

Debunking the Non-Fungibility of NFTs

Desmitificando la no fungibilidad de los NFT

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ABSTRACT

Non-Fungible Tokens or NTFs are digital files representing a particular value, such as an image, an asset, or a property title. As implied by their name, these goods have commonly been given the character of being non-fungible things because each one of them is unique and cannot be replicated. However, said qualification is a mistake since the fungibility of an asset is relative to the obligation in which it is immersed and does not correspond to a natural characteristic that an object may always have automatically or with the fact of non-repeatability or inability to be replicated. For this reason, NFTs can be fungible depending on the features that arise from the legal obligation, which may or may not include the specific NFT's identification code as a requirement.

KEYWORDS

Fungibility; cryptoactive; NFT; Hash; token; replaceable

RESUMEN

Los tokens no fungibles o NFT son archivos digitales representativos de un valor particular, que puede consistir en una imagen, un activo o un título de propiedad. A estos bienes, como se desprende de su nombre, se les ha otorgado comúnmente la característica de ser cosas no fungibles por el hecho de que cada uno de ellos es completamente único y no se puede replicar. Sin embargo, dicha calificación es un error, en cuanto la fungibilidad de un bien es relativa a la obligación en la cual está inmersa y no corresponde a una característica natural que pueda tener un objeto de forma automática y en todo momento, ni al hecho de que no pueda ser replicado. Por ello, se puede afirmar que, de forma potencial, los tokens no fungibles sí pueden ser fungibles, dependiendo de las características que se desprendan de la obligación jurídica en particular, que puede o no contemplar como requisito el código de identificación del NFT en concreto.

PALABRAS CLAVE

Fungibilidad; criptoactivo; NFT; Hash; token; reemplazable

1. INTRODUCCIÓN

Since its appearance and due to its boom in recent years¹, Non-Fungible Tokens (from now on, NFT) have generated great commotion in the world of crypto assets due to the added value that this object has reflected in its name. NFT comes from the acronym Non-Fungible Token. In this name, a legal concept becomes known: the characteristic of being non-expendable.

Each minted NFT is perfectly identifiable individually by the line of code representing it, these assets are often considered unique and irreplaceable. The characteristic of uniqueness is very often the core of the value that most people give to NFTs. This idea of not being disposable is the primary basis for arguing that these assets are not fungible, which is a conceptual error. The said name does not correspond to the legal reality of the object.

The widespread misunderstanding of the nature of NFTs has led people to think and act as if these assets could never be replaced under any circumstance. Following this line of thought, it's believed that due to the alleged value of NFTs, there will always be a large market willing to take risks for something that appears to be non-fungible or irreplaceable. This often obscures the true value an asset can hold, especially when it is very individualizable and easily distinguished.

The article will develop as follows: in the first place, the nature of an NFT in contrast with the concept of fungibility will be approached. Secondly, some of the relevant effects of this classification of assets will be enunciated and, likewise, it will be given a new perspective of the accurate value this crypto active can have. Lastly, once its proper legal nature has been established, it will be suggested a more accurate denomination for these assets than the one they currently possess.

2. WHAT ARE NFTs?

In March 2021, one of the founders of the social network Twitter auctioned the first Tweet in history, which expressed “just setting up my twttr” for 1630.5825601 of Ethereum. This operation would be valued at approximately 2.9 million United States dollars at purchase². Now, the first tweet was not sold without further ado, but it was done thanks to its tokenization through the

1 Kimberly Houser, and John Holden, “Navigating the Non-Fungible Token”, *Utah Law Review* 2022, n°. 5 (November 2022): 897, <https://heinonline.org/HOL/P?h=hein.journals/utahlr2022&i=886>.

2 Ebenizer Pinedo, “Termina La Subasta: Jack Dorsey Vende El Primer Tweet de La Historia Como Nft Por 2,9 Millones de Dólares”, *Hipertextual*, March 22, 2021, <https://hipertextual.com/2021/03/jack-dorsey-vende-el-primer-tweet-de-la-historia-como-nft>.

ERC-721³ Token protocol, which for this article will be called the NFT protocol, coining, in this way, the first NFT of the first tweet.

One of the reasons that justifies the high value for which this asset was purchased at the time lies in the technology used. Thanks to the NFT protocol, the first minted token from the first tweet is unique. It cannot be replicated, allowing its current owner and anyone interested in acquiring it to ideally differentiate it from any other NFT minted worldwide and know that it is not a counterfeit. This ability to be identifiable has increased the interest surrounding NFTs, especially for their use in art⁴.

As the introduction mentions, the acronym NFT corresponds to Non-Fungible Tokens. Before analyzing the fungibility of the asset itself, briefly explaining what a Token is in a technological sense is required since the characteristics assigned to this crypto active come from the said technique. Tokens can be understood as a representative unit of value like a simple casino coin or a parking ticket⁵. This concept has been transferred to the technological world to describe a series of files or units of information.

In this regard, a token is a digital representation of value issued by an entity, which functions as a medium of exchange, a unit of measure, or a store of value⁶. For this article, a token can be understood as a digital unit of data representing a value; this utility can consist of a particular image, the ownership of a specific good, a liquid asset, or anything that can be stored digitally in a document. In short, a token is a digital file.

This concept is widely used to identify specific files, such as electronic signature tokens, which contain information about the signer's data and their certificate of authenticity. In the case of NFTs, this can be any information represented in a digital file. All information a person wants to capture in an NFT must be converted into a digital document. This process is known as tokenization, which consists of converting digital or physical information into a data unit or token⁷. However, the NFT protocol also requires the application of a document identification seal to avoid the forgery of these tokens.

3 Salomé Cuesta Valera, Paula Fernández Valdés, and Salvador Muñoz Viñas, "NFT y arte digital: nuevas posibilidades para el consumo, la difusión y preservación de obras de arte contemporáneo", *Artnodes Journal on Art, Science and Technology*, n.º. 28 (July 2021): 4, <https://doi.org/10.7238/artnodes.v0i28.386317>; Jithil Ponnann, "Estándar de Token No Fungible ERC-721", Ethereum Organization, accessed June 25, 2023, <https://ethereum.org/es/developers/docs/standards/tokens/erc-721/>

4 Betsi Bautista, Fiorela Mendoza, Luis Fernando Izquierdo Lozano, and Alberto Carlos Mendoza de los Santos, "Los NFT en el comercio electrónico y su impacto en el arte digital", *Revista de Investigación Multidisciplinaria CTSCAFE* 6, n.º. 16 (March 2022): 31, <http://www.ctscafe.pe/index.php/ctscafe/article/view/190/187>

5 Shermin Voshmgir, *Token Economy: How the Web3 reinvents the Internet* (Luxemburg: Token Kitchen, 2020).

6 Sebastián Heredia Querro, *Smart Contracts: Qué son, para qué sirven y para qué no servirán* (Buenos Aires: Editores Información Jurídica, 2020), 195.

7 Houser and Holden, *Navigating the Non-Fungible Token*, 897.

Along with transforming the information into a token, this asset is assigned a hash, which consists of “a mathematical algorithm that transforms any arbitrary block of data into a new series of characters with a fixed length”⁸. The hash is a number that represents the information contained in the digital file, such as the date of issue, transaction, tokenized content, etc. Due to this hash applied to NFTs, it can be stated with certainty that no two identical NFTs exist⁹. Therefore, this hash is a digital identifier for each token minted worldwide. It allows them to individualize them despite the common characteristics that all NFTs have.

Additionally, the NFT is subjected to an encryption process consisting of: “the act of putting information into a special code, especially to prevent people from looking at it without authority”¹⁰. In other words, not only is the NFT perfectly identifiable by the code it has, but this unique number is hidden from those who do not have the decryption key, giving greater security against counterfeiting.

Finally, the NFT registration system is essential for its verification. All the information in the digital document, including the identification hash, is called a block. A block is an information container; each time a transaction is carried out¹¹, a block is created and connected to the previous one, generating a chain of links called a blockchain or chain of blocks, which is nothing more than a registry system or database managed by those who are part of it. Thus, the present and previous owners of the NFT can be known since each transaction block will be connected to the last one.

It is crucial to emphasize that the registration of an NFT on the blockchain is essential for its verification process, but it is not a feature that makes it unique. The non-replicability of an NFT, as previously mentioned, is dictated by the line of code generated through Hashing. While this line of code makes the NFT unique, the blockchain serves to verify said uniqueness and prevent counterfeiting. In short, an NFT is a digital document representing specific information or value, which contains a number that cannot be replicated and can only be opened thanks to an unlocking key. These NFTs are registered in a book or digital database called a chain of blocks, which always allows their verification.

The fact that NFTs have a hash or unique identification code, which means they are subjected to an encryption process, is the justification to affirm that all minted NFTs are unique and differentiable from others, verifiable by the

8 Rajeev Sobti, and Ganesan Geetha, “Cryptographic hash functions: a review”, *International Journal of Computer Science Issues* 9, n°. 2 (March 2012): 461, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=85abc4805adb741b0f8c962794d2ab4dac975c5f

9 Houser and Holden, *Navigating the Non-Fungible Token*, 899.

10 Oxford Learner’s Dictionaries. *Definition of encryption noun*. <https://www.oxfordlearnersdictionaries.com/us/definition/english/encryption?q=encryption>

11 Houser and Holden, *Navigating the Non-Fungible Token*, 900.

blockchain registration, even when there are two or more NFTs that have been tokenized from the same previous information. Based on this characteristic, it has traditionally been stated that, because NFTs are unique, they are irreplaceable goods since no two are the same. Furthermore, since the irreplaceable concept has been assimilated into the idea of non-fungible, these tokens are perceived as non-fungible objects¹².

This notion that justifies the name of this cryptoactive is based on an erroneous presumption, on the idea that every unique asset is automatically and irreplaceable and, therefore, not fungible. To demonstrate the falsity of this reasoning, it is necessary to understand the concept of fungibility and determine if all NFTs are always irreplaceable and non-fungible assets.

3. ON THE FUNGIBILITY OF ASSETS

In Law, things are classified to determine the regime and applicable rules. Some classifications obey the nature of the item, such as real estate; others are related to the subjects or the context in which they are immersed, such as commercial goods. The classification concerning this article corresponds to the fungibility of the assets that, as explained below, should be understood as the liberating power of an obligation that a thing has.

Fungible comes from the Latin word *fungi*, which means to perform a function¹³. This is important because the classification refers to the utility a good fulfills and not necessarily all its qualities. Fungibility can be understood as the power of substitution of things¹⁴ or an equivalence relation between two things¹⁵. At first sight, the understanding enunciated in the previous section is correct. That is, fungibility entails the ability of an object to be replaced.

In this sense, a fungible good can be exchanged for another if it maintain an equivalence relationship¹⁶. The fungible good par excellence is money, insofar as any representation of a currency can be replaced by another equivalent of the same value or that fulfills the same function, such as banknotes, even when they are not of the same quantitative denomination.

12 “Non-fungible tokens (NFT)”, Ethereum Organization, accessed June 25, 2023, <https://ethereum.org/en/nft/>; Michael Murray, “NFT Ownership and Copyrights”, *Indiana Law Review* 56, n.º 2 (2023): 369, <https://heinonline.org/HOL/P?h=hein.journals/indlr56&ci=370>; Qin Wang, Rujia Li, and Shiping Chen, “Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges”, *arXiv Cornell University* 3 (October 2021): 2, <https://doi.org/10.48550/arXiv.2105.07447>; De-Rong Kong, and Lin, Tse-Chun, “Alternative Investments in the Fintech Era: The Risk and Return of Non-fungible Token (NFT)”, Elsevier (August 2021): 11, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3914085#paper-references-widget; Michael Dowling, “Is non-fungible token pricing driven by cryptocurrencies?”, *Finance Research Letters Elsevier* 44 (January 2022): 1, <https://www.sciencedirect.com/science/article/pii/S1544612321001781>

13 Luis Parraguéz Ruiz, *Régimen Jurídico de los Bienes* (Quito: Ediciones Iuris Dictio, 2015), 109.

14 Humberto Pinto Rogers, *Curso básico de Derecho Civil. Derecho Privado I, Tomo III* (Santiago de Chile: Librería Monte Sarmiento, 1972), 35, cited in Parraguéz, *Régimen Jurídico de los Bienes*, 109.

15 Luis Claro Solar, *Explicaciones de Derecho Civil chileno y comparado* (Santiago de Chile: Editorial Jurídica de Chile, 2015), 155, cited in Parraguéz, *Régimen Jurídico de los Bienes*, 109.

16 Cornelia Muntean, “Considerations on Classification of Good in Fungible and Non-Fungible”, *Contemporary Readings in Law and Social Justice* 4, n.º 2 (2012): 412, <https://heinonline.org/HOL/P?h=hein.journals/conreadslj4&ci=1>.

Now, this equivalence does not originate in a natural and empirical analysis of the thing in question and of every one of its qualities; correspondence should be understood as something other than equality or identity¹⁷. Because, in the strict sense, there are no two completely equal things in nature, each physical and digital entity can be differentiated and individualized, even though the differences it holds concerning other items of its kind are challenging to pin down.

Returning to the example of banknotes, even though they may have the same denomination or issuer, each banknote is a unique entity, be it at least by a microscopic difference in size. If it were a strictly empirical test, the result would be that everything is a unique and non-replicable entity, making the classification of not fungible meaningless. Consequently, it is necessary to approach it from another perspective.

Instead of saying that things are empirically the same, it's more accurate to talk about them as legally indistinguishable, as one fungible item is considered equivalent to another based on its societal worth and economic use¹⁸, meaning the role it serves within a community. If several objects can fulfill the same social or economic role, we can talk about fungible goods, otherwise, non-fungible things.

Going back to the example of money, commonly, the representative bills of a currency are fungible because they can be substituted for each other if they fully cover the amount determined by the obligation. If a person owes one hundred dollars, this bill may be fulfilled with a hundred-dollar bill or enough smaller denomination bills to reach the required amount since any can fulfill the economic function of another of the same class and quality. These assets have the liberating power of a legal obligation¹⁹, even if one of those has a unique but irrelevant characteristic for the obligation that can help to individualize it. To understand this, it is necessary to give an approach to the definition of obligation and how a thing can free a subject from it.

Legal obligation can be understood as any legal link by which a person must perform a service in favor of another²⁰. An obligation is a link or tie by which a person must act, that can consist of giving, doing, or not doing. Furthermore, that is executed using a thing, a matter of obligation. The liberating power entails the capacity of an item so that a subject can comply with the service or act due. Consequently, the link is terminated, freeing the debtor from the bond.

17 Parraguéz, *Régimen Jurídico de los Bienes*, 110.

18 Biondo Biondi, *Los Bienes* (Santiago de Chile: Ediciones jurídicas Olejnik, 2019), 80, cited in Parraguéz, *Régimen Jurídico de los Bienes*, 110.

19 Parraguéz, *Régimen Jurídico de los Bienes*, 110.

20 Jorge Camacho, *Obligaciones* (Bogotá: Pontificia Universidad Javeriana, 2005), 3; René Ramos Pazos, *De las obligaciones* (Santiago de Chile: Editorial Jurídica de Chile, 1999), 10-11; Antonio Fayos Gardó, *Derecho Civil: Manual de Derecho de Obligaciones y Contratos* (Madrid: Dykinson, 2018), 12.

Fungibility is a classification that is evaluated based on other assets. In this sense, if thing A allows to comply with the act as much as thing B, C, etc., it can be said that A is a fungible good. On the other hand, if only A complies with the characteristics required by the obligation and B, C, etc., do not, then A is a non-fungible asset. In short, a fungible asset is a replaceable thing in a particular context called a legal obligation, rather than a permanently replaceable item.

For this reason, as expressed by Cornelia Muntean:

Fungible goods are those that can substitute each other in performing an obligation; [...]. Non-fungible goods cannot substitute each other to absolve the debtor; in other words, they are considered in their individuality and cannot substitute each other [...]²¹.

The substitution is not about every single characteristic that a thing can naturally have but rather than the qualities considered in the context of an obligation. Although there are authors who recognize the modality of objective fungibility, that is, by its nature, they even accept the fact that the will of the parties can determine the ability of a good to be replaced beyond its core and that this consideration or stipulation is what would give the value or utility to the interest in the question. Therefore, when distinguishing fungible and non-fungible goods, the contractual or legal prevails over the natural or empirical²².

Based on what is mentioned in this section, denying the name of non-fungible tokens is possible. The NFT name has been created in an absolute and unconditional sense as if they were always non-expendable goods. On the other hand, fungibility is relative to the obligation, and even when objective fungibility is recognized as a subcategory of this classification, it will not prevail against a contractual stipulation or a legal prescription, giving the possibility that any asset that could have been considered non-fungible could become fungible and vice versa²³.

The fungibility must be determined by the possibility of a thing being substituted in an obligation and not by the convergence of every one of its natural qualities in another object. That is why, it can be affirmed that the fact that a thing is unique does not automatically make it irreplaceable and non-fungible. And, as a better demonstration, an example of a good that, being unique and irreplicable, is not usually given the qualification of non-fungible is presented below.

4. BITCOINS AND NFTS ARE FUNGIBLE CRYPTO ASSETS

Although NFTs have characteristics that differentiate them from other crypto assets, the quality of being unique, irreplicable, and identifiable is not exclusive

²¹ Muntean, *Considerations*, 1.

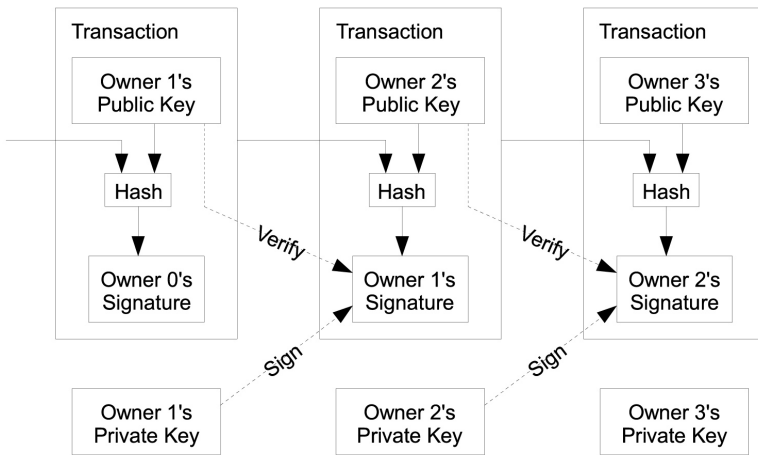
²² *Ibid.*, 5; Parraguéz, *Régimen Jurídico de los Bienes*, 110.

²³ *Ibid.*, 3.

to them. A clear example of this is a cryptocurrency called Bitcoin. In the document called “Bitcoin: A Peer-to-Peer Electronic Cash System”²⁴, the so-called creator of this technology, Satoshi Nakamoto, describes what a Bitcoin is and presents an illustration of how it works, as follows:

2. Transaction

We define an electronic coin as a chain of digital signatures. Each owner transfers the coin to the next by digitally signing a hash of the previous transaction and the public key of the next owner and adding these to the end of the coin. A payee can verify the signatures to verify the chain of ownership²⁵.



Source: made by Nakamoto Satoshi, 2024.²⁶

As can be seen, Bitcoin is a series of tokens called electronic signatures, which are applied to each transfer with a number produced by a mathematical algorithm called “hash”. The information of the electronic signatures of the transferor and the acquirer, together with the hash, are compiled in an information unit or block. In addition, both the signature and the hash are recorded sequentially each time a transaction is conducted, producing a chain of blocks that is perfectly verifiable by its administrators.

Bitcoin is fundamentally a chain of digital signatures of the involved parties and the unique hash applied to every transaction. For these reasons, it is fair to say that every Bitcoin minted is irreplicable and one-of-a-kind. Despite its

²⁴ Satoshi Nakamoto, “Bitcoin: A Peer-to-Peer Electronic Cash System (BITCOIN)”, accessed June 25, 2023, <https://bitcoin.org/bitcoin.pdf>.

²⁵ Ibid.

²⁶ Ibid.

distinctiveness, Bitcoin is not commonly recognized as a non-fungible asset. The fungibility of Bitcoins has a simple reason: even though each minted Bitcoin is unique, in most cases, all Bitcoins fulfill the same socio-economic function, that is, being a financial asset or a currency, depending on the subject, and can be replaced by another of the exact nature to comply with the legal obligation.

Bitcoins and NFTs are very different due to their issuance protocol²⁷, ecosystem, form of validation²⁸, or the common classification that is given to them in the crypto world, such as payment tokens or asset tokens. However, they both are unique and irreplicable due to their line of code. It seems absurd to grant only one of these crypto assets the status of non-fungible based on a characteristic that both shares.

Bitcoin is the best demonstration that a unique object can be fungible, given that the specific obligation can prescribe a set of characteristics other than the element that differentiates the thing, which in the case of NFTs and Bitcoins are the hashes they contain. In this section, Bitcoin has been mentioned as an example of a unique and, at the same time, replaceable thing in the context of an obligation. But, here, any unique asset could be mentioned, as is the case with other cryptocurrencies such as Ethereum, coming from the same ecosystem of NFTs. Or, even every single item that has a specific number of identifications such as a car chassis with a Vehicle Identification Number globally accepted.

Despite being unique, Bitcoin does not ordinarily have the quality of non-fungible due to its function in the contracts. Now, it is only sometimes a fungible good. Again, this category is related to the obligation that may also require a specific Bitcoin or the magnetic medium where it is stored to release the obligation bond to the debtor, making Bitcoin a non-fungible item for that specific contract.

Along the same lines, no technical or legal barrier prevents NFTs, in general, from fulfilling the same socio-economic function in a contract, making them potential fungible assets. In the case of tokenizing assets such as company shares, the hash of the token that contains the shares is likely to be irrelevant to the buyer, whilst the company from which it is derived is essential. In the case of art NFTs, the buyer may be interested in obtaining a representation of a particular work, regardless of the unique identification code. In turn, the opposite hypothesis could occur: that an individual is interested in a specific token. In this sense, it can be affirmed that cryptocurrencies, NFTs, and any

²⁷ Houser and Holden, *Navigating the Non-Fungible Token*, 899.

²⁸ Fahad Saleh, "Blockchain Without Waste: Proof-of-Stake", *The Review of Financial Studies* 34, n°. 3 (March 2021): 1156-1157, <https://doi.org/10.1093/rfs/hhaa075>.

other asset that may enter legal traffic are potentially fungible or non-fungible. The classification in which they fit will depend on the obligation to which the crypto asset is subject.

The reader may wonder what a contract could look like in reality. Let's imagine that the Louvre Museum decides to issue a single NFT for each physical piece of art it possesses, such as Hammurabi's Code or the Venus de Milo. If a collector approaches to buy an NFT from the newly issued collection, one might ask, which of the NFTs from the pieces could be used to fulfill the obligation? The answer is both, as the collector is interested in acquiring a work from the collection. Even though the NFTs representing Hammurabi's Code and the Venus de Milo are unique, non-reproducible and no further representations have been issued, they are still considered perfectly fungible tokens for the purpose of this contract. This is because, in the context of this contract, they equally have the potential to replace each other.

The attitudes exhibited by clients in a market such as art can greatly vary. A buyer may be specifically interested in acquiring a piece from a particular artist, regardless of what that specific piece may be. Another client might be focused on obtaining an art piece, regardless of its provenance or subject matter. Yet, another user might be interested solely in a specific publication. These behaviors are all common scenarios in the art market.

When analyzing fungibility, the key aspect is not a category like payment assets or whether an item is unique and non-reproducible, but rather the specific obligation at hand. To assume that the uniqueness of an object automatically deems it non-fungible would inevitably lead to the conclusion that Bitcoin, Ethereum, or any car chassis are non-fungible, a claim that is challenging to assert unequivocally.

5. POSSIBLE CONSEQUENCES OF THE FUNGIBILITY OF NFTS

The reason for classifying assets is to determine the applicable laws. The norms corresponding to movable property are different from immovable property, the precepts of commercial goods of non-tradable ones. The NFTs are only sometimes non-fungible, which can depend on the rules used in the obligation they are immersed in. Below is a non-exhaustive series of consequences.

In the first place, any contract that involves the delivery of something could be mentioned. Any object of the same quality can be delivered if the good is fungible. Otherwise, the determined item must be provided. For NFT purposes, this could be a sale for a particular issuer or artist. Since the required conditions are the issuer and the asset is an NFT, the hash or algorithm that identifies it is irrelevant. On the other hand, if the contract specifies a particular NFT due to

its line of code, then the specific NFT must be delivered through a transfer on the blockchain, and the obligation cannot be fulfilled with another good.

A significant consequence of this classification involves the risk that the intervening parties assume in the face of the possibility of deterioration or loss of the thing, which, depending on whether it is a fungible good or not, will change the answer. Faced with an obligation that has remained unfulfilled due to an event that affects the thing's integrity, it is relevant to determine whether the debtor or the creditor assumes said burden²⁹.

Except for situations in which negligence operates, the exceptions that the Law recognizes and subsequent actions for damages against the person responsible, generally in the case of the loss of a consumable asset, the debtor bears the burden, as there would be other assets of the same kind that could replace the thing that the debtor intended to use to comply with the act due. A comparable situation occurs in the face of deterioration, as the object no longer has a medium quality. The debtor must assume the damage at his own cost, so he must deliver to the creditor another good of the same kind of medium quality, something else that can replace the first one in compliance with the service³⁰.

On the other hand, if the good is a specific individualized body and a non-fungible item, the general rule is different. The burden of the fortuitous loss of the subject matter of the obligation is now supported by the creditor because compliance with the provision becomes impossible, extinguishing the obligational link. In turn, in the event of deterioration of the non-expendable asset, the creditor assumes the burden, who must receive the specific asset with its unfavorable conditions³¹. All the above without prejudice to any action for damages.

Because NFTs are potentially fungible, depending on the obligation in which they are found, the consequences of the loss or deterioration of the thing will depend on whether it corresponds to a fungible or non-fungible asset. This loss or damage can be caused by a breakdown or destruction of the physical magnetic medium that contains the digital file. For this reason, the mishandling of the storage devices that include an NFT may lead to the obligation to deliver another good of the same quality, if it is a fungible good, or the extinction of the debt by destroying the item, if it is a non-fungible thing.

The action or claim that the creditor could articulate against the loss of the thing changes depending on its fungibility. In the case of fungible assets, the creditor can demand the delivery of a similar asset that can replace the

29 Susana Zusman Tinman, "La Teoría del Riesgo", *Derecho PUCP* 34 (April 1980): 79, <https://heinonline.org/HOL/P?h=hein.journals/derecho34&i=79>.

30 Cristián Andrés Papic Vargas, *Análisis crítico de la teoría de los riesgos general en las obligaciones de hacer* (Santiago de Chile: Universidad de Chile Facultad de Derecho, 2017), 15-17.

31 Papic, 17-19.

previous one. On the other hand, in the case of non-expendable assets, the requirement of the due thing becomes inadmissible, empowering an action for damages that repairs or at least lessens the damage caused³².

Only when the deeply rooted idea of perpetual fungibility of NFTs is dismantled can it begin to consider the different rules applicable to this cryptoactive without permanently granting it a regime to which it does not necessarily belong. This is because the applicable rules will depend on the obligational link in which the NFT in question is immersed, whether from a contractual, legal, or non-contractual source, in opposition to what the classical conception of NFTs could affirm, that is, an unequivocal way of understanding the NFT in a legal field.

6. VALUE AND APPLICATION OF NFTs

The notoriety that often preceded NFTs during their initial surge was precisely derived from the perception of them being non-fungible. People understood these tokens, considered unique and non-reproducible, to possess an inherent and lasting value, in addition to the notion that a unique asset could not be replaced. However, the ability for an asset to be replaced, or its non-fungibility, is determined by the obligation tied to it, not by the nature of the item or the way it has been programmed. This led to a misunderstanding, particularly within the art market, causing the NFT boom to be based on a misconception that, regrettably, has had economic repercussions for countless individuals.

Realizing that an NFT is not necessarily non-fungible or irreplaceable allows shedding misguided perceptions about this type of crypto-asset and focusing on the genuine practical uses that such an object may hold. The fact of having a verifiable identification number that can be individualized at any time is the real added value of this cryptoactive. The change in the understanding of the NFT can alter the utility granted since it would no longer have the same added value. For this purpose, some applications of NFTs will be considered below.

According to the criteria of several of the authors cited in this article and the commonly known practice of NFTs, they have found their most significant utility in the art world. Given that any physical or digital information can be tokenized, any work of art could be subjected to this technology for its preservation in a magnetic medium or for the sale of copies of it certified by the issuer of the NFT. As each of these assets will always be identifiable, this would allow artists a better way to control the distribution of their creations. Ever since anyone who does not have those NFTs with the hashes issued by

³² Ibid., 4.

the artist could be said to be, at least in an apparent way, incurring into falsehood and plagiarism³³.

However, despite this being the most common practical application of NFTs, this market behavior has not been due to the reality of NFTs but to a misunderstanding of their nature. Suppose the NFT is always an identifiable asset. It has no competitive advantage against other digital document identification processes, such as the MD5 or SHA1 protocols currently used in public and private entities. Large companies and governments use it and have an extremely high degree of security in such a way that they are a simpler alternative to apply than creating an NFT. In addition, these encryption processes are much cheaper due to the electricity consumption, time, and money necessary for their generation. Thus, the practice of using the NFT in art is due more to a myth than to its nature.

Together with those above, the NFT is not an infallible tool for demonstrating authenticity since there is no technical barrier to a person who does not own a work or idea proceeding to tokenize it³⁴. It can serve as a tool against plagiarism if the author issues it, but it is not an irrefutable demonstration of property ownership.

In the opinion of the columnist, NFTs should have the same value as an unsworn statement, with the issuance and its content attributable solely to the issuer, given that the only thing that an NFT proves reliable is the tokenization of a document, the issuer of said token and the transfer line of the code line, the latter being foreign to the NFT and typical of the Blockchain. Unless you want to apply institutions such as Smart contracts to maintain a permanent flow of income, artists will likely benefit from simpler identification protocols such as SHA1 since they achieve the same objective at a lower cost. In the writer's opinion, this does not mean eliminating the NFT from the art world but rather leaving it as a residual tool and better promoting other identification methods.

As mentioned at the beginning, a token represents a value, so any object that must be identified in legal transactions could be subject to an NFT, which is particularly useful in private securities markets. NFTs can easily represent a share, participation, bond, security, and collateral, which can be transferred dynamically and expeditiously through the blockchain. This option will only be viable if there is adequate control of the partners and shareholders or the company's legal representative. Since then, this technology could be counterproductive. It could even be used in the market to sell goods such as real estate. In any case, the NFT entails a tokenization process, converting any physical or digital

³³ Cuesta, Fernández, and Muñoz, *NFT y arte digital*, 6.

³⁴ Trautman Lawrence, "Virtual Art and Non-Fungible Tokens", *Hofstra Law Review* 50, n.º. 2 (Winter 2022): 381, <https://heinonline.org/HOL/P?h=hein:journals/hoflr50&i=381>.

asset into a unit of information or block³⁵, which may contain, among other things, the property title of the thing. It is reasonable to think that houses, apartments, vehicles, computer equipment, etc., are sold through NFT and that your property title is in them. Of course, this and every section will warn of the uncertainty of the ownership of the good represented in the token. It is worth mentioning the problem of the solemnities that the law requires for the existence and validity of agreements, such as the elevation of a contract to a public deed, as the NFT, at present, does not comply with such, transforming it into nothing less than a simple preparatory act for actual contracts.

In other legal fields NFTs could be used. The New York Supreme Court has already notified a person accused of a criminal offense through an NFT called Service Token within a blockchain to which the defendant has access³⁶. It could also be used to issue public deeds by notaries; tokenization could be a fast and secure way of attesting to the existence of a document or information in front of the notary and that it can be verified at any time.

7. CONCLUSION

The NFTs are units of information that, due to the rules of their minting, allow them to be always perfectly identifiable and individualizable so that no two identical NFTs can exist. It is an innovative technology with many applications, but it must still be correctly understood. For example, Jack Dorsey's NFT, which sold for \$ 2.9 million, received less than \$ 10,000 offers³⁷.

The non-fungible token name has been commonly justified by the fact that each crypto asset is unique, which is true. However, it is a mistake to assume that any unique item is automatically irreplaceable and, therefore, non-fungible because the ability of an object to be replaced does not obey its empirical nature but rather the qualities that the thing is required to have within a particular context called legal obligation.

As stated in this article, it is not correct to affirm that an NFT, because of being unique, is always non-fungible. This because other assets share this characteristic and are not assigned such a quality, as is the case of Bitcoins cryptocurrencies, which, despite being as unique as NFTs, are considered fungible due to the socio-economic function they commonly perform.

35 Houser and Holden, *Navigating the Non-Fungible Token*, 896-898.

36 Olarte Moure, "Corte Suprema de Nueva York ordena notificación mediante token no fungible", *QM Weekly Digest*, July, 2022, <https://app-vlex-com.ezbiblio.usfq.edu.ec/#vid/corte-suprema-nueva-york-907304628>.

37 Jess Kaufflin, "Por qué nadie quiere comprar el NFT del primer tuit de Dorsey que se vendió por 3 millones de dólares", *Forbes*, April 16, 2022, <https://forbes.es/actualidad/153983/por-que-nadie-quiere-comprar-el-nft-del-primer-tuit-de-dorsey-que-se-vendio-por-3-millones-de-dolares>.

The fungible goods have different rules than the non-fungible ones, as is the case of the risk that is assumed by the deterioration or loss of the thing, the judicial and administrative actions that the creditor can exercise against the debtor, among many others. Once demonstrated that all NFTs could be fungible, depending on the obligation; the rules applicable to these must be determined according to each specific case.

Understanding the actual value of NFTs, that is, the ability to be identified and authenticated, it is possible to begin to visualize the benefits that this crypto asset can have. For example, being a mechanism against plagiarism, being a representative asset of a value such as the shares of a company or the ownership of an asset, in the use of legal procedures such as notification or the issuance of a public deed, among others. The foresaid because of its content and authenticity is always verifiable.

Of course, NFTs still present challenges, and there is no denying regarding the possible misuse that can be given to this tool. In addition, this essay has focused on the analysis of the fungibility category. There is still much to be researched and written about the legal consequences of the fungibility of NFTs in different legal systems, the possible benefits that it may have, and the future that lies ahead for NFTs in an environment of uncertainty in the crypto active market.

The NFT protocol is a technology with immense potential and utility. However, it is time to discard the idea that they are always non-fungible since this does not correspond to the legal reality of this crypto asset.

Therefore, as a final idea for this article, it is suggested to change the name of Non-Fungible Tokens to a more accurate term: Unique Identification Tokens or UIT. Given that this is its nature, units of information representing a value, or tokens, which are unique for all the data stored in their block and which, thanks to the decryption key and the hash it contains, can be identified, and always authenticated.