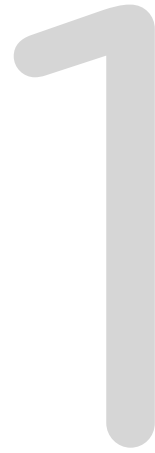




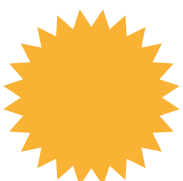
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Are you exhausted with NFTs already?

by Lorenzo Berto

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LL.M. in Law of Internet Technology





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Are you Exhausted with NFTs already?

NFTs Offer the Chance to Rethink the Tom Kabinet Case

Lorenzo Berto

Abstract.....	1
1. Introduction	3
2. What NFTs are all about	5
3. Why Copyright Matters	8
3.1 Meet the Meta-ownership right	8
3.2 Is minting NFTs a reserved right?.....	10
4. The Never Exhausted Debate over Exhaustion	13
5. Conclusions	16

Abstract

Non-Fungible Tokens (“**NFTs**”) have become a buzzword: their applications in connection with transactions of several types of digital content, including famous artworks for exorbitant amounts, has brought them from the relative obscurity of only a few months ago to public awareness. Almost immediately, some members of the copyright community have started studying NFTs, because they are primarily used as digital, figurative, artistic creations. The result of such debate is still foggy: on one hand, many have argued that in most cases NFTs and copyright have little in common; on the other hand, some features of NFTs speak to the very core of copyright (notably, scarcity and means of rights management); in any case, lawyers and scholars have begun to witness the first legal clashes between rightsholder and third parties.

In this paper, after having analyzed the technological features of the NFTs, we have listed ourselves among those who find that NFTs do involve copyright. Notably, NFTs create a new layer in the bundle of rights granted to the copyright holder, called the meta-ownership right, which essentially is represented by a digital certificate that proves, in a public and unchangeable record, that a version of a given digital file belongs to a specific person. Unlike traditional ownership over physical copies of a work, meta-ownership does not restrict access

to the original work. On the contrary, the circulation of the original work has virtually no impact on that of the token, which is traded for certain values although the actual file is commonly available online. Such feature has been pathing the way to artists who want to explore new remuneration mechanisms.

Given the abovementioned peculiarities, it seems necessary to bring into the NFT world some “old” tools of copyright law, such as those rights that grant the author to be in full control of the first circulation of the work (being it reproduction, communication to the public, sale); in other words, we found that only the rightsholders should be allowed to mint NFTs out of their works, both under the current framework of copyright law and in light of the incentives that the law provides the authors with.

However, a well-established principle of European copyright law concerning the distribution right, *i.e.* the exhaustion of such right after the first sale, should be reshaped due to NFTs’ technological features and their legal consequences. The European Court of Justice settled the issue of exhaustion in the digital environment quite recently, in the *Tom Kabinet* case (2019), stating – in short – that the exhaustion of the distribution right occurs just with regard to physical goods, physical copies of a protected work.

We argue that the Court’s finding, reached before the explosion of blockchain-based solutions, should be overcome to reach a balance between the rights of the authors and the market forces operating in the NFT environment, so that such market would not be stopped in its early stages due to the application of a principle established in relation to different technologies and different applications thereof.

NFTs, in our opinion, are peculiar digital objects to which a different regime shall apply.

This paper is structured as follows.

In section 1, we focus on few examples of NFTs sales, in order to show the relevance that tokens have gained. In section 2, we dive into the technological features of NFTs, on the assumption that, when an innovative technology arises, technology itself is the first regulator, and thus it is not possible to put forward compelling legal arguments without relying on the technological aspects of the subject matter. In section 3, the legal premises to the main argument of the paper are dealt with. Notably, in paragraph 3.1. the meta-ownership right is

presented; in paragraph 3.2, we argue that only the copyright holder, at this stage, should be allowed to mint NFTs out of his or her work.

Finally, in section 4, we make the case for a novel approach towards the exhaustion of the distribution right in the digital environment.

Conclusions will follow.

1. Introduction

In past months, Non-Fungible Tokens (“NFTs”) have gained extreme relevance in the debate around business, law and technology. The most prestigious example has been offered on October 28, 2021 by Mark Zuckerberg, CEO and founder of Facebook (now known as Meta): while presenting one of the most important rebranding in business history, he lingered on NFTs, conveying the idea that they will play an essential role in the huge digital world Meta would like to build¹. Previously, NFTs went “viral” when Twitter CEO, Jack Dorsey, offered his first tweet for sale as an NFT. The tweet read “*just setting up my twttr*”; it was first published on March 21, 2006, and it was sold on March 9, 2021, for 1,630.58 Ether, a cryptocurrency that was equivalent to \$2.9 million based on Ether’s price at the time of sale².



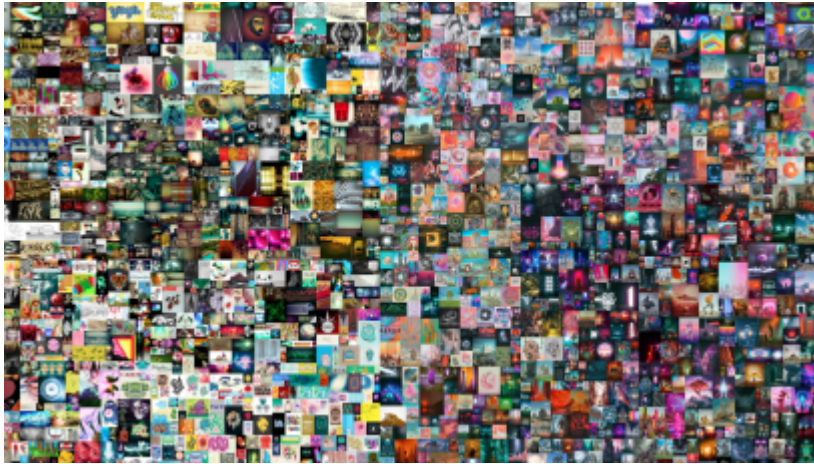
NFTs had another momentum when the US graphic designer Mike Winkelmann (known as Beeple) shook the contemporary art world by selling for \$69 million an NFT entitled “Everyday: The First 5000 Days”, in a Christie’s auction³ held on March 11, 2021.

¹The quote starts at 7:13: <https://www.youtube.com/watch?v=XOn2CZWnxxY&t=459s>. Last access: 3.11.21.

² CNBC covered the story here: <https://www.cnbc.com/2021/03/22/twitter-ceo-jack-dorseys-first-tweet-nft-sells-for-2point9-million.html>. Last access: 3.11.21.

³ The LA Times reported the story: <https://www.latimes.com/business/technology/story/2021-03-11/nft-explainer-crypto-trading-collectible>. Last access: 3.11.21.

At the moment of writing, NFTs of any kind of digital file are mushrooming, the Holy Bible included⁴.



Beeple, Everyday: The First 5000 Days.

This use of NFTs in connection with the transaction of several types of digital content, including famous artworks for exorbitant amounts, has brought them from the relative obscurity of only a few months ago to public awareness.

Public awareness, however, does not always amount to clarity. The widespread coverage of NFTs fluctuated from the description of NFTs as evolutionary tools to empower artists, improve their remuneration and reshape the digital art market, to the use of the underlying technology on which NFTs run for fraudulent or at least speculative purposes⁵.

Also from a legal perspective, clarity is anything but achieved. This paper tries to face some issues that NFTs raise in the copyright world⁶.

In doing that, we deem essential to focus first on the technology and then on the law.

⁴ The Times of Israel covers the story: https://www.timesofisrael.com/israeli-company-cryptoverse-sells-nft-of-bible-verse-for-8400/?utm_source=Startup+Daily&utm_campaign=startup-daily-2021-11-17&utm_medium=email. Last access: 18.11.21.

⁵ GIANNOPOULOU A., BODÓ B., *The Rise of Non-Fungible Tokens (NFTs) and the Role of Copyright Law – Part I*, Kluwer Copyright Blog (2021), available at: <http://copyrightblog.kluweriplaw.com/2021/04/14/the-rise-of-non-fungible-tokens-nfts-and-the-role-of-copyright-law-part-i/>. Last access: 3.11.21.

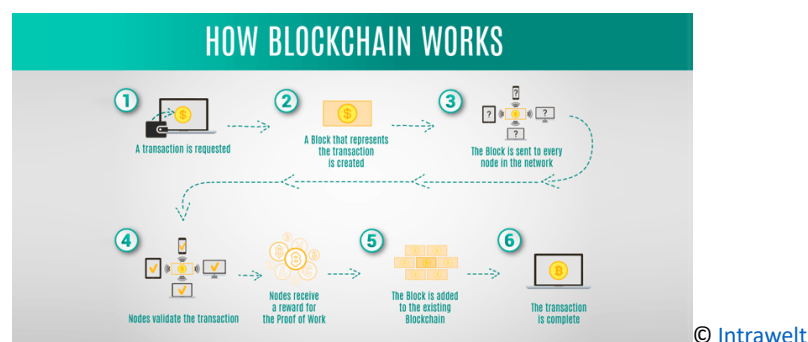
⁶ NFTs have raised legal issues in different areas of law, too. For example, in tax law, environmental law, consumers protection law and anti-money laundering regulation.

2. What NFTs are all about

NFTs stands for non-fungible tokens. A **token** is a set of digital information⁷ that can confer rights to a subject. The token, therefore, is **the digital representation of a legal position on an asset** or a claim to a specific object⁸.

The token is recorded on a blockchain, which is a distributed ledger technology⁹ (“DLT”); a DLT is a technology that, applying cryptography, allows to keep and validate multiple copies of a central ledger (a distributed database) across an IT network; each ledger keeps a copy of the digital database of all the transactions ever happened (a transaction record), which is formed by a lot of blocks of encrypted electronic records, linked together and disseminated through a dense IT peer-to-peer network¹⁰. The most used blockchain in the NFTs world is Ethereum.

Blockchains are highly discussed technologies that promise to change the paradigm in data storage and code-execution, pathing the way to new business models and markets¹¹. The major feature of this DLT is that anyone who has access to the ledger is allowed to see the whole transaction history and to verify the validity of all records, which become immutable upon confirmation of the data in most nodes.



⁷ CHOHAN U. W., *Non-Fungible Tokens: Blockchains, Scarcity and Value*, Critical Blockchain Research Initiative, 2021.

⁸ Notably, there are different kinds of tokens. Tokens may encompass rights (ownership; voting rights), they can be used as currency (Bitcoin) or as securities. For an overview: Oliveira L., Zavolokina L., Bauer I., Schwabe G., *To Token or not to Token: Tools for Understanding Blockchain Tokens*, International Conference of Information Systems, 2018. ROTH J., SCHÄR F., SCHÖPFER A., *The Tokenization of Assets: Using Blockchains for Equity Crowdfunding*, 10.2139/ssrn.3443382, 2019.

⁹ The terms blockchain and distributed ledger are often used interchangeably, but they are not the same: a blockchain is a particular form of DLT; a blockchain is therefore always a DLT, but not all DLTs are blockchains.

¹⁰ DE CARIA R., *The Legal Meaning of Smart Contracts*, in European Review of Private Law, 2019, p. 733.

¹¹ The legal scientific community has started to study DLTs few years ago and, at this point, the literature is significant, albeit often focused on specific applications of such technology. For a comprehensive and general starting point: DRESCHER D., *Blockchain basics: a non-technical introduction in 25 steps*, Apress, 2017. EUROPEAN COMMISSION, *Study on Blockchains - Legal, governance and interoperability aspects*, 2018, available at <https://digital-strategy.ec.europa.eu/en/library/study-blockchains-legal-governance-and-interoperability-aspects-smart-20180038>; GAYVORONSKAYA T., MEINEL C., *Blockchain. Hype or Innovation*, Springer, 2021; BARULLI M., *IP is a journey: blockchain and encrypted storage are your best friends*, WIPO Magazine, 2021, available at https://www.wipo.int/wipo_magazine_digital/en/2021/article_0002.html.

Blockchain technologies may also function as a platform for the execution of software commonly known as smart contracts. A smart contract, in essence, is a digital agreement written in computer code (thus, software); run on a blockchain or similar distributed ledger technologies (thus, decentralized); automatically executed without human intervention (thus, smart)¹².

Moving back to tokens, they are also non-fungible, meaning that each token is unique, unlike a commodity. Unique is the set of data encapsulated in a specific token, so that it is not interchangeable¹³ (albeit it can be traded, of course).

This is a major innovation, full of consequences also from a legal standpoint: **NFTs bring scarcity in the digital world**¹⁴, traditionally built upon the possibility of copying indefinitely original files, without ever exhausting them. Adopting such technology means that, even though it is still possible to extract as many identical copies as one wishes from a given file, some copies are unique.

The whole written description of what NFTs are and how they work helps in getting closer to their nature, and yet it does not quite deliver. Therefore, we made an NFT out of a version of this paper (this activity is called “minting”), to fully understand the technology behind it.

The minting of a file (being it a picture, a video, a gif, this paper) can be done through the intermediation of a platform; we used Mintable¹⁵.

First of all, the “minter” shall have a crypto wallet; as a matter of fact, crypto wallets are crucial to the entire NFT infrastructure. A wallet is a cryptographic address that exists in the blockchain, and it is public. The wallet is generated using a private key created by its owner,

¹² DE CARIA R., *The Legal Meaning of Smart Contracts*, in European Review of Private Law, 2019, p. 733.

Also on smart contracts: KOLVART M., POOLA M., RULL. A., *Smart Contracts*, in The Future of Law and eTechnologies, Springer, 2016, pp. 133-147; RASKIN M., *The law and legality of smart contracts*, Georgetown Law Technology Review, 304, 2017; ZOU W., LO, D., KOCHHAR P.S., LE X.D., XIA X., FENG Y., CHEN Z., XU B., *Smart Contract Development: Challenges and Opportunities*, IEEE Comput. Soc. Tech. Council on Software Eng., 2021.

¹³ CHOCHAN U. W., *Non-Fungible Tokens: Blockchains, Scarcity and Value*, Critical Blockchain Research Initiative, 2021.

¹⁴ *Ibidem*.

¹⁵ For the following passages, reference shall be made to GUADAMUZ A., *The Treachery of Images: Non-fungible tokens and copyright*, 2021, where Dr. Guadamuz thoroughly explained all the steps necessary to mint an image. Following his guidance, we chose to mint this paper as well, in order to stress the importance of the knowledge of the underlying technology.

and this key can also be used to sign tokens. Then, the minter should upload a copy of the file on the platform, which deals with all the cryptographic work.

The resulting NFT is written permanently in the blockchain and it contains the following metadata:

```
{
  "owner":
  "0xfeabf0A56309a778e01bbbaAA20D88DCe44F5A76",
  "symbol": "Mintable Shared Gasless store",
  "image": "https://d1iczm3wxxz9zd.cloudfront.net
/5ae2e8f3-ae1-42bb-853f-b64a7d89b40b
/000000-0000000002
/115191255266171084560189485035940824917069058820
035209915644202323456322634649
/ITEM_PREVIEW1.jpg",
  "animation_url": "",
  "copyright_transfer": false,
  "address":
  "0xc23d925684919c1619f13427817d3fee6c24debb",
  "tokenId":
  "115191255266171084560189485035940824917069058820
035209915644202323456322634649",
  "resellable": true,
  "sub_category": "other",
  "original_creator":
  "0xfeabf0A56309a778e01bbbaAA20D88DCe44F5A76",
  "edition_number": 1,
  "description": "<p>This academic paper deals
with NFTs and copyright; the paper has been
minted to understand the technology and to put
forward better legal arguments. </p>",
  "auctionLength": 0,
  "title": "Are You Exhausted With NFTs Already?",
  "file_key": "",
  "token_id":
  "115191255266171084560189485035940824917069058820
035209915644202323456322634649",
  "apiURL": "mintable_gasless/",
  "name": "Are You Exhausted With NFTs Already?",
  "auctionType": "Fixed",
  "category": "Utility",
  "edition_total": 1,
  "gasless": true
}
```

The NFT is what is embodied in the screenshot above; **it is not the work itself, it is the metadata file that contains the unique combination of tokenId and contract address, which are the essential data that the NFT contains.**

This is arguably the most crucial point to understand since all the legal issues around NFTs are necessarily determined by this feature: the actual file (in the present case: this paper) is not the NFT; the file is part of the NFT insofar as the NFT contains a URL that directs to the actual file.

For the sake of clarity, it shall be pointed out that in some cases the actual file is stored on the blockchain, rather than the metadata that refer to it. It happens rarely because storing information on the blockchain costs a lot by design; thus, it is way more convenient to resort to an external link that leads to the actual file¹⁶.

Following this analysis of the first regulator of the NFT world (*i.e.* technology), we now move to the next source of norms: the law.

The legal evaluation of certain challenges that NFTs pose to the copyright system will be conducted from a European law perspective. Indeed, though copyright is territorial in nature, over the years the European Court of Justice has interpreted copyright law in such a way that it is now possible – albeit full harmonization is not yet acquired – to have a compelling discussion without picking a single domestic legal system¹⁷.

3. Why Copyright Matters

3.1 Meet the Meta-ownership right

The token – in itself – is not a creative work that conveys the original form of expression of the author (rather, it is a set of metadata), hence it falls outside the scope of application of copyright¹⁸. However, most tokens refer and point to a digital file, via a hyperlink, and such file may be protected under copyright law. Moreover, the key features of the technology at stake speak to the very foundations of copyright, such as ownership and rights management.

¹⁶ *Ibidem*, pag. 8.

¹⁷ DREIER T., *The Role of the ECJ for the Development of Copyright in the European Communities*, Journal of the Copyright Society of the U.S.A., 54(Issues 2-3), 2007; GEIGER C., *The role of the Court of Justice of the European Union: harmonizing, creating and sometimes disrupting copyright law in the European Union*, Centre for International Intellectual Property Studies Research Paper, 3, 2016.

¹⁸ MEZEI P., QUINTAIS J. P., GIANNOPOULOU A., BODÓ B., *The Rise of Non-Fungible Tokens (NFTs) and the Role of Copyright Law – Part II*, Kluwer Copyright Blog, 2021.

One should focus on the essence of the NFT, *i.e.* a cryptographically signed receipt of authenticity of a unique copy of a work, which paves the way to a claim of ownership over the copy itself. The basic principle of ownership, albeit well-known in the offline world, has struggled to find a place in the digital world for years, once again due to the technological infrastructure of the Internet, an environment in which copying is an almost costless activity that can be done without ever losing the quality of the original file and depriving the previous “owner” of it (which results in indefinite subjects enjoying a given good at the same time). In this respect, NFTs promise to digitalize scarcity and to reproduce in the digital world the dynamic of ownership over rivalrous goods, where the right of ownership guarantees that the owner is able to exclude others from benefiting or exploiting their good, if they so please¹⁹. In other words, **NFTs promise to re-couple the available copies with the rights granted to the rightsholder**²⁰.

However, a key difference shall be stressed.

Unlike traditional ownership, which results in limited access and circulation of a good (and, actually, it derives its economic value from such feature), **with NFTs the original file remains available, copies are still possible and they usually occur**. Nonetheless, the NFT has a market value, and it is traded by people attracted to the unicity thereof, although full access to the file tied to the NFT is granted (actual file that, more likely than not, is being also copied).

In other words, NFTs create a marketplace for a novel digital (metadata) artifact. They embody **a meta-ownership concept allowing the exercise of some of the traditional rights reserved to rightsholders, at the same time leaving access to a work unaltered**.

In doing so, NFTs offer a new appealing remuneration model for creators²¹.

¹⁹ CHOCHAN U. W., *Non-Fungible Tokens: Blockchains, Scarcity and Value*, Critical Blockchain Research Initiative, 2021.

²⁰ MEZEI P., QUINTAIS J. P., GIANNOPOULOU A., BODÓ B., *The Rise of Non-Fungible Tokens (NFTs) and the Role of Copyright Law – Part II*, Kluwer Copyright Blog, 2021.

²¹ *Ibidem*.



“There’s no amount of money in the world that would [make me give up] my original script. It’s not worth it to me to sell it, and it’s not worth it to me to put it in a museum and have it sit in a glass case. But doing it this way... I think it’s an exciting thing”, said Quentin Tarantino presenting his idea of extracting NFTs from Pulp Fiction’s original script and unreleased material²².

The picture “Quentin Tarantino Django” by Georges Biard is licensed under CC BY-SA 3.0.

3.2 Is minting NFTs a reserved right?

Many artists have started complaining that third parties on the Internet were using their art to mint NFTs and ultimately sell them without authorization.

Some distinguished scholars in the field, however, doubt that the minting of a work could amount to infringement of the author’s rights: the NFT is not the work, but a string of numbers generated with the work; thus, the resulting file could not be considered reproduction or adaptation of the original work²³. From a slightly different perspective, it has been noted that *“minting does not involve copyright infringement, as it is not equivalent to uploading, and thus, communicating to the public, an infringing copy of the original work that the NFT represents”*²⁴.

We respectfully disagree.

Indeed, the original work is essential in the first step of the minting of the NFT, when it is uploaded on the platform that runs the code. In copyright terms, such upload seems to amount to **reproduction**, which – as it is well known – is a right reserved to the copyright

²² Art News covers the story here: <https://news.artnet.com/art-world/quentin-tarantino-is-minting-seven-pulp-fiction-scenes-as-nfts-that-will-reveal-secrets-about-his-vision-for-the-film-2029816>. Last access: 20.11.2021.

²³ GUADAMUZ A., *The Treachery of Images: Non-fungible tokens and copyright*, 2021, p. 18.

²⁴ LAPATOURA I., *Copyright & NFTs of Digital Artworks*, IPKat Blog, 2021, available at <https://ipkitten.blogspot.com/2021/03/guest-post-copyright-nfts-of-digital.html>. Last access: 19.12.2021.

holder²⁵. According to Art. 2 the directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society ("**Directive**"), the author of a work bears *"the exclusive right to authorize or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part"*. It appears from the broad wording of the provision that taking someone else's work, copying it and uploading it on a platform amounts to reproduction. It would follow that minting a work without prior authorization would constitute copyright infringement. As a matter of fact, litigation on such issue is already part of courts' activity (for now, as far as we know, in the US)²⁶.

It should be assessed, though, whether exceptions apply.

Pursuant to Art. 5.2 (b) of the Directive, any natural person is allowed to reproduce – on any medium – protected works solely for private and non-commercial use. The exception is conditioned by a mandatory requirement for payment of fair compensation to rightsholders²⁷. Numerous NFTs are being minted for trading, which goes clearly beyond the scope of the exception; furthermore, as of today there are no evidence that effective fair compensation mechanisms are in place in the NFTs environment. Hence, the exception does not seem to apply.

The Directive also states, at Article 5, that *"Temporary acts of reproduction (...), which are transient or incidental [and] an integral and essential part of a technological process (...), and which have no independent economic significance, shall be exempted from the reproduction right provided for in Article 2 (...)"*.

Several conditions to be exempted from the copyright holder's authorization are missing in most cases of NFTs minting. First, the copy required to mint the NFT, even where it is temporary, is not *"transient or incidental"*, nor *"an integral and essential part of a*

²⁵ AUTERI P., *Diritto d'autore*, in Auteri P., Floridia G., Mangini V., Olivieri G., Ricolfi M., Romano R., Spada P., *Diritto industriale, proprietà intellettuale e concorrenza*, Sesta Edizione, Giappichelli Editore, 2020.

²⁶ For example, Miramax sued Tarantino, in relation with his project mentioned above: the Studio seems to argue that the minting is encompassed in the reserved rights that Tarantino transferred to it; firsthand material is not available, though. See: <https://screenrant.com/quentin-tarantino-pulp-fiction-nft-miramax-lawsuit-details/>. Last access: 19.12.2021. The famous rapper Jay-Z is involved in a similar dispute: <https://www.theverge.com/2021/6/21/22543753/jay-z-nft-lawsuit-reasonable-doubt-roc-a-fella-damon-dash>. Last access: 19.12.2021.

²⁷ Member States may implement voluntarily such exception; most of them did, often in even more restrictive ways: <https://copyrightexceptions.eu/#info52b>.

technological process”; this might be true for the platform (and less so when Directive 2019/790 will be fully implemented²⁸), but certainly not for the minter. In this respect, even if no money were involved, authors could still argue that such reproduction is not allowed. Second, minters would have a hard time arguing that the copy serves a lawful use with no economic significance, since most platforms used for minting require to put a price on NFTs.

Copyright owners may challenge the minting of their works from another point of view.

As it has been noted, most NFTs contain a hyperlink to the original work. The issue of hyperlinking has been controversial in European copyright law; today, it shall be understood in light of the landmark Svensson case²⁹, where the Court found that the presence of *“clickable links to works freely available on another website does not constitute an ‘act of communication to the public’”*; a different conclusion shall be reached, it follows, if the original work was meant for a specific public³⁰.

In other cases³¹, involving broadcasting of protected content, the Court established that *“for there to be a ‘communication to the public’ within the meaning of Article 3(1) of the Copyright Directive in circumstances such as those of the main proceedings, it is also necessary for the work broadcast to be transmitted to a new public, that is to say, to a public which was not taken into account by the authors of the protected works when they authorised their use by the communication to the original public”*.

It seems reasonable to expect that authors will argue that they did not envisage the NFT community (*i.e.* a community that trades for money certificates that refers to a copy of the work itself), when they published the work on the Internet, thereby claiming the infringement of their rights. In any case, rightsholders may try to prevent third parties from minting NFTs out of their works on the grounds that it constitutes act of communication to the public, or

²⁸ See the debate over Art. 17 of the directive; e.g.: GEIGER C., JUTTE B. J., *Platform liability under Article 17 of the Copyright in the Digital Single Market Directive, Automated Filtering and Fundamental Rights: An Impossible Match*, GRUR International, Vol 70(6), 2021, p. 517; SCHWEMER S. F., *Article 17 at the Intersection of EU Copyright Law and Platform Regulation*, forthcoming, 2020; REDA J., SELINGER J., SERVATIUS M., *Article 17 of the Directive on Copyright in the Digital Single Market: A Fundamental Rights Assessment*, Gesellschaft für Freiheitsrechte, 2020.

²⁹ C-466/12.

³⁰ MINERO G., *Are hyperlinks covered by the right to communicate works to the public? The Svensson case*, Queen Mary Journal of Intellectual Property, Oct. 2021, p. 322-327; VIGILAR S., *Pirate Bay: evoluzione del concetto di comunicazione al pubblico o nuova frontiera della responsabilità delle piattaforme telematiche?*, Diritto dell'Informazione e dell'Informatica, 1, 2018, p. 108.

³¹ C-403/08 and C-429/08.

making available to the public, at least if the original work was not freely published on the Internet.

4. The Never Exhausted Debate over Exhaustion

In this paper we have argued that (at least some) NFTs present copyright interactions and that (at least in some cases) minting them is encompassed in the bundle of reserved right. The previous considerations, though, should not lead to conclude that copyright holders are in the position to stop the NFTs industry. Indeed, while it seems a logical application of copyright principles that the issuance of NFTs should be reserved, the resulting trading of these digital objects shall not be further limited. However, case-law on the exhaustion of the distribution right suggests that this risk exists.

According to Article 4 of the Directive, *“1. Member States shall provide for authors, in respect of the original of their works or of copies thereof, the exclusive right to authorise or prohibit any form of distribution to the public by sale or otherwise. 2. The distribution right shall not be exhausted within the Community in respect of the original or copies of the work, except where the first sale or other transfer of ownership in the Community of that object is made by the rightholder or with his consent”*. The article envisages the **exhaustion** of the distribution right and it contains two important principles: in paragraph one, it is stated that only the rightholder is entitled to distribute the protected work; in paragraph 2, it is provided that such right is exhausted after the first transfer of ownership the rightholder has consented to.

The ECJ had worked a lot on such principle since the early nineties, primarily to foster harmonization in European copyright law³²; however, the evolution of digital technologies made exhaustion a difficult test bench, rather than a tool of harmonization. Indeed, the Court had to apply the exhaustion to immaterial goods, whose “production” was hugely different and called into question the whole rationale of the principle.

³² SGANGA C., *A plea for digital exhaustion in EU copyright law*, in Journal of Intellectual Property, Information Technology and Electronic Commerce Law, pag. 21, 2018.

The ECJ tried to settle the issue in the recent but already landmark “Tom Kabinet” case³³. In the case at hand, two Dutch publishers’ associations sued Tom Kabinet, a Dutch company publishing books and e-books, on the basis of the fact that Tom Kabinet, in 2014, had launched an online service consisting in a virtual market for “second-hand” e-books.

The most relevant legal question the ECJ had to answer was the following: whether the supply by downloading, for permanent use, of an e-book constitutes an act of distribution as per Article 4.1 of that directive, or whether such supply is covered by the concept of “communication to the public” within the meaning of Article 3.1 of the Directive, *i.e.* the “exclusive right to authorise or prohibit any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access them from a place and at a time individually chosen by them”. The distinction is of paramount importance, since the right of communication to the public is not exhausted by any act of communication (see Art. 3.3. of the Directive).

The Court observed that “the intention underlying the proposal for the directive was that any communication to the public of a work, other than the distribution of physical copies of the work, should be covered not by the concept of ‘distribution to the public’”³⁴ and that “the question of exhaustion of the right does not arise in the case of services and online services in particular, it being made clear that, unlike CD-ROM or CD-I, where the intellectual property is incorporated in a material medium, namely an item of goods, every online service is in fact an act which should be subject to authorisation where the copyright or related right so provides”. In simpler terms, the exhaustion of the distribution right applies only to physical goods, while to digital goods only the right of communication to the public applies³⁵.

We argue that the essence of NFTs disrupts such principles.

³³ C-263-18, Judgement of the Court, Grand Chamber, 19.12.2019. The case has been commented, among many, by RIZZUTO F., *The European Court of Justice rules in Tom Kabinet that the exhaustion of rights in copyright has little place in the age of online digital formats*, Computer and Telecommunications Law Review, 2020; OPRYSK L., *Secondary communication under EU copyright acquis after Tom Kabinet*, Information Technology and Electronic Commerce Law, vol. 11, no. 2, 2020.

³⁴ *Ibidem*, para 45.

³⁵ A different principle applies to software, by virtue of a *lex specialis*: see Used-Soft Case, C-128/11, 3.6.2012, referred to in Tom Kabinet, too.

As we have seen above, the tokens mimic the trading that happens in the material world to the extent that scarcity is reproduced: an owner of a NFT cannot sell it and keep the same copy for itself. What is more, in the field of tokens, scarcity does not prevent the author of a work to keep exploiting the other rights granted under copyright law, since the trading involves the meta-ownership right market, regardless of the fate of the work out of which tokens have been minted. Such work may be reproduced and made available to the public elsewhere, without having any impact on the NFT and its economic value.

It follows that the economic rationale behind the Tom Kabinet decision does not hold: the further exchanges of the digital goods do not affect the interests of the rightsholder, which remains in control of the exploitation of the work. On the contrary, granting the rightsholder the right to prevent the NFTs' owners to dispose of the token would result, first and foremost, in a paradox (the owner, indeed, would not be allowed to exercise the core of the ownership right), and in a restriction of the free circulation of goods which could only be justified in light of the protection of "*industrial and commercial property*", according to Article 36 of the Treaty on the Functioning of the European Union; this is hardly the case.

It might be argued that the principles established in the Tom Kabinet case can be overcome through interpretation, by stressing the technological features of NFTs and the resulting concept of scarcity. However, one could reach such result only by elaborating on the *obiter dicta* of the ECJ decision, while the principle established is crystal-clear in bundling the exhaustion of the distribution right to the materiality of the goods traded. This would result in the risk that the trading of NFTs in the European Union may be regarded as communication to the public, as it happened with the selling of e-books, and ultimately in uncertainty and in contradictory decisions across Member States.

The NFTs world, on the contrary, does not need to be stopped on the basis of plain application of principles laid down for **very different digital goods**. Tokens represent one of the latest applications of the blockchain, which is – in itself – a recent technology; innovation has still to spread.

5. Conclusions

Digital artistic forms of expression have been in place for many years, way before NFTs. However, tokens promise not to disrupt the equilibrium between each other's rights, as technology did before; rather, they seem to offer new rights, hence new forms of business, without compromising access to the works.

In such a scenario, we have argued that the arsenal of rights currently granted to copyright holders should be interpreted so that only the authors are allowed to mint NFTs out of their work, even though NFTs do not coincide with the work itself, nor they embody it in most cases. However, lawmakers and jurisprudence are called to limit authors' control over the circulation of NFTs, by overcoming the distinction between tangible and non-tangible goods, and by acknowledging that the technology of NFTs is applied in such a way that digital goods are scarce, unique, rival and owned by a party, which may sell them even though that does not result in a sale of the actual work.

The most fascinating fact about NFTs is that they call into question many aspects of copyright and reinforce others, offering the chance to authors to be in the middle of new forms of exploitation of their works: the legal community should act accordingly.