

NFTs: An Alternative Intersection for Creativity and Copyright

Introduction

The advent of the Internet ushered in a wave of digital commodities and technologies that prompted new forms of creativity and innovative production and distribution methods. A critical issue accompanying cyberspace's rapid evolution, one that is inseparable from tangible expressions of creativity and the Internet, is copyright. Copyright law fails to adapt, accommodate, and keep pace with emerging technologies as the latter produces innovative infringement. It constantly positions copyright holders, excluding corporate entities, at a disadvantage in their fight for intellectual property (IP) protection. However, as technology and the Internet become increasingly ubiquitous and affixed to social life, a new tool for protecting copyright owners' unique assets has surfaced— one that is turning traditional copyright expectation and law on its head: NFTs.

An NFT, or non-fungible token, can be any digital assets, including but not limited to artwork, albums, basketball highlights, tweets, and memes. This paper will focus on NFTs' role in evolving the nature of fine art collecting. It will explicitly question whether this evolution is a sign of social and creative progress— are NFTs the key to pulling society away from its overreliance on copyright to protect authors?— or an overhyped, digital fad yielding the same legal and moral concerns present at the current intersection of technology and copyright. By analyzing the history of NFTs, NFTs' relation to copyright law (i.e., ownership and authorship), and specific case studies about its real-world effects, this paper will recognize NFTs as a tentative answer to online IP challenges and questions about copyright's future.

What are NFTs?

The term “non-fungible” implies the uniqueness and irreplaceability of a digital asset. As opposed to a bitcoin, which is identical and interchangeable, a non-fungible item holds a

one-of-a-kind value when traded. NFTs are part of the Ethereum blockchain, which is a cryptocurrency database that stores and maintains “complete record[s] of title, payment history, and information about [] underlying asset[s].” NFTs are traceable and counterfeit-proof because each NFT contains a cryptographic key called a hash— a unique serial number or “fingerprint”— that cannot be produced (Lewis). The decentralized and immutable nature of the Ethereum blockchain ensures that data entered is irreversible and all users collectively retain control of the ledgers. It is worth focalizing NFTs through the lens of digital art, since art and NFT prices rise and fall based on the same element— consensus— and consensus alone confers an asset’s value (Tarmy). It is not the fundamentals of traditional artwork, such as the price of the canvas or paints, that determine its selling point, but rather the cultural capital society assigns to it confers its value. In the same vein, the non-fungibility of these tokens creates a phenomenon of artificial scarcity in cyberspace, where society gives authenticity of limited assets a high cultural capital, and this consensus has been organizing itself since the first appearance of NFTs in 2012.

A Brief History of NFTs

Composed of “small denominations of a bitcoin,” Colored Coins were able to represent a multitude of assets and have multiple use cases, including acting as digital collectibles. As a part of the “Genesis transaction,” Colored Coins were unique and identifiable from regular bitcoin transactions (Steinwold). There were myriad flaws with the system, particularly its reliance on a permissioned environment and its need for a more malleable blockchain. Nevertheless, the endeavor catalyzed further experimentation and established a workable base for NFTs. In 2014, NFTs naturally emerged from Counterparty, a peer-to-peer financial platform and open-source, distributed Internet protocol constructed on top of the Bitcoin blockchain. The Bitcoin 2.0 platform introduced the idea of creating tradable currencies or assets in a counterfeit-proof space,

in other words, “tradable [unique] collectibles on the blockchain” (Dormehl). It was around this time, and due to public excitement about counter-counterfeiting technologies, cyberspace started to transmute into a new space for fine art collecting.

2017 was the year that two notable NFT projects helped define and set precedents for NFT success: CryptoPunks and CryptoKitties. Creative technologists John Watkinson and Matt Hall released 10,000 unique CryptoPunks into the Ethereum blockchain, “whereby no two [‘punks’] were the same” – and the Internet fed into the trend, rapidly snapping up and trading those 10,000 characters (*Exhibit A*). The influence of this project played a key role in establishing the NFT ERC721 standard and the current crypto art movement (Dormehl). ERC721 (“Ethereum Request for Comment”) exists as the technical standard for NFTs on the Ethereum blockchain by “track[ing] ownership and movements of individual tokens in the block, which enables the chain to recognize the [NFTs]” (Steinwold).

For the other Crypto-entity project, its official website best articulates its purpose, in that CryptoKitties is “a game centered around breedable, collectible, and oh-so-adorable creatures [called] CryptoKitties! Each cat is one-of-a-kind and 100% owned by you; it cannot be replicated, taken away, or destroyed” (“CryptoKitties” and *Exhibit B*). Its extensive mainstream media coverage bolstered its raging cultural and financial success, as the Internet – entirely on brand – obsessed over the digital kitty phenomenon. The unique, irreplaceable kitties set the standard for future NFT ventures. Tech news website, Digital Trends, stated that, as of March 10, 2021, \$390,000 is the highest selling price for a single CryptoKitty (Dormehl). Both projects signaled NFTs’ tremendous potential as a viable market operating particularly within the scope of digital art. Since 2018 and into 2019, there has been explosive growth within the NFT ecosystem, with over 100 projects in cyberspace and NFT marketplaces such as OpenSea and

SuperRare rapidly gaining ground— according to OpenSea’s market cap data, the NFT market size is roughly 484,796 ETH (Steinwold).

The history of NFTs is not complete without jumping back to 2016: the year memes moved to the blockchain and the “Rare Pepe Meme Directory” emerged. Pepe the Frog, an original character by Matt Furie, dominated contemporary Internet meme culture, even earning a dedicated meme exchange space. Meme creators showed their appreciation for the image by promptly disseminating “rare Pepes”— a social consensus determining the visual iterations of Pepe that were particularly ingenious— across the Counterparty platform. The directory even had authenticators that approved or rejected Pepe memes based on this social consensus. The overarching theme of the Rare Pepe Directory was that people wanted unique digital items the same way traditional art collectors wanted unique Monet prints. Later in this paper, Pepe will reappear as a case study emphasizing a clash between NFTs and copyright law.

Overall, the history of NFTs paints an intriguing picture about its evolution into a space that enabled a mimicry of traditional art value by digital art and how technology stood at the forefront of shifting this space into one that inherently protected creativity against forgery and unlawful copying— though the issues of unlawful tokenization and subsequent distribution and general copyright issues surrounding memes remain.

NFTs and Copyright: Authorship and Ownership

NFTs adhere to the same fundamentals of copyright established in 1791, in that “[f]or an idea to be regarded as a piece of real property... it had to be assigned some distinguishing characteristics” which existed “not in the ideas... but rather in the unique ‘form’ in which an author chose to express these ideas”— i.e., the tangible form of an original work possessing a modicum of creativity and authorship (Hesse 35). At the base level, copyright coverage of

“pictorial, graphic, and sculptural works” includes two- and three-dimensional works of graphic and applied art; this definition grants the variety of NFTs analyzed here, i.e., original digital art, copyright protection (17 USC §101). Copyright law provides a “bundle of rights” exclusive to the copyright owner of a work. These rights include the right to “reproduce, prepare derivatives, distribute copies, publicly perform, and publicly display” their artwork (McBride & Alexander).

A lawful NFT would have authorization from the copyright owner whose work is embedded in an NFT and offered for sale. Unless explicitly expressed in writing, NFT transactions from creator to buyer do not include the transfer of copyright (17 USC §204). NFT ownership by a buyer does not grant that entity the right to the copyright or control the copying, distribution, and accessibility of the work; it is a digital certificate of ownership of an original (Bailey). NFTs present the opportunity for digital creators to unbundle the rights associated with copyright in a more advantageous way; NFTs provide an opportunity to automate the divisibility of copyrights. The tracking of a sale of fractional ownership of an exclusive right is complex and challenging, but blockchain accounting can automate this process and keep a record of an artist’s divided interests (Lewis). This opportunity emerges under the assumption that NFTs are used to convey copyright at all, which is often not the case. When a buyer purchases, say, an NFT of Beeple’s artwork, at most, that transaction affords them a license to display the copyrighted work in a limited capacity, or, pursuant to 17 USC §109, to “sell or otherwise dispose of its copy notwithstanding the exclusive rights of the owner” (17 USC §109). Nevertheless, artists have an endless Ethereum blockchain at their disposal in which they can keep tabs on their artwork.

NFTs offer valuable benefits for both artists and buyers. As previously stated, blockchain helps track copyright ownership and maintain records of creation and payment. This feature creates scarcity online and provides proof of authenticity and ownership with “uniqueness [as]

the chief selling point,” which validates the cybersphere as a site of fine art collecting (Dormehl). The emergence of NFTs as a medium to protect intellectual property puts into perspective the notion that IP is “real property in its purest form” (Hesse 33). Traditional private property was a solution of exclusivity for issues of scarcity and rivalry, forced into existence by an unpoliced commons. Contrastingly, IP, or the “commons of the mind,” is “nonrival,” inclusive, and boundless (Boyle 17). Unlike common property, overuse is generally not a threat to cyberspace. The unique problem presented by IP is that “it has been difficult, and in some cases virtually impossible, to stop one unit of an intellectual good from satisfying an infinite number of users at zero marginal cost,” which, for a large part, signals the issue with advancing technologies (Boyle 18). NFTs, on the other hand, represent a digital commons of the mind, a counterfeit-proof space where the value of infinite copies is irrespective of the value of an original copy since blockchain ensures authenticity.

NFTs have enabled an Internet culture that imbues proof of an original with cultural status and, concomitantly, the original artwork with cultural capital. This system nulls the financial and social threat of forgery and unauthorized copies to artists and ensures that, based on a hash, every digital asset transferred into a buyer’s digital hands is authentic. The mass adoption of blockchain-protected assets seems to be the key to reducing counterfeiting, piracy being a severe problem for IP owners. NFT customers reject the traditional pirating of digital copies in favor of digitally traceable assets, flaunting a blockchain entry as bragging rights.

NFTs also open the door for artists to reap the financial benefits of their digital art. NFTs have a feature that can pay artists a percentage every time their NFT is sold or changes hands, ensuring that artists will see some of the benefits if their work balloons in value (Adam). This new potential revenue stream enables digital creators to assert their economic value in the art

world, represented by the profit generated from selling unique copies of their work— artist Josie sold visually identical digital pieces as two separate NFTs (*Exhibit C*). The NFTs created by popular digital artist Beeple are a valuable case study demonstrating how NFTs are, in a way, a loose form of copyright assuring both profit and attribution. Beeple receives a 10% royalty every time an NTF linked to his artwork changes hands. For example, the value of a piece of political artwork that he created pre-2020 election and sold for \$67,000 augmented tremendously post-2020 election due to its design to respond to election results. It resold for \$6.6 million, which meant Beeple received \$660,000 in royalties, more than he would have made if *Yoink!* had been a digital piece of art floating on the Internet as a downloadable file only (Tarmy). Additionally, Beeple’s NFTs have his signature and proof of sale built into their code, so forgery and replication of his artworks are impossible, further cementing the counterfeit-proof nature of the NFT space.

By tokenizing a work, an artist broadens their ability to control their work end to end: the token acts as proof of creation and copyright ownership and can be transferred as part of any copyright transfer. However, this is not the case for all artists, such as Furie. Meme creators divorced Pepe from its origins, even placing him in a morally questionable realm of meme culture.

Drawbacks of NFTs, Relating to Copyright

It seems that NFTs are an online marketplace that will finally favor the IP owners over the digital pirate, but as they did when the Internet first surfaced, infringers still find ways to exploit artists and their artwork. The unique problem with this technology is that infringers are “ripping off artists’ work and minting NFTs for them” or even taking it a step further by “creating fake sites for crypto wallets into which unsuspecting artists put their earnings” (Lewis).

Bots are putting artists' work on NFT websites without their permission (with some sites actively encouraging people to tokenize content they do not own), and users are reselling those NFTs made without the authorization of the copyright owner. NFTs represent ownership of a specific copy of work, and that ownership must be lawful; if not, copyright infringement has occurred.

To combat the first issue, NFT auction sites are rushing to create Digital Millennium Copyright Act (DMCA) processes for removing unauthorized NFTs. For legitimate reasons, there are concerns with the DMCA's undermining of copyright law, that it exists to "serve primarily private interests," but in the case of unlawful NFTs, the purpose of enacting DMCA law is to serve the interests of creators (Lunney 815). Digital artists create, produce, and distribute their work, which means the cost is not a matter of industry or corporation but individual creators. Copyright owners of works linked to unlicensed NFTs can send DMCA takedown notices to such sites and to marketplaces that promote the sale of such NFTs. The solution is already beginning to develop out of the piracy concerns, which is to design the markets to allow only verified works, but as is the case with all digital infringement, it is more hidden. However, since NFTs involve public attention to a considerable degree— a meaningful incentive of owning an NFT is the accompanying bragging rights— the identification and subsequent takedown of unlawful NFTs are less challenging.

Memes are an interesting caveat resting at the intersection of NFTs and copyright law. Generally protected under the "fair use" doctrine of US copyright law by virtue of their commentary, educational, or parodic nature, memes and remixes of other people's work flourish in the digital space. Pepe memes hold substantial cultural power on the Internet, and that power is acquiring considerable financial prowess by infiltrating blockchain. From the "Rare Pepe Meme Directory," the rarest Pepe of them all, "one-of-a-kind card display[ing] a morph between

[Homer Simpson] and [Pepe The Frog]”— “Homer Pepe”— sold for 205 ETH, or \$320,000 (Mapperson). It is crucial to highlight that Pepe’s creator, Furie, has become so far removed from the craze of Pepe memes and its ensuing Peperium— a “decentralized meme marketplace and TCG that allowed anyone to create memes that live eternally on IPFS and Ethereum”— that Pepe belongs to the Internet disproportionately more than it does to Furie (Steinwold). And then, there is the issue of whether it is unlawful for meme creators to use third-party images without consent from the copyright holder, such as Pepe’s image used as an alt-right symbol (Romano).

The Internet has manipulated and exploited Pepe to the point where “who owns what?” has evolved into a statement of “who owns what,” with “who” and “what” acting as fungible variables. In other words, the removal of authorship and ownership has allowed a form of Internet sharing culture to simultaneously promote collaborative creative works and disregard artists’ attribution— financially and otherwise— and moral rights. Furie’s invocation of the DMCA in response to Pepe-infringing digital images, not Pepe-related NFTs, raised concerns about the “DMCA [] being used to stop the expression of free speech,” which resulted in Furie’s moral rights taking a backseat to “fair use” (Romano). Memes are bits of cultural material copied, adapted, and passed on for the benefit of evolving the cultural human being— they are unstoppable. Developing copyright standards for meme culture against the backdrop of NFTs will be a considerable challenge for courts in the future.

However, in the same way, no one is prosecuted for reselling a receipt or deed, accused infringers might challenge that an NFT is just a record of ownership, not a copy of anything itself, signifying that its subsequent resale cannot constitute copyright infringement. This perception is something the courts will also consider when deciding the official ruling of NFT infringement cases. The relatively young NFT market is still evolving, which means the systems

moderating the infringement of artwork are developing concurrently. For right now, artists need to be hypervigilant of the new piracy threat presented by NFTs, namely unauthorized NFTs.

Conclusion

Overall, NFTs can be a positive business opportunity for digital creators, a preventative measure for other significant piracy threats such as forgeries, and a medium for creative liberation. NFTs symbolize a principle shift in overall perceptions of ownership. Questions about whether NFTs were a pandemic-era fad subsided as NFTs dominated talks of cryptocurrency, digital art, and ownership in cyberspace. NFTs are the key for digital artists to acquire the same recognition and profit that society rewards traditional artists, which acts as a tremendous incentive. Like traditional art, there could be infinite JPEG files of a work but only one genuine image specified by an NFT and confirmed by blockchain. Since authenticity has an abundance of social capital, NFT collectors are willing to spend large sums to impose and normalize a market framework for digital art similar to traditional art.

As long as there is a demand and consensus placing value on NFTs, there is a future for NFTs. If NFTs are to act loosely in place of copyright, primarily in confirming ownership and proper attribution and preventing infringement, then there needs to be checks in place to ensure that the artificial scarcity NFT creators endeavor to create is backed by an absolute scarcity of NFTs and not just something anyone can conjure up. The NFT market will require heightened enforcement efforts and greater diligence to root itself into, say, mainstream fine art collecting. NFTs are invariably a sign of creative progress, both for society and for individuals endeavoring to profit from their works— NFTs present an alternative avenue for creators to protect their IP, a viable site for future art and copyright intersection.

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Exhibits

Exhibit A

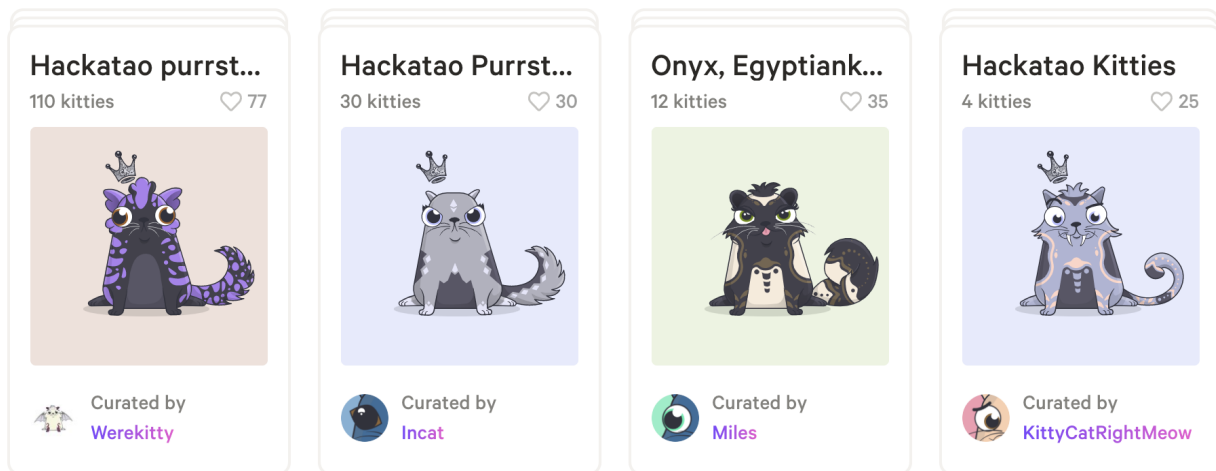
“CryptoPunks”



Source: “CryptoPunks.” *Larva Labs*, www.larvalabs.com/cryptopunks.

Exhibit B

“CryptoKitties”



Source: CryptoKitties. “Collect and Breed Digital Cats!” *CryptoKitties*, www.cryptokitties.co/.

Exhibit C

“Josie Marketplace”



Source: OpenSea. “Josie Marketplace on OpenSea: Buy, Sell, and Explore Digital Assets.” *OpenSea*, opensea.io/assets/josie.