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NFTs AND COPYRIGHT LAW

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Abstract: NFT stands for "non-fungible token" and refers to a cryptographically protected asset that represents a unique object, work of art, real estate, ticket, or certificate. Like cryptocurrencies, each NFT contains ownership data to facilitate identification and transfer between token holders. By purchasing a token, the owner gets ownership of an asset in the digital or real world. NFTs are often minted by artists and creatives, but collectors and investors who purchase and use them may have a different perspective on who owns the copyrights to the content associated with the NFTs. Attorneys specializing in art law, although they have not yet fully explored it, are developing a familiarity with the current crypto community and future metaverse in order to understand how a public ledger registration tool has created scarcity and value for digital assets, such as digital artwork.
Keywords: non-fungible tokens, blockchain, smart contracts, copyright, digital art
Field: Law sciences

1. INTRODUCTION

Blockchain technology has advanced so much over time that it has mainstreamed some new trends in digital shopping and commerce on the Internet, such as cryptocurrencies that have "taken over" the world. However, hold on for a moment, the world is getting very familiar with a new trend - NFT tokens.

Although cash and payment cards will continue to be the main payment processes for products and services, the fact is that cryptocurrencies and blockchain technology itself have offered the world a completely new payment value and the possibility of exchanging goods. Namely, we have been familiar with cryptocurrencies for a long time, we talked about their mining and trading, and for most people, they are not new. Cryptocurrencies have been around for a while now and their market value is followed daily, like the stock market. However, there is a new trend that has been appearing in recent years that has to do with digital money.

As we mentioned in the introduction of the text, we are talking about NFT tokens or simply speaking non-fungible tokens which, in a way, represent the definition of digital assets. NFTs are a type of cryptocurrency that allows various works of art on various media and sites to be "tokenized" and sold through digital commerce mechanisms, such as Bitski.com.

2. BLOCKCHAIN TECHNOLOGY

Blockchains are databases that store records on computers all over the world. This makes the blockchain a distributed database with a peer-to-peer architecture. The term 'distributed' means that the data is stored in multiple locations, and the term 'peer-to-peer' means that there is no central authority that holds the main copy of the data.

The thing that makes blockchain so special is that once something is written into the blockchain, it can never be changed or deleted. Therefore, blockchain has become such a popular topic - because it provides a secure way to store information about assets. In the future, blockchain will be used to store data about who owns which house, apartment, car, insurance policy, etc.

'There are four main characteristics of blockchain technology:

1. Transparency - All participants in the chain can see all records that have previously been entered in "blocks".

2. Decentralization and data forwarding - the existence of a certain number of computers that coexist, having individually each of them the possibility of equal insight into data entered, and the possibility of introducing new data.

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3. Non-refund - once the data is in the "block" chain it stays there forever.

4. Lack of intermediation - The central body, which would be managed, and closely regulated transactions that occur online, does not exist. Everything on the network that represents a blockchain system takes place and regulates between the participants in the "blocks" that are equal.' (Strabac, M., 2021).

2.1. Tokens on a blockchain technology

'Tokens are assets that are encrypted into blocks on a blockchain. The process of creating a token is commonly known as 'minting' the token. A blockchain serves as the foundation onto which a token is encrypted, creating an immutable record of the existence and ownership of digital assets, such as artwork' (Murray, DM 2022).

2.2. NFTs: Unique digital assets

'Non-fungible tokens (NFTs) are cryptographically unique tokens that are linked to digital (and sometimes physical) content, providing proof of ownership' (Kramer, Graves, Philips, 2022).

2.3. Fungible vs non-fungible

'A fungible token can be exchanged one for one with any other token of its kind' (Murray, DM 2022).

A fungible token is a unit of cryptocurrency that can be exchanged for any other unit of cryptocurrency. For example, one bitcoin on the Bitcoin blockchain can be exchanged for any other bitcoin. Because they are fungible, each one of them has the same value.

In other words, you cannot exchange one NFT with another NFT, nor can you sell parts of it.

For example, one NFT that records the existence and ownership of a 30X40 oil painting will not be presumed to be exchangeable for another NFT that records the existence and ownership of a different 30X40 oil painting.

3. NFTS AND SMART CONTRACTS

'Non-fungible tokens facilitate a registration process that makes tokenized digital artwork a unique asset. Although other similar works may exist and may even have NFT registrations on the blockchain, each NFT creation produces a unique blockchain record for a unique asset' (Murray, DM 2022).

'NFTs usually exist on a blockchain, which is, as noted above, a distributed ledger that records transactions. The main difference between NFTs and smart contracts is that NFTs are digital assets powered through smart contracts, meaning that smart contracts control the transferability and ownership of NFTs. In other words, smart contracts are not the same as NFTs but are vital to their use. Furthermore, both run on the blockchain, and so many of the disputes that arise with respect to NFTs go back to the smart contracts that control them' (Schmitz, JA 2022).

'This is important because some argue that smart contracts will create efficiencies and may largely eliminate the need for complicated and costly letters of credit, bonds, and security agreements by digitizing automatic enforcement or payment' (Schmitz, JA 2022).

As defined by Nick Szabo, 'a smart contract is a computerized transaction protocol that executes the terms of a contract' (Szabo, N. 1994).

'The key characteristic of these contracts is that they can be represented in the program code and executed by computers: this differs from traditional contracts that are established through negotiations, written documents, and concessional actions. Smart contracts are self-promotional and self-adjusting computer programs based on a program algorithm' (Cvetkovic, P. (2020).

'Smart contracts are used to write and store non-fungible tokens (NFTs), which have basic sale terms defined within them. The Ethereum blockchain has differing levels of token fungibility depending on the technical standard applied. The ERC-20 standard is used for fungible tokens, which means that one token is always equal to all other tokens. In essence, an ERC-20 token is the same as Ether (ETH)' (Aksoy, Üner 2021).

3.1. The rise of NFT

Why would someone pay millions for a JPEG image?

'There is no limit to what NFTs can represent. They can represent digital images, films, audio, or something entirely intangible (such as an invisible sculpture)' (Aksoy, Üner 2021).

The concept of non-fungible tokens (NFTs) has gained widespread attention in the blockchain community due to the recent deployment of the NFT Standard on the Ethereum platform.

NFT became popular in 2017 when the game "CryptoKittes" was launched, and it is the first game that used the ERC-21 protocol. In that game, virtual cats are unique and therefore tokenized and sold. Eventually, the market for CryptoKitties had the highest transaction volume on the Ethereum blockchain.

'Arguably the most astonishing price tag came with a piece of digital art by artist Beeple named 'Everydays' : The first 5000 days, an NFT of which sold for $ 69,346,250 through an auction at Christie's in early March 2021' (Lantwin, T. 2021).

The buyer who received this NFT, got a jpeg file and a unique piece on the Ethereum blockchain and this NFT did not include copyright ownership of its piece. Then, 'Twitter founder Jack Dorsey's first-ever tweet has been sold for the equivalent of $2.9m' (Harper, J. 2021).

As the buyer, Mr. Dorsey will be digitally signing and verifying a certificate for Mr. Estavi, which will also include the metadata of the original tweet.

The data will include information such as the time the tweet was posted and its text content.

'Also, The New York Times has entered the NFT game, selling the chance to own 'the first article in the almost 170-year history of The Times to be distributed as an NFT' — and it's sold for right around $560,000' (Clark, M. 2021).

3.2. Are NFTs the future?

As I wrote previously, the blockchain contains a collection of data stored in electronic form that can be accessed quickly and easily by any number of users at the same time, which means that it is the same as the NFT protocol.

In addition to the recording function, upon purchasing an NFT, it can be stored in a digital asset wallet and shared virtually. The owner can then display their NFT to showcase their ownership of the asset. It may even be considered a portable form of art (Aksoy, Üner 2021).

4. NFTs PLATFORMS

'Once, when NFTs are minted, they become available for transactions, which are primarily facilitated by intermediary platforms.

To exemplify the type of private ordering that shapes NFT transactions and is relevant for copyright purposes, the terms and conditions of particular platforms, as well as EU law instruments, play a significant role. (Bodó, Giannopoulou, Quintais, Mezei 2022).

Based on the NFT function and the subject matter interest, the following is being presented:
1. platforms that function as open marketplaces for all minted NFTs;
2. platforms that function as collection-based marketplaces;

(i) Platforms that function as open marketplaces

'Open marketplaces enable the creation and exchange of NFTs by anyone. They function as the eBay of the NFT ecosystem. Dominated by a few major players, including OpenSea, Rarible, and Foundation.

The growth of NFT marketplaces can be attributed to several factors. The streamlined mining process is particularly appealing to creators and companies, regardless of their technical experience.

NFTs generated outside can be conveniently listed, and these factors combine to increase the variety and quantity of NFT supply. These variables could lead to a vicious cycle and eventually consolidate this sector into a few dominant players.

Category (1) platforms impose the least amount of restrictions with respect to third-party minted NFTs and different types of NFTs. This openness enables them to operate on a larger scale.

(Bodó, Giannopoulou, Quintais, Mezei 2022).

(ii) Platforms that function as collection-based marketplaces

'With the advent of blockchain technology which enabled the creation of digital collectibles in the form of NFT, many investors have diverted their attention to the NFT collectibles market in the last two years, creating a FOMO in this space. The NFT craze can be seen from its sales volumes in the last two years. The sales of non-fungible tokens (NFTs) were just $81.1 million in the first half of 2020 but surged to $2.5 billion in the first half of 2021. NFT collectibles share the same characteristics as traditional collectibles like scarcity, uniqueness and more. However, it has added advantages like the ability to authenticate the originality of an NFT collectible as well as in proving the ownership' (Liew, VK 2021).

5. COPYRIGHT LAW AND NFTs

The fundamental idea is that just because you own the NFT doesn't mean you own the copyright as well. In other words, you can have possession of the object, but you might not have the copyright associated with that object.

Copyright is not just a single right, but a collection of rights, and most of these rights are retained by the original creator of the work.

'An explanation of the idea of 'Digital Exhaustion' and its connection to the first-sale doctrine, which maintains that the first authorized sale of a product with intellectual property attached exhausts the rightsholder's capacity to allege infringement by further sales of that product' (Bjarnason, C. 2021).

So, what right are you getting when you buy an NFT?

Oftentimes, people are unaware that they do not obtain a full transfer of copyright when they purchase an NFT. Although this is the case, the NFT still belongs to the buyer. They can then trade it, sell it, or give it away as they choose.

Does owning an NFT grant you every right?
Usually, no.

When purchasing an NFT, it is important to ensure that the original copyright holder has expressly agreed, in writing, to convey the right to you. Without this agreement, you may only be granted certain rights to the NFT. There are, however, cases in which the original copyright holder grants full rights to the buyer of an NFT. This information can be checked and verified by reading the description of the NFT listing.

It's not surprising that there are so many legal implications that come with NFTs.The following chapter of this paper will center its focus on the matter of copyright law as it pertains to NFTs, including but not limited to the Information Society Directive, the Resale Rights Directive, and the Digital Single Market Directive. This is with specific reference to artwork and NFTs where the IP address is owned by the original creator.

5.1 EU Copyright Law Applied to NFTs

The Information Society (InfoSoc) Directive

Under InfoSoc Directive, when you own a copyright, you typically own reproduction right, the right of communication to the public of works, and right of making available to the public other subject-matter and distribution right.

'The first relevant clause of the InfoSoc Directive is Article 2 "Right to Reproduce", which confers the copyright holder the exclusive right to reproduce and make copies of the artwork' (Bjarnason, C. 2021).

'Article 3 of the InfoSoc Directive provides the creator with the "right of communication to the public of works and the right of making available to the public". This can be described as the 'right to display' (Bjarnason, C. 2021).

The original creator always has the right to display the artwork, regardless of exhaustion.

Furthermore, the owner of the NFT will also have the right to display the underlying artwork.

This clause, which is both relevant and key, outlines the various rights given to NFT holders.

One of these rights is the right to display the linked artwork.

'Article 4 of the InfoSoc Directive grants the creator the exclusive right to authorize or prohibit the distribution of their work to the public, whether through a transaction or otherwise. In this case, the doctrine of first sale applies, which results in the creator's rights being exhausted upon the sale of a specific version of a particular creation. As exhaustion is applicable, if an original creation is sold, the purchaser has the right to resell this creation. However, when it comes to NFTs, the NFT and its accompanying rights are the items that can be sold. The underlying artwork, on the other hand, is not necessarily sold unless this right is embedded in the terms of sale of the NFT. Nevertheless, it is common for the artwork to be transferred along with the NFT, as demonstrated by the Beeple auction and the 'Disclosure Face' sale mentioned above' (Bjarnason, C. 2021).

5.1.1. The Resale Right Directive and the Digital Single Market Directive

'The Resale Right Directive in EU copyright law requires that any type of seller who subsequently sells an artist's original artwork must provide a royalty-based commission to the artist. According to Article 2 of this directive, original works of art can include paintings, sculptures, ceramics, and photographs' (Bjarnason, C. 2021).

5.1.2. Digital Single Market (DSM) Directive

'Article 17 of the directive specifies that online content-sharing service providers are responsible for any illicit content, including copyright infringement, on their platform.

NFTs and their marketplaces have inherent copyright protection mechanisms, such as the marketplace's terms of sale and transaction execution through smart contracts, that ensure compliance with the rules established in the DSM directive' (Bjarnason, C. 2021).

5.2 NFTs and Copyright Ownership

'In an ideal world, the copyright owner of an artwork would also be the creator of its NFT.'

However, as one would expect, individuals who engage in infringement find their way around in the digital sphere and create more intellectual property-related problems. Additionally, a new problem has arisen in recent years. These individuals "mint" NFTs based on copied artwork without permission and put them up for sale. As the decentralization, encryption, and anonymity features that are inherent in blockchain ecosystems make it hard to find the copyright holder, this can be a big issue.

Coming to the question, how can someone sell work that is not theirs?

'NFTs and copyright law have two significant zones of interaction. The first is related to the 'minting' when NFTs are created, and the second is focused on the dissemination of the digitized work' (Idelberger, Mezei 2022).

'The concept of NFTs is such that the original content is not included in them. Rather, they are compiled with standard contracts, resulting in unique metadata that can be written to the blockchain. Essentially, an NFT functions as a digital receipt that links to the original content, much like a deed would for a house. It is worth noting that the NFT itself is not a copy of the content' (Bodó, Giannopoulou, Quintais, Mezei 2022).

'When it comes to NFTs, there is no real copyright ownership title over the tokenized work. This means that the original creator retains control over the work, even after it has been sold on an online marketplace. However, the metadata associated with the NFT may grant certain rights to the acquirer of the token. These rights are usually quite limited, and they often restrict the commercial use of the work' (Bodó, Giannopoulou, Quintais, Mezei 2022).

The validity and execution of these online agreements (aided by smart contracts) should ideally be without issue and within the parties' freedom of contract if these online agreements meet the formal requirements of national copyright contract rules.

'When it comes to NFTs, the sellers have the power to determine their own terms. These terms can include options like transferring traditional rights, using the NFT to unlock additional content, or implementing a digital royalty for resale. In any case, creators and owners of NFTs have significant control over the destiny of their creations'(Lapatoura, 2021, p. 171).

While those who sell NFTs are free to establish their own licensing agreements for the tokenized work, these agreements will have little impact from a copyright standpoint regarding the exhaustion of the distribution right, as is frequently seen in collection-based or curated marketplaces.

'For instance, Mike Shinoda from the band Linkin Park, who successfully sold the audio clip "Happy Endings" accompanied by his artwork, published the terms of his NFT sales as follows: "Only limited personal non-commercial use and resale rights in the NFT are granted and you have no right to license, commercially exploit, reproduce, distribute, prepare derivative works, publicly perform, or publicly display the NFT or the music or the artwork therein. All copyright and other rights are reserved and not granted."

6. CONCLUSION

NFTs give their holders the illusion of ownership; in other words, they are a 'cryptographically signed receipt that you own a unique version of a work' (Guadamuz, 2021c).

The global market has been significantly impacted by NFTs due to their disruption of the traditional model of auctioning art. Cost-effectiveness is increased with NFTs because there is no need to worry about storage or insurance expenses.

Non-fungible tokens should not be isolated to digital artwork or even the art industry. They will have a certain degree of influence on physical assets and result in their tokenization.

Of course, like any other technological advancement, many questions and uncertainties are raised regarding NFTs. The minting of protectable artistic works and their sale have led to copyright issues that must be addressed. Many of these uncertainties can be clarified through license agreements.

While NFTs are a new and exciting technological advancement, there are many questions and uncertainties raised in regard to them, especially in regard to copyright law. It is important to clarify some of these issues in order to ensure that the minting and sale of NFTs is done in a legal and protected manner.

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