1. Spoofing: Spoofing is an attempt to impersonate another entity (e.g., another person or a computer) on the system, which matches its authenticity. When users interact to create or sell NFTs, malicious attackers can exploit authentication vulnerabilities or steal users' private keys to illegally transfer ownership of NFTs. Therefore, it is highly recommended to perform formal verification for NFT smart contracts and use cold wallets to prevent private key leakage.
- 2. Tampering: Tampering involves an attacker or hacker manipulating, deleting, or modifying critical data to attack a system or network. This tampering is an attack on the integrity of the information system. It allows malicious third parties to enter and modify systems that are encrypted or authenticated only to a few authorized people within an organization. Example: Some common examples of intrusions that can be costly include tampering with configuration files to gain control of the system, making threatening changes, or deleting log files and inserting malicious files.
- 3. Repudiation: Repudiation threats involve malicious actors attacking a system without accepting their involvement in the malicious activity. Most times in a repudiation attack, the system does not have the ability to identify the perpetrator. In short, a repudiation attack occurs when the software, network, or system does not take the necessary control. Example: An attack to change data provides authorization allowing to log incorrect data to a log file.
- 4. Information Disclosure: Refers to the unauthorized release of confidential information. This security vulnerability might significantly impact the processes, data, and information storage within a website or application. Additionally, it could potentially compromise sensitive

¹⁵ Ismail Koto, "Cyber Crime According to the ITE Law," *International Journal Reglement & Society (IJRS* 2, no. 2 (July 30, 2021): 103–10, https://doi.org/10.55357/ijrs.v2i2.124.

¹⁶ Hendra Gunawan, "Tindak Kejahatan Cyber Crime Dalam Perspektif Fikih Jinayah," *Jurnal El*-

¹⁶ Hendra Gunawan, "Tindak Kejahatan Cyber Crime Dalam Perspektif Fikih Jinayah," *Jurnal El-Qanuniy: Jurnal Ilmu-Ilmu Kesyariahan Dan Pranata Sosial* 6, no. 1 (July 8, 2020): 96–110, https://doi.org/10.24952/el-qanuniy.v6i1.2473.

- information. Example: Common examples of information disclosure threats include exposure of source code files through temporary backups, error messages, and accidental disclosure of background information.
- 5. Denial of Service (DoS): Denial of Service aims to overload and disrupt the normal functioning of the targeted system by flooding it with excessive traffic. These attacks result in costly downtime and significant losses for the victims. DoS attacks can occur at both the application and network layers. Moreover, these attacks are evolving and becoming more sophisticated. In order to reduce the impact of these attacks, firewalls are commonly used as a defense mechanism. Example: Flooding a website with excessive traffic to cause downtime.
- 6. Elevation of Privilege: Elevation of Privilege occurs when an unprivileged or unauthorized attacker gains access by bypassing the defense mechanisms against such access. This is usually done by exploiting vulnerabilities and misconfigurations. Through this, the attacker compromises the system to gain illegal access to privileged access sufficient to obtain data, manipulate, and exploit the system to their advantage. Example: A simple example to explain this attack is an attacker who only has access to read files, maliciously infiltrates or manipulates the system to gain access to read and edit files.¹⁷

Legal Aspects of Infringement of Two-Dimensional Art Copyrighted Works Made into Non-Fungible Tokens (NFT)

In Indonesia, trade in two-dimensional artworks is also regulated by Law No. 28/2014 on Trade, which regulates it as trade in special goods in Chapter 15. In addition, Law No. 20/2000 on the Eradication of Corruption can also be applied in cases of trade in artworks involving corruption. The use of contracts or agreements between creators, copyright holders, and buyers can be important in the trade of two-dimensional artworks, as the contracts regulate the rights and obligations of each party in the trade of artworks.

In practice, the use of NFTs in art copyright may help prevent copyright infringement, identify and trace the authenticity of digital artworks, as well as provide legal certainty for the rightful owners and purchasers of digital artworks. However, it is pertinent to note that the use of NFTs in art copyright is still relatively new and requires adjustments in the existing legal system to accommodate the role and power of NFTs as digital certificates of ownership. Furthermore, while NFTs can be used to reinforce copyrights on digital artworks, art copyrights are still subject to applicable copyright laws. Therefore, owners of digital artworks should

¹⁷ Rafiullah Khan et al., "STRIDE-Based Threat Modeling for Cyber-Physical Systems," in *2017 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe)* (IEEE, 2017), 1–6, https://doi.org/10.1109/ISGTEurope.2017.8260283.

still be aware of their rights related to copyright and ensure that their digital artworks are protected by the applicable copyright laws in the relevant jurisdiction.

The Indonesian government has facilitated the regulation of crypto asset transactions through regulations issued by the Commodity Futures Trading Regulatory Agency (BAPPEBTI) and the Indonesian Minister of Trade. In order to operate legally, crypto assets in Indonesia must follow these regulations and be registered in the list of crypto assets issued by the Commodity Futures Trading Regulatory Agency. As of January 2022, there were 229 crypto assets that have been registered in Indonesia.¹⁸

NFTs are characterized by specific properties, especially the dynamic value that can reach very high numbers. NFTs are used as digital-based investment instruments that aim to increase the value of assets and have become the concern of the world community, especially the Millennial and Generation Z in 2022. Many digital creators have created NFT works with high value, such as the Bored Ape Yacht Club (BAYC) which has sold more than 10,000 NFT works, with each one valued at the equivalent of 0.08 ETH or the equivalent of US\$300.¹⁹ NFT works purchased by collectors may continue to increase in value depending on the uniqueness and sentimental value of the work. In Indonesia, NFTs are also getting attention after Ghozali Everyday, a creative creator, managed to sell 933 NFTs worth 277 ETH, equivalent to 13.3 billion rupiah.²⁰

NFT transactions on the OpenSea website experienced rapid growth and reached US\$38.5 billion in January 2022, which is attributed to the increasing interest of the public in transacting NFTs on this website.²¹ Along with the increasing popularity of NFT transactions, more and more people are interested in investing using NFT investment instruments. In Indonesia, NFTs are also growing rapidly, with many local established brands such as Angel Token, Leslar Coin, I-COIN, Syahrini's Metaverse Tour, and Token Asix launching NFT tokens.²² One of the NFT tokens, Anang Hermansyah's Token Asix, is used as an example of an NFT in a feasibility study of the development of NFTs as an investment instrument

¹⁸ Gagas Yoga Pratomo, "Bappebti Catat 229 Kripto Yang Dapat Diperdagangkan Di Indonesia," Liputan 6, 2022, https://www.liputan6.com/crypto/read/4867653/bappebti-catat-229-kripto-yang-dapat-diperdagangkan-di-indonesia.

¹⁹ Dewa Gede Ari Setyawan, Anak Agung Elik Astari, and Ni Luh Indiani, "Feasibility Study Perkembangan NFT (Non Fungible Token) Sebagai Salah Satu Instrumen Investasi Di Bidang Teknologi," *Nusantara Hasana Journal* 2, no. 3 SE-Articles (August 2, 2022): 261–68, https://nusantarahasanajournal.com/index.php/nhj/article/view/467.

²⁰ Gagas Yoga Pratomo, "Bukan Rp 13 Miliar, Ternyata Segini Keuntungan Ghozali Dari Jual NFT," Liputan 6, 2022, https://www.liputan6.com/crypto/read/4863147/bukan-rp-13-miliar-ternyata-segini-keuntungan-ghozali-dari-jual-nft.

²¹ Duleesha Kulasooriya, Michelle Khoo, and Michelle Tan, "The Metaverse in Asia: Strategies for Accelerating Economic Impact," 2022,

https://www2.deloitte.com/content/dam/Deloitte/sg/Documents/center-for-the-edge/sg-metaverse-in-asia-deloitte-center-for-the-edge-nov22.pdf.

²² Alvin T., "Fenomena Beli NFT Dan Token Artis, Haruskah Dipertimbangkan?," astra life | lovelife daily, 2022, https://ilovelife.co.id/blog/fenomena-beli-nft-dan-token-artis-haruskah-dipertimbangkan/.

in technology to analyze the development of NFTs as a digital investment instrument.²³ Nevertheless, as with any other investment instrument, digital investments must meet the investment security eligibility requirements and consider the risks of each investment instrument. Among the commonly used investment feasibility criteria are Net Present Value (NPV), Payback Period (PB), Profitability Index (PI), and Internal Rate of Return (IRR).²⁴

In Indonesia, trade in two-dimensional artworks is also regulated by Law No. 28/2014 on Trade, which regulates it as trade in special goods in Chapter XV. In addition, Law No. 20/2000 on the Eradication of Corruption can also be applied in cases of trade in artworks involving corruption. The use of contracts or agreements between creators, copyright holders, and buyers can be important in the trade of two-dimensional artworks, as the contracts regulate the rights and obligations of each party in the trade of artworks.

In case of disputes related to copyright or ownership of two-dimensional artworks, it can be resolved through legal means such as courts or through arbitration.²⁵ However, disputes can often be resolved through mediation or negotiation between the parties. Hence, in trading two-dimensional artworks, there are several legal aspects that should be considered, such as copyright, ownership, taxes and duties, and protection of the artist's image and name. In terms of disputes, there are several dispute resolution options that can be chosen by the involved parties.

CONCLUSION

The regulations on copyright protection in two-dimensional art are regulated by Government Regulation No. 20/2017 on the Implementation of Law No. 28/2014 on Copyright, as well as several derivative regulations such as the Regulation of the Minister of Law and Human Rights. The government also regulates the right in No. 28/2019 on Copyright Registration Procedures. The Copyright Law has provided an option for creators or related rights holders to take legal action through civil channels in accordance with Article 96.

²³ Dewa Gede Ari Setyawan, Anak Agung Elik Astari, and Ni Luh Indiani, "Feasibility Study Perkembangan NFT (Non Fungible Token) Sebagai Salah Satu Instrumen Investasi Di Bidang Teknologi."

²⁴ Sahabat Pegadaian, "Kriteria Investasi: Pahami Macam-Macam Penilaiannya," Sahabat Pegadaian, 2023, https://sahabat.pegadaian.co.id/artikel/investasi/kriteria-investasi.

²⁵ Ni Putu Selyawati, "Penyelesaian Sengketa (Dispute Settlements) Atas Pelanggaran Hak Kekayaan Intelektual Melalui Arbitrase" (Universitas Negeri Semarang, 2020), https://lib.unnes.ac.id/39117/1/8111416280.pdf.

REFERENCES

- Abduh, Rachmad, and Fajaruddin Fajaruddin. "Intellectual Property Rights Protection Function in Resolving Copyright Disputes." *International Journal Reglement & Society (IJRS* 2, no. 3 (September 30, 2021). https://doi.org/10.55357/ijrs.v2i3.154.
- Abidin, Muhammad Ilman. "Legal Review of the Validity of the Use of Smart Contracts in Business Transactions in Indonesia and Its Regulation in Various Countries." *Unnes Law Journal* 9, no. 2 (October 31, 2023): 289–310. https://doi.org/10.15294/ulj.v9i2.74957.
- Dewa Gede Ari Setyawan, Anak Agung Elik Astari, and Ni Luh Indiani. "Feasibility Study Perkembangan NFT (Non Fungible Token) Sebagai Salah Satu Instrumen Investasi Di Bidang Teknologi." *Nusantara Hasana Journal* 2, no. 3 SE-Articles (August 2, 2022): 261–68. https://nusantarahasanajournal.com/index.php/nhj/article/view/467.
- Dhaulagiri, Daniet. "NFT Dan Seni Kripto Dianggap Masa Depan, Kasus Kendra Membuktikan Ada Lubang Besar Di Sana." Whiteboard Journal, 2021. https://www.whiteboardjournal.com/ideas/art/nft-dan-seni-kripto-dianggap-masa-depan-kasus-kendra-membuktikan-ada-lubang-besar-di-sana/.
- Dirgantara, Hikma. "Mengenal Teknologi Smart Contract." PINTU, 2022. https://pintu.co.id/academy/post/apa-itu-dapps-dan-smart-contract.
- Gunawan, Hendra. "Tindak Kejahatan Cyber Crime Dalam Perspektif Fikih Jinayah." *Jurnal El-Qanuniy: Jurnal Ilmu-Ilmu Kesyariahan Dan Pranata Sosial* 6, no. 1 (July 8, 2020): 96–110. https://doi.org/10.24952/el-qanuniy.v6i1.2473.
- Hartono, Dhimas Joeantito, and Sugiharto. "The Criminal Responsibility for Pornography Video Maker Through Digital Forensics on Social Media." *YURIS: Journal of Court and Justice* 1, no. 2 (2022).
- Hasan, Haya R., Mohammad Madine, Ibrar Yaqoob, Khaled Salah, Raja Jayaraman, and Dragan Boscovic. "Using NFTs for Ownership Management of Digital Twins and for Proof of Delivery of Their Physical Assets." *Future Generation Computer Systems* 146 (September 2023): 1–17. https://doi.org/10.1016/j.future.2023.03.047.
- Indonesia, Pemerintah Pusat. "Undang-Undang (UU) Nomor 19 Tahun 2002 Tentang Hak Cipta." Jakarta, 2002. https://peraturan.bpk.go.id/Details/44465/uu-no-19-tahun-2002.

- ——. "Undang-Undang (UU) Nomor 28 Tahun 2014 Tentang Hak Cipta." Jakarta, 2014. https://peraturan.bpk.go.id/Details/38690.
- Khan, Rafiullah, Kieran McLaughlin, David Laverty, and Sakir Sezer. "STRIDE-Based Threat Modeling for Cyber-Physical Systems." In 2017 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe), 1–6. IEEE, 2017. https://doi.org/10.1109/ISGTEurope.2017.8260283.
- Koto, Ismail. "Cyber Crime According to the ITE Law." *International Journal Reglement & Society (IJRS* 2, no. 2 (July 30, 2021): 103–10. https://doi.org/10.55357/ijrs.v2i2.124.
- Kulasooriya, Duleesha, Michelle Khoo, and Michelle Tan. "The Metaverse in Asia: Strategies for Accelerating Economic Impact," 2022. https://www2.deloitte.com/content/dam/Deloitte/sg/Documents/center-for-the-edge/sg-metaverse-in-asia-deloitte-center-for-the-edge-nov22.pdf.
- Mailangkay, Ferol. "Kajian Hukum Tentang Hak Moral Pencipta Dan Pengguna Menurut Undang-Undang Nomor 28 Tahun 2014 Tentang Hak Cipta." *Lex Privatum* 5, no. 4 (2017).
- Murfianti, Fitri. "Hak Cipta Dan Karya Seni Di Era Digital." *Acintya Jurnal Penelitian Seni Budaya* 12, no. 1 (August 3, 2020): 44–58. https://doi.org/10.33153/acy.v12i1.3147.
- Novita, Rissa Dwi, and Muhammad Abdul Razak. "Personal Data Protection in Falsification of Covid-19 Vaccination: A Juridical Review." *YURIS (Journal of Court and Justice)* 1, no. 3 (2022): 25–37.
- Pegadaian, Sahabat. "Kriteria Investasi: Pahami Macam-Macam Penilaiannya." Sahabat Pegadaian, 2023. https://sahabat.pegadaian.co.id/artikel/investasi/kriteria-investasi.
- Pratomo, Gagas Yoga. "Bappebti Catat 229 Kripto Yang Dapat Diperdagangkan Di Indonesia." Liputan 6, 2022. https://www.liputan6.com/crypto/read/4867653/bappebti-catat-229-kripto-yang-dapat-diperdagangkan-di-indonesia.
- ——. "Bukan Rp 13 Miliar, Ternyata Segini Keuntungan Ghozali Dari Jual NFT." Liputan 6, 2022. https://www.liputan6.com/crypto/read/4863147/bukan-rp-13-miliar-ternyata-segini-keuntungan-ghozali-dari-jual-nft.
- Selyawati, Ni Putu. "Penyelesaian Sengketa (Dispute Settlements) Atas

- Pelanggaran Hak Kekayaan Intelektual Melalui Arbitrase." Universitas Negeri Semarang, 2020. https://lib.unnes.ac.id/39117/1/8111416280.pdf.
- T., Alvin. "Fenomena Beli NFT Dan Token Artis, Haruskah Dipertimbangkan?" astra life | lovelife daily, 2022. https://ilovelife.co.id/blog/fenomena-beli-nft-dan-token-artis-haruskah-dipertimbangkan/.
- Zheng, Zibin, Shaoan Xie, Hong-Ning Dai, Weili Chen, Xiangping Chen, Jian Weng, and Muhammad Imran. "An Overview on Smart Contracts: Challenges, Advances and Platforms." *Future Generation Computer Systems* 105 (April 2020): 475–91. https://doi.org/10.1016/j.future.2019.12.019.