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An “OpenSea” of Infringement: The Intellectual Property Implications of NFTs

By: Madison Yoder

Introduction

If one were to tell a friend about a recent purchase of a digital Hermès Birkin bag for a cool $47,000.00 ten years ago, the friend likely would have had the same reaction most people do now: why would anyone spend that much on a digital purse, when a real Birkin retails for less than that? The question “why would anyone spend so much money on a digital piece of art?” is at the heart of every discussion about Non-Fungible Tokens (“NFTs”), puzzling everyone but those that buy and sell NFTs. A more pressing question, at least for those in the legal profession, is “what potential legal issues arise in the context of NFTs?” In a space where nearly anything can be minted and sold as an NFT, from a tweet to a digital luxury good, the potential legal implications are endless for both buyers and sellers, as well as NFT trading platforms.

NFT sales hit an all-time high in 2021, climbing from $94.9 million in 2020 to $24.9 billion in 2021, and are rife with never-before-seen legal issues and questions, many of which concern Intellectual Property (“IP”) law. A number of artists have cashed in on the lucrative trend by minting and selling their work as NFTs, many of which have earned thousands of dollars virtually overnight. Although some artists have found success in the NFT market, others have been burned by opportunistic individuals who mint and sell their work without the knowledge and consent of the creator.

Individual artists are arguably the most vulnerable to their copyrights being infringed upon, but major corporations are also waging war against the emerging technology, arguing that NFTs have infringed

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upon or diluted their trademarks.\textsuperscript{6} NFTs are being lauded as the “next big thing” in technology and even the art world, but it is imperative that intellectual property owners are informed about the risks of the new craze, in addition to the rewards.

This article provides an overview of Non-Fungible Tokens and the technology that surrounds them, as well as the intellectual property implications that come with them.

**Overview of NFTs**

While NFTs have been around since 2014, their popularity only began to grow in 2020.\textsuperscript{7} As such, many people are unfamiliar with what NFTs are, as well as the technology that they are stored on, a blockchain.\textsuperscript{8} One of the features that sets NFTs and cryptocurrencies apart from traditional currency is that they are stored and exchanged on a secure technology known as a blockchain.\textsuperscript{9} A blockchain is a secure, hack-proof “digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain,” so every time a new transaction takes place, that transaction is recorded and added to each participant’s ledger.\textsuperscript{10} Blockchains make it nearly impossible to hack into the system or change the transaction records in any way, so before buying a digital art NFT, a user is able to look at its records to see who originally created it, as well as all of its previous owners.\textsuperscript{11}

To understand exactly what NFTs are, it is important to know what Fungible Tokens are and how they differ from NFTs. Fungible Tokens “have equivalent fractional values to one another” and thus are interchangeable, similar to how five $1 bills are equivalent to a $5 bill.\textsuperscript{12} Cryptocurrencies, like Dogecoin, are Fungible Tokens as one Dogecoin is equivalent to another Dogecoin, and thus can be used


\textsuperscript{7} Howcroft, *supra* note 3.


\textsuperscript{10} *Id.*


\textsuperscript{12} Chinlund & Gordon, *supra* note 8.
interchangeably. On the other hand, a Non-Fungible Token ("NFT") is a “unique digital object with its own traceable history,” meaning it cannot be used interchangeably with another NFT, and there is a record on the blockchain of each object’s previous owners. In addition to being able to view an NFT’s previous owners, one is also able to view the original creator of the NFT, or whoever first minted it.

One of the reasons so many individuals sell their work as NFTs is because of how simple the minting process is. The creator selects a platform, such as OpenSea, then selects the digital file that is to be minted; the platform subsequently creates a code on the blockchain network it operates on “that includes a unique ID to the digital asset with additional fields for ownership details.” Some platforms make it even easier to create NFTs with their “lazy minting systems,” which let users create and list an NFT for sale without it being written to the blockchain to avoid any fees. Lazy minting allows the creator to bundle the fees associated with writing the NFT to the blockchain with the transfer fees when someone purchases the NFT, so the creator does not lose money if the NFT does not end up selling.

NFTs typically represent digital ownership, whether that be ownership of artwork, a digital plot of land, limited in-game items, and NFT collectibles. Although there are many different forms, NFTs of artwork are the most popular, in addition to being the form that has frequently made headlines for their incomprehensible prices. For example, one of the most expensive NFTs ever sold was created by artist Beeple and sold by renowned auction house Christie’s for $69.3 million in March of 2021. David Tng, who is the head of TZ APAC, a company that helps people get into the NFT realm, recently broke down the concept of NFTs in a simple, easily understood way to Vice. Tng compared NFTs to a signed poster from a favorite artist. Let’s say Billie Eilish releases a poster for her upcoming album, but only 50 of these

13 Id.
14 Ewe, supra note 11.
15 Id.
16 Chinlund & Gordon, supra note 8.
18 Id.
19 Ewe, supra note 11.
21 Ewe, supra note 11.
have her signature with a corresponding serial number.\textsuperscript{22} An NFT is similar to those 50 signed copies; it is always possible to download a regular, unsigned copy of this poster, but this copy is not going to have Billie Eilish’s signature or the identifying serial number on it.\textsuperscript{23} A casual fan may be satisfied with this unsigned copy, but Eilish’s biggest fan will likely shell out more money for one of the copies signed by her because the signature is more valuable and sentimental to that fan than a poster that anyone can access for free.\textsuperscript{24} Similarly, while it is true that anyone can take a screenshot of an art NFT, this screenshot will not have any of the identifying information or the creator’s digital signature that comes with the purchase of the NFT, nor will it have the record of past transactions going back to its creation.\textsuperscript{25}

Much of the confusion surrounding NFTs stems from not understanding what consumers are actually buying when they spend nearly $50,000 on a digital ‘MetaBirkin’ art piece, because there is typically not an exchange of physical goods.\textsuperscript{26} One of the original creators of NFTs, Anil Dash, described one of the issues he ran into as the blockchain’s inability to store the “actual underlying digital asset” because the asset was too large.\textsuperscript{27} Consequently, this means that rather than purchasing the digital artwork, someone is actually buying a link to that digital art.\textsuperscript{28} The “Token” in Non-Fungible Token is “truly a digital item designed to track the asset by its ‘TokenID’ and attribute ownership to the current owner,” which theoretically provides both security in the knowledge that the asset is authentic and bragging rights for the owner, because everyone knows that he owns an authentic asset.\textsuperscript{29}

Of course, with every new technological boom comes new and challenging legal issues to tackle, and NFTs are no different. Although NFTs were initially created for the purpose of enabling artists to “more strongly protect against others appropriating it without permission,” it is increasingly being used to exploit

\textsuperscript{22} Id.
\textsuperscript{23} Id.
\textsuperscript{24} Id.
\textsuperscript{25} Id.
\textsuperscript{26} Ferere, supra note 1.
\textsuperscript{28} Id.
\textsuperscript{29} Chinlund & Gordon, supra note 8.
creative minds and their work.\textsuperscript{30} This means that artists are having the copyrights in their work infringed upon, but copyrights are not the only intellectual property threatened by NFTs. Some brands are claiming that NFTs have infringed upon or diluted their trademarks, whether that be in a piece of digital art or fake store locations in virtual cities.\textsuperscript{31} In the wild west that is the “Metaverse,” will brands be able to establish a likelihood of confusion?

**Copyright Implications of NFTs: Exploiting the Very Group They Were Created to Protect**

The recent explosion of NFTs has thrust the emerging technology into the mainstream media spotlight, giving more people the power to mass-infringe on the copyrights of others. A copyright is a form of intellectual property that “protects original works of authorship that are fixed in a tangible form of expression.”\textsuperscript{32} Works satisfy the originality requirement when they have a minimum degree of creativity and are created by a human independently, without copying the work of others, and are fixed when captured in a “sufficiently permanent medium.”\textsuperscript{33} A tangible form of expression can include digital artwork and computer programs in addition to more traditional works, like paintings and books.\textsuperscript{34}

Copyright ownership comes with certain exclusive rights that may only be exercised and/or authorized by the copyright owner.\textsuperscript{35} The U.S. Copyright Act lists six exclusive rights, but the three that are relevant in the context of NFTs are: (1) the right to reproduce the copyrighted work; (2) the right to prepare derivative works based on the copyrighted work; and (3) the right to distribute copies of the copyrighted work through sale.\textsuperscript{36} A derivative work is a separate work based on a preexisting work, such as adapting a book into a movie.\textsuperscript{37} An NFT can be categorized as either a derivative work or a copy of the original work,

\textsuperscript{30} Dash, supra note 27.
\textsuperscript{32} What is Copyright?, UNITED STATES COPYRIGHT OFFICE, https://www.copyright.gov/what-is-copyright/ (last accessed Feb. 11, 2022).
\textsuperscript{33} Id.
\textsuperscript{34} Id.
\textsuperscript{35} Id.
\textsuperscript{36} 17 U.S.C. § 106 (2020).
both of which may only be created by the copyright holder.\textsuperscript{38} Despite this, artists are having their work stolen and minted into NFTs at an alarming rate, often going unnoticed by the artist for weeks or even months.\textsuperscript{39}

NFTs were originally created specifically to enable artists to take back control over their work, establishing a technologically advanced and secure way to let artists sell more easily and protect the art from being appropriated without their express permission.\textsuperscript{40} This revolutionary idea has the potential to do just that, but opportunistic scammers looking to make a quick buck have done the opposite, stealing thousands of works from large and small creators alike.\textsuperscript{41} Artists and creative minds have dealt with their work being knocked-off long before digital art or NFTs were thought of, but there are crucial differences between replicas of physical art and replicas of digital art: the ease of making copies and how similar those copies are to the original.\textsuperscript{42} When a physical painting is replicated, there are noticeable distinctions between the original and physical works, like brush strokes and aging, because it is difficult to perfectly replicate an artist’s talent and movements.\textsuperscript{43} While a replica may appear original to the naked, untrained eye, upon closer inspection, one would discover flaws in the copy and immediately know it is not authentic.\textsuperscript{44}

In stark contrast to the more traditional way of replicating art, digital art is “inherently reproducible;” it is almost effortless to perfectly reproduce an unlimited number of copies by simply downloading or screenshotting the original piece.\textsuperscript{45} As a result, it is often virtually impossible to distinguish the original artwork from subsequent copies of it, and scammers have wasted no time in creating a more efficient way to exploit artists.\textsuperscript{46} In an effort to maximize profits while putting in minimal effort, some people have created automated NFT minting bots, automated tools that comb through Google Images, social

\textsuperscript{38} Chinlund & Gordon, \textit{supra} note 8.
\textsuperscript{39} Collier, \textit{supra} note 5.
\textsuperscript{40} Dash, \textit{supra} note 27.
\textsuperscript{41} Collier, \textit{supra} note 5.
\textsuperscript{43} Id.
\textsuperscript{44} Id.
\textsuperscript{45} Id.
media, and creators’ online galleries to find images to mint. Once minted, the bots list the NFTs for sale as either individual works or collections, complete with auto-generated titles and descriptions, without the artists ever being notified. One of the more popular bots, Tokenized Tweets, sparked outrage in the digital art community due to the ease with which anyone can use it to create unauthorized NFTs. Tokenized Tweets is a tweet-minting bot that automatically creates NFTs of tweets without alerting the tweet’s owner; a Twitter user merely had to mention the Tokenized Tweets account (@tokenizedtweets) below the original tweet to have the bot mint an NFT of it. This frequently happened to tweets that contained artwork, and although the bot only made NFTs of the URLs, the NFTs are still valuable because the artworks are embedded in the links.

Anyone with a crypto wallet, a software that allows the user to send and receive crypto transactions in addition to storing crypto, is able to mint a digital file and list it for sale on some platforms. OpenSea, one of the most popular and widely used NFT marketplaces, is favored by crypto scammers because it offers “lazyminting,” which makes the process easier and dramatically reduces the seller’s financial risk. OpenSea in particular has thousands of NFT listings for copyrighted works, including over 86,000 pieces from just one artist before she managed to persuade the platform to take the collection down. This is because, aside from offering “lazyminting” and anonymous selling, OpenSea’s unreliable vetting system provides bots with free reign to list NFTs for sale at an alarming rate. The platform has taken steps in the right direction, announcing that it would begin limiting the number of times a user could use its “lazyminting” feature to 50, reasoning that “over 80% of the items created with this tool were plagiarized.

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47 Id.
48 Id.
50 Id.
51 Id.
53 Jacobs, supra note 46.
54 Id.
55 Id.
works, fake collections, and spam.” Following an immediate onslaught of backlash from its users, OpenSea backpedaled and announced it was removing the limit, wanting to remain popular to its users rather than combat the rampant NFT infringement that has become synonymous with the name OpenSea.

All of these attributes combined with OpenSea’s growing popularity make it a breeding ground for intellectual property infringement.

Copyright infringement in the NFT industry is so widespread that some artists choose to devote hours each day to scouring marketplaces for NFTs minted from their work, while others are so exhausted from spending so much time and resources fighting a losing battle that they have given up. Notably, while many authentication tools on NFT marketplaces are either nonexistent or woefully inadequate, digital art haven and online community DeviantArt took matters into its own corporate hands by creating its own authentication tool. DeviantArt Protect is an AI-powered tool that trolls popular marketplaces for minted NFTs of images that appear on DeviantArt, including features that monitor and block minting bots, and notifies the user if near-matches are found. The Protect tool has been a welcome life preserver in a sea of stolen art and intellectual property infringement, having sent more than 80,000 potential NFT infringement alerts since August 2021. Unfortunately, a growing number of artists have found that finding an infringement of their work on NFT platforms seems to be the easiest part of the takedown process.

After discovering minted NFTs of their work listed on NFT marketplaces, artists then face the challenge of persuading the marketplaces to take down the fraudulent listing, something easier said than done.

57 Id.
58 Jacobs, supra note 46.
59 Collier, supra note 5.
62 Id.
The introduction of DeviantArt Protect has enabled creators to skip prowling the Ethereum blockchain for infringement, but hotspots for stolen art, like OpenSea, have made the task of filing takedown requests a tedious process. In situations involving stolen art being minted into NFTs, artists must file a Digital Millennium Copyright Act (“DMCA”) takedown request, which is a tool copyright holders use “to get user-uploaded material that infringes their copyrights taken down off of internet sites,” including NFT marketplaces. OpenSea firmly proclaims that minting and selling NFTs of stolen art is against their terms of service and welcomes artists to use their “IP Takedown Request” form, but this process puts most of the burden on the creator filing the request. Copyright holders must provide their full name and contact information, a publicly accessible link to the copyrighted work, and a description of the violation, among other things. The catch is that all of this information is subsequently forwarded to the infringing party so they can “contact [the artist] to resolve any dispute,” which has elicited concern from many artists about possible retaliation considering infringing parties are frequently anonymous or pseudonymous. Another major downside to OpenSea’s takedown process is how time-consuming it is, as the artist must file a separate takedown request for every individual infringement. For artists like Aja Trier, who had 86,000 of her artworks fraudulently minted and listed for sale on OpenSea, the massive undertaking would take her weeks or months to complete. The lengthy process combined with the platform’s often delayed responses and history of denying takedown requests fuels the fire of fraudulent listings, particularly because the only alternative to the takedown process is to begin litigation, which requires the copyright holder to register the work with the U.S. Copyright Office.

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64 Collier, supra note 5.
65 Id.
67 Collier, supra note 5.
69 Id.; Collier, supra note 5.
70 Collier, supra note 5.
71 Id.
72 What is Copyright?, UNITED STATES COPYRIGHT OFFICE, supra note 32.
litigation are long, drawn-out processes in a space where time is of the essence—there is always a chance that infringing NFTs are purchased before the platform takes them down, and the copyright holders seldom see any of the profits from these sales.\textsuperscript{73}

**Trademarks: Are Consumers Likely to Confuse Digital Goods with Physical Goods?**

While individual artists take the brunt of the intellectual property infringement caused by NFTs, well-known brands are not immune to these issues, as evidenced by recent lawsuits and takedown requests lodged at NFTs that brands claim have infringed on their trademarks.\textsuperscript{74} A trademark includes any word, name, symbol, or device, or any combination of these, that is used by an individual or corporate entity to identify and distinguish their goods from those manufactured and sold by others, and to indicate the source of the goods.\textsuperscript{75} Unlike copyrights, which require creativity and are intended to protect the copyright holder, trademarks are intended to protect consumers from economic or physical harm.\textsuperscript{76} An example of this is distinguishing a $1,500 Louis Vuitton bag from a $40 off-brand bag from Target; if a consumer paid $1,500 for what she thought was an authentic Louis Vuitton bag, only to receive the Target bag instead, it would cause the consumer economic harm.\textsuperscript{77} In this scenario, the consumer was likely confused, deceived, or misled as to the source of the bags, which is what trademark protection aims to prevent.\textsuperscript{78}

The relative newness of NFTs and the “Metaverse” means that courts have not had a chance to rule on most of the issues that permeate the space; consequently, when a court does rule on a case involving NFTs it will set a precedent for how other courts may rule on those issues in the future.\textsuperscript{79} A contender for this precedent is the recent lawsuit luxury brand Hermès filed against digital artist Mason Rothschild for his collection of “MetaBirkins.”\textsuperscript{80} Rothschild created a collection of 100 NFTs of Hermès’ famous BIRKIN

\textsuperscript{73} Collier, supra note 5.
\textsuperscript{74} TFL, supra note 31.
\textsuperscript{77} Id.
\textsuperscript{78} Id.
bag, featuring bright colors and patterns, faux fur, and famous artworks overlaid onto the bag’s iconic shape and design. Among other claims, Hermès lists trademark infringement and dilution as causes of action, citing the unauthorized use of its BIRKIN trademark in connection with the sales of Rothschild’s MetaBirkin collection.

Trademark infringement, Hermès’ first cause of action, is the unauthorized use of a trademark on or in connection with goods in a manner that is likely to cause confusion, deception, or mistake about the source of the goods. In order for Hermès to support its trademark infringement claim, it must prove: (1) it owns the BIRKIN mark and the BIRKIN mark is valid; (2) that its rights in the BIRKIN mark have priority over Rothschild’s MetaBirkin mark; and (3) that Rothschild’s use of his mark in commerce is “likely to cause confusion in the minds of consumers about the source or sponsorship of the goods offered under the parties’ marks.”

Although registering a trademark with the United States Patent and Trademark Office (“USPTO”) is voluntary, the benefits to registration are the exclusive right to use the mark, as well as the legal presumption of the mark’s validity and ownership. Hermès has registered its BIRKIN trademark with the USPTO well before filing this the complaint, so its primary focus in the lawsuit will be on the likelihood of confusion between Hermès’ BIRKIN mark and Rothschild’s MetaBirkin mark.

A likelihood of confusion between trademarks exists when “the marks are so similar and the goods for which they are used are so related that consumers would mistakenly believe they come from the same source.” Each infringement case is decided on a case-by-case basis, but there are two key factors that courts look for when evaluating the likelihood of confusion between marks: (1) the degree of similarity

82 Complaint, supra note 80.
84 Id.
85 Id.
86 Complaint, supra note 80, at 7.
between the marks and (2) whether the parties’ goods are so related that consumers are likely to assume they come from a common source.\(^8\)

The USPTO stresses that sufficient similarity between the marks does not mean the marks are identical; marks may be considered confusingly similar if they “create the same general commercial impression in the consuming public’s mind.”\(^9\) In its complaint, Hermès contends that the popularity of its products and its extensive advertising have strengthened its trademark in the minds of the consuming public, such that purchasers and the public immediately associate any product bearing its BIRKIN mark as being a product of or affiliated with Hermès.\(^9\) It argues that because Rothschild features the BIRKIN mark prominently in advertising, on social media, and in product listings through the use of his MetaBirkin mark, consumers are led to believe that MetaBirkins are being sold by Hermès or that Hermès is associated with or has approved of the sale of MetaBirkin NFTs.\(^9\)

What may prove tricky for Hermès is showing that the physical goods it is known for are so closely related to Rothschild’s digital MetaBirkins that consumers are likely to assume they originate from the same source. There are obvious differences in the products each party sells; the most glaring of which is that Hermès sells luxury tangible goods while MetaBirkins are intangible NFTs that only exist on a blockchain.\(^9\) At first glance, it may appear that MetaBirkins are the furthest thing from any product that Hermès sells, regardless of the name, but as more and more brands venture into the Metaverse, the likelihood of Hermès winning this argument increases.\(^9\) Brands such as Charmin and Pringles have entered the NFT space, selling non-fungible toilet paper and Pringles chips, which brings the Metaverse closer and closer to the physical world.\(^9\) In its complaint, Hermès hints at getting involved in the Metaverse in due time, stating, “[w]hile Hermès has not yet minted and sold its own NFTs, this is a new and burgeoning

\(^{88}\) *About Trademark Infringement*, USPTO, *supra* note 83.

\(^{89}\) *Likelihood of Confusion*, USPTO, *supra* note 87.

\(^{90}\) Complaint, *supra* note 80, at 34.

\(^{91}\) *Id.* at 35.

\(^{92}\) TFL, *supra* note 31.

\(^{93}\) Id.

marketplace.”95 If a brand that typically sells tangible, edible chips can sell intangible digital chips, there is no reason that consumers would not assume Hermès is associated with MetaBirkins.96

Hermès is also claiming trademark dilution, asserting that Rothschild and his MetaBirkins “dilate the distinctive quality of the BIRKIN mark and the goodwill associated with it.”97 Trademark dilution occurs when the alleged infringer diminishes the strength or value of a famous trademark by “blurring” the mark’s distinctiveness or “tarnishing” the mark’s reputation by connecting it to something distasteful.98 In this context, a trademark is famous if the general consuming public widely recognizes it as designating the source of the goods of the mark’s owner, meaning that, for example, consumers widely recognize the Swoosh logo to indicate the product originates from Nike.99 The BIRKIN mark is synonymous with the Hermès brand, as it notes in its complaint “the BIRKIN mark is… associated in the mind of the public with Hermès,” so it is undoubtedly famous.100 Hermès prides itself on the extreme exclusivity and scarcity of BIRKIN bags, with a waitlist that one has to be invited to join, so it is easy to see why Hermès disapproves of Rothschild’s “everyone can have a MetaBirkin” approach.101 The BIRKIN’s exclusivity has more than paid off for the brand, as new bags typically have a starting price of $12,000 and have been resold for more than $500,000.102 The legendary bags are more than just a status symbol—they are a great investment, if one can afford it, as a 2017 study found that the value of BIRKINs increased 500% in 35 years.103 Considering Hermès’ purposeful scarcity and exclusivity are one of the reasons for this increase in value, it will likely win on its trademark dilution claim.104

Conclusion

95 Complaint, supra note 80, at 4.
96 Hamacher, supra note 94.
97 Complaint, supra note 80, at 38.
98 About Trademark Infringement, USPTO, supra note 83.
100 Complaint, supra note 80, at 34.
101 Id. at 9.
103 Id.
104 Id.
Non-Fungible Tokens are the latest crypto craze to go mainstream, with everyone from NBA player Steph Curry to celebrity influencer Paris Hilton paying—sometimes over $200,000—to join the trend.\(^\text{105}\) In such a new and technologically unfamiliar space, there are plenty of interesting legal issues that have yet to be explored in the context of NFTs, particularly those involving intellectual property. While the co-creator of NFTs has been open about the technology being intended to help artists cut down on people ripping off their work, the opposite is occurring—opportunistic scammers are exploiting artists and infringing on their copyrights with ease.\(^\text{106}\) Even corporate trademarks are not safe in the Metaverse, with other opportunists quick to profit from associating their NFTs with famous brands in their quest to become the next Beeple.\(^\text{107}\) The number of IP infringement issues continues to grow with the NFT industry’s popularity, leading to new precedents being set both in the physical world and in the Metaverse.


\(^{106}\) Dash, *supra* note 27.

\(^{107}\) TFL, *supra* note 31.