



NFT Become a Copyright Solution

Dw Putu Alit Denbagus Rafli

Program Studi Teknik Informatika STMIK STIKOM Indonesia, Denpasar-Bali, Indonesia

Email: dewabagus554@gmail.com

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Abstract

NFT can help art creators to easily register their works for sale using a smart contract system where if the ownership of the work changes hands, the work will become the property of the new owner with proof of a digital certificate. With the steps of making the work so that it can be published in the NFT marketplace media platform and NFT offline gallery. In addition, NFT also has advantages and disadvantages. With that, NFT might be a solution for copyright of a work in the future. However, there are still many questions because NFT is still relatively new and not everyone knows this technology.

Keywords: *smart contract system, non-fungible token, copyright.*

INTRODUCTION

Recently, in the digital era, almost all sectors have been based online, from education, government, tourism to companies using social media as a medium of information. Maybe some of us are still unfamiliar with the word NFT. Non-Fungible Token or often called NFT is one of the crypto digital assets that is being talked about by investors. This asset is widely used by artists and content creators to sell their works.

Copyright infringement often occurs in our country, of course, there are many examples of copyright infringement that we often see. Because of that there are still many people who do not understand this. A work made by someone is the property of that person, whether it already has a patent or not. An example of a simple copyright case is music, musicians often experience cases of plagiarism or the use of their music without the knowledge of the creator. Or Youtube videos reuploaded by other content creators without the permission of the original owner of the work.¹ Plagiarists proudly acknowledge the work of others and use the music as

¹ Margaritha Rami Ndoen , Hesti Monika, "PRINSIP FAIR USE TERHADAP COVER VERSION LAGU DALAM PERSPEKTIF PERLINDUNGAN HAK CIPTA (Perbandingan Antara Undang-Undang Hak Cipta Indonesia Dengan Amerika Serikat)," *Paulus Law Journal* 1, no. 1 (2020), <https://doi.org/10.51342/plj.v1i1.42>.

content for personal gain. Of course, this will be very detrimental to the owner of the original work. Therefore, a technology called NFT was created to answer this problem.²

After the researchers conducted research from several sources related to NFT which were discussed in this scientific article. In cases like the following, prior to NFT, galleries or other third parties played an important role in art transactions.³ Art connoisseurs must visit a gallery or museum to access a work. The role of collectors is also considered very exclusive, only possible by a few classes of society.⁴ Each artist and collector can directly communicate with each other and carry out transactions that are recorded on the blockchain. The NFT industry opens doors for everyone to create and network, expanding accessibility in the art world. Therefore, any type of copyright infringement is listed in the applicable law.⁵ Of course, the perpetrators of copyright infringement will be dealt with firmly with imprisonment and fines according to the applicable law, both copyright infringement and patent rights of a work. In Law no. 19 of 2002 concerning Copyright states that Copyright is a right that regulates intellectual works in the fields of science, art and literature which are set forth in a distinctive form and given to ideas, procedures, methods or concepts that have been set forth in a permanent form. From this case, we learn that copyright is very necessary, because every work that is made authentic will have a value of its own.⁶ For this reason, NFT comes with blockchain technology where every data stored will have layered security.⁷ It is hoped that in the future NFT will be able to become our alternative as an asset in storing a work that we make safely and be able to become more value from the work. With NFT, we can easily sell our works in the form of paintings, videos, music, photos, and much more in the future.

² Ario Adi Prakoso, "Implementasi Undang-Undang Hak Cipta No. 28 Tahun 2014 Pada Aktivitas Reprografi Koleksi Digital," *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi Dan Kearsipan* 5, no. 1 (2019), <https://doi.org/10.14710/lenpust.v5i1.22043>.

³ Boruem Kim and Hoseong Yong, "Issues and Perspective on the NFT Art Market," *Journal of Digital Art Engineering and Multimedia* 8, no. 3 (2021), <https://doi.org/10.29056/jdaem.2021.09.08>.

⁴ Salom@Cuesta C. Valera, Paula Fernández Valdés, and Salvador Muñoz Viñas, "NFT and Digital Art: New Possibilities for the Consumption, Dissemination and Preservation of Contemporary Works of Art," *Artnodes* 2021, no. 28 (2021), <https://doi.org/10.7238/a.v0i28.386317>.

⁵ Komang Redy. Permana, I Putu Hendika; Meinarni, Ni Putu Suci; Desnanjaya, I Gusti Made Ngurah; Radhitya, Made Leo; Winatha, *Pemanfaatan Teknologi Informasi Untuk Bisnis UMKM*, ed. I Ketut Setiawan (Denpasar: STMIK STIKOM Indonesia, 2021).

⁶ Ifeanyi E. Okonkwo, "NFT, Copyright; and Intellectual Property Commercialisation," *SSRN Electronic Journal*, 2021, <https://doi.org/10.2139/ssrn.3856154>.

⁷ Michael Dowling, "Is Non-Fungible Token Pricing Driven by Cryptocurrencies?," *Finance Research Letters* 44 (2022), <https://doi.org/10.1016/j.frl.2021.102097>.

METHOD

In this study we used a literature study research method. The literature study that we do is to search and analyze regulations, scientific articles and the latest information about NFT on various official websites.⁸

RESULTS AND DISCUSSION

History and Introduction of NFT

NFT actually started to exist in 2014, but its popularity has skyrocketed since digital artist Mike Winklemann or better known as Beeple sold NFT's work "Everyday: The First 5000 Days" using the record for the most expensive sale at Christie's auction hall with a value of US\$ 69.three million or equivalent to more than IDR 1 trillion in March 2021 later.⁹ Then at this time, how is digital art also able to have the essence of rarity? NFT is the answer. The scarcity of digital art is at the point where the artist or creator mints their work on the NFT platform. At that point ownership cannot be duplicated because it is recorded on the blockchain. This is the strength of NFT and makes the work has a rarity value.

NFT will be a great opportunity for talented creators to share their passion and creativity, and become a tactic in encouraging creative businesses in Indonesia. Tokocrypto held an online survey some time ago on the community, regarding their opinions and understanding of NFT trends. from a survey conducted by Tokocrypto on July 5-8, 2021, then 400 respondents, 67.9% of respondents knew NFT to be a digital art work, 23.8% of respondents said interim that digital tokens, the rest said that NFT became an art platform or something else. . From the creator's point of view, NFT can help them expand their artistic exposure to include local and international markets as well as the opportunity to receive royalties on NFT's work even if it has changed hands to other collectors. "On the collector's side, the sense of ownership and authenticity of the preferred artist's NFT work is the main attraction for owning an NFT, plus some NFTs allow the owner to convert the NFT into physical goods or make it a long-term investment."¹⁰

In designing the process of making NFT works until the works can be displayed on an NFT platform with the steps as shown below.¹¹

⁸ Soerjono Soekanto and Sri Mamudji, "Penelitian Hukum Normatif, Suatu Tinjauan Singkat" (Jakarta: PT RajaGrafindo Perkasa, 2014), 2.

⁹ Investasi Kontan, "Penjualan NFT Tahun 2021 Rp 357 Triliun," 12 Januari 2022, 2022, <https://investasi.kontan.co.id/news/penjualan-nft-tahun-2021-rp-357-triliun-apa-nft-itu>.

¹⁰ Matthieu Nadini et al., "Mapping the NFT Revolution: Market Trends, Trade Networks, and Visual Features," *Scientific Reports* 11, no. 1 (2021), <https://doi.org/10.1038/s41598-021-00053-8>.

¹¹ Andrei-Dragos Popescu, "Non-Fungible Tokens (NFT)-Innovation beyond the Craze," *Proceedings of Engineering & Technology Journal - IBEM* 66 (2021).

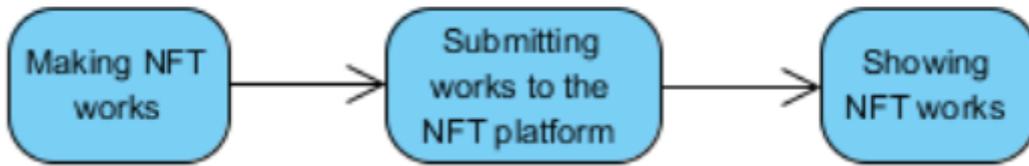


Figure 1. Steps of Making NFT Works.

The manufacturing research steps are carried out as follows:

1. Creating Works

This stage can be interpreted as identification of needs, if the intended work already exists and already has value or works that have just been born, the next stage only needs to apply for copyright.

2. Submitting Works to the NFT Platform

At this stage where a work that is ready can be registered on the NFT blockchain-based technology where the work will automatically have a contract or identity of the owner of the work. NFT technology can help art creators to easily register their works for sale using a smart contract system where if the ownership of the work changes hands, the work will become the property of the new owner with proof of a digital certificate.

3. Displaying Works

It is the most important thing or the final stage, where every work created will be accessible to all people in the world in an NFT market platform. In this market, we can see the value of a work, the high and low, from the highest auction price. Of course we can also buy and resell our NFT works.

On the other hand, NFT also has some drawbacks, such as lack of liquidity, because the price of NFT has already been sold and if the new owner were to resell the NFT, the price could soar higher than the previous price and even fall very deeply. In the world of NFT, an artist doesn't just create art and let the NFT platform do the work. After a work is uploaded then promotion is carried out, mostly through social media. Twitter is the main platform on which the NFT community is networked, along with Discord and Telegram. The sophistication of NFT's work is increasing day by day. For example, the works that can be found at <https://www.fxhash.xyz/>, all of which are based on coding and are generative. Each collection of works is unique from one another. Of course, to have an NFT we need to have a token or crypto coin to buy or admin fees in the process of making our own NFT work. The following is a picture of the NFT work cycle process:

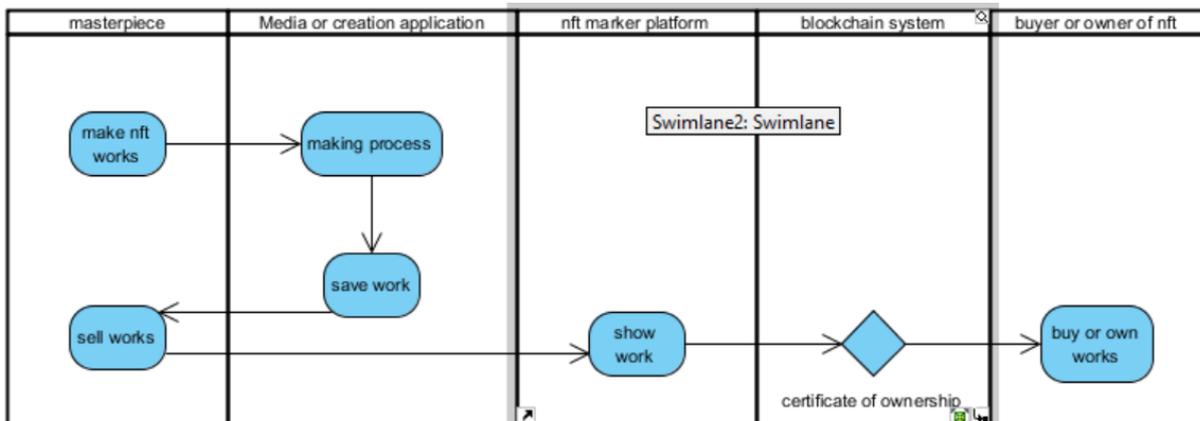


Figure 2. NFT Work Cycle Process.¹²

From the above process, I can describe the results of working on NFT works, the Marketplace and the NFT trade fair gallery.

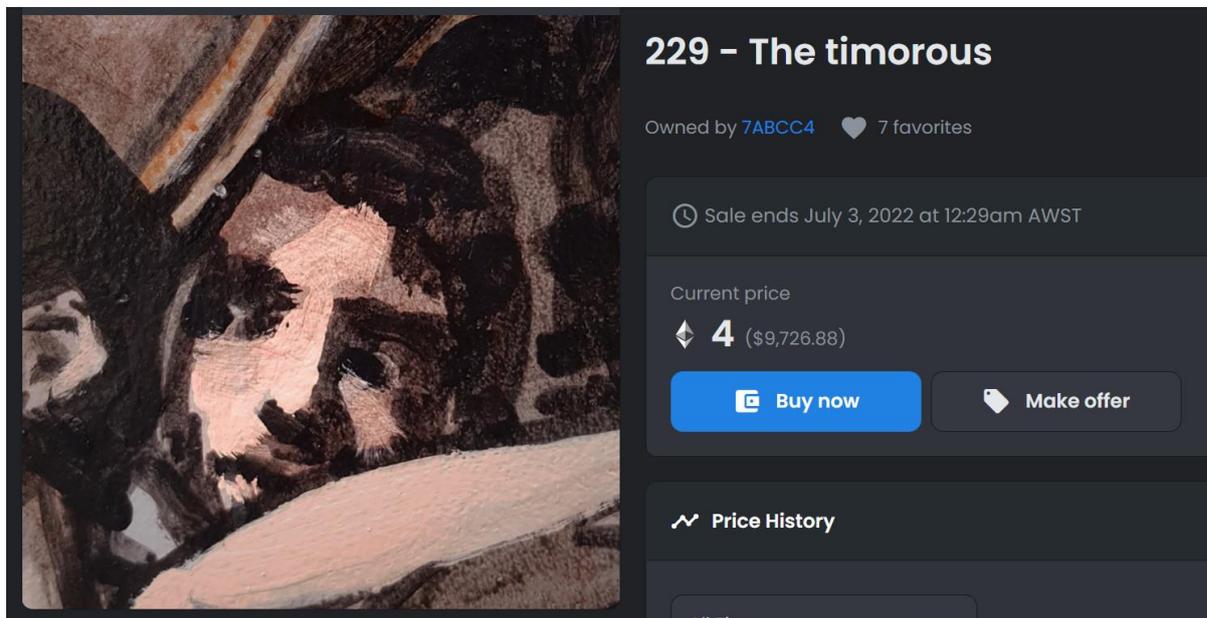


Figure 3. NFT works.¹³

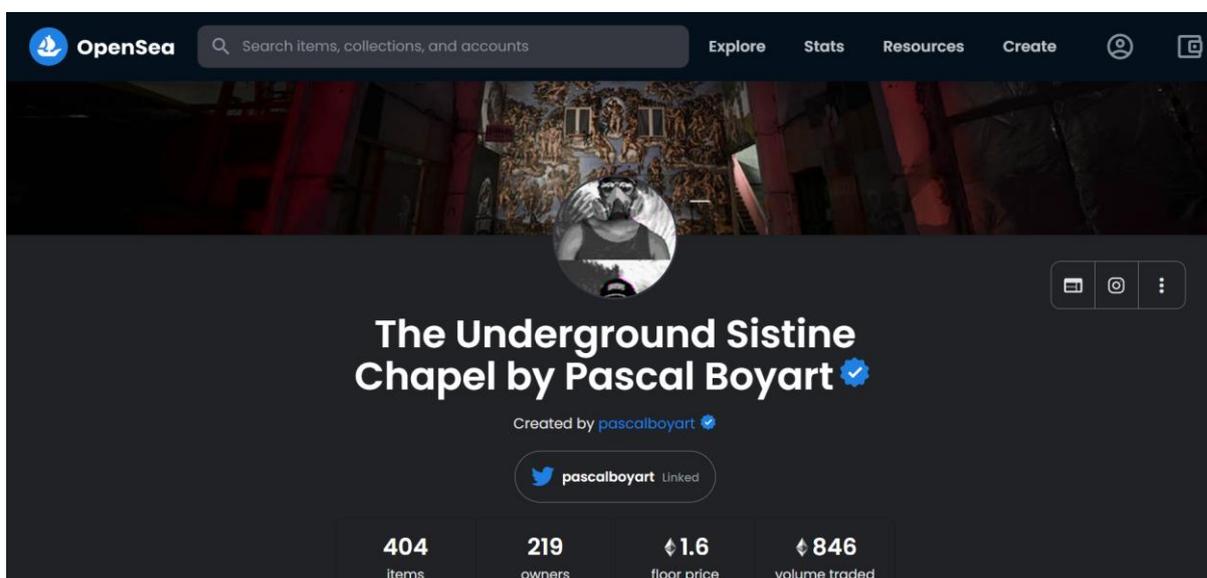


Figure 4. The OpenSea NFT Marketplace.¹⁴

One example of an offline NFT gallery, SuperlativeSS, which officially opened its first NFT gallery in Indonesia, is the first offline NFT gallery in the country. Enthusiastically preparing for the opening and running

¹² Appinventiv, “What Is NFT And How Does It Works – A Detailed Guide,” 16 February 2022, 2022, <https://appinventiv.com/blog/guide-to-nft-and-its-uses/>.

¹³ Opensea, “Open Sea,” accessed February 17, 2022, <https://opensea.io/assets>.

¹⁴ Ibid.

of Superlative Gallery operations. The first offline NFT gallery in Indonesia is called the Superlative Gallery, which is located at Jalan Legian No 99, Kuta, Badung, Bali. Gallery Non-Fungible Token (NFT) as the first gallery in Indonesia displays a collection of avatars from the Superlative Secret Society (SuperlativeSS) artwork. It is a matter of pride for us to be able to accommodate fellow artists from Indonesia, to join and develop together in the digital era of assets such as NFT. In the gallery there are 2 large screens showing various types of works on display. on each wall then displays small screens that also display various beautiful and message-laden paintings. in the middle, there is a room that specifically presents information related to the gallery, SuperlativeSS and the NFT community through shows.

Advantages of NFT:

Can be trusted

Blockchain technology uses non-exchangeable tokens. As a result, you need to be sure that your NFT is valid, as decentralized and permanent record falsification is impossible.¹⁵ NFT has an advantage over real global collections as users can use blockchain to verify authenticity or trace the original Manufacturer as a result NFT can be trusted.

Unique and Collectable

NFTs are rare and mostly used in collectibles and art. The validity and ownership of a collectible or artwork can be easily verified using the inclusion of this token. It also protects the artist's work from being copied or misused. NFT has been used in greeting cards as well as goods.¹⁶ In addition, this Token also saves a tab that provides news about its uniqueness. This data is completely accurate and secure. NFT which is inspired by the original art, uses blockchain to stand out from others and evaluates the legitimacy of a work of art can also help you distinguish between the original object and its replica.

NFT does not Change

Since non-exchangeable tokens are blockchain based, they can never be changed, deleted, or replaced. Again, when proving the origin or authenticity of digital content, this is a valuable quality. to avoid the risk of being changed or even replaced. make NFT appear more special by offering irreversible advantages.¹⁷

Scarcity of NFT Adds Value

NFT developers can create an unlimited number of non-fungible tokens, and frequently renew tokens to keep interest permanently high. Each token will have a unique id using only one owner and the scarcity of NFT can only be influenced by the developer. The number of holistic NFTs in the world today is quite low, as well

¹⁵ Javier Arcenegui et al., "Secure Combination of Iot and Blockchain by Physically Binding Iot Devices to Smart Non-Fungible Tokens Using Pufs," *Sensors* 21, no. 9 (2021), <https://doi.org/10.3390/s21093119>.

¹⁶ Hiroki Watanabe et al., "Enhancing Blockchain Traceability with DAG-Based Tokens," in *Proceedings - 2019 2nd IEEE International Conference on Blockchain, Blockchain 2019*, 2019, <https://doi.org/10.1109/Blockchain.2019.00036>.

¹⁷ Edoardo Talamo and Alma Pennacchi, "IdToken: The New Decentralized Approach to Digital Identity," in *Lecture Notes in Informatics (LNI), Proceedings - Series of the Gesellschaft Fur Informatik (GI)*, vol. P-305, 2020.

as quite rare. This not only makes them unusual, but also increases their value. The less the number of NFTs, the higher the price.

NFT can Include Smart Contract

Smart contracts are another relatively interesting feature of blockchain technology. Basically, they can store instructions that are executed when an exclusive condition is met. thus, an NFT with a smart contract can provide a percentage of profit when the NFT is sold in the future. The existence of smart contracts helps investors to be more assured of security and the rules that exist in the use of the NFT.¹⁸

Disadvantages of NFT:

Cannot be Shared

Many NFTs cannot be divided into smaller units. as a result you will not be able to access digital items until you pay the full amount. NFT is unlike other cryptocurrencies, you cannot send some NFT to anyone as it is non-exchangeable and contains no affected value. For example, one bitcoin after the transfer will have the same value, but if NFT the value will not match.¹⁹

NFT Can Be Stolen

NFT sales are tracked using blockchain technology which establishes ownership. Marketplaces and platforms like Open Sea and Rarible are where the original NFTs were designed and stored. If this platform is closed for any reason, there is no guarantee that you will be able to access the NFT. Thus establishing NFT as less secure. Although the technology on NFT returns is relatively safe, many exchanges and platforms don't claim to be 100%. as such, there have been several reports of stolen NFTs following cybersecurity breaches. However, the risk still exists and cannot be eliminated but can be reduced or minimized the risk as low as possible. Moreover, today's era is still rampant whose name is hackers in advanced technology at this time.²⁰

NFT Including Speculative Market

It is difficult to say whether NFT will be widely used in the years to come. Obviously, there is great interest in them at the moment, and some potential benefits. however, the technology is still in its infancy, and there are many challenges to overcome. all the future of NFT depends on the next generation, how this generation can influence the value of NFT itself. Investing in NFT can be a speculative and risky investment

¹⁸ Dan Chirtoaca, Joshua Ellul, and George Azzopardi, "A Framework for Creating Deployable Smart Contracts for Non-Fungible Tokens on the Ethereum Blockchain," in *Proceedings - 2020 IEEE International Conference on Decentralized Applications and Infrastructures, DAPPS 2020*, 2020, <https://doi.org/10.1109/DAPPS49028.2020.00012>.

¹⁹ Muddasar Ali and Sikha Bagui, "Introduction to NFTs: The Future of Digital Collectibles," *International Journal of Advanced Computer Science and Applications* 12, no. 10 (2021), <https://doi.org/10.14569/IJACSA.2021.0121007>.

²⁰ Can Ozturan, "Barter Machine: An Autonomous, Distributed Barter Exchange on the Ethereum Blockchain," *Ledger* 5 (2020), <https://doi.org/10.5195/LEDGER.2020.148>.

Not User Friendly

The decentralized network where developers create NFT is not user friendly. This is a crucial barrier to mass adoption as most of the targeted audience for this product know nothing about blockchain. much has been said about the environmental impact of blockchain-based cryptocurrencies such as Ether and Bitcoin. It takes a lot of computing power to enter records into the blockchain. There is a big question whether blockchain-based assets can last long.²¹

NFT Not Regulated

Since NFT is not regulated, a high level of confidence is expected. You have to think that the NFT you are buying means a unique work of art or work that has never been duplicated elsewhere, otherwise you run the risk of a copyright dilemma.²² If the authorities and administrators are concerned about this rapidly growing industry, the platform may be shut down, and pooler donations may be limited. This may decrease the value of the NFT coin on the market.

CONCLUSION

The conclusion from this article is that NFT might be a solution for copyright of a work in the future. Simply put, NFT can also be interpreted as a certificate of ownership of origin of a digital asset. While the digital assets in question can be very diverse ranging from photos, videos, music, gifs, pngs, and others. However, there are still many questions because NFT is still relatively new and not everyone knows this technology. Therefore, we hope that in the future technology such as NFT will develop further and be able to provide extraordinary security in order to maintain the authenticity of a work, so that the owner of the work can easily introduce his work in the form of NFT. Of course with that we can also buy a digital work easily.

²¹ Nikita Karandikar, Antorweep Chakravorty, and Chunming Rong, "Blockchain Based Transaction System with Fungible and Non-Fungible Tokens for a Community-Based Energy Infrastructure," *Sensors* 21, no. 11 (2021), <https://doi.org/10.3390/s21113822>.

²² Daniel Uribe, "Privacy Laws, Non-Fungible Tokens, and Genomics," *The Journal of The British Blockchain Association* 3, no. 2 (2020), [https://doi.org/10.31585/jbba-3-2-\(5\)2020](https://doi.org/10.31585/jbba-3-2-(5)2020).

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