Kluwer Copyright Blog

The Rise of Non-Fungible Tokens (NFTs) and the Role of Copyright Law – Part II

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Part I of this post introduced the recent emergence of Non-Fungible Tokens (NFTs), explained their basic characteristics and what they can represent. In this Part II we discuss copyright law aspects of NFTs, with a focus on the EU copyright *acquis*.

Where Copyright Law meets Blockchain

As anticipated by the examples in Part I of this post, NFTs are used in a variety of ways that have potential implications for copyright. From that perspective, they are the latest example of the promises and challenges of blockchain-based systems for this area of law.

As noted in a 2018 article by two of us, authors can publish works on a blockchain-based system creating a quasi-immutable record of initial ownership and encode smart contracts to license the use of works. Remuneration may happen on online distribution platforms where the smart contracts reside. In theory, such an automated setup allows for the private ordering of copyright. Blockchain technology, like Digital Rights Management some 20 years before, was presented as an opportunity to reduce market friction, and increase both licensing efficiency and the autonomy of creators. However, as noted in that article, many of the old problems remained even in the face of this new technology. It was noted that it would be challenging to reconcile the hyper-fragmentation of copyright law — as regards for example territoriality, subject matter, exclusive rights and

context-based exceptions — with the impersonal, borderless, standardized, and automated regulatory solution offered by blockchain technology.

During the first cycle of blockchain hype, multiple projects popped up promising to upend existing copyright-based business models, from registration of works to individual and collective licensing. Some then-prominent examples included: dot blockchain; jaak, the joint venture between the collecting societies ASCAP, SACEM, and PRS for Music; Imogen Heap's Mycelia; Ujo Music; and EY and Microsoft's blockchain solution for content rights and royalties management for the media and entertainment industry.

To the best of our knowledge, none of these (nor any other similar project) was particularly successful. Many are no longer in existence (Jaak is the latest casualty) and the initial excitement for the technology in the field of copyright exploitation has mostly quietened down. One notable exception is the development and ongoing work of a Blockchain Task Force by WIPO, part of a push to use this technology for registration of IP rights and strengthen the protection of unregistrable IP rights, such as copyright (see here). Along similar lines, the EUIPO is also developing an IP register in Blockchain project, aimed at trademarks and designs.

The reasons for the initial enthusiasm and the later disillusionment around the use of blockchain for copyright are related. Blockchain-based systems are great technologies to manage copyright metadata in a scalable and transparent manner. The system is useless if it cannot rely on or ensure high-quality metadata. But the problem of metadata quality is more institutional than technological. As such, the technology is only useful if the conditions of its use are present. This does not seem to be the case in the copyright space.

Copyright Law and NFTs

It is against this backdrop that NFTs emerged, raising anew many of the same copyright law questions. Despite their novelty, there is already relevant legal analysis of NFTs from a copyright perspective, including a trilogy of posts by Andres Guadamuz, as well as this piece by Ioanna Lapatoura on the IPKat. (For perspectives outside EU law, see also here and here).

In his trilogy, Guadamuz has addressed three interesting aspects of NFTs. First, he discussed fundamental misconceptions on the relationship between NFTs and copyright. After articulating the differences between scarcity, fungibility, and rivalrousness, he sets out to clarify that NFTs are not synonymous with ownership titles of (copyrighted or not) works, but rather simply "a cryptographically signed receipt that you own a unique version of a work". In his second post, he discussed the tokenization of public domain works and the unauthorized tokenization of protected works, approaching the phenomenon as a type of copyfraud. (On NFT scams, read further here.) Finally, the third post offered a typology of NFTs, further attempting to shed light on the actual scarcity and ownership of the tokens and of the digital tokenized works themselves. In her IPKat piece, Lapatoura offered a detailed discussion of ownership and infringement of copyright in the NFT environment.

It is not possible to cover all these issues here. In the following, we will focus our analysis on specific issues of: (a) ownership, digital exhaustion, and resale; and (b) collective rights management.

(a) Ownership, digital exhaustion, and resale

Based on our earlier analysis, one central question NFTs give rise to concerns *copyright* ownership of the digital object attached to the token. For the purposes of our analysis, we assume that the digital object in question is susceptible to copyright protection under EU law: it is either a work or a digital copy of a work. Does the sale of an NFT transfer the copyright ownership of the associated object or file? Does such sale amount to an act of distribution under EU copyright law? If yes, is such distribution subject to the doctrine of exhaustion or the regime of resale rights for works of art?

Due to their technical characteristics, NFTs do not easily match existing conceptions of ownership as they relate to digital objects. This has important legal implications as regards **transfer of copyright ownership**.

First, the seller of an NFT may not have a proprietary interest in the underlying digital content. In other words, she may not be the copyright owner of a work attached to an NFT. There are already multiple high-profile cases of unauthorised NFT auctions of museum collections, such as the Rijksmuseum, Cleveland Museum of Art, and Art Institute of Chicago. In this scenario, as was already the case with blockchains past, the minting and sale of NFTs might give rise to claims of misattribution (or "copyfraud") and violation of moral rights by the actual copyright owner against the seller (as discussed here). For the remainder of this analysis, we assume that the seller of an NFT is also the copyright owner of the underlying work expressed in a digital object.

Second, the purchase of an NFT grants the acquirer at best a quasi-ownership interest in a set of information or metadata linked to copyright-protected content. Unless (a) the transaction is accompanied by contractual stipulations regarding the transfer of the work attached to the NFT that are valid under the applicable national law, or (b) the applicable national law somehow configures an NFT transaction (absent other contractual stipulations) as the transfer of the linked-to work, then the acquirer of an NFT obtains only a right over the metadata pointer to a digital object. She does not obtain ownership or exclusive rights on the work or copy. For instance, the work attached to an NFT may still be viewed on YouTube, downloaded, or tweeted by third parties without infringing on the rights of the NFT owner.

This conclusion is reinforced by the terms of service of some digital intermediaries that enable NFT minting and transactions. In particular, these terms may specify that the purchaser of an NFT does not acquire specific rights over the linked content by default (see e.g. here). At the same time, some services, e.g. Bluebox, expressly advertise their model as allowing for the "trade" of copyrights.

Finally, since an NFT basically provides a link to content stored elsewhere, there are already serious issues with the integrity of such links (see Part I). In other words, purchasing an NFT might just buy you a broken link (see also here). (To be sure, as noted by Guadamuz, in some cases the digital artwork or copy thereof is uploaded to the blockchain, as opposed to being hosted in another off-chain website. But these are rare cases due to the prohibitive costs associated with this approach.)

In the field of copyright law, in all the scenarios above, the acquirer of an NFT associated with copyright-protected content (e.g. a digital artwork) will often have no legal ownership or right to

enforce copyright interests over that content.

Similarly, in EU law at least, the offer for sale of an NFT attached to a work is not covered by the **right of distribution** (art. 4 InfoSoc Directive), with the consequence that such right is not exhausted by the virtual sale either. Indeed, after the CJEU judgment in *Tom Kabinet*, the argument for **digital exhaustion** would already have been difficult to make even if the NFT was itself a representation of a digital work. This is because outside the specific subject matter of software, the EU right of distribution (subject to exhaustion) appears to apply only to tangible objects, whereas the right of communication to the public in art. 3 InfoSoc Directive (not subject to exhaustion) applies to online dissemination of protected content. Considering that NFTs are metadata pointing to a (copy of a) work, the digital exhaustion argument appears untenable.

Sellers of NFTs might also set their own terms, which nevertheless have limited relevance from a copyright perspective for the purpose of online exhaustion. 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."

These terms of use are clearly restrictive for NFT purchasers and expressly distinguish the NFT and the underlying work. (Although the terms do not expressly mention it, it is noted that the purchase of the autographed tangible copy that the successful acquirer received remains subject to exhaustion.)

Another notable issue related to the tokenization of artworks arises from the harmonised ***droit de suite*** regime in EU law. Under Directive 2001/84/EC, authors of artworks are granted an unassignable, inalienable and unwaivable right to receive a royalty for any future resale(s) of their artwork, provided the resale meets the requirements set out in the Directive ("resale right"). These requirements are related to the contribution of art market professionals to the resale, the elapse of three years since the original acquisition of the artwork, and a minimum threshold for the purchase price of the artwork.

Like with distribution, the concept of *droit de suite* is generally based on the transfer of ownership of works of art as physical objects (see e.g. Recital 2 of the Directive). As such, this legal regime is not applicable to the *resale of NFTs*. No doubt, however, some of the assets NFTs link to will have the required "objecthood". But that does not mean that these tangible items will always meet the requirements of the Resale Rights Directive. On the one hand, the vinyl records and backstage tickets for Kings of Leon do not fit into the concept of artwork that might be subject to the directive (see art. 2(1)). On the other hand, a signed copy of a visual artwork (e.g. Mike Shonida's) might be eligible for the resale royalty.

In the cases where the object associated with the NFT transaction meets the requirements of the Resale Rights Directive it may very well be that the transfer of the NFT also amounts to a simultaneous sale of the artwork, provided all other legal requirements are met. If that is the case, *resales* or artworks occurring in tandem with NFT transactions may trigger the resale right and associated remuneration. To be sure, this presupposes that the owner of the on-chain NFT is also

the owner of the attached artwork off-chain, with legal rights to resell it. If the on/off chain ownership of NFT/artwork do not align, then the resale right regime does not apply.

Still, **even if the resale right and royalty do not apply *as a matter of law*, a similar mechanism may apply as a matter of code**. In the current highly intermediated environment of NFT minting and transactions, the resale conditions of NFTs (and of the digital artworks they refer to) appear to emerge *as a service*. This means that during the minting process of an NFT, platforms offer the possibility for authors to receive a 'commission' for each resale. For instance, the OpenSea platform has established the following process: it provides the possibility for developers who create their own marketplace on the OpenSea platform to determine the commission percentage which will then be attributed to the NFT creators. According to the Foundation app, NFT creators receive a 10% 'royalty' for every resale because "Foundation has an agreement with OpenSea that all secondary market sales will receive the 10% royalty if the work is resold on OpenSea".

(b) A note on collective rights management and the SIAE Announcement

As noted, among the first use cases discussed for blockchain-based technologies in the field of copyright is collective rights management. It was initially thought that this technology could enable the development of decentralized databases of metadata on musical works with real-time update and tracking capabilities, managing the links between existing standard recording codes, such as for music the ISRC (International Standard Recording Code) and the ISWC (International Standard Work Code). This was for instance the aim of the aforementioned joint venture between the collecting societies ASCAP, SACEM, and PRS for Music (see e.g. here).

However, despite some interesting projects still at the development stage, collecting societies seem for the most part to have lost interest in the technology. In the music sector at least, where collective rights management is arguably at its most developed, there appears to be no significant adoption of the technology for collective rights management.

Against this backdrop, it was with some surprise that Italian collecting society SIAE recently announced the launch of "more than 4 million NFTs on Algorand for 95,000+ creators."

The press release is thin on details. The idea is that the NFTs will "digitally represent the rights of the more than 95,000 SIAE members authors". It is said that these will be registered on a public blockchain, although it remains unclear whether this is of the permissioned or permissionless type. It appears that SIAE will use Algorand to mint the NFTs, which it will presumably own by virtue of its mandate as collecting society.

Interestingly, the press release mentions that the system is "designed… to be able to transfer management directly to rightholders, who will then be able to manage directly the metadata relating to their rights." It is unclear what costs (if any) this entails for rights holders, what type of rights are being tokenized, and what effect (if any) it will have on SIAE's mandate to represent its member authors in relation to the rights attached to the transferred NFTs.

But perhaps the most fundamental question is whether NFTs are useful for granting the type of recurrent mass licences that collecting societies are typically engaged with. Past experiences of collecting societies indicated that the characteristics and functioning of blockchain technologies were not ideal to address the complex reality of collective rights management. Among other issues,

existing systems were slow, did not scale well, and their quasi-immutable nature prevented necessary ongoing correction and cleaning of rights management metadata. It will therefore be interesting to see if the SIAE/Algorand project has addressed some of these problems, offers a new value proposition for artists' remuneration, or is merely tagging on to the current NFT hype for marketing reasons.

Concluding remarks

The tokenization of everything, even of ourselves, sees and creates value in virtually all artefacts that can be bought or sold on a digital platform. The current NFT mania promises to empower artists, to revolutionize the art market, and to modernise the copyright management system. Our analysis shows that it will be difficult to deliver on these promises, as least from the copyright perspective.

NFTs do not seem to fit neatly with copyright law rules. Still, as with any cutting-edge manifestation of technology that musters sufficient public adoption, they offer an opportunity to re-examine core doctrines of copyright law, such as ownership, distribution, exhaustion, resale, and collective rights management.

The regulation of choice in the NFT space is not copyright law but code. From this perspective, NFTs are the latest iteration of technological attempts to encode some form of (copy)rights to digital objects with a view to digitize scarcity and enable commercial exploitation. The 'digital life of intellectual properties' – to paraphrase Rosemary J. Coombe[1] – has been characterised by the loosened link, and growing tension between the circulation of digital works, and the flows of copyrights attached to the works in digital formats. Technologies, which promise digital scarcity — NFTs now, DRMs before — promise to re-couple the two flows: rights and copies. But NFTs do not appear to embed the digital artifact and copyright ownership thereof. Instead, they create a separate marketplace for a novel digital (metadata) artefact – neither the work nor the copyright rights thereto (Raustiala and Sprigman consider NFTs "virtual Veblen goods."). As we have shown, this new object and marketplace partly coexist, and partly conflict, with copyright rules.

In a way, NFTs represent a meta-ownership concept, which relies on code to allow for ownership-like digital distribution, exhaustion, remunerated resale, and enforcement within the context of a blockchain-based system. In doing so, NFTs offer an appealing new remuneration model for creators. However, for the most part, the affordances of NFTs are not accompanied by matching legal effects as far as copyright law is concerned. This creates significant challenges for creators, other rights holders, and users if their expectation is that an NFT transaction on a blockchain will mirror an off-chain transaction for an equivalent work. Together with issues related to the potential for misattribution (and associated authenticity issues), as well as infringement of exclusive and moral rights, it is questionable whether the benefits of NFTs can outweigh their potential drawbacks.

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[1] Coombe, R. J. (1998). *The cultural life of intellectual properties: Authorship, appropriation, and the law*. Duke University Press.

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