



NON-FUNGIBLE TOKEN (NFTS) COPYRIGHTS TOWARDS INDONESIA DIGITAL ECONOMY DEVELOPMENT 2030: POLEMIC AND CHALLENGES

Ninne Zahara Silviani¹, Seela Anwar Sya'adah²
^{1,2}Faculty of Law, Universitas Internasional Batam

Article Info

Received : 08/12/2022

Approved : 02/03/2022

Keywords:

Non-Fungible Tokens (NFTs),
Copyright, Digital Art

Abstract

In the last two decades, art and technology are increasingly inseparable. Existing technology has developed rapidly, in this case the internet which has given birth to a new era known as the digital era which was followed by the emergence of many legal problems, one of which was copyright infringement. The emergence of Non-Fungible Tokens (NFTs) is said to be able to democratize the arts industry and Indonesia digital economy decentralized. Indonesia has a regulation named the Law of the Republic of Indonesia Number 28 of 2014 which regulates the exclusive rights of creators from the industrial sector to works of art. With the existence of These Non-Fungible Tokens (NFTs) the copyright of a digital artwork is questionable. The unique thing with the existence of this Non-Fungible Tokens (NFTs) is that Non-Fungible Tokens (NFTs) does not have the same values, each unique asset cannot be exchanged, so the artists use Non-Fungible Tokens (NFTs) as a certificate of ownership of a rare digital asset. However, because there is no specific regulation regarding Non-Fungible Tokens (NFTs) either in copyright regulations or its protection by the government, there have been cases of copyright infringement intentionally or unintentionally. This research aims to analyze how Indonesian government set the pace to protect copyrights of digital artworks as a preparation for the Indonesia 2030 Digital Economy Development.

This is an open access article under the [CC BY](#) license.



Corresponding Author:

Ninne Zahara Silviani

Email: ninnezaharasilviani@gmail.com

I. INTRODUCTION

Non-Fungible Tokens (NFTs) are a form of digital assets in the field of art, where transactions that occur are carried out on a special platform (OpenSea.io, rarible, foundation) with traded via cryptocurrency originating from the ethereum program (the smart contracts Ethereum) (Wood, 2014). Non-Fungible Tokens or NFTs, started on May 3, 2014 by Kevin McCoy minting a token called "Quantum" which is non-fungible, long before the CryptoArt Market exploded in the general public (Farida, 2022). Non-Fungible Tokens (NFTs) represent any digital asset on the Ethereum blockchain, making it rare, verifiable and valuable. The emergence of Non-Fungible Tokens (NFTs) has created a new medium for artists and creators to showcase their work or collections. Over time, a revolution paved the way for artists to create or monetize their work and use it as a business area. Non-Fungible Tokens (NFTs) assets can be in the form of digital art, collections, music creations, or synergies between the three. This makes Non-Fungible Tokens (NFTs) creators and artists have to be innovative and

adaptive to changing trends in society, some creators even use real and illustrated characters into digital works of art. An Non-Fungible Tokens (NFTs) is included in a digital asset that valued, but, the value cannot be used as a means of transaction and a medium of exchange so that Non-Fungible Tokens (NFTs) are not classified as medium of exchange. The technology for Non-Fungible Tokens (NFTs) is still very new and as such, much of the scope of Non-Fungible Tokens (NFTs) is not yet regulated. In terms of Intellectual Property, Non-Fungible Tokens (NFTs) can be seen as a simplification tool.

CryptoArt with Non-Fungible Tokens (NFTs) combine the world of time-based media art powered by Blockchain technology. CryptoArt is a recent artistic movement in which artists produce works of art, usually plain or animated drawings, and distribute them through CryptoArt galleries or their digital channels using blockchain technology (Franceschet, 2021). CryptoArt has a limited quantity and is cryptographically registered with tokens that we know as Non-Fungible Tokens (NFT) on the blockchain. This is related to the characteristics of decentralized blockchain, democratization, and individual control that comes from artists, and collectors or owners (Franceschet, 2021). The formation of Crypto Art from the beginning are to help artists to be able control their artwork that is spread on the internet but still reap the related material benefits. Meanwhile, in the view of a collector or owner, it is a long-term investment tool and also has self-satisfaction in appreciating art itself. One of the most sold CryptoArt NFTs belongs to Beeple his art called "Everyday" which sold for almost 40,000 Ether which is now worth around 100 million euros (Liberatore, 2021). However, crypto art and Non-Fungible Tokens (NFTs) are not the same thing, this is because crypto art refers to artwork on a cryptographically encrypted blockchain, while Non-Fungible Tokens (NFTs) are units of data stored on a blockchain that can be sold and traded.

Intellectual Property established based on human intellectual abilities in the form of works in the fields of art and literature, science and technology that are made by requiring time, effort, ideas and creativity so that intellectual property cannot be equated with other property which, although can be owned by humans but not generated based on human intellect (Karma & Artadi, 2022; Sulistianingsih et al., 2018). Along, with the rapid development of modern technology that we know as the digital era, digital artworks easily become land with great potential to be used as a business commodity. Coupled with the presence of blockchain technology, the trend of buying and selling digital works of art using Non-Fungible Tokens (NFTs) was born, which is proof of ownership of digital assets that can be traded using cryptocurrencies. Non-Fungible Tokens (NFTs) are non-fungible and there can only be one, therefore these assets have a unique value and are different from other digital assets. Non-Fungible Tokens (NFTs) are integrated with a system that can record transaction information, making it secure and difficult to hack. This system is called blockchain technology. Through Blockchain technology, artists from digital works could bonafide directly every time Non-Fungible Tokens (NFTs) sold. In every transaction that has been recorded in the blockchain cannot be changed so that these features make the blockchain a trusted transaction database.

One of the programs from the Indonesia Government is a Digital Economy Development in 2030 which has the ACE strategy, which stands for Accelerate, Create and Encourage. Accelerating the digitization of the Indonesian economic sector so that it can become one of the spearheads for advancing the Indonesian economy, Creating digital economic opportunities that are diverse and evenly distributed among Indonesian people, Encourage cross-sectoral (stakeholder) coordination. The value of Indonesia's digital/internet economy in 2021 is recorded as the highest in Southeast Asia, amounting to US\$70 billion, and is estimated to reach US\$146 billion by 2025.

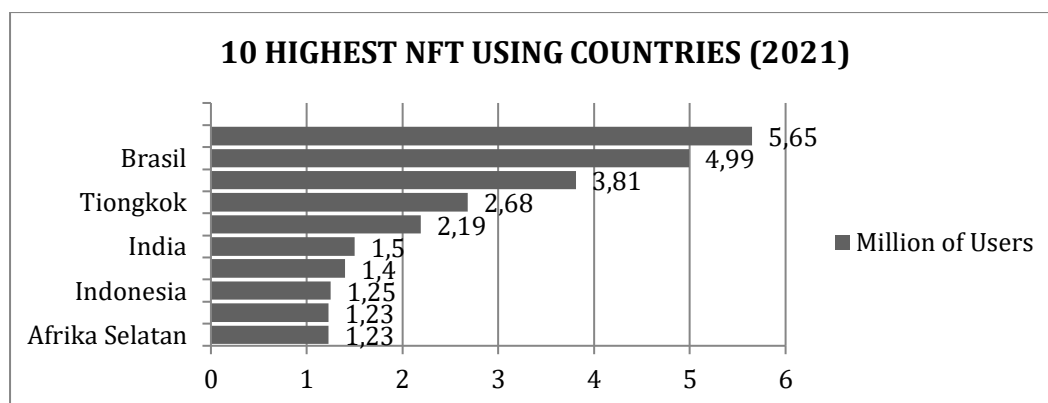
NFT market is experiencing a very rapid spike, and in the report, it is also stated that in 2021 there will be a surge, although not significant, but will remain a fertile field, especially when it comes to crime. Several countries in Southeast Asia have Gross Merchandise Value (GMV) that are far below Indonesia, such as Malaysia which is only US\$21 billion in 2021, the Philippines US\$40 billion, Singapore US\$27 billion, Thailand US\$56 billion, and Vietnam US\$57 billion in US dollar. E-commerce is the main support of Indonesia digital economic and financial growth, which is valued at US\$53 billion and has a growth of 52 percent in 2021 when compared to 2020 which was valued at US\$35 billion. Crypto Asset Trading can be one of the Government's strategies to accelerate, create and encourage efforts to develop Indonesia's Digital Economy in 2030.

NO	COUNTRY	GMV VALUE
1	Indonesia	US \$ 70 Miliar
2	Thailand	US \$ 30 Miliar
3	Malaysia	US \$ 21 Miliar
4	Vietnam	US \$ 21 Miliar
5	Filipina	US \$ 17 Miliar

Table 1. ASEAN DIGITAL ECONOMIC VALUE IN 2021 BASED ON GROSS MERCHANDISE VALUE (GMV)

Source: <https://databoks.katadata.co.id/datapublish/2021/11/11/ekonomi-digital-indonesia-tertinggi-di-asia-tenggara>

Public interest in Non-Fungible Tokens (NFTs) continues to grow, in Indonesia Non-Fungible Tokens (NFTs) are a digital assets that can be traded, digital artist enthusiasts also have high enthusiasm for Non-Fungible Tokens (NFTs) with the popularity of this type of crypto, it has many works sold to foreign countries which can build Indonesia's digital economy be better.



According to Statistic Digital Economy Compass 2022, Thailand leads as the country with the highest number of Non-Fungible Tokens (NFTs) users in the world, namely 5.65 million users in 2021. Brazil follows in second place with 4,99 million users. Then the United States is in third place with 3.81 million users. And next, Indonesia with a total of 1.25 million users. Germany and South Africa are at the bottom with 1.23 million users. This number will continue to increase by time, and slowly develop into the spearhead in the Indonesian digital economy, therefore the Government needs to fix regulations that might overlap or possibility of legal vacuum to protect Indonesian artists who are dealing with it.

Indonesia, still building up the regulations in governing digitalization matters, the Government is holding the Indonesia Digital Economy Development programme (2021 - 2030) which is under the auspices of the Ministry of Industry of the Republic Indonesia expects that Indonesia would increase the efficiency & productivity of the Indonesian people in activities on digital networking, expand employment equipped with crypto currency knowledge, encourage innovation so that they can build a literate generation of digitalization, create inclusivity, and achieve Digital Economy sovereignty. The lack of public knowledge is the crux of the matter, ranging from the theft of works like digital images, to sales related to the work produced without being known directly by the creator (Permana et al., 2018). Therefore, the problem that will be studied in this legal research is to question whether the copyright in a digital artwork or Non-Fungible Tokens (NFTs) can be transferred if it has been sold or purchased by the creator/investor. Based on these problems, several problems can be formulated, namely How is the development of national regulations in responding to copyrights for digital artworks in the form of Non-Fungible Tokens (NFTs)? In addition, what are the solutions and efforts of the Indonesian government in protecting digital artists of Non-Fungible Tokens (NFTs) in the transfer of copyright to the development of the digital economy?

II. RESEARCH METHODS

This study uses a normative juridical method with statutory approach. This research is develop a descriptive analytical research by collecting secondary data from the library research as the data collection technique, which means that this research is included in the scope of research that examines and explains precisely and analyzes existing regulations through a statutory approach related to intellectual rights, especially copyright of digital works (Girsang et al., 2020). The use of literature studies in this study is due to the unpopularity of Non-Fungible Tokens (NFTs) in the eyes of the Indonesian citizen, in general Non-Fungible Tokens (NFTs) are considered as a breakthrough in the commercialization of works art, and archives in digital form by analyzing and reviewing various sources such as books, published works, reports, and existing records so that the necessary data is obtained related to the problem being discussed (Nazir, 2003).

III. RESULT AND DISCUSSION

3.1 National Framework of Non-Fungible Tokens (NFTs) and CryptoArt Indonesia

1. Indonesia Law Act No 28 Year 2014 regarding Copyrights

Digital artwork become a contemporary issues in Indonesia's law. 'CryptoArt' or commonly known as Non-Fungible Tokens (NFTs) covered by Law of the Republic of Indonesia Number 28 of 2014 concerning Copyright and Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Information and Electronic Transactions.

Copyright is the exclusive right of the creator that arises automatically based on the declarative principle after a creation is embodied in a tangible form without reducing restrictions in accordance with statutory provisions (Pasal 1 Ayat 1 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta). CryptoArt as one of an object which considered as copyrights is implicitly protected and included under the Copyright Act. Article 1 (11) which mentioned, "Publication means any reading, broadcasting, exhibition of works using any means, either electronically or non- electronically, or performing in any way so that works can be read, heard, or seen by others.." The Indonesian Copyright Law uses a first-to-announce system, which means that copyrighted works do not have to be registered where the legal owner of a work is the one who publishes it first, either electronically or non-electronically. However, in the mean of time, that terms can be a double-edged sword. As a result of the development of the era which is marked by increasingly sophisticated technology, humans are increasingly required to hone creativity. On the other hand, there are benefits to be gained, but on the other hand, copyright often intersects with technological advances. The validity of Non-Fungible Tokens (NFTs) has not been regulated in the national Copyright Law, the Copyright Law does not explicitly distinguish between the rights of owners of Non-Fungible Tokens (NFTs) and the rights of creators (Aletha, 2021).

Bambang Kesowo, mentioned that intellectual works consisting from several of science, art, literature and technology came from the effort, time and cost which then there are economic benefits that have economic value (Kesowo, 1994). The economic got an big impact also benefits form of appreciation for their creativity and give them a legal protection that aims to encourage their creativity in creating and working. One of the objects of copyright that is protected is cinematography, which according to the explanation of Article 40 paragraph (1) point m of Law Number 28 of 2014 about Copyright, it is stated that what is meant by 'cinematographic works' (are creations in the form of moving images) between Graphics Interchange Format (GIF), viral videos, music albums, tweets, design, animation, memes. Any digital art can be converted into Non-Fungible Tokens (NFTs) by minting. Animation in this case are regulated in the provisions of Article 1 paragraph (1) of Law Number 8 of 1992 about Film, copyrighted work of art and culture which is a visual-hearing mass communication media made based on the principle of cinematography and recorded on celluloid tape, video tape, video discs, and/or materials resulting from other technological inventions in all forms, types, and sizes through chemical processes, electronic processes, or other processes, with or without sound, which can be displayed and/or displayed using mechanical, electronic, or electronic projection systems. and/or others. For cinematography purposes, based on Article 59 paragraph (1) of the Copyright Law, copyright protection for cinematography is valid for 50 years from the time the announcement was made. Copyright protection belongs to the owner, namely the person who legally controls a work, including collectors or copyright holders.

Yet, these regulations have not comprehensively regulated about the digital artworks. There are no specific regulations that define and mention the meaning of 'CryptoArt' or commonly known as Non-Fungible Tokens (NFTs) in digital artwork. In practical, the artist's or creator's rights are still protected by Law Number 28 of 2014 concerning Copyright.

2. Crime Potential in NFT's and How Indonesia Regulation Towards It

Pursuant to article 25 of Law Number 11 of 2008 concerning Information and Electronic Transactions it states that electronic information and/or electronic documents that are composed into intellectual works, and the internet site rights contained therein will be protected as intellectual property rights. From these provisions, Non-Fungible Tokens (NFTs) considered could be protected as intellectual property rights in Indonesia because basically Non-Fungible Tokens (NFTs) are digital works of art that are encrypted into the blockchain network which of course has the necessary copyright protected.

Non-Fungible Tokens (NFTs) are related to various aspects of Indonesian law, one of which is property law. In its development, Indonesia also recognizes the existence of digital goods which are intangible goods in the form of electronic information, as regulated by Government Regulation No. 80 of 2019 concerning Trading Through Electronic Systems. Reflecting on this, Non-Fungible Tokens

(NFTs) as a code string that functions as a token, can be classified as digital goods in Indonesian law. In other hands, because most of Non-Fungible Tokens (NFTs) are the forms of art, music, videos, game items, etc. that are encrypted into the blockchain network, Non-Fungible Tokens (NFTs) are often associated with copyrights. The copyright is attached to the creator of the copyrighted work, but there are several rights that can be transferred according to the regulations in force in Indonesia.

The conception of law object has recognized that the existence of intangible movable objects such as accounts receivable, or other collection rights, including copyrights in them. Over time, Indonesia itself has recognized that digital objects are included in intangible objects which are categorized in the form of electronic information. This has been regulated in Government Regulation no. 80 of 2019 concerning Trading Through Electronic Systems. Following this, Non-Fungible Token (NFT) is considered as a code string that functions as a token and is classified under Indonesian law as a digital item. Furthermore, the existence of Non-Fungible Token (NFT) is also associated with Intellectual Property Law (IPR).

One of a type of crime in the digital NFT marketplace, is when the user account willingly using the self-portrait as an NFT object, and he voluntarily sell that portrait as an NFT, some of the users are selling self-portrait which leads towards to pornography trade. In Indonesia, these actions will intersect with The enactment of Law Number 44 of 2008 concerning Pornography, as a concrete regulation on this matters. The government's role in this matter has been regulated in Government Regulation Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions (PP PSTE), Article 95 confirms that the government has the authority to prevent the dissemination and use of electronic information that has prohibited content. It regulates 2 things; first is termination of access; secondly, may order the electronic system operator to terminate access to the electronic information and/or electronic documents.

Further in Article 96, Termination of access is based on the basis of violating the provisions of the law. Then it is necessary to look at what is meant by the clause "violating the provisions of laws and regulations" including electronic information and/or electronic documents that contain elements of pornography, gambling, slander and defamation, fraud, hatred of SARA, violence etc. The author sees that this is related to the problems in this paper. Marketplaces which are the organizers of the electronic system of NFTs can be supervised by the Indonesian government. The government can even terminate access to the operator if the electronic information contained contains pornographic elements. This is clearly stated in the elucidation of Article 96 paragraph (1) PP PSTE regarding the intent of the clause "violating the provisions of laws and regulations".

The sanctions contained in the provisions of laws and regulations in Indonesia regarding electronic system operators are still limited to civil and administrative matters. Administrative sanctions based on Article 100 paragraph (2) PP PSTE include first, a verbal warning; secondly, administrative fines; third, temporary suspension; fourth, termination of access; fifth is removal from the list. In connection with

this problem, the authors see that the NFT marketplace, namely Opensea, has the potential to experience problems and receive administrative sanctions if Opensea does not comply with legal regulations in Indonesia.

However, in the material law regulated in Article 498 of the Civil Code (KUHPer) it is explained that "objects are every item and every right that can be the object of property rights" material rights will give power over an object in which the right is can be defended by anyone who violates that right. Property rights have the following characteristics:

1. Material rights are absolute, which means that these rights can be defended against everyone.
2. The term of material rights is unlimited.
3. Existence Material rights follow the principle of *droit de suite* (*zaaksgesvolg*) which means that these rights follow the object wherever the object is. In this case there are several material rights in an object, then the strength of these rights will be determined based on the sequence of events that occur (principle of priority/*droit de preference*).
4. Authorities Accessible property rights are very broad to the holders of these rights. This right can be sold, pledged, leased, or can be used alone.

3. Non-Fungible Tokens (NFTs) as Copyrights object in International Law

According to International Law, copyright is regulated in the 1886 Berne Convention and Universal Copyright Convention (UUC) 1952. Based on the Preamble of the 1886 Berne Convention, copyright is a right that effectively protects creators of their works in the form of literary and artistic works. This convention has 3 principles, namely:

- a. The principle of national treatment

This principle means that there is the same protection for works originating from any states participating in the convention, such as providing protection for the creations of their own citizens.

- b. The principle of automatic protection

Protection is not given for any formality, for example the existence of copyright registration and official notification of the announcement or the payment of registration.

- c. The principle of independence of protection

This principle is referred to as the principle of freedom of protection, namely protection is not dependent on the existence of protection in the country of origin of the creation (Isnaini, 2019).

The 1886 Berne Convention stipulates that basically a cinematographic work must be protected as an original work, and copyright owners of cinematographic works have the same rights as original works, including other rights regulated in the articles of the convention. These rules are contained in Article 14bis paragraph (1) of the 1886 Bern Convention which reads: "Without prejudice to the copyright in any work which may have been adapted or reproduced, a cinematographic work shall be protected as an original work. The owner of copyright in a cinematographic work shall enjoy the same

rights as the author of an original work, including the rights referred to in the preceding Article.” The differences between the 1886 Berne Convention and the 1952 UUC are that first, the 1886 Berne Convention provides protection for the creation of the creator without any formal conditions, such as registration of a work or official notification of announcement or registration payment. Meanwhile, in UUC 1952 there are formal requirements (Isnaini, 2019).

Second, according to Article 7 paragraph (1) and paragraph (2) of the 1886 Berne Convention, the period of protection provided is during the life of the creator and added 50 years after death. While in Article 4 paragraph (2) UUC 1952, the protection period is for the lifetime of the creator and added 25 years aftermath (of the death) (Isnaini, 2019). For information, Indonesia is the 126th country that ratified the 1886 Bern Convention, which was legalized through Presidential Decree 18/1997. However, until now Indonesia has not ratified UCC 1952.

4. Copyright Management on Non-Fungible Tokens (NFTs)

Non-Fungible Tokens (NFTs) might cause problems of copyright if the person who encrypts the work into the blockchain network is not the one who created the work and without the permission of the copyright holder. If this does happen, the creator of the copyrighted work or the copyright holder can sue the perpetrator who encrypted the copyrighted work for copyright infringement. In addition, perpetrators of copyright infringement can also be subject to imprisonment for up to 2 years and/or a fine of up to IDR 300 million. Ownership of Non-Fungible Tokens (NFTs) does not mean that they will provide copyrights to these digital assets, creators can sell Non-Fungible Tokens (NFTs) that represent their work and are not prohibited from making more Non-Fungible Tokens (NFTs) from works that same one. In that way, Non-Fungible Tokens (NFTs) are only proof of ownership that is separate from copyright, unless another agreement has been made between the creator and the buyer of Non-Fungible Tokens (NFTs), then the copyright can be transferred to the buyer and the copyright remains with the hands of the creator and the buyer only have ownership of the Non-Fungible Tokens (NFTs). Even though Indonesia currently has regulations regarding crypto assets as stipulated in the Minister of Trade Regulation Number 99 of 2018 concerning the General Policy for Organizing Crypto Asset Futures Trading, there are currently no regulations governing Non-Fungible Tokens (NFTs) in Indonesia law.

Non-Fungible Tokens (NFTs) trading is usually carried out through Non-Fungible Tokens (NFTs) Marketplaces such as OpenSea.io which is the largest marketplace at the moment. Indonesia itself already has a local Non-Fungible Tokens (NFTs) Marketplace, namely TokoMall. Generally, trading Non-Fungible Tokens (NFTs) uses 'cryptocurrencies' whereas based on Indonesian law it must use rupiah. That way, local Non-Fungible Tokens (NFTs) Marketplaces must use the rupiah as a means of payment. Based on Government Regulation Number 80 of 2019 concerning Trading Through Electronic Systems, foreign companies conducting business activities that actively deal with Indonesian consumers and have met criteria such as transaction volume, transaction value, transaction volume,

and/or traffic volume are subject to the law Indonesia so that the foreign company complies with Indonesian law. In that compliance are include with not limited to obtaining business and technical licenses, carrying out company registration and taxation, providing access to electronic systems for the Indonesian government, and implementing consumer protection in accordance with Indonesian law.

In large marketplaces such as OpenSea, there are already embedded rules that can be followed by makers/users, as well as investors before making buying and selling transactions, it is mentioned in one of their OpenSea articles that they only take 2.5% of every transaction that occurs in OpenSea, so that creators can generate Non-Fungible Tokens (NFT) for free at any time. Then, the creator can set a collection level fee of up to 10% which means that for every sale of the creator's Non-Fungible Tokens (NFTs), they get a royalty of a predetermined percentage, the amount of the royalty percentage can be changed by the creator at any time. If, a creator creates a project on behalf of a person or part of a group, please note that a market does not support split level contracts.

5. Implementation of Intellectual Property Rights on Digital Artwork in Non-Fungible Tokens (NFTs)

There are two ways of the IPR registration system, namely the constitutive system (first to file) and the declarative system (first to use). The first-to-file system means that legal protection for an intellectual property will be given to the party who first submits an application for registration (Ridla, 2019). The principle of the first-to-use system is that legal protection will be provided even if the creator does not register his work (Asmara et al., 2019). Registration is only a form of formality document and provides legal certainty to the intellectual property holder (Paramisuari, 2019). The objects of protection are all types of intellectual property regulated by law (Copyrights, Patents, Trademarks, Industrial Designs, Layout Designs of Integrated Circuits, Trade Secrets, and Plant Varieties). Protection of intellectual property law is only registered objects and proven by a registration certificate, unless the law provides otherwise.

Furthermore, there needs to be regulations for a platform or a policy to be able to verify aspects of Property Rights in an Intellectual Property object that is used as Non-Fungible Tokens (NFTs), as well as being prepared to respond to requests for removal from the actual owner. From the side of online market platforms, they may receive infringement lawsuits or various other types of disputes, if they cannot ensure, do not knowingly, or actively facilitate violations of Non-Fungible Tokens (NFTs) which have problems with Copyright. For creators, especially certain brand owners, or anyone interested in trading in Non-Fungible Tokens (NFTs), it may be possible to start using a vendor that can track online violations and block Non-Fungible Tokens (NFTs) that do not comply with Indonesian regulations from being some experienced unwanted losses.

In the trading of Non-Fungible Tokens (NFTs) objects, the rights granted may different from one platform to another or even different for each Non-Fungible Tokens (NFTs) object. The purchase of

Non-Fungible Tokens (NFTs) does not imply the right to display them, or the right to use them for commercial purposes. The seller retains certain rights, even after the transaction is completed. There is a “Smart Contracts” which are often implemented in the trading of Non-Fungible Tokens (NFTs) can automatically cover certain actions, such as royalty payments. In this case, both those who act as buyers and sellers should communicate clearly with each other about what rights are being defended or granted, this will also be stronger if accompanied by a smart contract. Smart Contracts also do not yet have a concrete legal system in Indonesia. In the context of Non-Fungible Tokens (NFTs), the role of smart contracts is to store unique Non-Fungible Tokens (NFTs) information, such as ownership and transaction details. Generators of Non-Fungible Tokens (NFTs) can add details like identities, secure links to files and more into smart contracts. In addition, they can also define certain rules about trading Non-Fungible Tokens (NFT). For example, the percentage of royalties they receive for each subsequent sale. Basically, smart contracts are a technology that makes each Non-Fungible Tokens (NFTs) unique and valuable. In the Non-Fungible Tokens (NFTs) ecosystem, creators or developers of Non-Fungible Tokens (NFTs) can specify whatever they want in the contract. For example, some Non-Fungible Tokens (NFTs) projects may grant privileges to certain groups of people includes exclusive access to drops for early backers, rewards for participating in contests, lower minting fees for subsequent drops, the ability to breed their collection, and more. When considering the intellectual property implications of Non-Fungible Tokens (NFTs), it is important to distinguish between ownership of Non-Fungible Tokens (NFTs) and ownership of the underlying intellectual property. The rights granted by sellers of Non-Fungible Tokens (NFTs) depend on the rights transferred through licenses or assignments, and these rights can differ across Non-Fungible Tokens (NFTs). An obvious example is that someone can buy video clips or photos of LeBron James’ dunks in the form of Non-Fungible Tokens (NFTs), but the underlying rights belong to the NBA. In the context of copyright, ownership of the underlying rights will only be transferred if the creator of the original work expressly agrees to transfer those rights to the owners of Non-Fungible Tokens (NFTs). Copyright protection exists in the original work of the creator embodied in any tangible medium of expression, now known, or later developed, where the work can be perceived, reproduced, or communicated, either directly or with the aid of a device. Thus, original works represented by Non-Fungible Tokens (NFTs) can be protected by Copyright Laws in most jurisdictions, including in Indonesia 2014 about Copyright. Ownership of Non-Fungible Tokens (NFTs) does not necessarily mean ownership of the work represented by Non-Fungible Tokens (NFTs).

Another example, a painting, when it is sold, there is only one owner of the original painting, however, the creator of the painting has intellectual property rights that allow them to make copies, prints, or derivative works of the painting. Copyright is retained by the original creator of the painting. Unless there is a transfer agreement between the creator and the purchaser, copyright files and documents for Non-Fungible Tokens (NFTs) remain the property of the original creator. Long story short, works represented by Non-Fungible Tokens (NFTs) can be protected by Copyright Act, but Non-

Fungible Tokens (NFTs) themselves cannot. Almost all arrangements regarding the transfer of Intellectual Property Law have the same procedure, namely through inheritance, grants, and wills. In addition, there is another way to transfer Intellectual Property Law, namely by entering into a written agreement called a License the legal basis governing licensing is Government Regulation no. 36 of 2018 about the Recording of Intellectual Property License Agreements. The license agreement covers all actions and lasts for the period the license is granted, unless agreed in another agreement.

In that way, the sale and purchase of Non-Fungible Tokens (NFTs) is emphasized that no copyright is transferred if a Non-Fungible Tokens (NFTs) transaction occurs, the creator will even continue to receive royalties on every transaction that occurs on Non-Fungible Tokens (NFTs) while the owner of Non-Fungible Tokens (NFTs) pocketed a smart contract as a legal proof that he/she owns the Non-Fungible Tokens (NFTs) and can resell the Non-Fungible Tokens (NFTs) and will get the profit in accordance with Terms and conditions that are often found on the CryptoArt marketplace. It should be underlined that the owner of the Non-Fungible Tokens (NFTs) is not allowed to modify, print, or even use the Non-Fungible Tokens (NFTs) as commercial advertisements for personal gain or part of the group. If you want this to happen, then the owner of the Non-Fungible Tokens (NFTs) and the creators of the Non-Fungible Tokens (NFTs) can make new contracts outside the marketplace, and are covered by applicable laws.

IV. CONCLUSION

Digital economy development, namely the presence of Non-Fungible Tokens (NFTs) a technology that results in the emergence of digital works of art that can be traded with cryptocurrencies. The presence of momentum during the Covid-19 pandemic, which was felt to have changed lifestyles with the increasing use of the digital technology. Therefore, efforts to accelerate digital transformation in the economy can be used as a strategy to ensure the movement of productivity in economic sectors to support inclusive the growth. In line with the functions and objectives of the Government's Digital Economy Development programme in 2030, hopes that this programme will improve Indonesia's digital economy growth, at least in the logistics and industrial sectors. Then, Indonesia e-commerce players have a very large level playing field, ranging from online travel, online media, ride-hailing, to financial technology, including the trading of NFT's. However, there are several things that must be improved in order to increase the growth of the digital. Some of them are telecommunications infrastructure, consumer protection in the digital area, human resources with special expertise in technology, to developing the digital ecosystem itself.

A digital art attach with Non-Fungible Tokens (NFTs) protected by copyright, under Law Number 28 of 2014 about copyright if an account publish a Non-Fungible Tokens (NFTs) without the author's permission the act count as violated, both moral rights and economic rights of the creator by violating Article 5 paragraph (1) and Article 9 paragraph (3) and if a digital artwork is changed without the author's permission, it also violates Article 7 paragraph (3) of Law Number 28 of 2014 about Copyright. However, in practice there are several challenges and difficulties in enforcing Intellectual Property Rights in accordance with Indonesian Law. As mentioned above, there are still legal loopholes for Non-Fungible Tokens (NFTs) which are exacerbated by technical difficulties in moderating the Non-Fungible Tokens (NFTs) system.

BIBLIOGRAPHY

Journals

Asmara, A., Rahayu, S. W., & Bintang, S. (2019). Studi Kasus Penerapan Prinsip Pendaftaran First To File Pada Pembatalan Merek Cap Mawar. *Syiah Kuala Law Journal*, 3(2), 184-201.

Franceschet, M, et.al. (2021). *Crypto Art: A Decentralized View*, Computer Science Paper Work.

Cornell Wood, G., et.al (2014). "Ethereum: A Secure Decentralised Generalised

Girsang, J. (2020). "Pertanggungjawaban Hukum Perusahaan Asuransi Terhadap Penolakan Klaim Atas Kehilangan Kendaraan Bermotor.," *Justitia: Jurnal Ilmu Hukum dan Humaniora* 7.4: 819-829. Page. 825

Karma, I. P. W., & Artadi, I. K. (2022). "Arbitration As a Description of Settlement Distribution Outside the Court in the Disposal" *Kertha Wicara Journal* 2 7, no. 1 (18AD).

Paramisuari, A. A. S., & Purwani, S. P. M. (2019). Perlindungan Hukum Ekspresi Budaya Tradisional Dalam Bingkai Rezim Hak Cipta. *Kertha Semaya: Journal Ilmu Hukum*, 7(1), 1-16.

Permana, I. G. A. K., Windari, R. A., & Mangku, D. G. S., "Implementasi undang-undang nomor.28 tahun 2014 tentang hak cipta terhadap perlindungan karya cipta program komputer (software) di pertokoan rimo Denpasar", *Journal Komunitas Yustitia* 1.1 (2018): 55-65, page 58.

Ridla, M.A. (2019). Perlindungan Indikasi Geografis Terhadap Kopi Yang Belum Terdaftar Menurut First-To-Use-System. *Jurnal Hukum Bisnis Bonum Commune*, 2 (2), 116-125.

Sulistianingsih, D. et al. [2018]. "Menumbuh kembangkan Penguasaan Kekayaan Intelektual Bagi Masyarakat Di Karimunjawa Kabupaten Jepara", *Jurnal Pengabdian Hukum Indonesia* 1, no. 1: 79-92.

Transaction Ledger", *Ethereum Project Yellow Paper*, 151, 1-32, 2014, Page 1

Wood, G. (2014). "Ethereum: A Secure Decentralised Generalised Transaction Ledger", *Ethereum Project Yellow Paper*, 151, 1-32, 2014, Page 1.

Internet

Aletha, N. O. (2021), "Memahami Non-Fungible Tokens (NFTs) di Industri CryptoArt", *Center for Digital Society, Casestudyseries #80*. Available at <https://cfds.fisipol.ugm.ac.id/wp->

content/uploads/sites/1423/2022/01/80-CfDS-Case-Study-Memahami-Non-Fungible-Tokens-NFT-di-Industri-CryptoArt.pdf

Available at <https://foundation.app/@DisasterGirl/disaster-girl-25046> [accessed 3 May 2022].

Available at <https://opensea.io/assets/0x557430421f8f3ed0a92aca211f1c05ad7b606288/0> [accessed 3 May 2021].

Farida, I. (2022) , “Apa Itu NFT? Berikut Sejarah Dan Jenisnya”, <https://www.harianhaluan.com/teknologi/pr-102295399/apa-itu-nft-berikut-sejarah-dan-jenisnya> [accessed 23 April 2022]

For example, using a tool called Minty that allows the user to turn any digital file into an NFT: <https://bit.ly/3iyRUhj/> [accessed 3 October 2021].

Liberatore, Jader., (2021). The 30 Most Expensive NFT Artworks So Far, Available at <https://www.domusweb.it/en/art/gallery/2021/09/30/the-30-most-expensive-nfts-ever.html> [accessed 24 May 2022]

Book

Isnaini, Y. (2019). Mengenal Hak Cipta: Melalui Tanya Jawab dan Contoh Kasus, Cilacap: Pradipta Pustaka Media, 2019, page 17.

Faisal, S. (1995). Format-Format Penelitian Sosial: Dasar-Dasar Dan Aplikasi, Jakarta, Rajawali Pers.

Kesowo, B. (1994). Pengantar Umum Mengenal Hak Atas Kekayaan Intelektual (HAKI) Di Indonesia, available at Ibid, Page 3.

Nazir, M. (2003). Metode Penelitian, Jakarta: PT Ghalia.

Saidin, O. 2015. Aspek Hukum Hak Kekayaan Intelektual, Edisi Revisi, PT Raja Grafindo Persada, Jakarta, Page 32.

Soelistyo, H. (2011). Hak Cipta Tanpa Hak Moral, Rajawali Press, Jakarta, Page 45.

Constitution & Agreements

Indonesia Law Act No. 28 of 2014 about Copyright.

Indonesia Law Act No. 11 Year 2008 regarding Information, Technology and Electronic Transactions

The Copyright Law in the 1886 Berne Convention, which Indonesia has ratified through Presidential Decree 18/1997

UNESCO Conventions and Protocols Ratified by Indonesia.