I want to start with a bit of a disclaimer: I have actually minted, bought, and sold a few NFTs. But I’ve managed only to lose money. I think I am not alone. There is a report in *Nature* says that that some 75% of all NFT sales have been for under fifteen dollars.¹

I could spend hours talking about the common pitfalls and issues faced by EU and UK participants in the NFT market. There are many different topics up for discussion, but I have selected just a few that I find might be different from an international perspective when compared with the experience in the United States. You may have noticed that I’m separating the UK and European perspectives. (Thank you, Brexit.) There has already been much talk about what you are getting when you purchase an NFT: The data is a smart contract. It is code. In other words, the NFT is not the artwork; it is just the token that represents the work. But we have not really explored how copyright law impacts the NFT market. So, the first question I want to explore is the rights question.

One of the interesting things that I have been thinking about is that this asset may or may not be protected by copyright. I think that we are not really addressing this, because many works—particularly collectible works—are being procedurally generated, in other words, a large number of artwork has been created using code that randomly assigns attributes to stock characters.² Procedurally-generated works may not meet the originality standards in many countries, particularly in Europe where a work only receives copyright protection if it is an intellectual creation that reflects the personality of the author.³ This means that the author has to make choices regarding intellectual creation or intellectual activity. Many of these procedurally-generated works start out as stock characters. Their attributes are then altered so that the characters get glasses, or a cigarette, or a hat, and so on. I do not think that such procedurally-generated works always meet the requirements for copyright protection. I think this is a question that we will have to explore at some point.

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² For an explanation of procedurally-generated—or “generative”—NFTs, see Kevin McCoy, *Art and NFTs: Past and Future*, 45 COLUM. J.L. & ARTS 353 (2022).


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The second point that may differ from one country to another is the question of rights transfers. It is not always very clear what rights you are getting when you purchase an NFT. I am going to be assuming that the work has copyright protection, which does limit the transfer of rights. Whether the work is protected by copyright can actually be a little bit of a complicated question that is obviously jurisdiction-specific. For example, in the UK, there is a requirement that a work can only be assigned or transferred if it is in writing and signed on behalf of the seller.\textsuperscript{4} There is growing recognition that cryptographic signatures can be used in order to conduct legal transactions.\textsuperscript{5} However, I do not think that an NFT would qualify as a “writing.”\textsuperscript{6} In the rights transfer or assignment context, the signature requirement can perhaps be met, but not the writing requirement.

Furthermore, there are a few questions that may arise concerning copyright infringement that I think may also differ from one jurisdiction to another. When someone generates an NFT, he or she may not own the underlying work—he or she may just be taking an image from the internet or something else that does not belong to him or her. This is not idle speculation, as Quentin Tarantino found out recently.\textsuperscript{7} So, is it copyright infringement to make an NFT of a work you do not own? I think the main takeaway is that creating such an NFT is not necessarily copyright infringement, at least in some jurisdictions.

Generally speaking, there are three requirements for finding infringement, at least in the UK: (1) The infringer has to undertake one of the exclusive rights of the author without authorization; (2) there has to be a causal connection\textsuperscript{8} between the two works; and (3) a “substantial part” of the infringed work has to be copied.\textsuperscript{9} I do not think that the first two are usually met when an NFT is created. I certainly do not think that an NFT represents a substantial copying of a work: The NFT just contains code; it is metadata.\textsuperscript{10} There may be a link between a work and its NFT, and it may

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\textsuperscript{6} For more on the writing requirement in UK copyright law, see: Andres Guadamuz, The treachery of images: non-fungible tokens and copyright, 16 INTELLECT. PROP. LAW PRACT.1 367 (2021).

\textsuperscript{7} Johnny Diaz, Miramax Sues Quentin Tarantino Over Planned ‘Pulp Fiction’ NFTs, N.Y. TIMES (Nov. 17, 2021), https://perma.cc/NM9G-4Q9E.

\textsuperscript{8} See: Francis Day & Hunter v Bron [1963] Ch 587, and most recently Sheeran & Ors v Chokri & Ors [2022] EWHC 827 (Ch).

\textsuperscript{9} Enforcing Your Copyright, GOV.UK, https://www.gov.uk/guidance/enforcing-your-copyright (last visited Mar. 24, 2022) (“A substantial part is not defined in copyright law but has been interpreted by the courts to mean a qualitatively significant part of a work even where this is not a large part of the work. Therefore, it is quite likely that even a small portion of the whole work will still be a substantial part.”).

\textsuperscript{10} For what is considered substantial copying, see: Designer Guild Limited v Russell Williams (Textiles) Limited [2001] 1 All ER 700, and for comparison: Infopaq International AS v Danske Dagblades Forening [2009] ECR I-6569.
be posted on a platform, but not necessarily. There are certainly some examples in which the NFT may be linked to a work.\textsuperscript{11}

A topic that we can explore at some point is whether or not there are regulations that could apply specifically to NFTs. There has been a little bit of talk about whether NFT platforms could run afoul of the greatly maligned Directive on Copyright in the Digital Single Market, which was passed in 2019.\textsuperscript{12} Article 17 of this Directive introduces new obligations for online content platforms that render such platforms directly liable when their users post unauthorized or infringing copyrighted materials.\textsuperscript{13} There is, however, an exception for online marketplaces—such as eBay—in this Directive, which means that most platforms will not be covered. I could talk about all sorts of other things—more rights and authorship—but I think I will stop here.

With regard to the question of whether posting to, say, OpenSea\textsuperscript{14} a copy of an image you are purporting to sell by using an NFT implicates the first-sale doctrine or constitutes an act of infringement, it is important to keep in mind that you may not even be linking to your own image when you post the copy. You might even be using a copy of an image made by the person whose rights you are infringing, and what you are posting might be an embedded image. Whether this is considered infringement will depend on the case law that applies to embedded images. In Europe and in the United States, the case law on the issue is far from settled.\textsuperscript{15} But I have actually played out this scenario. I have an NFT of Nyan Cat, the very exact code linking to the original picture that was sold. I created an NFT that is an exact replica of the code, but it links to the “original” file hosted in the first sale. I am selling a copy of the NFT, and the image that I am selling is not even mine. I am just linking directly to the image of Nyan Cat that I sold for a million dollars. This means that I am not even reproducing the image myself in embedding it as part of a link. I am just linking to someone else’s image.

Finally, I want to discuss a concept I call “Platform’s Law.” In the event that a work’s author deems an unauthorized NFT to be infringing, the best practice right

\textsuperscript{11} Jacob Kastrenakes, Your Million-Dollar NFT Can Break Tomorrow if You’re Not Careful, THE VERGE (Mar. 25, 2021, 11:55 AM), https://perma.cc/HYK6-3E8A (“You’re buying a collection of metadata defining what you own. . . NFTs use links to direct you to somewhere else where the art and any details about it are being stored.”).

\textsuperscript{12} See Júlia Alves Coutinho, European Union: The Interrelation Between NFTs and Copyright, MONDAQ (July 8, 2021), https://perma.cc/MJ2G-TN8F.

\textsuperscript{13} EUROPEAN COMMISSION, GUIDANCE ON ARTICLE 17 OF DIRECTIVE 2019/790 ON COPYRIGHT IN THE DIGITAL SINGLE MARKET (2021).


\textsuperscript{15} For the EU view, see Emilio Nicolas, New EU High Court Decision Hits Close to Home: Latest Developments in Embedded Image Copyright Cases, JD SUPRA (Mar. 17, 2021), https://perma.cc/XK76-GC6M. For the U.S. perspective, see Jane C. Ginsburg & Luke A. Budiardjo, Embedding Content or Interring Copyright: Does the Internet Need the “Server Rule?” 42 COLUM. J. L. & ARTS 417 (2019) (tracing the evolution of the server rule and recent pushback against continued reliance upon that rule by some courts); see also Nicklen v. Sinclair Broad. Grp., No. 20-CV-10300 (JSR), 2021 WL 3239510 (S.D.N.Y. July 30, 2021) (demonstrating the increasing skepticism with which some U.S. courts view the server rule).
now is to go directly to the platform and request to have the infringing image or link taken down. Asking the platform to remove the infringing content has proven to be efficient. So far, I have seen many instances of platforms’ removing works. All of these platforms have a Digital Millennium Copyright Act takedown notice procedure. The platforms remove the allegedly infringing works first and ask questions later. Generally, these platforms are showing themselves to be quite powerful right now, particularly OpenSea. If OpenSea removes an NFT, it is almost like it does not exist, this is because it has complete market dominance. I say almost because the NFT still exists on the blockchain, it just is not listed in the largest platforms.

Broadly speaking, Platform’s Law violates the decentralized principle underlying NFTs. Some NFT marketplaces are interestingly moving in the direction against Platform’s Law, demonstrating a lot of resilience. For example, Hic et Nunc, one of the Tezos marketplaces, collapsed just recently; however, the marketplace was immediately replaced from scratch, with all of the NFTs safely moved to the new version of the platform. I personally had several NFTs on its platform, and I just was able to recover all of my NFTs and connect my wallet to another platform after the collapse. This instance demonstrates that there is resilience built into the system but also shows much centrality that is emerging, particularly in the Ethereum blockchain due to the dominance of OpenSea. There is definitely some tension between the decentralized principles underlying NFTs and the dominance of a relatively small number of centralized platforms.

Summing up, Inevitably, there will be some practical interaction between NFTs and copyright, although most disputes will be handled at the platform level. The market is already acting as a gatekeeper, removing possible infringement by encouraging the existence of a space where creators can offer the tokens they have generated. Nonetheless, the nature of the market, and the incentive for large returns, still mean that the NFT space may generate a good number of copyright disputes. These are the early days of a potentially disruptive technology, so it will be interesting to see how the environment develops in the near future.


17. Centrality in this context is a network theory concept, the concept refers to how central a node is in a network, in this context it refers to how vital a platform is in the NFT environment. For more about this, see: Andres Guadamuz, NETWORKS, COMPLEXITY AND INTERNET REGULATION: SCALE-FREE LAW (2011), p 48.

18. There is an unlimited number of blockchains, as the technology itself is open source, so anyone with the necessary technical knowledge can create their own. Ethereum is the dominant blockchain for NFTs at the time of writing.