# NFTs: Ownership in the metaverse – the birth of a new concept

Ownership, a legal concept almost as old as humanity, is being tested by the advent of the metaverse. The staggering rise in popularity of non-fungible tokens (NFTs) demonstrates how much appetite there is for a solution capable of replicating the personal ownership enjoyed in the real world.

The advent of the metaverse, an always-online, persistent, spatial "second" world, represents a fundamental shift in our notion of digital frameworks and presence, but metaverses – literally, beyond the universe – are not entirely new concepts. Videogames like the 17-year-old game Second Life and more recent games such as Fortnite, Roblox or The Sandbox – a platform where users can buy virtual land and create, play and monetize their creations on the blockchain – may all be labelled early versions of immersive metaverses.

At its core, a metaverse is code: ones and zeros, overlaid with unfathomably vast amounts of data; a manufactured environment in which all assets are synthetic, created and experienced from within. In such a world, everything comes from code. From the clothes our avatars wear to the car we drive in, our "things" can only exist in the metaverse after being coded.

From a legal standpoint, our immersion in this entirely digital world poses a challenge to a number of legal concepts that have arisen out of the material world, including the fundamental concept of "ownership." Important questions, such as whether virtual assets qualify for "ownership," or whether new forms of ownership will emerge from the metaverse, are going to demand attention from users of the metaverse, and potentially from lawmakers, as the world transitions into virtual environments.

## Property and proprietary metaverse(s)

Ownership (or "property") is a legal concept that is almost as old as humanity. Prehistorians believe that it is the emergence, during the Neolithic period, of a sedentary life and agriculture that gave birth to the concept of property, a basis upon which our capitalistic societies continue to be run today.

Property rights of all sorts – in real estate, in shares of a corporation and in musical compositions, to take three examples – give their beneficiaries a monopoly over a resource. The recognition of this monopoly is generally seen as stemming from the idea that it gives the owner an incentive to invest in improving the property because it receives benefits from its use or sale. Accordingly, a "proprietor" or "owner" can exercise exclusive possession or control over an object.

Intellectual property (IP), in particular copyright, has been created to enable a similar reservation of rights for its beneficiaries. The companies building the metaverse are no stranger to this; as many other entertainment businesses, the architects of the metaverse use IP rights to protect and monetize their investment. In fact, there is a clear incentive for these businesses to build proprietary virtual worlds, where all that is created – software, graphic elements, characters and features – qualifies for IP protection.

This new world, in which "IP is everywhere," will present challenges and interesting legal issues for the users of the metaverse, whose expectations, forged in a world of brick and mortars, may not always transpose in the metaverse. After all, if I can own a car in real life, what stops me from owning the same in the metaverse?

## Ownership vs. licensing: A well-documented tension

Since the internet was invented, a number of landmark cases have illustrated how users of certain digital "goods" want the goods to replicate exactly the same tangible goods in the real world.

In *Usedsoft*, a case heard by the Court of Justice of the European Union (CJEU) in 2011, the debate regarding the legal capacity for software purchasers to resell their "used" software licenses on a secondhand market captured the attention of the entire digital world; could software licenses be resold or, rather, "novated"? In 2018, in *Capitol Records v. Redigi*, the U.S. Court of Appeal for the Second Circuit was asked the very same question in relation to users who wanted to sell their legally acquired digital music files, and buy "used" digital music from others at a fraction of the price currently available on iTunes. More recently, a Dutch company by the name of Tom Kabinet also took its case all the way up to the CJEU, to try and obtain a recognition that e-books could be legally resold, secondhand.

The outcome of these cases is well known: Software, digital films, digital music and digital books cannot be resold on a secondhand market, for they are not "owned" by their purchasers in the first place, but licensed.

With tangible items, there are two separate forms of property that can be exercised: There is the property of the tangible item itself, in the form of the paper, the disc, the plastic box, etc., while separately, there is also the intellectual property (i.e., copyright) in the book, music, software or film. By contrast to tangible property, IP can only be appropriated by the persons designated by the law as benefiting from the copyright (generally their authors). When a work loses its material element, such as when a book or a compact disc becomes nothing more than a file, there is no equivalent digital "property" in the file that can be acquired separately from the intellectual property. A digital file ultimately only comprises data in the form of zeros and ones, and data – or information – cannot be "appropriated" in the same way a physical object can be. Information and data, just like ideas, are free-flowing.

The three cases mentioned above illustrate the continuous tension existing between the expectations of users of digital items and the companies that are licensing them. In *Usedsoft*, the only decision where the CJEU did not entirely rule out the possibility of transferring secondhand software licenses, the dominant narrative was that it would be "unfair" not to allow the existence of a secondhand market, and an undue restriction of consumers' rights, which probably explains why the court went to such length to try and find an acceptable middle ground.

Today, the narrative that consumers may be unduly restrained keeps resurfacing and, while owners of IP rights have so far managed to successfully contain the idea that digital goods should be tradable, it will become increasingly difficult to convince the users of the metaverse that their assets merely exist by way of a limited metaverse end-user license agreement. As in the real world, users are far more likely to claim the right to "own" the virtual handbag, land or car they just "bought" in the metaverse.

Why not simply make it clear that metaverse items are in fact licensed? The solution is tempting but seems unrealistic. For users of digital items, limited licenses are often seen as an imperfect substitute for "ownership." This is further illustrated by several socioeconomic theories that have demonstrated our human attachment to ownership as a concept, including that of the "endowment effect." According to this theory, individuals place a higher value on an object that they already own than the value they would place on that same object if they did not own it (for example, if they merely received some limited controls over it). This theory, which seems widely accepted, could explain why digital items are so rarely advertised as being licensed, and so often presented as being "sold" to customers. In brief: Ownership sells, licensing does not, yet there is nothing to be "sold" in a virtual world, and that is the gigantic paradox that the metaverse users and builders will need to confront.

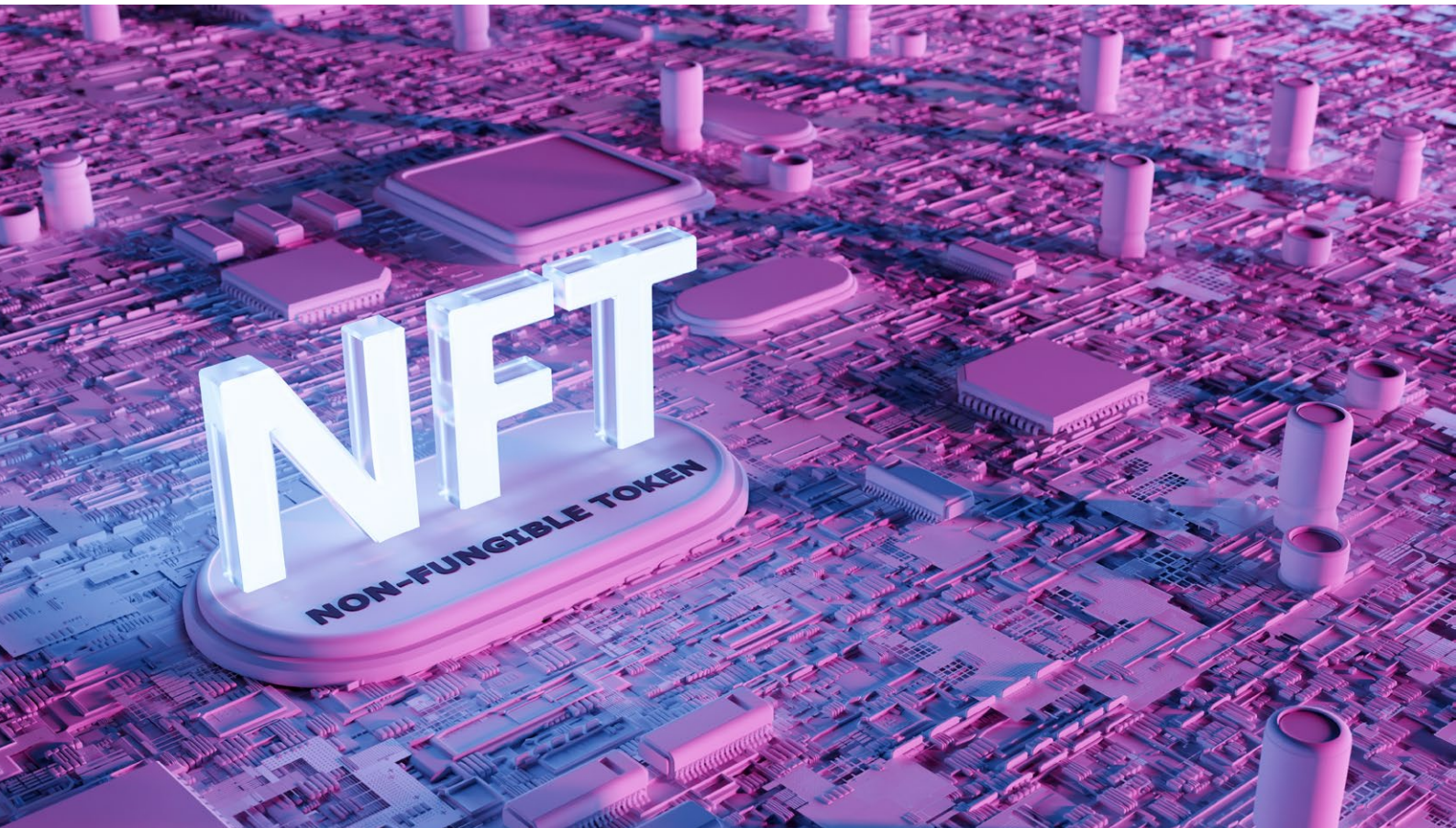
## Enter the NFT

The staggering rise in popularity of NFTs demonstrates, if anything, how much appetite there is for a solution capable of replicating the personal ownership enjoyed in the real world.

From a legal standpoint, the concept of NFTs is ingenious and yet very simple: If one cannot own a digital item made of free-flowing information, then let's find something else that may be "owned," separately from the intellectual property. For example, an unfalsifiable certificate of authenticity associated with that digital item. Authenticity certificates, issued by the item's creator in very small numbers, are indeed a very clever way of recreating scarcity and a sense of ownership and therefore of value, without the need to assign or transfer IP rights to the acquirer of the token. What is being traded here is a unique connection with the digital work and, most importantly, the much sought-after feeling of ownership, be it only of a token encapsulating a certificate.

This is where the NFT magic operates, where the millennium concept of property is once more reinvented, by being displaced from a tangible medium (disc, book, tape, etc.) to an intangible certificate. To think, notarial certificates of authenticity were already proposed by Usedsoft as a way to enable the reselling of software licences back in 2007 – a solution both remarkable and logical, and a promise of what was to come.

Today, the proponents of the secondhand market for digital goods are not alone in rejoicing: The whole industry is suddenly reinvigorated by the concept. Christie's and Sotheby's, two pillars of auctioneering, are enthusiastically selling NFTs of works that never before entered the sanctuary of these respectable houses for they could not be "felt" or made unique. From Beeple's "Everydays: the First 5000 Days" to drawings Andy Warhol made digitally, creations once banned from the auction market are being tokenized and making a remarkable entrance on the art market.



## Digital ownership reinvented?

If NFTs appear to be solving a lot of the problems that arose when trying to grant impossible ownership rights over digital items, including by embodying a clever resale right mechanism allowing the initial offeror of the NFT to participate in the profit generated by each resale, a bigger question is whether NFTs will fulfill our ownership expectations. An NFT does not confer a monopoly over a work, nor does it permit its holder to decide how the work will be used, distributed or shown. By the once-enjoyed monopoly of an art collector being displaced from that exercised over the object itself to that exercised over a certificate, it is our entire understanding of the concept of ownership that may be changing. What this shift is saying about our human values is both fascinating and ominous. Welcome to the "meta-propriety."

## Crypto-assets, in practice

In version 1 of this *Guide to the Metaverse*, we explained that respected legal commentators have suggested that some common law systems (English law in particular) may well have sufficient flexibility to expand the application of property law to certain types of purely informational crypto-assets. Since then, there have been two court decisions, in the UK and Singapore, that have established that NFTs may be capable of being property in their own right. In the UK, in an interim judgment,[10] the English High Court found that there was an arguable case that NFTs are property under English law, giving owners important proprietary remedies to enforce their rights over third parties. In practice, this means it is arguable that, distinct from the item it represents, the NFT token itself is capable of being owned. These developments are certainly positive for web3 advocates who see NFTs as the key to unlocking true ownership over digital assets.

Importantly, this property right is in respect of the token itself, rather than the off-chain asset to which the token relates. This nuanced distinction is critical and often not appreciated by the average NFT purchaser, leading to potential confusion over what purchasers are "buying." In the case of artwork NFTs, while the token itself is freely transferrable and tradable as a distinct form of property, the NFT owner's right to use the associated underlying artwork will be governed by established intellectual property principles.

## Intellectual property: What IP rights are granted to NFT holders?

No two NFT projects are the same and what rights are granted to purchasers vary widely. We typically see three broad types of IP treatment for NFT projects:

- No IP rights granted. A significant proportion of NFT projects we have reviewed make no reference to IP rights and grant no express permissions to use the underlying IP. From a legal perspective, purchasers in these instances are purchasing a service from the seller in the form of an authentication of a work of art.

  The value of the NFT comes from the verified provenance it guarantees through the blockchain (i.e., that the NFT can always be traced back to having been issued by the artist).

- IP license granted. Some NFT projects often grant purchasers express license rights to use the underlying works in particular ways. Often these licenses are carefully drafted and provide limited rights for the NFT holder to display the work associated with their NFT for personal purposes. However, inspired by the iconic "Bored Ape Yacht Club," there are a rising number of creators taking a different approach to intellectual property and starting to give NFT holders commercial usage rights over their NFTs.

  "Bored Ape Yacht Club," one of the most successful NFT projects to launch in 2021, gives holders an "unlimited, worldwide license to use, copy, and display the purchased Art for the purpose of creating derivative works based upon the Art." Some holders have taken full advantage of this, with Adidas sporting a Bored Ape as its official web3 avatar and itself launching a derivative NFT; Universal Music's 10:22PM label signing a new group called Kingship, consisting of four characters from "Bored Ape Yacht Club;" and one ape being signed with CAA for future commercial opportunities.

- IP rights assigned. In rare circumstances, we have also seen NFT projects seek to transfer legal ownership of IP through NFTs. When the NFT is traded on the secondary market, the seller assigns all of their IP rights in the underlying work associated with the NFT to the purchaser.

  Giving away IP rights to NFT holders is a credible idea in principle, but it does inadvertently trigger various legal issues. The vast majority of people buying NFTs are not used to conducting due diligence on their purchases, and the marketplaces for NFTs are simply not set up to accommodate this. Conducting chain-of-title analysis of digital assets that are traded like stocks is near impossible.

The key takeaway from this is that purchasers of NFTs should understand what they are "buying." Equally important is for those tokenizing artwork to be careful in how they market and advertise their NFTs. Advertising the "sale" of artwork could be potentially misleading if all the NFT creator is offering is a digital certificate. As we learn from behavioral economics and the endowment effect, the temptation might be strong to advertise NFTs as nothing less than a "sale," but the consequences of doing so might be fraught with serious legal issues.

## The (smart) contract issue

A key feature of NFTs is that they are (or ought to be) liquid and thus easily tradable. This is what gives them their apparent value and why we are seeing digital assets being sold and bought for millions. But where the NFT is nothing more than a license, how liquid can the license really be? A typical license agreement invariably offers some form of warranty or indemnity from the licensor to the licensee, against anything disturbing the quiet enjoyment of the rights granted, but if the NFT changes hands 20 times, who will stand behind the content?

Another challenge of using NFTs to "sell" certain limited licenses or usage rights over digital artwork is knowing how to effectively "attach" the contract or terms and conditions to the NFT such that the purchaser (and future purchasers) of the NFT is bound by them. A related question is, how can a seller or marketplace easily enforce the terms of those contracts against the applicable purchaser? Sellers and marketplaces have to walk a fine line between ensuring they impose appropriate terms on purchasers of NFTs and ensuring those NFTs can be traded easily and with little formality. The more sophisticated the usage rights are, the more critical it will be to ensure that the seller imposes robust contractual restrictions and remedies on purchasers. Sellers will need to bear this in mind when choosing the marketplace through which to sell NFTs.

## The hosting issue

We have established already that NFTs comprise information that relates to another asset. More often than not, the asset to which an NFT relates is stored "off-chain." Due to capacity issues, it is too expensive and resource-intensive to host content on a blockchain. Typically, only basic pixelated artwork is hosted on the blockchain itself (such as CryptoPunks, an NFT collection of 10,000 profile pictures). Hosting the asset on the blockchain itself is recognized as being as close to full decentralization as possible; the asset will be available permanently for so long as the supporting blockchain continues to operate.

The majority of NFT projects host the associated assets on third party servers. The smart contract to each NFT (or at least each Ethereum ERC-721 standard NFT) contains a universal resource identifier (URI) that provides for the online location of the associated NFT asset. The URI operates like a traditional hyperlink to a location from which the NFT smart contract pulls the relevant asset.

Certain projects (particularly those launched by web3 native brands) choose to use decentralized or distributed forms of hosting for their NFT assets (such as IPFS or Arweave) that operate on a peer-to-peer basis. While this is currently the best alternative to on-chain storage for a decentralized solution to storage, it does raise a number of issues, particularly for rightsholders. Once content is uploaded to IPFS, it is almost impossible for it to be removed, leading to potentially significant consequences in cases where the asset infringes third party IP.

The alternative that many brands choose to implement for their NFT projects is good, old-fashioned, centralized storage. Naturally this gives brands the best form of control over their assets, but if a brand can simply take down or change the NFT work, this does arguably undermine the decentralized promises of web3 and democratization of digital content. Indeed, this is precisely what web3 is trying to prevent. Nevertheless, to what extent the masses will expect, demand or care about this level of decentralization remains to be seen.

## Regulation, regulation

There is no specific regulation yet regarding NFTs, but the carefree attitude of early adopters should not serve to elude the reality: NFTs are regulated exactly like any other type of asset you can buy online. As transaction volume grows, we suspect there will be greater scrutiny applied by regulators, authorities and watchdogs. While the issues will be as numerous as there are NFTs, three compliance issues deserve a special mention.

1. **Securities regulation**. As described above, NFTs have been designed to carry a number of similar characteristics to a financial asset. Although they are not fungible, NFTs have been encouraging, and used as a tool for, speculation. Consequently, it is possible that they may come to be regulated within financial regulation, but the question is still open. One of the primary factors that will determine whether an NFT is a security is the purpose for which it is being created and sold. If the NFT is being created and sold as a way for members of the public to earn investment returns, then that type of NFT is more likely to be considered a security. Those considering minting an NFT should take advice before doing so to avoid unintentionally breaching financial regulatory law. Even the way in which the NFT is described and marketed can influence the extent to which it may be considered falling within the scope of securities law, and we foresee some marketplaces and sellers coming unstuck if they do not consider this seriously.
2. **Consumer law**. NFTs are offered to the public; they are not restricted to professional buyers only. Accordingly, marketplaces and sellers are subject to local consumer law, which requires them to operate with a high level of transparency and brings them within the scope of consumer protection laws on unfair commercial practices, including the right for consumers to withdraw, to receive appropriate information about the NFT in their local language, to subject the NFT sale to their local law, etc.
3. **Tax law**. The nature of the transaction will determine its tax status (is it a sale or a license, a national or an international transaction, B2C or B2B, etc.?). The tax treatment will also be different for marketplaces, sellers and purchasers. With the high fluctuation in prices, it will be critical to obtain proper tax advice to understand your exposure to sales and other taxes.

In conclusion, NFTs may be fun experiences, giving people special access to something they personally value (like an unreleased track by your favorite band, or a digitally signed artwork), but those looking to make a solid investment should understand the risks and limitations attached to NFTs and not let the sirens of digital ownership replace a robust due diligence exercise.

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