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## New Frontiers in Technology: Can Traditional Intellectual Property Rights Laws Be Adapted and Applied to NFTs?

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# NEW FRONTIERS IN TECHNOLOGY: CAN TRADITIONAL INTELLECTUAL PROPERTY RIGHTS LAWS BE ADAPTED AND APPLIED TO NFTS?

Mariyah S. Wakhariya\*

A decade ago, NFT was a phrase rarely heard of or known to anyone, unless they worked in or kept up with the tech world. Even then, it would not be surprising if one had not heard of NFTs.<sup>1</sup> Today, however, it is nearly impossible to spend more than ten minutes on the internet without running into at least a mention of them. As one late night talk show host joked, “[i]n one year we have gone from having no idea what [NFTs] are, to having no idea why [NFTs] are.”<sup>2</sup>

‘NFT’ stands for ‘non-fungible token.’<sup>3</sup> ‘Non-fungible’ means that the item in question is “unique and can’t be replaced with something else.”<sup>4</sup> For example, bitcoin is fungible because you can trade one bitcoin for another, and you would

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<sup>1</sup> Josie Thaddeus-Johns, *What Are NFTs Anyway? One Just Sold for \$69 Million.*, N.Y. TIMES, <https://www.nytimes.com/2021/03/11/arts/design/what-is-an-nft.html> (Oct. 4, 2021) (stating that the technology for NFTs existed since mid-2010s but was not utilized by mainstream until late 2017); Nikhilesh De, *State of Crypto: It’s Time to Talk About NFTs and Intellectual Property Law*, COINDESK, <https://www.coindesk.com/policy/2021/03/09/state-of-crypto-its-time-to-talk-about-nfts-and-intellectual-property-law/> (Sept. 14, 2021) (“The other day, I sold a pair of tweets. This isn’t a sentence I’d have imagined writing a year ago . . .”).

<sup>2</sup> The Late Show with Stephen Colbert, *Stephen Colbert Presents: “NFT Heist” – The First Blockbuster Movie About NFTs!*, YOUTUBE (Mar. 12, 2022), <https://www.youtube.com/watch?v=boWHBjHkPSo>.

<sup>3</sup> Mitchell Clark, *NFT’s, Explained*, THE VERGE, <https://www.theverge.com/22310188/nft-explainer-what-is-blockchain-crypto-art-faq> (June 6, 2022).

<sup>4</sup> *Id.*

still have the same thing.<sup>5</sup> On the other hand, something like a limited-edition trading card is non-fungible - even if you traded it for another card, you would have something completely different with its own separate and distinct value.<sup>6</sup>

An NFT is a digital file with a unique identity that is verified on a blockchain<sup>7</sup> and is not interchangeable - i.e., a kind of crypto asset, like a certificate of authenticity for digital artifacts.<sup>8</sup> Theoretically, NFTs can represent “almost any real or intangible property, including artwork, music, videos, collectibles, trading cards, video game virtual items, or even real estate.”<sup>9</sup> They can also be used to “represent proof of ownership of physical objects,” such as a limited-edition handbag, or tied to in person experiences and acts, such as concert tickets or private performances.<sup>10</sup>

History has revealed the human tendency to underestimate the long-term effect of major technological developments.<sup>11</sup> To be sure, nobody but those that worked in the field of technology or who were cryptocurrency enthusiasts paid much attention to NFTs when they were first created in 2012-13.<sup>12</sup> Many compared NFTs to the Beanie Baby trend of the late 1990s and expected the fad to die down quickly.<sup>13</sup> Nearly a decade later, however, NFTs seem to only be growing in popularity.<sup>14</sup> They are no longer limited to a game, but are branching out into various areas, including, in what many are calling a twist of irony, to

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<sup>5</sup> Jake Frankenfield, *What Is Bitcoin? How to Mine, Buy, and Use It*, INVESTOPEDIA, <https://www.investopedia.com/terms/b/bitcoin.asp> (Apr. 5, 2023) (“[Bitcoin is a] decentralized virtual currency[.]”).

<sup>6</sup> Clark, *supra* note 3.

<sup>7</sup> Adam Hayes, *Blockchain Facts: What Is It, How It Works, and How It Can Be Used*, INVESTOPEDIA, <https://www.investopedia.com/terms/b/blockchain.asp> (Sept. 27, 2022) (“A blockchain is a distributed database . . . that is shared among the nodes of a computer network . . . [that] stores information electronically in digital format.”).

<sup>8</sup> Sam Dean, *\$69 Million for Digital Art? The NFT Craze Explained*, L.A. TIMES (Mar. 11, 2021), <https://www.latimes.com/business/technology/story/2021-03-11/nft-explainer-crypto-trading-collectible>.

<sup>9</sup> Brittany Martin, *Thinking of Buying or Minting an NFT? Here's What You Need to Know*, L.A. MAG. (Mar. 22, 2021), <https://www.lamag.com/article/nft-law-copyright/>.

<sup>10</sup> AWS Editorial Team, *How to Create and Sell Non-Fungible Tokens (NFTs)*, AWS (May 19, 2021), <https://aws.amazon.com/blogs/startups/how-to-create-and-sell-non-fungible-tokens-nfts/>.

<sup>11</sup> RAYMOND L. OCAMPO JR., *SURFING THE LAW AND TECHNOLOGY TSUNAMI* 21–22 (2001).

<sup>12</sup> Tiffany Ellis, *A Brief History of NFT and How They Got Started*, NFT NEWS PRO, <https://nftnewspro.com/a-brief-history-of-nft-and-how-they-got-started/> (Apr. 6, 2023).

<sup>13</sup> Kevin Chupka, *Beanie Babies: Whatever Happened to Millennial's' Favorite Toy?*, YAHOO! FINANCE (Mar. 3, 2015), <https://finance.yahoo.com/news/beanie-babies—whatever-happened-to-millennials—favorite-toy-213059948.html>; Louisa (@LouisatheLast), TWITTER (Jan. 3, 2020, 3:54 PM), <https://twitter.com/LouisatheLast/status/1478107436296847361>.

<sup>14</sup> Clark, *supra* note 3.

Beanie Babies themselves.<sup>15</sup>

One example of the growing popularity of NFTs is the “Bored Ape Yacht Club.”<sup>16</sup> Launched in April 2021, the “Bored Ape Yacht Club” (“BAYC”) is a collection of 10,000 NFTs, each depicting an ape with different traits and visual attributes.<sup>17</sup> The collectors of these NFTs were provided “with 100 percent of the monetization rights of the characters.”<sup>18</sup> This means that the collectors were given complete discretion over what to do with their NFT, including reselling it or licensing it.<sup>19</sup> While it may sound arcane, this is one of the largest NFT collections in the world, second only to the original NFT collection, “Cryptopunks.”<sup>20</sup> It is also one of the most prestigious collections in the world, with a range of celebrities from Jimmy Fallon to Post Malone among its star-studded members.<sup>21</sup> One of the apes even graced the cover of the November 2021 issue of *Rolling Stone*, and the team behind the collection recently signed a collaboration deal with Adidas.<sup>22</sup>

That said, just because NFTs are popular does not mean that they are understood. Despite countless explainers, some more formal than others, the world of NFTs remains largely uncharted territory.<sup>23</sup> The BAYC, for example,

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<sup>15</sup> Victor Tangermann, *In Proof That Irony Is Dead, People Are Trying to Make Beanie Baby NFTs*, THE BYTE (Jan. 12, 2022), <https://futurism.com/the-byte/beanie-babies-nfts> (discussing parallels between NFTs and 90’s Beanie Baby trend and how some are trying to capitalize them by selling ownership rights of physical Beanie Babies as NFT).

<sup>16</sup> BAYC, <https://boredapeyachtclub.com/#/> (last visited Apr. 17, 2023).

<sup>17</sup> Daniel Van Boom, *How a \$300K Bored Ape Yacht Club NFT Was Accidentally Sold for \$3K*, CNET (Jan. 9, 2022), <https://www.cnet.com/news/how-a-300k-bored-ape-yacht-club-nft-was-accidentally-sold-for-3k/>.

<sup>18</sup> *10:22PM Forms KINGSHIP, The First-Ever Group Consisting of NFT Characters from Bored Ape Yacht Club*, UNIVERSAL MUSIC GRP. (Nov. 11, 2021), <https://www.universalmusic.com/1022pm-forms-kingship-the-first-ever-group-consisting-of-nft-characters-from-bored-ape-yacht-club/>.

<sup>19</sup> See Mykola Siusko, *NFTs and Intellectual Property: What is the Future of Digital Asset Monetization?*, MEDIUM (Dec. 15, 2021), <https://medium.com/deip/nfts-and-intellectual-property-what-is-the-future-of-digital-asset-monetization-9ab914c0d092>.

<sup>20</sup> Van Boom, *supra* note 17; *CryptoPunks*, LARVA LABS, <https://www.larvalabs.com/cryptopunks> (last visited Apr. 17, 2023) (CryptoPunks, one of the earliest NFT collections, consisted of 10,000 unique characters that could be claimed for free by anyone with Ethereum wallet).

<sup>21</sup> Van Boom, *supra* note 17.

<sup>22</sup> *Rolling Stone x Bored Ape Yacht Club Limited-Edition Zine*, ROLLINGSTONE SHOP, <https://shop.rollingstone.com/products/rolling-stone-x-bored-ape-yacht-club-special-collectors-edition-zine> (last visited on Apr. 17, 2023); Ian Servantes, *Adidas Is Teaming with Bored Ape Yacht Club to Make (More) Hyped NFTs*, INPUT (Nov. 30, 2021), <https://www.inputmag.com/style/adidas-nft-bored-ape-yacht-club-collaboration-streetwear-metaverse-fashion>.

<sup>23</sup> See, e.g., Dean, *supra* note 8; Clark, *supra* note 3; but see, e.g., @humphreytalks, TIKTOK (Jan. 13, 2022), <https://vm.tiktok.com/TTPdrbvqj/> (comparing websites that have taken a formal, almost clinical approach to explaining NFTs, with those that have simplified them by using layman’s terms, and even humor).

while contentious and jealousy-inspiring for those who own and trade NFT art, is a source of confusion and suspicion for people who do not.<sup>24</sup> And like with other things that are popular but not entirely understood by the general population, the denizens of the internet have taken it upon themselves to find humor in the situation. From the most simplistic explanations on Tumblr blogs,<sup>25</sup> to tweets,<sup>26</sup> memes,<sup>27</sup> cartoons,<sup>28</sup> and even segments on late night talk shows,<sup>29</sup> NFTs are a constant subject of conversation.

The popularity of NFTs does not mean that our current legal system has an adequate way of addressing and protecting the respective rights of the creators, sellers, and buyers of NFTs.<sup>30</sup> This is becoming clearer as their popularity continues to grow.<sup>31</sup> While many people who invest in NFTs are attracted by the fact that it is a decentralized system, they quickly realize the downside when their NFTs get stolen, and they cannot turn to any legal authority to get them back.<sup>32</sup>

In general, intellectual property law “offers insights into the social impact of our ever-increasing reliance on technology.”<sup>33</sup> Usually when there is a

<sup>24</sup> See generally Van Boom, *supra* note 17.

<sup>25</sup> shurisneakers, TUMBLR (Nov. 5, 2021, 10:33 PM), <https://shurisneakers.tumblr.com/post/667032529710268416/i-feel-like-this-is-the-only-time-ive-understood>.

<sup>26</sup> Louisa, *supra* note 13.

<sup>27</sup> izzitMichaela (@izzitMichaela), TWITTER (Nov. 15, 2021, 9:15 AM), <https://twitter.com/izzitmichaela/status/1460250217341669380>.

<sup>28</sup> Adam Sacks (@adamsackstoons), INSTAGRAM (Oct. 18, 2021), <https://www.instagram.com/p/CVK066CPshA/>.

<sup>29</sup> The Late Show with Stephen Colbert, *Stephen Drops an AFT that Explains the NFT Craze*, YOUTUBE (Nov. 23, 2021), <https://www.youtube.com/watch?v=dmKmsryeIDl>; The Late Show with Stephen Colbert, *Stephen Colbert's AFT Is Now an NFT! Get Your 'Colbert vFlect' Today and Support Donors Choose*, YOUTUBE (Feb. 22, 2022), <https://www.youtube.com/watch?v=RM8kA5Q3Lyc>; Dennis Perkins, *The Internet Eats Itself as Stephen Colbert's AFT Becomes an NFT*, A.V. CLUB (Feb. 22, 2022), <https://www.avclub.com/the-internet-eats-itself-as-stephen-colberts-aft-become-1848574712> (ironically, three months after Mr. Colbert did a segment parodying NFTs by explaining them on the back of a brown paper bag and putting the actual bag up for auction to raise money for charity, a U.K.-based virtual marketplace turned it into an NFT and put it up for sale).

<sup>30</sup> De, *supra* note 1.

<sup>31</sup> Tony Ho Tran, *Hackers Steal \$2.2 Million Worth of NFTs from Art Collector*, THE BYTE (Jan. 6, 2022), <https://futurism.com/the-byte/hackers-steal-nfts-art-collector>.

<sup>32</sup> *Id.*; Hayes, *supra* note 7 (“Blockchains are best known for their crucial role in cryptocurrency systems . . . for maintaining a secure and decentralized record of transactions. The innovation with a blockchain is that it guarantees the fidelity and security of a record of data and generates trust without the need for a trusted third party.”).

<sup>33</sup> Marcus Norrgård et al., *Intellectual Property Rights in the Era of 3D Printing*, in 3D PRINTING, INTELLECTUAL PROPERTY AND INNOVATION: INSIGHTS FROM LAW AND TECHNOLOGY 63, 64 (Rosa Maria Ballardini et al. eds., 2017).

development in a field of technology, it leads to reform in intellectual property law.<sup>34</sup> Examples of this can be seen in software, music, biotechnology, and most recently, 3D printing.<sup>35</sup>

3D printing, also known as additive manufacturing, is “a process of making three dimensional solid objects from a digital file.”<sup>36</sup> The first commercial 3D printing process and equipment were displayed in the United States in 1987.<sup>37</sup> In the early years of 3D printing many researchers and companies worked with “photocuring”<sup>38</sup> to make 3D objects, but the process was made into a successful business by Charles Hull.<sup>39</sup> It was through Hull’s work that “3D modeling became significantly [more] popular with companies” in the late 1980s and early 1990s.<sup>40</sup>

“As 3D printing continue[d] to develop, its potential implications for society [were] radical,” due to “the simple fact that [it] allow[ed] the manufacturing of physical items” based on their representations in digital Computer-Aided Design (“CAD”) files.<sup>41</sup> But, as with almost all other new technologies, “the advent of 3D [printing came with] legal and regulatory implications.”<sup>42</sup> As is the case with NFTs right now, the research and understanding of 3D printing and Intellectual Property Rights (“IPRs”) was insufficient at the time.<sup>43</sup> The biggest question, and one that is seemingly echoed with NFTs, was one of classification.<sup>44</sup> Should the digital CAD files that were the basis of the 3D model be protected by copyright law, patent law, trademark law, or something else entirely?<sup>45</sup> Furthermore, should the underlying digital file receive the same IPR protections as the physical object it represents?<sup>46</sup>

Through this paper I have recounted a brief background and history of NFTs,

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<sup>34</sup> *Id.* at 63.

<sup>35</sup> *Id.*

<sup>36</sup> *What Is 3D Printing?*, 3DPRINTING.COM, <https://3dprinting.com/what-is-3d-printing/> (last visited Apr. 17, 2023).

<sup>37</sup> Jukka Tuomi et al., *3D Printing History, Principles and Technologies*, in 3D PRINTING, INTELLECTUAL PROPERTY AND INNOVATION: INSIGHTS FROM LAW AND TECHNOLOGY 1, 2 (Rosa Maria Ballardini et al. eds., 2017).

<sup>38</sup> *Photocuring Basics*, ALLEVI, <https://www.allevi3d.com/photocuring-basics/> (June 1, 2020) (“Photocuring is the process of hardening a substance by exposing it to a specific wavelength of light.”).

<sup>39</sup> Tuomi et al., *supra* note 37, at 3.

<sup>40</sup> *Id.* at 4.

<sup>41</sup> Norrgård et al., *supra* note 33, at 63; Margaret Rouse, *Computer-Aided Design (CAD)*, TECHOPEDIA, <https://www.techopedia.com/definition/2063/computer-aided-design-cad> (Aug. 24, 2021) (“Computer aided design or CAD involves using computers to help with engineering and design for a wide range of projects in various industries.”).

<sup>42</sup> Norrgård et al., *supra* note 33, at 63.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.* at 64.

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*

from their initial development, to where they are today. I have also summarized the different areas in which NFTs are being used. My goal for this paper is to explore the traditional intellectual property rights laws as they stand today and analyze whether they can be applied to NFTs in their current iterations, or whether (and how) these laws need to be adapted for them to adequately address the issues that arise with NFTs. Furthermore, I have looked at two of the areas that are heavily implicated by NFTs. Finally, I have concluded this paper by conducting a practical experiment, where I both bought an NFT, and created, and tried to sell an NFT of my own artwork. I have explained the process and applied the laws (either current or proposed) to this process and have evaluated how they would work.

## I. BACKGROUND ON NFTS

NFTs began as an offshoot of cryptocurrency, then in the form of “colored coins” – small denominations of a bitcoin that could be used to represent a multitude of assets.<sup>47</sup> In 2014, Counterparty, a peer-to-peer financial platform that gave users a way to create their own tradable currencies, was founded.<sup>48</sup> The first NFT titled “Quantum” - “a pixelated image of an octagon filled with denoting circles, arcs, and other shapes sharing the same center” - was also created or ‘minted’<sup>49</sup> in 2014, by Kevin McCoy.<sup>50</sup> By 2016 people were trading video game assets and trading cards on the blockchain.<sup>51</sup>

However, it wasn’t until early 2017, with the growth of Ethereum,<sup>52</sup> the increased trading and auctioning of the “Rare Pepes” meme,<sup>53</sup> and the birth of

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<sup>47</sup> Andrew Steinwold, *The History of Non-Fungible Tokens (NFTs)*, MEDIUM (Oct. 7, 2019), <https://medium.com/@Andrew.Steinwold/the-history-of-non-fungible-tokens-nfts-f362ca57ae10>.

<sup>48</sup> Ellis, *supra* note 12.

<sup>49</sup> *Id.*; Emily Taylor, *How NFT Minting Works - An Initial Guide to NFTs*, AZ BIG MEDIA (Oct. 29, 2021), <https://azbigmedia.com/business/how-nft-minting-works-an-initial-guide-to-nfts/> (explaining that “minting” is the process by which digital files are turned into crypto assets that can be traded, or bought using cryptocurrency, like metal coins are minted and put into circulation).

<sup>50</sup> Ellis, *supra* note 12.

<sup>51</sup> *Id.*

<sup>52</sup> *Ultimate Ethereum Guide for Newbies*, 101 BLOCKCHAINS (May 29, 2018), <https://101blockchains.com/ultimate-ethereum-guide/> (“Ethereum is a decentralized public blockchain platform,” almost like a digital public ledger for verifying and recording transactions. It “is open-source and programmable, allowing users to develop smart contracts and decentralized applications,” and has its own cryptocurrency, like bitcoin or dogecoin, called “Ether.”).

<sup>53</sup> *Meme*, MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/dictionary/meme> (last visited Apr. 17, 2023) (“[A]n amusing or interesting item (such as a captioned picture or video) or genre of items that is spread widely online

CryptoArt that people realized that digital art could have an intrinsic value.<sup>54</sup> All of this development culminated in the creation of a game called “Crypto Kitties,” “essentially [a] digital version of Pokemon [trading] cards . . . based on the Ethereum blockchain,”<sup>55</sup> launched by a Canadian company, Dapper Labs.<sup>56</sup> This was when NFTs experienced an explosive boost in popularity and started drawing more attention.<sup>57</sup>

Most NFTs are part of the Ethereum blockchain.<sup>58</sup> This became possible when Ethereum added support for them on their blockchain as part of a new standard.<sup>59</sup> However, other blockchains have also begun to implement their own versions of NFTs.<sup>60</sup> NFTs can be bought and sold in virtual marketplaces that have been created for this purpose, such as OpenSea, Rarible, and Nifty Gateway.<sup>61</sup>

## II. WHERE ARE NFTS USED?

NFTs are no longer limited to videogames and pulsating images.<sup>62</sup> A lot of their popularity today comes from their potential as an evolution of fine art collecting, only with purely digital or hybrid works of art instead of purely physical artworks.<sup>63</sup> For many, owning NFTs is like owning rare, first edition books, or priceless paintings.<sup>64</sup> However, the popularity of NFTs is quickly spreading beyond just digital artwork.<sup>65</sup>

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especially through social media.”).

<sup>54</sup> Jason Bailey, *Rare Pepe Wallet & The Birth of CryptoArt*, ARTNOME (Jan. 25, 2018), <https://www.artnome.com/news/2018/1/23/rare-pepe-wallet-the-birth-of-cryptoart>.

<sup>55</sup> Fitz Tepper, *People Have Spent Over \$1M Buying Virtual Cats on the Ethereum Blockchain*, TECHCRUNCH (Dec. 3, 2017), <https://techcrunch.com/2017/12/03/people-have-spent-over-1m-buying-virtual-cats-on-the-ethereum-blockchain/>.

<sup>56</sup> Gian M. Volpicelli, *NFTs Boom as Collectors Shell Out to ‘Own’ Digital Art*, WIRED (Feb. 27, 2021), <https://www.wired.com/story/nfts-boom-collectors-shell-out-crypto/>.

<sup>57</sup> *See id.*; *see generally* Clark, *supra* note 3.

<sup>58</sup> Clark, *supra* note 3.

<sup>59</sup> *Id.*; *see* 101 BLOCKCHAINS, *supra* note 52 (“ERCs or Ethereum Requests for Comments are the Ethereum platform’s application level standards.”); *see generally* ERC-721 *Non-Fungible Token Standard*, ETHEREUM, <https://ethereum.org/en/developers/docs/standards/tokens/erc-721/> (Jan. 20, 2023).

<sup>60</sup> Clark, *supra* note 3; *see* Ian Kane, *TRON Introduces NFT Standard TRC-721*, DAPPRADAR (Jan. 4, 2021), <https://dappradar.com/blog/tron-introduces-nft-standard-trc-721> (“TRON’s first non-fungible token (NFT) standard TRC-721 was officially announced on December 24th, 2020. The introduction of the standard is anticipated to help the Chinese centric blockchain . . . keep pace with Ethereum’s growing NFT sector.”).

<sup>61</sup> *See* Clark, *supra* note 3.

<sup>62</sup> *See generally* Clark, *supra* note 3; Ellis, *supra* note 12.

<sup>63</sup> Clark, *supra* note 3.

<sup>64</sup> Kevin Roose, *Why Did Someone Pay \$560,000 for a Picture of My Column?*, N.Y. TIMES (Aug. 12, 2021), <https://www.nytimes.com/2021/03/26/technology/nft-sale.html>.

<sup>65</sup> *See* Clark, *supra* note 3.



## A. Art

Among the most famous artwork NFTs are Grimes' digital art collection, sold at auction for \$6 million.<sup>66</sup> Socialite-entrepreneur Paris Hilton created NFTs of three original artworks, and sold them as a collection, entitled "Planet Paris."<sup>67</sup> Her foray into the NFT world began in 2020 with a charitable NFT, "Cryptograph of Munchkin."<sup>68</sup>

While NFTs are often associated with digital art pieces, over the past few month's collections, such as the BAYC,<sup>69</sup> "World of Women,"<sup>70</sup> and "Crypto Coven,"<sup>71</sup> are becoming increasingly prevalent. These collections allow their owners to flaunt their NFTs by using them as profile pictures on social media.<sup>72</sup>

## B. Music

NFTs have also been utilized in the music industry. One example is British musician Liam Payne, who released an NFT multimedia collection in May 2021 in collaboration with other artists.<sup>73</sup> Another example is "KINGSHIP," the first-ever metaverse group created by 10:22PM - a next generation Web3 label that "discovers and develops artists [and] intellectual property . . . ."<sup>74</sup> KINGSHIP consists of four characters from the BAYC and through them 10:22PM intends

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<sup>66</sup> Jacob Kastrenakes, *Grimes Sold \$6 Million Worth of Digital Art as NFTs*, THE VERGE (Mar. 1, 2021), <https://www.theverge.com/2021/3/1/22308075/grimes-nft-6-million-sales-nifty-gateway-warnymph>.

<sup>67</sup> Ryan James, *Paris Hilton Launches Own NFTs, Selling for over \$1.11 Million*, YAHOO! (Apr. 18, 2021), <https://www.yahoo.com/now/paris-hilton-launches-own-nfts-132000108.html>.

<sup>68</sup> *Id.*; see generally Paris Hilton (@ParisHilton), TWITTER (Aug. 12, 2020, 11:30 PM), <https://twitter.com/parishilton/status/1293751662536884224?lang=en>.

<sup>69</sup> Van Boom, *supra* note 17.

<sup>70</sup> *World of Women*, WORLD OF WOMEN, <https://worldofwomen.art> (last visited Apr. 17, 2023); see generally World of Women (@worldofwomennft), TWITTER, <https://twitter.com/worldofwomennft> (last visited Apr. 17, 2023) (stating that a collection of 10,000 NFTs of animated images of diverse women were sold on the OpenSea virtual marketplace).

<sup>71</sup> *Roadmap*, CRYPTO COVEN, <https://www.cryptocoven.xyz/roadmap> (last visited Apr. 17, 2023) ("Crypto Coven is an immersive, narrative driven experiment in world-building" where people can buy generative portraits of witches, as NFTs, which can be used as characters in virtual crypto coven world).

<sup>72</sup> Van Boom, *supra* note 17; see generally Shonda Rimes (@shondarhimes), TWITTER (Jan. 7, 2022, 12:50 PM), <https://twitter.com/shondarhimes/status/1479510847412125696>; Steve Aoki (@steveaoki), TWITTER (Jan. 3, 2022, 8:59 PM), <https://twitter.com/steveaoki/status/1478184396989501440>.

<sup>73</sup> See generally Liam Payne (@liampayne), INSTAGRAM (June 14, 2021), <https://www.instagram.com/p/CQHCEARaAU>.

<sup>74</sup> UNIVERSAL MUSIC GRP., *supra* note 18.

to guide the owners of the Apes in developing and releasing new music and NFTs.<sup>75</sup>

An interesting way the music industry is utilizing NFTs is by using them to try and better protect the rights of newer artists.<sup>76</sup> A blockchain startup company known as “S!ng” has recently developed a virtual marketplace where creators can upload files to their servers.<sup>77</sup> Those files are then turned into NFTs and time-stamped on the Ethereum blockchain.<sup>78</sup> This allows artists to maintain credit for their works as they create them.<sup>79</sup> The goal behind this is for artists to have the option to autosave their work with clear timestamps that would indicate their identity.<sup>80</sup> This in turn would eliminate, or at least significantly simplify, disputes over the rights to a certain work.<sup>81</sup> According to the CEO of S!ng, it would provide “very public witnesses to a very private event,” by providing attestation to the existence of certain content, without having to put the content into the public domain before completion.<sup>82</sup> The platform also allows people to support smaller artists by purchasing their completed works as NFTs.<sup>83</sup>

### C. Museums

Due to their historic nature of being risk averse, museums did not jump on the NFT trend until recently, because NFTs were (and still to a large extent continue to be) unknown variables.<sup>84</sup> Yet, NFTs are an area of potential revenue generation for museums, especially in the aftermath of the COVID-19 pandemic,

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<sup>75</sup> *Id.*

<sup>76</sup> See generally Dmitry Pastukhov, *6 Basics of Music Copyright Law: What It Protects and How to Copyright a Song*, SOUNDCHARTS (Feb. 10, 2020), <https://soundcharts.com/blog/music-copyrights> (explaining that music copyright is notoriously complicated landscape due to different copyrights for different parts of musical work, and depending on contract entered copyright ownership splits between several people; creation of copyright is not straightforward either, and depending on where artist is, additional steps may need to be taken to ensure copyright, once created, is enforceable).

<sup>77</sup> Lucas Matney, *Blockchain Startup S!ng Wants Creators to Lean on NFTs to Protect Their Intellectual Property*, TECHCRUNCH (Apr. 26, 2021), <https://techcrunch.com/2021/04/26/blockchain-startup-sng-wants-creators-to-lean-on-nfts-to-protect-their-intellectual-property/amp/?guccounter=1>.

<sup>78</sup> *Id.*

<sup>79</sup> Pastukhov, *supra* note 76; A work needs to be fixed in a tangible medium for a copyright to be created, but doing this means the work has to be put out in the public realm, and while doing this gives the artist copyright protections, it also puts their works at higher risk of being stolen. *Id.*

<sup>80</sup> Matney, *supra* note 77.

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*; see Pastukhov, *supra* note 76 (explaining that doing so would allow work to be put into tangible medium without being accessible by public until it was ready for release).

<sup>83</sup> See Matney, *supra* note 77.

<sup>84</sup> See Scott Reyburn, *Museums Are Cashing in on NFTs*, N.Y. TIMES (Mar. 25, 2022), <https://www.nytimes.com/2022/03/25/arts/design/museums-nfts.html>.

when almost all the museums were forced to shut down.<sup>85</sup> Only a few are now beginning to resume semi-normal operations, and even those are finding themselves in the midst of their own financial depression, owing to the prolonged absence of ticket sales.<sup>86</sup>

There are two major ways museums have embraced NFTs.<sup>87</sup> One, by collaborating with artists and/or charities and releasing limited edition prints and exhibitions.<sup>88</sup> The other, as suggested by Mark Sabb, the Senior Director of Innovation, Marketing, and Engagement at the Museum of the African Diaspora, by opening a cryptocurrency wallet that would allow patrons to donate.<sup>89</sup>

#### D. Journalism and Publishing

NFTs have also entered the world of journalism. In early 2021 a writer for the New York Times decided to turn his article about NFTs into an NFT with the dual goal of being able to write about the process of creating and selling an NFT and raising some money for charity.<sup>90</sup> Much to the writer's surprise, his experiment became the subject of a bidding war, with the NFT of the column eventually selling for \$560,000 - far above the minimum price of \$800.<sup>91</sup> When asked why they would bid such large sums on an article that could be read on the New York Times' website, many said that they believed NFTs like this one would someday have historical significance, and were worth taking seriously.<sup>92</sup>

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<sup>85</sup> See Richard Whiddington, *The Potential and Pitfalls of NFTs In The Museum Sphere*, JING CULTURE AND COMMERCE (Mar. 30, 2021), <https://jingculturecommerce.com/cuseum-nfts-in-museum-sector-webinar-takeaways/>.

<sup>86</sup> *Id.*; Jason Bailey, *Why Museums Should be Thinking Longer Term About NFTs*, ARTNOME (July 28, 2021), <https://www.artnome.com/news/2021/7/28/why-museums-should-be-thinking-longer-term-about-nfts>.

<sup>87</sup> See Whiddington, *supra* note 85.

<sup>88</sup> See generally Claire Selvin, *UCCA Beijing to Present 'World's First Major Institutional Crypto-Art Exhibition'*, ARTNEWS (Mar. 4, 2021), <https://www.artnews.com/art-news/news/ucca-beijing-crypto-art-exhibition-1234585626/>.

<sup>89</sup> *Discussing and Debating the Potentials of NFTs in the Museum Sector*, CUSEUM (Mar. 25, 2021), <https://cuseum.com/webinars/discussing-and-debating-the-potentials-of-nfts-in-the-museum-sector-video> ("To mint an artwork, you need a wallet, which is where you save tokens. Have that and you have the ability to accept donations; people will love to support museums through wallets."); Brian Nibley, *What Is a Crypto Wallet? Understanding the Software that Allows You to Store and Transfer Crypto Securely*, INSIDER (July 26, 2022), <https://www.businessinsider.com/crypto-wallet> ("A crypto wallet is a device or program that allows you to transfer and store cryptocurrency.").

<sup>90</sup> Kevin Roose, *Buy this Column on the Blockchain!*, N.Y. TIMES, <https://www.nytimes.com/2021/03/24/technology/nft-column-blockchain.html> (June 30, 2021); Roose, *supra* note 64.

<sup>91</sup> Roose, *supra* note 64.

<sup>92</sup> *Id.*

On January 31, 2022, The Associated Press (“AP”) launched a virtual marketplace called “Xooa” where they would sell NFT collections of their award-winning historic and contemporary photojournalism.<sup>93</sup> Each NFT would “include a rich set of original metadata offering collectors awareness of the time, date, location, equipment and technical settings used for the shot.”<sup>94</sup> The NFTs range from space and climate to war and other images to spotlight the work of specific AP photographers.<sup>95</sup> The prices of the NFTs vary, and the proceeds will go back into funding AP journalism.<sup>96</sup>

However, not all forays into the world of NFTs are successful. Some crash and burn before they are even fully fleshed out. That is exactly what happened when a group of popular Young Adult (“YA”) fiction authors tried to set up an immersive writing experience for their fans - as an NFT.<sup>97</sup> The idea was that YA readers would be able to join a collaborative fantasy world, where they could buy NFT character cards and create their own narratives, that could then be minted into NFTs.<sup>98</sup> The authors would follow these narratives “closely to decide which [ones were] compelling enough to become canon.”<sup>99</sup> Their efforts were met with serious backlash – people called out the “predatory nature of marketing NFTs towards teens with the promise of getting to work with their favorite authors,” as well as the environmental implications of NFTs.<sup>100</sup> While the authors initially tried to claim that people were spreading misinformation, they quickly turned to issuing apologies to their fans, and the project got shut down a few hours after it was announced.<sup>101</sup>

#### E. Fashion

Another area that has entered the NFT domain is fashion. In June 2021, luxury Italian brand Gucci created and sold “Aria,” an NFT that consisted of a three-

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<sup>93</sup> *AP to Launch NFT Marketplace Built by Xooa*, AP (Jan. 10, 2022), [https://www.ap.org/press-releases/2022/ap-to-launch-nft-marketplace-built-by-xooa?mc\\_cid=66462172fb&mc\\_eid=32cb1a504a&utm\\_campaign=66462172fb-EMAIL\\_CAMPAIGN\\_2019\\_09\\_12\\_01\\_00\\_COPY\\_01&utm\\_medium=email&utm\\_source=Internet%20Brunch&utm\\_term=0\\_fb5e40aa73-66462172fb-490938644](https://www.ap.org/press-releases/2022/ap-to-launch-nft-marketplace-built-by-xooa?mc_cid=66462172fb&mc_eid=32cb1a504a&utm_campaign=66462172fb-EMAIL_CAMPAIGN_2019_09_12_01_00_COPY_01&utm_medium=email&utm_source=Internet%20Brunch&utm_term=0_fb5e40aa73-66462172fb-490938644).

<sup>94</sup> *Id.*

<sup>95</sup> *Id.*

<sup>96</sup> *Id.*

<sup>97</sup> Kayleigh Donaldson, *Some YA Authors Announced Plans to Create an NFT Project for Fans. It Did Not Go Well*, PAJIBA (Oct. 21, 2021), [https://www.pajiba.com/book\\_reviews/some-ya-authors-announced-plans-to-create-an-nft-project-for-fans-it-did-not-go-well.php](https://www.pajiba.com/book_reviews/some-ya-authors-announced-plans-to-create-an-nft-project-for-fans-it-did-not-go-well.php).

<sup>98</sup> *Id.*

<sup>99</sup> *Id.*

<sup>100</sup> *Id.* (stating that NFTs require high energy to make and be stored, causing disastrous implications on environment).

<sup>101</sup> *Id.*

panel video loop inspired by its Fall 2021 collection.<sup>102</sup> In June 2021, British luxury fashion house Burberry partnered with Mythical Games (a game technology company) to create a limited edition NFT, the “Burberry Blanko,” a digital vinyl toy for one of Mythical Games’ games.<sup>103</sup>

Then in the summer of 2021, luxury Italian fashion house Dolce & Gabbana (“D&G”) partnered with UNXD,<sup>104</sup> an exclusive NFT marketplace for “digital luxury and culture,” to create what is said to be the most complex fashion NFT created and offered so far.<sup>105</sup> The brand sold nine NFTs, along with some actual couture, in a hybrid collection called “Collezione Genesi,” or “The Genesis Collection.”<sup>106</sup> Five pieces from the collection were physical creations designed by D&G (with UNXD creating virtual iterations of each), and the other four were solely digital pieces based on sketches by the brand’s designers (Domenico Dolce and Stefano Gabbana) and constructed by UNXD using the Polygon<sup>107</sup> blockchain.<sup>108</sup> The collection was sold at auction for almost \$6 million, and was UNXD’s debut NFT drop (i.e., NFT project release).<sup>109</sup>

In December 2021, xydrobe, an NFT auction platform,<sup>110</sup> sold an NFT of a perfect 3-D digital replica of a patchwork cardigan designed by JW Anderson.<sup>111</sup> The NFT sold for \$7,500 - almost four times the price of the original garment.<sup>112</sup>

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<sup>102</sup> Dana Thomas, *Dolce & Gabbana Just Set a \$6 Million Record for Fashion NFTs*, N.Y. TIMES (Oct. 4, 2021), <https://www.nytimes.com/2021/10/04/style/dolce-gabbana-nft.html>; *Gucci (Est. 1921), Aria*, CHRISTIE’S (June 3, 2021), <https://onlineonly.christies.com/s/proof-sovereignty-curated-nft-sale-lady-phoenix/gucci-est-1921-6/121268>.

<sup>103</sup> *Burberry Drops NFT Collection in Mythical Games’ Blankos Block Party*, BURBERRY (Aug. 4, 2021), <https://www.burberryplc.com/en/news/brand/2021/Blankos.html>.

<sup>104</sup> Polygon Labs, *Polygon and UNXD Announce a \$10 Million Fund*, POLYGON (July 21, 2021), <https://blog.polygon.technology/polygon-and-unxd-announce-a-10-million-fund-b303736f2b32/>.

<sup>105</sup> Thomas, *supra* note 102.

<sup>106</sup> *Id.*

<sup>107</sup> See Polygon Labs, *supra* note 104; *What Is a Protocol?*, COINBASE, <https://www.coinbase.com/learn/crypto-basics/what-is-a-protocol> (last visited Apr. 20, 2023) (describing a protocol as a framework for building and connecting Ethereum-compatible blockchain networks. A protocol is a basic set of rules allowing data to be shared between computers, and establishing blockchain structure for cryptocurrencies).

<sup>108</sup> Thomas, *supra* note 102.

<sup>109</sup> *Id.*; Alex Gomez, *What Is an NFT Drop? NFT Drops Explained*, CYBER SCRILLA, <https://cyberscrilla.com/what-is-an-nft-drop-nft-drops-explained/> (Dec. 2, 2021) (“A drop refers to the exact date, time, and generally the minting price of the NFT.”).

<sup>110</sup> *A Physical Portion into the World’s First Virtual Shopping Universe*, XYDROBE, <https://xydrobe.com/pages/discover> (last visited Apr. 17, 2023).

<sup>111</sup> Vanessa Friedman, *That Viral Harry Styles Cardigan Just Got Auctioned as an NFT*, N.Y. TIMES (Dec. 14, 2021), <https://www.nytimes.com/2021/12/14/style/harry-styles-cardigan-nft.html>.

<sup>112</sup> *Id.*

The cardigan became a viral hit during the COVID-19 pandemic, after British musician Harry Styles wore it during a rehearsal for a TV appearance.<sup>113</sup> The physical cardigan was donated by Styles to the Victoria & Albert museum in London, where it now resides as part of their permanent collection.<sup>114</sup>

#### F. Other (Digital) Assets

These days, NFTs are branching out into more and more areas, including social media, sports, and even emojis. What can be turned into an NFT seems to be limited only by one's imagination.

In the age of social media, it should come as no surprise that social media platforms and posts are a large part of this new trend. Artists have not only been creating and selling NFTs of old popular memes, but they have also been creating special edition memes specifically to be sold as NFTs.<sup>115</sup> People have also been creating NFTs of famous tweets. The founder of Twitter, Jack Dorsey, sold his first ever tweet as an NFT, and made over \$2.9 million for it.<sup>116</sup> Social media platforms themselves have been trying to incorporate NFTs into their platforms. For example, Twitter is developing ways to differentiate an NFT profile picture from a non-NFT image and allowing its users to set NFTs as profile pictures.<sup>117</sup> Mark Zuckerberg also recently announced that NFTs would soon be added to Instagram, allowing users to use them as profile pictures, to mint them on the platform, and maybe even create a virtual marketplace on the platform.<sup>118</sup>

NFTs are also making their way into the world of sports. In early 2021, the

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<sup>113</sup> *Id.*

<sup>114</sup> *Id.*; Oscar Holland, *The V&A Museum Has Acquired the Harry Styles Cardigan That Sparked a TikTok Craze*, CNN STYLE (Nov. 23, 2020), <https://www.cnn.com/style/article/harry-styles-cardigan-va-museum/index.html>.

<sup>115</sup> Caroline Anders, *Finally Impressed? NFT of Side-Eyeing Toddler Meme Fetches over \$74,000 in Cryptocurrency*, WASH. POST (Sept. 25, 2021), <https://www.washingtonpost.com/technology/2021/09/25/chloe-side-eye-meme-nft-sale/>; Jacob Kastrenakes, *Nyan Cat Is Being Sold as a One-of-a-Kind Piece of Crypto Art*, THE VERGE (Feb. 18, 2021), <https://www.theverge.com/2021/2/18/22287956/nyan-cat-crypto-art-foundation-nft-sale-chris-torres>.

<sup>116</sup> Taylor Locke, *Jack Dorsey Sells His First Tweet Ever as an NFT for Over \$2.9 million*, CNBC MAKE IT, <https://www.cnbc.com/2021/03/22/jack-dorsey-sells-his-first-tweet-ever-as-an-nft-for-over-2point9-million.html> (Mar. 24, 2021).

<sup>117</sup> See Richard Lawler, *Twitter Brings NFTs to the Timeline as Hexagon-Shaped Profile Pictures*, THE VERGE, <https://www.theverge.com/2022/1/20/22893502/nft-twitter-profile-picture-crypto-wallet-opensea-coinbase-right-click> (Jan. 21, 2022) (“Twitter is integrating [NFTs] . . . in a way that separates [regular profile pictures] . . . from . . . blockchain tokens by adding a special ‘soft hexagon’ shape around them.”).

<sup>118</sup> Mitchell Clark, *NFTs Will Be on Instagram Soon, According to Mark Zuckerberg*, THE VERGE (Mar. 15, 2022), <https://www.theverge.com/2022/3/15/22979926/instagram-nfts-meta-zuckerberg-sxsw-metaverse>.

NBA began selling famous basketball highlights, or ‘moments’<sup>119</sup> as NFTs.<sup>120</sup> At prices ranging from \$100 to almost \$20,000 (depending on the player and how rare the moment is), sports fans can now purchase an NFT of their favorite moment(s)<sup>121</sup> – like a pack of digital, collectible trading cards. In July 2021 NFL player Tom Brady launched an NFT platform called “Autograph.”<sup>122</sup> The platform is based in Los Angeles and helps athletes and entertainers launch and promote their own NFTs, which can then be bought from virtual marketplaces such as OpenSea.<sup>123</sup> The roster of athletes that have signed deals with Autograph include Tiger Woods, Naomi Osaka, and Tony Hawk.<sup>124</sup>

With the growing popularity, more and more companies are dipping their toes in the world of NFTs.<sup>125</sup> The most recent is a company called Yat Labs, which sells strings of emojis that can be converted into an NFT.<sup>126</sup> These series of emojis (known as a “Yat”) can then be linked to the owners’ social media accounts and used in place of a traditional username.<sup>127</sup> According to Naveen Jain, the co-founder of Yat Labs, having these emojis as a username grants people a deeper insight into the owner than a traditional username would.<sup>128</sup> And while many are rightfully questioning this trend, especially since buying a “Yat” does nothing more than give you the right to say you own that string of emojis,

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<sup>119</sup> Weston Blasi, *What Is NBA Top Shot? Everything You Need to Know About the Digital Asset with Over \$230 Million in Transactions*, MARKETWATCH, <https://www.marketwatch.com/story/what-is-nba-top-shot-everything-you-need-to-know-about-the-digital-asset-with-over-230-million-in-transactions-11614287023> (Feb. 28, 2021, 3:44 PM) (describing a ‘moment’ as a video highlight of a basketball play, like a dunk by LeBron James or a three pointer by Steph Curry).

<sup>120</sup> Erin Fennimore, *NFT Tax Guide: What Creators and Investors Need to Know About NFT Taxes*, TAXBIT (June 9, 2021) <https://taxbit.com/blog/nft-tax-guide-what-creators-and-investors-need-to-know-about-nft-taxes>.

<sup>121</sup> *Next Level NBA Collectibles*, NBA TOP SHOT, <https://nbatopshot.com/infographic> (last visited Apr. 17, 2023).

<sup>122</sup> Yueqi Yang & Bloomberg, *Tom Brady’s Autograph—Which Helps Celebrities Launch Their Own NFTs—Just Raised \$170 Million from Silicon Valley*, FORTUNE (Jan. 19, 2022), <https://fortune.com/crypto/2022/01/19/tom-brady-autograph-nft-silicon-valley-funding/>; see AUTOGRAPH, <https://autograph.io> (last visited Apr. 20, 2023).

<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

<sup>125</sup> Rachel Wolfe, *When You Marry NFTs and Emojis, You Get a Yat*, WALL ST. J. (Feb. 8, 2022), <https://www.wsj.com/articles/nft-yats-emoji-investment-11644267028>.

<sup>126</sup> YAT, [https://start.y.at/?utm\\_referrer=https%3A%2F%2Fwww.google.com%2F](https://start.y.at/?utm_referrer=https%3A%2F%2Fwww.google.com%2F) (last visited Apr. 20, 2023); Victor Tangermann, *Because the World Has Lost Its Mind, You Can Now Buy NFTs of Strings of Emojis*, THE BYTE (Feb. 8, 2022), <https://futurism.com/the-byte/strings-emojis-nfts>.

<sup>127</sup> Wolfe, *supra* note 125.

<sup>128</sup> *Id.* (“If your yat is Fire-Dragon, that says so much about someone. Versus your username being Naveen512. That tells you my area code.”).

people are clearly seeing some kind of appeal.<sup>129</sup> Since the company launched last February, Yat Labs has sold almost 160,000 “Yats” and made nearly \$20 million dollars in sales.<sup>130</sup>

### G. The Physical World

NFTs are also no longer limited to the internet. They are bleeding into the real world, with creators and investors alike attempting to bridge the gap between the metaverse<sup>131</sup> and the physical world around us. For example, gallerists and curators have been attempting to set up physical spaces where NFT artwork can be displayed.<sup>132</sup>

In November 2021, a group of crypto enthusiasts arrived in New York City to attend NFT.NYC, a week-long conference devoted to NFTs.<sup>133</sup> This was the third year that the conference was held, and it saw the largest group of attendees so far – 5000 people, with an additional 3000 on the waitlist.<sup>134</sup> During the day there were various panels held, with titles like “Mainstreaming Blockchain Games” and “Metadata and Your Art.”<sup>135</sup> However, according to many artists and tech-enthusiasts in attendance, the main events took place at night – from art openings and private dinners to surprise meetups and mega-parties – most of which required the person to have an NFT from a particular collection to attend.<sup>136</sup> This exclusivity did raise some questions, given that the world of NFTs is built on the concept of decentralization and removing barriers to build a more equalized market.<sup>137</sup>

Restaurant owners and chefs have also begun dipping their toes into the world of NFTs, seeing them as an opportunity to build brand awareness.<sup>138</sup> But many see these as pure hype and opportunistic endeavors.<sup>139</sup> For example, in late 2021

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<sup>129</sup> *Id.*

<sup>130</sup> *Id.*

<sup>131</sup> Cryptopedia Staff, *What Is a Crypto Metaverse?*, CRYPTOPEDIA, <https://www.gemini.com/cryptopedia/what-is-metaverse-crypto-nft-game-blockchain> (June 28, 2022) (“[A] crypto metaverse is a metaverse that incorporates blockchain into its underlying technology and crypto assets . . .”).

<sup>132</sup> Andrew R. Chow, *As the NFT Market Explodes Again, Artists Fend Off Old Art-World Power Structures*, TIME (Oct. 15, 2021), <https://time.com/6106679/nft-art-rise/>.

<sup>133</sup> Kevin Roose, *Crypto Is Cool. Now Get on the Yacht.*, N.Y. TIMES (Nov. 5, 2021), <https://www.nytimes.com/2021/11/05/technology/nft-nyc-metaverse.html>.

<sup>134</sup> *Id.*

<sup>135</sup> *Id.*; Raisa Bruner, *Inside the Earnest Parties at the First Major NFT Conference*, TIME (Nov. 9, 2021), <https://time.com/6115274/nft-conference-parties-culture/>.

<sup>136</sup> Bruner, *supra* note 135.

<sup>137</sup> *Id.*

<sup>138</sup> Adam Reiner, *Welcome to the NFT Restaurant Boom*, EATER (Feb. 28, 2022), <https://www.eater.com/22949713/chefs-restaurants-get-into-nft-trend>.

<sup>139</sup> *Id.*



the co-founder of a New York City restaurant group, a digital media mogul, and the chef of an upscale seafood restaurant announced the creation of “Flyfish Club” – the world’s first NFT restaurant.<sup>140</sup> According to the creators, a Flyfish Club NFT would give the holder unlimited access to a private dining room in New York City, without any monthly or annual dues.<sup>141</sup> While this club did not officially launch until 2023, its initial tranches of membership NFTs (capped at 3000) had already sold out by early 2022, with each token costing approximately \$11,000.<sup>142</sup>

In early February 2022, a large cube weighing approximately four hundred pounds, and made of 24-karat gold was placed on the frozen lake in Central Park in New York City.<sup>143</sup> The cube, which was removed within twelve hours of its installation, was created by German artist Niclas Castello, who described the work as “a conceptual work of art . . . [meant to represent] something [intangible] that is beyond our world.”<sup>144</sup> While the cube itself was not for sale, it was tied to a cryptocurrency launch, and meant as a promotion for an NFT collection that the artist was scheduled to drop within a few weeks of the cube’s unveiling.<sup>145</sup> According to a Viennese gallerist, Lisa Kandlhofer, “[t]he cube can be seen as a sort of communiqué between an emerging 21st-century cultural ecosystem based on crypto and the ancient world where gold reigned supreme.”<sup>146</sup>

Another example of NFTs bleeding into the real world comes out of Ukraine. In March 2022 the Ukrainian government was set to launch an NFT collection to mark the history of the Russian invasion.<sup>147</sup> According to Alex Boryakov, the country’s deputy minister of digital transformation, the NFT collection “would be like a museum of the Russian-Ukrainian war [told to] the world in NFT format.”<sup>148</sup> Each NFT in the collection will carry a unique piece of art that will represent a story from a trusted news source, and the digital proceeds from the sales will go towards funding the Ukrainian war efforts.<sup>149</sup>

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<sup>140</sup> *Id.*

<sup>141</sup> *Id.*

<sup>142</sup> *Id.*

<sup>143</sup> Dorian Batycka, *An Artist Placed a Cube Made From \$11.7 Million Worth of Gold in Central Park - Protected by Its Own Security Detail*, ARTNET NEWS (Feb. 2, 2022), <https://news.artnet.com/art-world/solid-gold-cube-central-park-2067281>.

<sup>144</sup> *Id.*; Noor Al-Sibai, *The Central Park Gold Cube Is an NFT Publicity Stunts, You Idiots*, THE BYTE (Feb. 4, 2022), <https://futurism.com/the-byte/gold-cube-nft>.

<sup>145</sup> Batycka, *supra* note 143; Al-Sibai, *supra* note 144.

<sup>146</sup> Batycka, *supra* note 143.

<sup>147</sup> Dan Milmo, *Ukraine to Launch NFT to Mark History of Russian Invasion*, GUARDIAN (Mar. 13, 2022), <https://www.theguardian.com/world/2022/mar/13/ukraine-nft-history-of-russian-invasion-war>.

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

### III. LEGAL ANALYSIS

#### A. Traditional Intellectual Property Rights (“IPR”) Laws

The term “intellectual property” refers to the creations of the mind, such as inventions, literary and artistic works, designs, logos, etc.<sup>150</sup> Essentially, intellectual property is a set of intangible assets that are deemed to require the same protective rights as physical property.<sup>151</sup> NFTs in their various iterations are all a form of intellectual property, and as such would fall within the protection of IPR laws.

IPR laws deal with the protection and enforcement of the rights of creators and owners of inventions, writing, music, designs and other works.<sup>152</sup> However, the ultimate goal of IPR laws is not to foster absolute rights to monopolize profits, but to promote the advancement of knowledge for the public interest.<sup>153</sup> They do this by “regulating the public’s use of” the works of authors, inventors, and creators.<sup>154</sup> This is why IPRs are they are generally known as “negative rights” – instead of giving the holder an affirmative right to use the protected intellectual property themselves, they give them the right to stop a third party from using the protected intellectual property.<sup>155</sup> This ensures that the creators, authors, and inventors are “compensated for their efforts,” and in turn incentivizes them to produce more works for the “benefit of the public.”<sup>156</sup> Thus, IPRs are the rights of people over creations of their minds.<sup>157</sup> IPRs are also, by their very nature, territorial rights, enforceable only in the countries where they are granted.<sup>158</sup>

Since IPR law aims to protect inventive and creative efforts in all fields of technology and art, it should come as no surprise that it is the area of law most

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<sup>150</sup> *What Is Intellectual Property?*, WIPO, <https://www.wipo.int/about-ip/en/> (last visited Feb. 18, 2023).

<sup>151</sup> Will Kenton, *Intellectual Property*, INVESTOPEDIA, <https://www.investopedia.com/terms/i/intellectualproperty.asp> (July 27, 2022).

<sup>152</sup> *Intellectual Property Law*, GEO. L., <https://www.law.georgetown.edu/your-life-career/career-exploration-professional-development/for-jd-students/explore-legal-careers/practice-areas/intellectual-property-law/> (last visited Apr. 17, 2023).

<sup>153</sup> Norrgård et al., *supra* note 33.

<sup>154</sup> Legal Info. Inst., *Intellectual Property*, CORNELL L. SCH., [https://www.law.cornell.edu/wex/intellectual\\_property](https://www.law.cornell.edu/wex/intellectual_property) (last visited Apr. 17, 2023).

<sup>155</sup> *What Are Intellectual Property Rights?*, WORLD TRADE ORG., [https://www.wto.org/english/tratop\\_e/trips\\_e/intell\\_e.htm](https://www.wto.org/english/tratop_e/trips_e/intell_e.htm) (last visited Apr. 17, 2023); Christophe van Zyl, *What Is Intellectual Property ‘Theft’ and How to Avoid It?*, DENNEMEYER (Sept. 30, 2020), <https://www.dennemeyer.com/ip-blog/news/what-is-intellectual-property-theft-and-how-to-avoid-it/>.

<sup>156</sup> Legal Info. Inst., *supra* note 154.

<sup>157</sup> WORLD TRADE ORG., *supra* note 155.

<sup>158</sup> Norrgård et al., *supra* note 33.

heavily implicated in a field like NFTs, which straddles the worlds of both art and technology.<sup>159</sup> In the United States federal and state laws protect IPRs. Several branches of these laws deal with a different aspect of creative property, each with their own set of technical rules.<sup>160</sup> The areas of IPR law most relevant to NFTs are copyright and trademark.<sup>161</sup>

As of now, it is uncertain how traditional patent laws would apply to NFTs. However, they could possibly be used as models for potential laws which could govern and protect NFTs. Until such NFT-specific laws are enacted, traditional IPR laws will struggle to fill the void in creative judicial ways.

### 1. Copyright Law

Copyright laws give the author of a “writing” a limited monopoly over the use/profit of their work.<sup>162</sup> In the United States, the power to regulate copyright belongs exclusively to Congress, derived from Article I, § 8 of the Constitution of the United States, stating “[t]he Congress shall have power to . . . promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries . . . .”<sup>163</sup>

Congress first enacted a copyright statute in 1790.<sup>164</sup> This statute underwent its first major revision in 1831, when musical compositions were added to the list of protected works.<sup>165</sup> The term of protection was also increased to twenty-eight years, with the option to renew for an additional fourteen.<sup>166</sup>

Then in 1834, the first copyright case, *Wheaton v. Peters*, came before the Supreme Court.<sup>167</sup> Henry Wheaton, the author of twelve volumes of Supreme Court decisions, brought a copyright infringement suit against Richard Peters

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<sup>159</sup> *Id.*

<sup>160</sup> Rich Stim, *Overview of Intellectual Property Laws*, STAN. LIBRS., <https://fairuse.stanford.edu/overview/introduction/intellectual-property-laws/> (last visited Apr. 17, 2023).

<sup>161</sup> Greenspoon Marder, *NFTs: Non-Fungible Tokens, Navigating Fiefdoms in Tandem, or Just New Flashy Toys?*, ZOOM (Feb. 17, 2022), <https://greenspoonmarder.zoom.us/rec/play/YjRU28GDYHE35Q98jwODucpWHyhgamPF6uTnU6Y5s8amjisyFaOYcWjCFvpi6IZOwT5pIT1FU9YuQdwN.P1yWEFHZNpNjyByZ>.

<sup>162</sup> SHELDON W. HALPERN ET AL., *FUNDAMENTALS OF U.S. INTELLECTUAL PROPERTY LAW: COPYRIGHT, PATENT, TRADEMARK 1* (Kluwer L. Int’l 3rd ed. 2011).

<sup>163</sup> U.S. CONST. art. I, § 8, cl. 8; HALPERN ET AL., *supra* note 162.

<sup>164</sup> HALPERN ET AL., *supra* note 162, at 1–2; *Copyright Act of 1790*, COPYRIGHT.GOV, <https://copyright.gov/about/1790-copyright-act.html> (last visited Apr. 17, 2023).

<sup>165</sup> *The 19th Century*, COPYRIGHT.GOV, [https://www.copyright.gov/timeline/timeline\\_19th\\_century.html](https://www.copyright.gov/timeline/timeline_19th_century.html) (last visited Apr. 17, 2023).

<sup>166</sup> *Id.*

<sup>167</sup> *Id.*; *Wheaton v. Peters*, 33 U.S. 591, 598–99 (1834).

for selling a reprint of those volumes.<sup>168</sup> Peters argued that Wheaton had not met the requirements for securing a copyright over his works.<sup>169</sup> The Supreme Court found in Peters' favor and held that there was no federal common law that governed copyright.<sup>170</sup> Justice John McLean, writing for the majority, stated that an author had perpetual rights in unpublished works, but that after publication those rights were limited by the statutory provisions imposed by Congress.<sup>171</sup> Furthermore, the Court held that court opinions could not be copyrighted.<sup>172</sup>

In 1856, the law's protections were extended to dramatic compositions and public performances.<sup>173</sup> The law underwent its second major revision in 1870, when its protections were extended to works of art and authors were given the right to create their own derivative works.<sup>174</sup>

Ten years later, in 1880, the Court was presented with the case of *Baker v. Selden*.<sup>175</sup> Charles Selden, the chief accountant to the Hamilton County treasurer, had secured a copyright for his book about an accounting system that he had created.<sup>176</sup> A few years after securing the copyright, W.C.M. Baker, the auditor of Greene County, published his own book on an accounting system similar to Selden's, but vastly more successful.<sup>177</sup> After Selden's death his widow brought a copyright infringement suit against Baker.<sup>178</sup> The Supreme Court held that the copyright law protected only the expression of an idea, and not the idea itself.<sup>179</sup> Baker had not infringed Selden's copyright, since the actual system of bookkeeping was not copyrightable.<sup>180</sup>

Another seminal case in the development of United States copyright law was *Burrow-Giles Lithographic Co. v. Sarony*, which came before the Supreme Court in 1884.<sup>181</sup> Napoleon Sarony was a famous 19th century portrait photographer who took a picture of renowned Irish poet, Oscar Wilde.<sup>182</sup> This

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<sup>168</sup> John R. Vile, *Wheaton v. Peters (1834)*, FIRST AMEND. ENCYCLOPEDIA, <https://www.mtsu.edu/first-amendment/article/256/wheaton-v-peters> (last visited Apr. 17, 2023); Peters, 33 U.S. at 593–94.

<sup>169</sup> Vile, *supra* note 168; *see* Peters, 33 U.S. at 593–94.

<sup>170</sup> Vile, *supra* note 168; *see* Peters, 33 U.S. at 593–94.

<sup>171</sup> Vile, *supra* note 168; *see* Peters, 33 U.S. at 593–94; COPYRIGHT.GOV, *supra* note 165.

<sup>172</sup> Vile, *supra* note 168; *see* Peters, 33 U.S. 591.

<sup>173</sup> COPYRIGHT.GOV, *supra* note 165.

<sup>174</sup> *Id.*

<sup>175</sup> *Id.*; *see generally* Baker v. Selden, 101 U.S. 99 (1879).

<sup>176</sup> Selden, 101 U.S. at 99–100; *Baker v. Selden*, BALLOTPEDIA, [https://ballotpedia.org/Baker\\_v.\\_Selden](https://ballotpedia.org/Baker_v._Selden) (last visited Apr. 17, 2023).

<sup>177</sup> BALLOTPEDIA, *supra* note 176; *see generally* Selden, 101 U.S. 99.

<sup>178</sup> BALLOTPEDIA, *supra* note 176; *see generally* Selden, 101 U.S. 99.

<sup>179</sup> Selden, 101 U.S. at 103, 107.

<sup>180</sup> *Id.*; BALLOTPEDIA, *supra* note 176; COPYRIGHT.GOV, *supra* note 165.

<sup>181</sup> COPYRIGHT.GOV, *supra* note 165; *see generally* Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53 (1884).

<sup>182</sup> Burrow-Giles Lithographic Co., 111 U.S. at 54–55; *see generally* JULIE E. COHEN ET AL., COPYRIGHT IN A GLOBAL INFORMATION ECONOMY (2020).

photograph of Wilde was used by the Burrow-Giles Lithographic Company, without Sarony's permission, in an advertisement for a retail store that sold hats in New York.<sup>183</sup> Sarony brought a copyright infringement suit against the company, and the Supreme Court held that photographs were copyrightable.<sup>184</sup>

These revisions and cases laid the groundwork for modern United States copyright jurisprudence.<sup>185</sup> Today, copyright laws in the United States are governed by a federal statute – Title 17 of the United States Code (“U.S.C.”) which includes the Copyright Act of 1976.<sup>186</sup> This statute prohibits the copying of works of authorship.<sup>187</sup>

While the crux of copyright protection is that *all* original creative work that is fixed in a tangible medium should be protected by copyright, there are certain categories of works that are explicitly listed in the Copyright Act.<sup>188</sup> These include literary works, musical works, dramatic works, pantomimes, pictorial works, audiovisual works, sound recordings, and architectural works.<sup>189</sup> This list of categories, however, is not exhaustive. In fact, the categories serve as ‘administrative categories’ within which newer inventions and innovations that receive copyright protection are inserted.<sup>190</sup> There are only three categories of works that are expressly excluded from copyright protection: works that are not fixed in a tangible medium (i.e., works that have an intangible expression), governmental works, and “ideas” within original expressions.<sup>191</sup>

The third category of works excluded from copyright protections, “ideas” within original expressions, is one of the fundamental axioms of copyright law, stated by the Supreme Court in *Baker v. Selden* and codified in § 102(b) of Title

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<sup>183</sup> Burrow-Giles Lithographic Co., 111 U.S. at 54–55.

<sup>184</sup> *Id.* at 54–56; COPYRIGHT.GOV, *supra* note 165.

<sup>185</sup> COPYRIGHT.GOV, *supra* note 165 (stating Supreme Court in *Wheaton v. Peters* laid groundwork for modern copyright jurisprudence in United States).

<sup>186</sup> *See generally* 17 U.S.C. (1947); Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (1976).

<sup>187</sup> Stim, *supra* note 160.

<sup>188</sup> 17 U.S.C. § 102(a) (“Copyright protection subsists, . . . in original works of authorship fixed in any tangible medium of expression, . . . from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”); HALPERN ET AL., *supra* note 162, at 5.

<sup>189</sup> 17 U.S.C. § 102(a)(1)–(8).

<sup>190</sup> HALPERN ET AL., *supra* note 162, at 5 (“[C]omputer software will come within the subject matter of copyright as a ‘literary work.’”).

<sup>191</sup> 17 U.S.C. § 102(a); 17 U.S.C. § 102(b); 17 U.S.C. § 105(a) (“Copyright protection under this title is not available for any work of the United States Government . . .”); HALPERN ET AL., *supra* note 162, at 7–8 (explaining that language of statute automatically excludes works not fixed in tangible medium).

17.<sup>192</sup> This principle applies no matter how novel an idea may be.<sup>193</sup> This means that “only the author’s particularized expression of [an] idea” is protected, not the idea itself.<sup>194</sup> The reason behind this principle is that “ideas are a part of the public domain, and therefore no one person can have a monopoly over [them].”<sup>195</sup> There can be a copyright in two works expressing the same idea.<sup>196</sup> For example, if two people independently took a picture of the same subject, both may have a copyright on it without violating each other’s rights, since it is the original expression of the idea that is being protected.<sup>197</sup> They would also be protected if they took similar photographs based on each other’s ideas.<sup>198</sup> However, if one of the people took a photograph of the other person’s photograph then they may infringe copyright, since it is the other person’s expression that is being copied.<sup>199</sup>

Copyright laws are especially important because they are very stringent. For example, under § 504 of the Copyright Act, a person who infringes the copyright of another is automatically liable to the copyright holder for actual and/or statutory damages.<sup>200</sup> The statutory damages can range from \$750 to \$30,000 per infringement.<sup>201</sup> However, if the infringement was willful the damages can go up to \$150,000 per infringement.<sup>202</sup> Furthermore, even if the infringement

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<sup>192</sup> *Baker v. Selden*, 101 U.S. 99, 102 (1879); 17 U.S.C. § 102(b) (1990) (“In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.”); *see also* HALPERN ET AL., *supra* note 162, at 8–10.

<sup>193</sup> *Are Ideas Protected by Copyright Law?*, COPYRIGHTLAWS.COM (June 29, 2021), <https://www.copyrightlaws.com/are-ideas-protected-by-copyright-law/>.

<sup>194</sup> *Mattel, Inc. v. Goldberger Doll Mfg. Co.*, 365 F.3d 133, 135–36 (2d Cir. 2004) (holding that doll’s face despite having standard features, was copyrightable); HALPERN ET AL., *supra* note 162, at 8–10.

<sup>195</sup> COPYRIGHTLAWS.COM, *supra* note 193.

<sup>196</sup> *Id.*

<sup>197</sup> *Id.*

<sup>198</sup> *Id.* (“Along with ideas, copyright law doesn’t protect titles, names, short slogans, history, facts, and similar items.”).

<sup>199</sup> *Id.*

<sup>200</sup> 17 U.S.C. § 504(a) (1999) (“[A]n infringer of copyright is liable for either the copyright owner’s actual damages and any additional profits of the infringer . . . or statutory damages . . .”).

<sup>201</sup> *What Are Statutory Damages and Why Do They Matter?*, COPYRIGHT ALL., <https://copyrightalliance.org/faqs/statutory-damages-why-do-they-matter/> (last visited Apr. 17, 2023); 17 U.S.C. § 504(c)(1) (1999) (“[T]he copyright owner may elect . . . to recover, instead of actual damages and profits, an award of statutory damages for all infringements involved in the action . . . a sum of not less than \$750 or more than \$30,000 as the court considers just.”).

<sup>202</sup> 17 U.S.C. § 504(c)(2) (“In a case where . . . the court finds, that infringement was committed willfully, the court in its discretion may increase the award of statutory damages to a sum of not more than \$150,000.”); COPYRIGHT ALL., *supra* note 201.

was innocent (i.e., the infringer did not know that a copyright was being violated) the infringer can still be held liable for damages of at least \$200 per infringement.<sup>203</sup>

## 2. Trademark Law

Generally, a trademark can be any word, phrase, symbol, design, or combination thereof that identifies goods and services.<sup>204</sup> Since the main purpose behind having trademarks is to help consumers differentiate between products in the marketplace, courts in the United States are likely to recognize nearly anything as a trademark, so long as some aspect of it identifies the source of a good or service.<sup>205</sup>

In the United States trademarks are “owned” by the entity that first adopts, fixes, and uses them.<sup>206</sup> However, the mark itself is not subject to property ownership, which means that unlike copyright laws, transferring ownership of an item does not automatically cause the trademark to transfer as well.<sup>207</sup> Instead, the first user of the mark owns the right to exclude others from using the mark, but only to the extent that they have used the mark themselves.<sup>208</sup> Therefore, the transferor would have to transfer both ownership of the item as well as the trademark individually to the purchaser.<sup>209</sup> However, once transferred, the trademark can be renewed in perpetuity so long as it remains associated with the same goods or services.<sup>210</sup>

The United States Supreme Court has held that, unlike copyright laws and patent laws, trademark laws in the United States are not governed by Article 1 § 8 cl. 8 of the United States Constitution.<sup>211</sup> Instead, Congress’ power to create federal trademark laws comes from Article 1 § 8 cl. 3 – or what is known as the Commerce Clause, since the “use” of trademarks is seen as interstate

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<sup>203</sup> 17 U.S.C. § 504(c)(2) (2011); COPYRIGHT ALL., *supra* note 201.

<sup>204</sup> *What Is A Trademark?*, U.S. PAT. AND TRADEMARK OFF., <https://www.uspto.gov/trademarks/basics/what-trademark> (last visited Apr. 20, 2023).

<sup>205</sup> *Id.*; HALPERN ET AL., *supra* note 162, at 309 (“[T]he scope of trademark protection is theoretically unlimited, confined only by the requirement that the trademark . . . identify [the] source . . . and not violate the Lanham Act.”).

<sup>206</sup> HALPERN ET AL., *supra* note 162, at 349.

<sup>207</sup> *Id.*; Heleigh Bostwick, *Selling a Patent, Copyright, or Trademark*, LEGALZOOM (Nov. 10, 2022), <https://www.legalzoom.com/articles/selling-a-patent-copyright-or-trademark> (Nov. 10, 2022).

<sup>208</sup> HALPERN ET AL., *supra* note 162, at 349.

<sup>209</sup> Bostwick, *supra* note 207.

<sup>210</sup> *Id.*

<sup>211</sup> *In re Trade-Mark Cases*, 100 U.S. 82, 94–95 (1879) (holding that trademarks do not fall within Art. 1 § 8 of the Constitution since they do not have the required element of originality); HALPERN ET AL., *supra* note 162, at 289.

commerce.<sup>212</sup> Generally, United States trademark law is a common law concept, independent of any statute.<sup>213</sup> In fact, even the federal Lanham Act,<sup>214</sup> which mainly governs trademark protections in the United States, was originally purported to simply codify the common law, not create new rights.<sup>215</sup> States also have individual laws that govern trademarks.

The Lanham Act “provides for a national system of trademark registration and protects the owner of a federally registered mark against the use of similar marks if such use is likely to result in consumer confusion, or if the dilution of a famous mark is likely to occur.”<sup>216</sup> However, to maintain trademark protection, the owner of the mark must continually show that the mark is being used.<sup>217</sup> In other words, they must keep control of the mark.<sup>218</sup>

Under the Lanham Act, different categories of marks are protected, including trademarks, collective marks, and certification marks.<sup>219</sup> According to the Act, a trademark is any “word, name, symbol, or device or any combination thereof . . . used by a person or which a person has a bona fide intention to use in commerce and applies to register [it] . . . to indicate the source of the goods . . .”<sup>220</sup> A collective mark is “a trademark . . . used by a person other than its owner; or which its owner has a bona fide intention to permit [another] to use in commerce . . .”<sup>221</sup> Collective marks are unique because they must be registered by the group intending to exercise control over the mark, and can be used to signify membership in a group or organization.<sup>222</sup> A certification mark, on the other hand, while registered by the owner, cannot be used as a trademark by the owner of the mark.<sup>223</sup> Instead, it is used by others (with the owner’s consent) on products and services that meet the standards and specifications established by the original owner.<sup>224</sup>

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<sup>212</sup> U.S. CONST. art. I, § 8, cl. 3 (“The Congress shall have power to . . . regulate commerce with foreign nations, and among the several states, and with the Indian tribes.”); HALPERN ET AL., *supra* note 162, at 289.

<sup>213</sup> HALPERN ET AL., *supra* note 162, at 289.

<sup>214</sup> The Lanham Act, 15 U.S.C. §§ 1051 (1946); *U.S. Trademark Law*, DIGITAL.GOV, <https://digital.gov/resources/u-s-trademark-law/> (last visited Apr. 20, 2023).

<sup>215</sup> HALPERN ET AL., *supra* note 162, at 289.

<sup>216</sup> Legal Info. Inst., *Lanham Act*, CORNELL L. SCH., [https://www.law.cornell.edu/wex/lanham\\_act](https://www.law.cornell.edu/wex/lanham_act) (last visited Apr. 20, 2023).

<sup>217</sup> *Keeping Your Registration Alive*, U.S. PAT. AND TRADEMARK OFF., <https://www.uspto.gov/trademarks/maintain/keeping-your-registration-alive> (last visited Apr. 20, 2023).

<sup>218</sup> Greenspoon Marder, *supra* note 161.

<sup>219</sup> 15 U.S.C. §§ 1054, 1127; HALPERN ET AL., *supra* note 162, at 309.

<sup>220</sup> 15 U.S.C. § 1127 (2006); HALPERN ET AL., *supra* note 162, at 309.

<sup>221</sup> 15 U.S.C. § 1054 (1999); HALPERN ET AL., *supra* note 162, at 312–13.

<sup>222</sup> HALPERN ET AL., *supra* note 162, at 313.

<sup>223</sup> *Id.*

<sup>224</sup> *Id.*



In 1995, *Qualitex Co. v. Jacobson Products Co., Inc.* was brought before the Supreme Court.<sup>225</sup> Qualitex Co. had used a special shade of green-gold to color its dry-cleaning press pads for years.<sup>226</sup> When Jacobson Products Co., a rival company, began using a similar shade on its own press pads, Qualitex registered the color as a trademark and sued Jacobson Products for trademark infringement.<sup>227</sup> The Supreme Court held that a color met the requirements for trademark registration under the Lanham Act, so long as it had acquired a secondary meaning in the market.<sup>228</sup> Following this decision many non-traditional trademarks began to be registered with the United States Patent and Trademark Office, including the vertical opening of a Lamborghini car door and the vertical spray of water from a Yamaha watercraft.<sup>229</sup> In fact, in the fourteen years following the decision in the *Qualitex* case, the number of non-traditional trademarks filed rose from ninety-three to over six hundred.<sup>230</sup>

Trademark law recognizes a “spectrum of distinctiveness” for product names, ranging from highly distinctive or “arbitrary/fanciful”<sup>231</sup> marks, to suggestive<sup>232</sup> and descriptive marks,<sup>233</sup> to generic names.<sup>234</sup> The degree of descriptiveness of

<sup>225</sup> See generally *Qualitex Co. v. Jacobson Products Co., Inc.*, 514 U.S. 159 (1995).

<sup>226</sup> See *id.* at 161.

<sup>227</sup> *Id.*

<sup>228</sup> *Id.* at 166.

<sup>229</sup> HALPERN ET AL., *supra* note 162, at 324–25.

<sup>230</sup> *Id.* at 325.

<sup>231</sup> Megan Garber, ‘Kleenex Is A Registered Trademark’ (And Other Desperate Appeals), ATLANTIC (Sept. 25, 2014), <https://www.theatlantic.com/business/archive/2014/09/kleenex-is-a-registered-trademark-and-other-appeals-to-journalists/380733/> (explaining that fanciful or highly distinctive marks include ‘Starbucks’ and ‘Polaroid’); TMEP, 1209.01(a): FANCIFUL, ARBITRARY, AND SUGGESTIVE MARKS (2021) <https://tmepl.uspto.gov/RDMS/TMEP/Oct2012#/Oct2012/TMEP-1200d1e6993.html> (“Fanciful marks comprise terms that have been invented for the sole purpose of functioning as a trademark . . . [s]uch marks comprise words that are either unknown in the language . . . or are completely out of common usage.”) (last visited Apr. 20, 2023).

<sup>232</sup> Garber, *supra* note 231 (detailing how suggestive marks include words such as ‘Whirlpool’); TMEP, *supra* note 231 (“Suggestive marks are those that, when applied to the goods or services at issue, require imagination, thought, or perception to reach a conclusion as to the nature of those goods or services.”); see *In re George Weston Ltd.*, 228 U.S.P.Q. 57, 58 (TTAB 1985) (stating “Speedi Bake” for frozen dough fell within category of suggestive marks because it only vaguely suggested desirable characteristic of frozen dough).

<sup>233</sup> Garber, *supra* note 231 (offering that descriptive marks include things such as ‘Saltine crackers’); TMEP, *supra* note 231 (“a suggestive term differs from a descriptive term, which immediately tells something about the goods or services.”); see *In re Bed & Breakfast Registry*, 791 F.2d 157, 160 (Fed. Cir. 1986) (holding that “Bed & Breakfast Registry” merely descriptive of lodging reservations services).

<sup>234</sup> Garber, *supra* note 231; TMEP, 1209.01: DISTINCTIVENESS/DESCRIPTIVENESS CONTINUUM (Jul. 2022) <https://tmepl.uspto.gov/RDMS/TMEP/Oct2012#/Oct2012/TMEP-1200d1e6993.html>.

a mark depends on its relation to the specific goods or services.<sup>235</sup> This makes trademarks and trademark law tricky.<sup>236</sup> The creator of a product is more likely to lose identity control the more popular that product becomes, because once the United States Patent and Trademark Office determines that something has become generic, then it loses its trademark regardless of how distinctive, suggestive, or descriptive it was at its conception.<sup>237</sup>

If someone uses a registered trademark without the consent of the owner they become liable for trademark infringement. Under the common law however, only the plaintiff's damages or the defendant's profits from the sale of counterfeits could be recovered as damages in cases of trademark infringement.<sup>238</sup> Unfortunately, because most defendants did not have well-kept records, to recover any damages plaintiffs were forced to reveal information about their businesses.<sup>239</sup> The plaintiffs were left with making a choice between revealing confidential information and forgoing any damages.<sup>240</sup> Therefore, Congress enacted statutory damages as a way to give plaintiffs an alternative.<sup>241</sup>

Today, the remedies for trademark infringement in the United States include injunctive relief and damages, which can include lost profits, business losses, punitive damages, costs, statutory damages, and, in certain exceptional cases, even attorney's fees.<sup>242</sup> In some cases, courts have also awarded the cost of corrective advertising – i.e., the amount necessary to correct the consumer misperception caused by the infringement.<sup>243</sup> For example, in the case of *Big O Tire Dealers, Inc. v. Goodyear Tire & Rubber Co.*, the court awarded the plaintiff \$2.8 million as cost of corrective advertising damages.<sup>244</sup> Furthermore, under § 43(c) of the Lanham Act, the statutory damages can range between \$1,000 and \$200,000 per mark per infringement.<sup>245</sup> However, if the infringement

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<sup>235</sup> TMEP, *supra* note 234; *Remington Prods. v. N. Am. Phillips Corp.*, 892 F.2d 1576, 1580 (Fed. Cir. 1990) (holding that mark must be considered in connection with goods).

<sup>236</sup> Garber, *supra* note 231.

<sup>237</sup> *About Us*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/about-us> (Nov. 7, 2022) (describing United States Patent and Trademark Office as federal agency within Department of Commerce responsible for granting patents and registering trademarks according to Art. 1 § 8, cls. 3 and 8 of Constitution); Garber, *supra* note 231.

<sup>238</sup> Antonio R. Sarabia II, *Statutory Damages in Trademark Cases - Trends and Improvements*, EXPERTS.COM, <https://www.experts.com/articles/statutory-damages-trademark-cases-trends-improvement-by-antonio-sarabia> (last visited Apr. 20, 2023).

<sup>239</sup> *Id.*

<sup>240</sup> *Id.*

<sup>241</sup> *Id.*

<sup>242</sup> HALPERN ET AL., *supra* note 162, at 411.

<sup>243</sup> *Id.*

<sup>244</sup> *Big O Tire Dealers, Inc. v. Goodyear Tire & Rubber Co.*, 408 F. Supp. 1219, 1250 (D. Colo. 1976) (holding that evidence was sufficient to support both the verdict that trademark was infringed and the award of compensatory and punitive damages).

<sup>245</sup> 15 U.S.C. § 1117(c)(1); HALPERN ET AL., *supra* note 162, at 411.

is found to be willful, then the statutory damages awarded can be increased to up to \$2,000,000 – almost three times higher than actual damages.<sup>246</sup>

### 3. Patent Law

Like copyright law, the foundation for United States patent law comes from Article I § 8 of the United States Constitution.<sup>247</sup> Patent law is exclusively governed by federal law – Title 35 of the U.S.C. (the United States Patent Act).<sup>248</sup> In order for something to be patentable, the applicant must show that their invention is new, adequately disclosed, useful, nonobvious, and that it fits within statutorily defined subject matter.<sup>249</sup> A patent grants the patent holder the exclusive right to exclude others from making, using, importing, and selling the patented innovation for a limited period of time.<sup>250</sup>

There are three exceptions to the granting of a patent. Under 35 U.S.C. § 102(a), a patent will not be granted if someone other than the applicant “(1) knew of or used the invention in the United States before the applicant’s date of invention, (2) patented the invention in the United States or a foreign country before the applicant’s date of invention, or (3) described the invention in a printed publication before the applicant’s date of invention.”<sup>251</sup>

In the United States software or code is patentable as “computer implemented processes.”<sup>252</sup> If a software is unique, tied to a machine, and provides some form of identifiable improvement it can be protected under United States patent laws.<sup>253</sup>

If there is an infringement of a patent, then the remedies available include recovery of lost profits and reasonable royalties, injunctive relief, and attorney’s fees.<sup>254</sup> Under § 284 of the Patent Act, a patent owner can recover “damages

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<sup>246</sup> 15 U.S.C. § 1117(c)(2); HALPERN ET AL., *supra* note 162, at 411.

<sup>247</sup> U.S. CONST. art. I, § 8, cl. 8 (“The Congress shall have power . . . To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries;”); HALPERN ET AL., *supra* note 162, at 191.

<sup>248</sup> U.S. Patent Act, 35 U.S.C. § 1 (1952); HALPERN ET AL., *supra* note 162, at 191.

<sup>249</sup> 35 U.S.C. §§ 101–03, 112 (1952); HALPERN ET AL., *supra* note 162, at 196.

<sup>250</sup> Legal Info. Inst., *Patent*, CORNELL L. SCH., <https://www.law.cornell.edu/wex/patent> (last visited Apr. 20, 2023).

<sup>251</sup> 35 U.S.C. § 102(a) (1952); HALPERN ET AL., *supra* note 162, at 208.

<sup>252</sup> *Is Software Protected By Copyrights or Patents?*, MILLER IP L., <https://milleripl.com/blogs/patents/is-software-protected-by-copyrights-or-patents> (last visited Apr. 20, 2023).

<sup>253</sup> *Id.* (explaining that to be patentable software must offer technical solution to technical problem and cannot just perform basic computer function or be an abstract idea).

<sup>254</sup> HALPERN ET AL., *supra* note 162, at 283.

adequate to compensate for the infringement.”<sup>255</sup> This requires a calculation of the exact damage caused by an infringing product, which is a complex calculation.<sup>256</sup> The statute, however, requires that the patent holder receive no less than a “reasonable royalty.”<sup>257</sup>

#### B. Applying and/or Adapting the Traditional IPR Laws to NFTs

Imagine for a moment that you have just purchased an NFT, perhaps a Bored Ape, or a portrait of a woman. You tweet a picture of your new NFT and set it as your profile picture on various social media platforms. A few days later you go online to see what appears to be your NFT being used by a third party. Or even worse, you find someone trying to resell what you know to be your NFT. However, upon closer inspection you find that the color of the monkey’s shirt is different, or the woman’s hairstyle is different. Or you find that there is nothing different – it’s your NFT that has been “stolen.” By way of another example, imagine that you are the creator of an NFT collection, one that contains a mix of original music and images. A few days after you post about your new collection you find that someone else has launched a similar collection, where all but a few minor characteristics are the same.

How do you prove that you are the owner of the original NFT or that you created the original collection? What claims do you have against this third party that has supposedly stolen your intellectual property? In many cases today NFTs are being created of some “other person’s expression” – photo, newspaper column, painting, instrument, musical score, etc. Would all such NFTs be an infringement of copyright?

The world of NFTs is still the so-called “Wild West,” because the law as it stands today does not do much to protect the rights of the creators/sellers or the buyers of NFTs.<sup>258</sup> One of the biggest concerns is tracing and proving ownership, because even though each NFT is verified on the blockchain, once you post it on the internet there is little that stops a third party from screenshotting your image or downloading your audio file and claiming it as their own.<sup>259</sup>

The best way to protect the rights of both the creators/sellers as well as the buyers of NFTs is by making sure that the terms of purchase and use are clearly stated in the original purchase agreement.<sup>260</sup> The agreement can detail whether

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<sup>255</sup> *Id.*; 35 U.S.C. § 284 (1952).

<sup>256</sup> HALPERN ET AL., *supra* note 162, at 283.

<sup>257</sup> *Id.*; 35 U.S.C. § 284 (1952).

<sup>258</sup> Greenspoon Marder, *supra* note 161.

<sup>259</sup> Clark, *supra* note 3.

<sup>260</sup> Greenspoon Marder, *supra* note 161.

it is simply the ownership of the NFT that is being transferred, or whether the ownership of the underlying item is being transferred as well.<sup>261</sup> It could also make clear whether the sale is an assignment or a license.<sup>262</sup> By doing this, what the purchaser owns and what rights they get would depend entirely on the purchase agreement – these would be the terms of the contract.<sup>263</sup> For example, when the BAYC NFTs were first minted, 100 percent of the monetization rights to the characters were given to the purchasers (or ‘collectors’) as part of the purchase agreement.<sup>264</sup> As a result, if there was a dispute, courts could look to the terms of the original contract and resolve the issue without having to delve too deeply into IPR principles.

But what happens when these issues are not adequately addressed by the purchase agreement?<sup>265</sup> The answer to this question is illustrated by a recent legal dispute surrounding the first NFT, “Quantum.” Kevin McCoy, the creator of “Quantum,” put his work up for auction at Sotheby’s auction house in 2021.<sup>266</sup> In June of 2021, the NFT sold for over a million dollars.<sup>267</sup> The issue was that since its creation in 2014, “Quantum” had been housed on “Namecoin,”<sup>268</sup> a pre-Ethereum Bitcoin offshoot.<sup>269</sup> Users of Namecoin must “renew whatever is minted on the . . . blockchain every 250 days to retain ownership of the digital item.”<sup>270</sup> McCoy never renewed “Quantum,” which allowed another collector known as “EarlyNFT” (a Canadian company called “Free Holdings”)<sup>271</sup> to

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<sup>261</sup> *Id.*

<sup>262</sup> *Id.*; Gene Pierson, *What Is the Difference Between Assignment And a License?*, PIERSON INTELL. PROP. (Jan. 2, 2013), <http://piersonpatentlaw.com/what-is-the-difference-between-assignment-and-a-license/> (distinguishing that in assignment, assignor transfers all rights in property, while in license, licensor retains interest in property); Having an assignment can get complicated in the NFT context because the seller essentially gives different people the exact same rights. On the other hand, with a license, the purchaser only gets the right to do certain limited things with the NFT.

<sup>263</sup> Greenspoon Marder, *supra* note 161.

<sup>264</sup> *See* Van Boom, *supra* note 17.

<sup>265</sup> Greenspoon Marder, *supra* note 161.

<sup>266</sup> Jex Exmundo, *Quantum: The Story Behind the World’s First NFT*, NFTNOW (Mar. 21, 2023), <https://nftnow.com/art/quantum-the-first-piece-of-nft-art-ever-created/>.

<sup>267</sup> *Id.*

<sup>268</sup> Jake Frankenfield, *Namecoin (NMC)*, INVESTOPEDIA (June 30, 2022), <https://www.investopedia.com/terms/n/namecoin.asp> (describing Namecoin as “an experimental open-source technology which improves decentralization, security, censorship resistance, privacy, and speed of certain components of the internet infrastructure such as [domain name system] and identities.”).

<sup>269</sup> Exmundo, *supra* note 266.

<sup>270</sup> *Id.*

<sup>271</sup> Zachary Small, *Judge Dismisses Lawsuit Over Ownership of \$1.47 Million NFT*, N.Y. TIMES (Mar. 21, 2023), <https://www.nytimes.com/2023/03/21/arts/design-nft-quantum-lawsuit-dismiss-mccoy.html>.

purchase the ownership rights to the NFT before the auction.<sup>272</sup> This raised the question of *who* owned the NFT at the time of its sale.<sup>273</sup>

Free Holdings brought suit in federal court against both the auction house as well as McCoy, challenging the sale of the NFT at auction.<sup>274</sup> On March 17, 2023, a magistrate judge for the United States District Court for the Southern District of New York dismissed the case, stating that Free Holdings “had failed to establish its claims of ownership and injury.”<sup>275</sup> According to McCoy’s attorney, the holding in this case “would clear some confusion,” since it “prevented a party from using somewhat obscure blockchain usage rules to appropriate the work-product of an artist.”<sup>276</sup> Other legal experts commented that the decision in this case would “[empower] digital artists,” by helping them “understand how to make the rules of ownership clear so that a federal judge can recognize them in the event of a dispute.”<sup>277</sup>

Unfortunately, because most of the creators/sellers and buyers of NFTs are artists and people within the tech sphere, these issues are not addressed in any kind of detail in the purchase agreements.<sup>278</sup> Therefore, when a dispute does arise, it leaves the parties with little to no legal recourse.<sup>279</sup> It also leaves the parties with great risks of liability for statutory and actual damages for infringement of intellectual property rights.<sup>280</sup>

### 1. Copyright

According to one IPR lawyer, “[c]opyrights are fun again.”<sup>281</sup> Most of the disputes surrounding NFTs that have arisen so far tend to deal with copyright infringement, especially since people make derivative works from the original NFTs, which infringe on the copyright of the owner, as well as the original creator (depending on the terms of purchase/use).<sup>282</sup> Therefore, copyright laws are implicated in most NFT transactions. However, attempting to apply traditional copyright laws to NFTs raises several questions and concerns.

Copyright laws provide protections for original expressions of ideas that are fixed in a tangible medium of expression.<sup>283</sup> At first glance, it seems as though

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<sup>272</sup> Exmundo, *supra* note 266.

<sup>273</sup> *Id.*

<sup>274</sup> Small, *supra* note 271.

<sup>275</sup> *Id.*

<sup>276</sup> *Id.*

<sup>277</sup> *Id.*

<sup>278</sup> Greenspoon Marder, *supra* note 161.

<sup>279</sup> *Id.*

<sup>280</sup> *Id.*

<sup>281</sup> *Id.*

<sup>282</sup> *Id.*

<sup>283</sup> See *Baker v. Selden*, 101 U.S. 99, 105–06 (1880); COPYRIGHTLAWS.COM, *supra* note

copyright laws could adequately protect NFTs, since each NFT is an original expression of an idea – like traditional physical artwork, for example.<sup>284</sup> Even if the NFTs are similar, or follow a common theme, such as the BAYC or the “World of Women” collections, each Bored Ape or portrait of a woman is a unique expression and would be protected under traditional copyright laws.<sup>285</sup>

However, as is the case with physical artwork, a purchaser of an NFT does not get any rights to the original work simply by virtue of owning the NFT.<sup>286</sup> Just like the purchaser of the traditional artwork, the purchaser of the NFT cannot copy the NFT and sell it on the open market as his own.<sup>287</sup>

But what happens when the owner of the original work and the creator of the NFT are also different people, especially if the NFT was created without the consent of the owner of the underlying work? This question was brought to the fore in December 2021, when a desperate father turned a seventeen second video of his daughter’s murder into an NFT, in a final attempt to get the video off the internet.<sup>288</sup> In 2015, Andy Parker’s daughter, Alison, who was a reporter, was shot and killed by a gunman while reporting live on air.<sup>289</sup> The video of her death has circulated the internet ever since, and Mr. Parker has been trying to get it removed for the last seven years.<sup>290</sup> However, he has not had much success, and the video can still be found in certain places.<sup>291</sup> Mr. Parker turned the video into an NFT to claim copyright ownership over it, hoping to force the hands of platforms like Facebook and YouTube, and have the video removed for good.<sup>292</sup>

The problem, however, is that Mr. Parker does not own the copyright to the underlying video, and the network that owns it has stated that usage licenses do not allow third parties to “turn our content into NFTs.”<sup>293</sup> Mr. Parker admits that

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193; While NFTs do not have a tangible form of their own, the argument can be made that since they represent virtual or physical assets, they are tangible, and can potentially be protected by copyright laws.

<sup>284</sup> See COPYRIGHTLAWS.COM, *supra* note 193.

<sup>285</sup> See *id.*; see Van Boom, *supra* note 17; see WORLD OF WOMEN, *supra* note 70; TWITTER, *supra* note 70.

<sup>286</sup> The Conversation, *So You Bought An NFT? Doesn't Mean You Also Own It*, TNW (Aug. 25, 2021), <https://thenextweb.com/news/so-you-bought-an-nft-doesnt-mean-you-also-own-it-syndication>.

<sup>287</sup> Greenspoon Marder, *supra* note 161.

<sup>288</sup> Cristiano Lima, *To Expunge His Daughter's Murder from the Internet, a Father Created an NFT of the Grisly Video*, WASH. POST (Feb. 22, 2022), <https://www.washingtonpost.com/technology/2022/02/22/expunge-his-daughters-murder-internet-father-created-an-nft-grisly-video/>.

<sup>289</sup> *Id.*

<sup>290</sup> *Id.*

<sup>291</sup> *Id.*

<sup>292</sup> *Id.*

<sup>293</sup> *Id.*

he is in “uncharted waters,” but hopes that his gambit pays off, allowing him to claim copyright and have the grisly video removed.<sup>294</sup>

Another question that is rapidly arising, especially as more and more people are taking what is meant to be “non-fungible” and posting it everywhere on the internet, is when applying traditional copyright laws to NFTs, who is responsible for enforcing the rights?<sup>295</sup> Traditionally the person whose rights are being infringed could go after the infringer, either because they know who the infringer is, or because they can easily obtain that information.<sup>296</sup> The creator/seller would have little to no obligations in this regard.<sup>297</sup> But in the case of NFTs, where the identity of the infringer is not only unknown, but almost impossible to discover, does the issuer of the NFT suddenly gain the obligation to enforce the rights?<sup>298</sup> And by failing to enforce them, is the issuer opening themselves up to liability?<sup>299</sup>

Attempting to apply traditional copyright law to NFTs gives rise to more questions than answers. There are some ways to potentially answer those questions, or to adapt the laws in a way that would better fit the needs of the creators, sellers, and buyers of NFTs. One important aspect to keep in mind, however, is that no “one size fits all” approach can be taken regarding NFTs and copyright protection.<sup>300</sup>

The primary method to ensure that copyright issues are either preempted, or if they arise are easily resolved, is by having clear purchase agreements that define all the rights retained or transferred, as well as the terms of use.<sup>301</sup> For example, many NFTs are now engineered with “smart contracts” – i.e., they are coded with built in terms and conditions that can generate commissions on secondary sales, which means that every time an NFT is resold the original creator/seller would automatically get a cut of the profits.<sup>302</sup> Similar “smart contracts” could be embedded in all NFTs, so that all aspects of the transaction were governed by the contract and the rights of creator, the seller (if separate from the creator), and the buyer, were all clearly set out.

Another way to preempt potential disputes is for the purchaser to assume a high duty to investigate the rights being transferred – similar to the level of duty the producer of a new Netflix series would have, for example – to ensure that

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<sup>294</sup> *Id.*

<sup>295</sup> Greenspoon Marder, *supra* note 161.

<sup>296</sup> *Id.*

<sup>297</sup> *Id.*

<sup>298</sup> *Id.*

<sup>299</sup> *Id.*

<sup>300</sup> *Id.* (“Because the rights related to NFTs are predominantly contract based rights a “one size fits all” approach would not work.”).

<sup>301</sup> *Id.*

<sup>302</sup> *Id.*



there is no infringement of rights taking place.<sup>303</sup> This would also leave the creator/seller with a higher duty to track what rights are being transferred, failing which they may find themselves transferring over more rights than intended.<sup>304</sup>

While taking these extra steps before the transaction even occurs may seem tedious, the risk of not doing so is significant, as experienced by thirty-two OpenSea users in February 2022.<sup>305</sup> Over 254 tokens (including several Bored Apes), valued at over \$1.7 million dollars, were stolen through an attack that appeared to exploit a flexibility in a source standard<sup>306</sup> that underlies most NFT “smart contracts.”<sup>307</sup> According to the CEO of OpenSea, Devin Finzer, the attack was able to take place because the targeted users had signed a “partial contract” – i.e., they had given general authorization, and several parts of the contract had been left blank.<sup>308</sup> But since the contracts were signed, the attackers were able to fill in the terms of the contract themselves, and transfer ownership of the NFTs without any payment.<sup>309</sup> The targeted users had essentially “signed a blank check . . . [and the] attackers filled in the rest of the check to take their holdings.”<sup>310</sup> Had the terms of the contract been clearly defined beforehand, the attackers would not have been able to take advantage of blank portions, and the NFTs would not have been stolen.<sup>311</sup>

## 2. Trademark

While copyright laws may appear at first glance to be a better fit for protecting the rights of the creators, sellers, and buyers of NFTs, trademark laws are becoming increasingly relevant to the field of NFTs as well. This is because, as the popularity of NFTs increases, many companies are turning to them for various purposes. For example, NFTs are being used by luxury brands as an authentication system.<sup>312</sup> They are also being used to generate brand awareness,

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<sup>303</sup> *Id.*

<sup>304</sup> *Id.*

<sup>305</sup> Russell Brandom, *\$1.7 Million in NFTs Stolen in Apparent Phishing Attack on OpenSea Users*, VERGE (Feb. 20, 2022), <https://www.theverge.com/2022/2/20/22943228/opensea-phishing-hack-smart-contract-bug-stolen-nft>.

<sup>306</sup> *Id.* See Clark, *supra* note 3; see also ETHEREUM, *supra* note 59; 101 BLOCKCHAINS, *supra* note 52.

<sup>307</sup> Brandom, *supra* note 305.

<sup>308</sup> *Id.*

<sup>309</sup> *Id.*

<sup>310</sup> *Id.*

<sup>311</sup> Greenspoon Marder, *supra* note 161.

<sup>312</sup> Michael Kondoudis, *NFTs and Trademarks: THE ULTIMATE GUIDE*, L. OFF. OF MICHAEL KONDOUDIS, <https://www.mekiplaw.com/nfts-and-trademarks-the-ultimate-guide/>.

with NFTs of bespoke footwear, clothing, and artwork being sold at auctions.<sup>313</sup> Brands are also beginning to use NFTs as new streams of revenue – for example music bands license their branding and images as NFTs to release exclusive digital content for their fans.<sup>314</sup>

The relevance of trademark laws in the NFT context is also becoming clearer as increasing lawsuits are filed (and decided) in federal courts across the country. For example, Yuga Labs, the creator of the BAYC has filed a trademark infringement suit in a federal court in California, against an artist Ryder Ripps, accusing him of copying its imagery.<sup>315</sup> In February 2021, Nike filed a suit against an online reselling platform for minting NFTs that use Nike’s trademarks, without the company’s consent.<sup>316</sup> This case is currently underway in the United States District Court for the Southern District of New York.<sup>317</sup>

In February 2023, in the first case of its kind, the United States District Court for the Southern District of New York found for French luxury goods brand, Hermès, in its trademark trial against artist Mason Rothschild.<sup>318</sup> In late 2021, Rothschild created “MetaBirkins” – a collection of NFTs that consisted of digital versions of Hermès’ coveted “Birkin”<sup>319</sup> handbag covered in colorful fur, along with other attributes.<sup>320</sup> Hermès sued the artist, arguing that the company’s “trademark was being diluted and that potential consumers might be fooled into buying the unaffiliated virtual goods.”<sup>321</sup> A nine-person jury found that Rothschild had “infringed on the company’s trademark rights.”<sup>322</sup> Hermès was awarded \$133,000 in total damages.<sup>323</sup> The jury found that the NFTs were closer

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<sup>313</sup> *Id.*

<sup>314</sup> *Id.*

<sup>315</sup> Zachary Small, *Hermès Wins MetaBirkins Lawsuit; Jurors Not Convinced NFTs Are Art*, N.Y. TIMES (Feb. 8, 2023), <https://www.nytimes.com/2023/02/08/arts/hermes-metabirkins-lawsuit-verdict.html>.

<sup>316</sup> Benjamin Stasa, *Nike v. StockX Case Highlights many Unanswered Questions About IP and NFTs*, JDSUPRA (Sept. 7, 2022), <https://www.jdsupra.com/legalnews/nike-v-stockx-case-highlights-many-9205701/>.

<sup>317</sup> *Hermès Prevails in Trademark Trial Over MetaBirkins NFTs*, TFL (Feb. 8, 2023), <https://www.thefashionlaw.com/hermes-prevails-in-trademark-trial-over-metabirkins-nfts/>.

<sup>318</sup> Small, *supra* note 315.

<sup>319</sup> Olivia Pennington, *Everything You Need to Know About the Hermès Birkin*, SOTHEBY’S (Mar. 17, 2023), <https://www.sothebys.com/en/articles/everything-you-need-to-know-about-the-hermes-birkin> (stating that bag was named after English-French actress, singer, and model Jane Birkin, and was created as a result of in-flight conversation between Birkin and the CEO of Hermès, Jean Louis Dumas, about Birkin “need[ing] . . . a functional yet stylish bag.”).

<sup>320</sup> Small, *supra* note 315; Reuters, *Hermès wins US trademark trial over ‘MetaBirkin’ NFTs*, CNNSTYLE (Feb. 9, 2023), <https://www.cnn.com/style/article/hermes-metabirkin-trial-nfts/index.html>.

<sup>321</sup> Small, *supra* note 315.

<sup>322</sup> *Id.*

<sup>323</sup> *Id.*

to commodities than artwork, and were subject to strict trademark laws.<sup>324</sup> This case was closely watched, because its outcome was “expected to guide how companies and creators approach branding and art in the virtual world.”<sup>325</sup> The outcome was also important because it “appears to indicate that existing trademark rights neatly extend into the virtual world, and can serve as the basis for successful infringement and dilution actions.”<sup>326</sup>

Trademarks in the United States are “owned” by the entity that first adopts, fixes, and uses them. In the context of NFTs, this generally means that the issuer is the most likely person to have the trademark right.<sup>327</sup> Furthermore, since transferring ownership does not automatically cause the trademark to transfer as well, and because the NFT itself is not a trademark, it is unlikely that the buyer would automatically have any trademark rights in the NFT.<sup>328</sup>

Since the continued protection through trademark law depends on the control maintained over the mark by the original “owner,” the primary issue that arises in terms of trademark protection for NFTs is maintaining or controlling the rights, especially when several NFTs are being issued simultaneously, such as in the case of collections.<sup>329</sup> This is because the creator or issuer of the NFT generally retains the trademark rights upon sale, unless the rights are explicitly transferred and traditionally, the owner of the trademark would have to control how the trademark is used.<sup>330</sup> However, to do that with NFTs, the issuer would have to stay involved, either directly, or through someone else, to make sure that the trademark was being used consistently. The trademark holder would also have to make sure that if they could not control the use of the mark, its use elsewhere would not affect their original trademark rights. But a large part of the popularity of NFTs comes from the fact that they are decentralized transactions.<sup>331</sup> Allowing someone to stay involved long after the transaction has ended would go against this decentralized nature.<sup>332</sup> Furthermore, unlike with traditional transactions, in the case of NFTs, several people are being given licenses or assignments to similar tokens.<sup>333</sup>

The questions that arise are how can the issuer control the mark and keep track

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<sup>324</sup> *Id.*

<sup>325</sup> TFL, *supra* note 317.

<sup>326</sup> *Id.*

<sup>327</sup> HALPERN ET AL., *supra* note 162, at 349.

<sup>328</sup> *Id.*; Greenspoon Marder, *supra* note 161.

<sup>329</sup> HALPERN ET AL., *supra* note 162, at 349; Greenspoon Marder, *supra* note 161.

<sup>330</sup> HALPERN ET AL., *supra* note 162; Bostwick, *supra* note 207; Greenspoon Marder, *supra* note 161.

<sup>331</sup> Clark, *supra* note 3.

<sup>332</sup> Greenspoon Marder, *supra* note 161.

<sup>333</sup> *Id.*

of all the people who have been given a license or assignment?<sup>334</sup> The issue of control is a complicated question that will likely only be solved over time through litigation. It is also one that federal courts have begun addressing.<sup>335</sup>

However, there are some potential ways for trademark law to be applied to NFTs. First, due to their decentralized nature, one of the biggest issues with NFTs is determining the source of either the original work, the NFT, or at times both.<sup>336</sup> Since trademarks are used to indicate a product's "source or origin,"<sup>337</sup> one possibility would be to protect that blockchain as a trademark – a device that indicates the source or origin of the goods.

Another way to protect the rights of the issuers and buyers of NFTs would be through the courts. NFTs could potentially be protected as non-traditional trademarks. Within the broad trademark protection, issuers could decide whether to register their NFTs as simple trademarks, collective marks, or certification marks. As with copyright laws, the best way to guarantee these protections and to make clear what rights are held by which party would be to make sure all these terms are clearly set forth in the initial purchase agreement.

### 3. Patent

Of the three branches of IPR laws that have been discussed in this paper, patent laws are least likely to be applicable to NFTs, especially in their current iteration. This is because for something to be patentable, the applicant must show that their invention is new, adequately disclosed, useful, nonobvious, and fits within statutorily defined subject matter.<sup>338</sup> A patent grants the patent holder the exclusive right to exclude others from making, using, importing, and selling the patented innovation for a limited period of time.<sup>339</sup> And while it is true that software or code can be patented, the software or code has to be unique, tied to a machine, and provides some form of identifiable improvement, for it to fall within U.S. patent laws.<sup>340</sup>

NFTs do not fit any of these parameters. However, since there are currently no laws that adequately protect NFTs, it is possible that patent law can be adapted to apply to NFTs. One way to do this would be to develop laws that give the creator of the NFT an exclusive right to exclude others from making a similar NFT for a certain amount of time. One potential issue, however, is how "similar"

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<sup>334</sup> *Id.*

<sup>335</sup> See *supra* notes 304–315 and the accompanying text (addressing various recent and ongoing cases in federal courts regarding trademarks and NFTs).

<sup>336</sup> See Greenspoon Marder, *supra* note 161.

<sup>337</sup> HALPERN ET AL., *supra* note 162, at 309.

<sup>338</sup> *Id.* at 196; 35 U.S.C. §§ 101–03, 112 (1952).

<sup>339</sup> Legal Info. Inst., *supra* note 250.

<sup>340</sup> MILLER IP L., *supra* note 252.

would be defined in this context. Would it relate to the original work, or to the blockchain that the NFT sits on?

An exclusive right could also allow the seller to exclude others, including the buyer, from selling (or reselling) the NFT for a limited time. Laws could also potentially be developed (or the current law could be adapted) so that instead of having to be tied to a machine, the code could be tied to the blockchain that the NFT is stored on, and thereby allow the creators/sellers and buyers to benefit from the protections of patent law.

### C. Remedies and Damages

#### 1. Remedies

Traditionally, if there is an infringement of intellectual property rights, the aggrieved party can go to court and get an order enjoining the infringing party from using their intellectual property without consent.<sup>341</sup> This is possible because the aggrieved party would most likely know who the infringer is and where they can be found, and would know which court's jurisdiction their case would fall within.<sup>342</sup> In the case of NFTs it is not so simple, because the NFTs are housed on a blockchain, which is a decentralized platform.<sup>343</sup> This means that the aggrieved party either would not know, or could not locate the infringer.<sup>344</sup> Furthermore, once something is on the blockchain, it cannot be altered or removed without significant difficulty.<sup>345</sup>

Therefore, in cases of infringement of intellectual property rights in the context of NFTs the aggrieved party would have two choices. First, if the NFT has already been created and/or sold, the party could go back to the platform where the NFT was sold (such as OpenSea or Rarible), and ask them to remove the infringing work.<sup>346</sup> This option, however, raises several concerns, the most pressing of which is the implications of what is supposed to be a decentralized platform not only interfering, but also having the ability to trace people.<sup>347</sup>

The second option available to the aggrieved party would be to attempt to find out who possessed the NFT and go after them for damages.<sup>348</sup> However, this method would also be difficult to pursue, especially in terms of international

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<sup>341</sup> Greenspoon Marder, *supra* note 161.

<sup>342</sup> *Id.*

<sup>343</sup> *Id.*

<sup>344</sup> *Id.*

<sup>345</sup> *Id.*

<sup>346</sup> *Id.*

<sup>347</sup> *Id.*

<sup>348</sup> *Id.*

transactions, due to the decentralized nature of NFTs and NFT transactions.<sup>349</sup>

## 2. Damages

In most cases of intellectual property right infringement, statutory damages are available as an alternative to actual damages.<sup>350</sup> Generally, they are also less than actual damages, because each infringement is seen as an individual event and the actual damages for the infringed intellectual property may be far higher than the statutory damages for a single infringement.<sup>351</sup> Whether the same holds true for NFTs depends on whether the sale of a collection of NFTs is seen as a single infringing event, or whether the sale of each NFT within the collection is seen as a separate infringing event.<sup>352</sup>

If it is the former, then the general principle would hold true, and, depending on the NFT being sold, actual damages would far outweigh statutory damages.<sup>353</sup> If, however, each NFT sold within the collection was seen as an individual infringing event, then statutory damages would dwarf the actual damages.<sup>354</sup> For example, if someone were selling a collection of 10,000 NFTs that infringed on the BAYC collection, and if all the NFTs sold as part of the collection were seen as a single infringement, then the infringer would likely have to pay higher actual damages than statutory damages.<sup>355</sup> If, however, each “Bored Ape” sold was seen as an individual infringement, then the calculation of damages would be the ‘amount of statutory damages per infringement x 10,000.’<sup>356</sup> As is probably evident, this number would quickly surpass the amount of actual damages.<sup>357</sup>

However, the law is not clear on whether the sale of a collection of NFTs is a single event or if each sale within the collection is an individual event. Until the law develops enough to be able to provide clarity on this, buyers, and sellers of NFTs should take care to make sure that the NFTs are not infringing any intellectual property rights, lest they end up liable for large sums in statutory damages.

## IV. OTHER IMPLICATED AREAS

While most of the issues surrounding NFTs arise within the realm of IPR law,

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<sup>349</sup> *Id.*

<sup>350</sup> *Id.*

<sup>351</sup> *Id.*

<sup>352</sup> *Id.*

<sup>353</sup> *Id.*

<sup>354</sup> *Id.*

<sup>355</sup> *Id.*

<sup>356</sup> *Id.*

<sup>357</sup> *Id.*

there are at least two other areas that are heavily implicated by NFT transactions – taxation and legal proceedings. And as with IPR laws, the current systems raise several questions, and likely need to be adapted in some way or the other to best fit NFT transactions.

#### A. Taxation

The first question to be asked when talking about taxation and NFTs is ‘are NFTs even taxable?’ The answer – yes, they are.<sup>358</sup> The buying, selling, and trading of NFTs is, in theory, subject to the same tax laws as their fungible cryptocurrency counterparts.<sup>359</sup> However, NFTs fall within “a murky area of tax law” since they are intangibles, but many countries club them together with cryptocurrency and define them as ‘tangible personal property’ or collectibles.<sup>360</sup> Classification is important, because the category they fall within determines the rate at which they are taxed.

Different countries have begun taking different approaches to answer these questions. For example, the Finance Minister of India, Ms. Nirmala Sitharaman, announced in her annual budget speech in February 2022, that all digital assets in India would be taxed at 30%, which is the highest tax bracket in the country, and the same rate that is applied to speculative activities like gambling and lottery winnings.<sup>361</sup> This high tax rate would also apply to NFT transactions.<sup>362</sup> People in the crypto-asset field have generally regarded this as a good move stating that it would “[give] legitimacy to virtual digital assets.”<sup>363</sup> However, others have criticized the high rate, saying that it would be unreasonable to tax digital artists at a rate much higher than traditional artists,<sup>364</sup> and that doing so

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<sup>358</sup> Dan Wright, *NFT Taxation – An Introduction to the Federal Income Tax Implications of Creating or Investing in NFTs*, CLARK NUBER PS (Apr. 26, 2022), <https://clarknuber.com/articles/nft-taxation-introduction-federal-income-tax-implications-creating-investing-nfts/> (“While minting (creating) an NFT is not a taxable event, transactions involving the sale of newly minted NFTs by the creator are taxable.”).

<sup>359</sup> Erin Fennimore, *NFT Tax Guide: What Creators and Investors Need to Know About NFT Taxes*, TAXBIT (Jun. 9, 2021), <https://taxbit.com/blog/nft-tax-guide-what-creators-and-investors-need-to-know-about-nft-taxes>.

<sup>360</sup> Greg Iacurci, *Make A Killing On NFTs and Crypto? The IRS May Tax Them Differently*, CNBC (Jan. 11, 2022), <https://www.cnbc.com/2022/01/11/make-a-killing-on-nfts-and-crypto-the-irs-may-tax-them-differently.html>.

<sup>361</sup> Annabelle Liang, *India Says it Will Launch Digital Rupee as Soon as This Year*, BBC NEWS (Feb. 2, 2022), <https://www.bbc.com/news/business-60225372>.

<sup>362</sup> Neeraj Agarwala, *Tax Implications of Minting NFTs*, MINT (Apr. 16, 2022), <https://www.livemint.com/money/personal-finance/tax-implications-of-minting-nfts-11650108809813.html>.

<sup>363</sup> Liang, *supra* note 361.

<sup>364</sup> Agarwala, *supra* note 362 Ruchika Garg, *India is No Country for Free Art Anymore*,

would “act as a dampener for greater adoption.”<sup>365</sup>

In the United States, on the other hand, the IRS has issued some guidance on the tax consequences of transactions in “virtual currency” or “cryptocurrency.”<sup>366</sup> Currently, cryptocurrency is taxed as property for federal income tax purposes, but the IRS does not have an official policy for NFTs yet.<sup>367</sup> However, NFTs are also treated as property by the IRS, and since most NFTs are purchased using some form of cryptocurrency, the purchaser is taxed on the cryptocurrency used to make the purchase.<sup>368</sup> NFTs are also taxed at the lower rate of 0-20% depending on the person’s income.<sup>369</sup>

While the IRS has not explicitly defined the category that NFTs fall within, many tax experts argue that they should fall within the category of collectibles along with art, antiques, and trading cards.<sup>370</sup> Classifying them as collectibles would mean that they would be taxed at the significantly higher collectible tax rate of 28%.<sup>371</sup> The problem with this classification however, is that the tax code § 408(m)(2)(A) defines collectibles as “any work of art.”<sup>372</sup> Given that NFTs are no longer limited to digital artwork, this definition would likely lead to more questions and confusion on the part of the taxpayers.

Ultimately, as with all other issues surrounding NFTs, these questions will likely only be answered over time through litigation and subsequent legislation.

## B. Legal Proceedings

With the rapid pace at which NFTs are developing it is no surprise that they have begun to affect even legal proceedings.

In June 2022, LCX AG (“LCX”), a crypto-asset exchange based in

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*Thanks to Goods and Services Tax*, HINDUSTAN TIMES (Jul. 8, 2017), <https://www.hindustantimes.com/delhi-news/india-is-no-country-for-free-art-anymore-thanks-to-good-and-services-tax/story-zQJDYJH68auiXqL6UfTjCJ.html> (clarifying that traditional artists and artworks are taxed under heading of ‘income from business and profession’ at much lower 12% rate).

<sup>365</sup> Agarwala, *supra* note 362; Liang, *supra* note 361.

<sup>366</sup> Fennimore, *supra* note 359; *see* I.R.S. Notice 2014-21, 2014-16 I.R.B. 938; *also* Rev. Rul. 2019-24, 2019-44 I.R.B. 1004; I.R.S. Chief Couns. Mem. 202114020 (Mar. 22, 2021).

<sup>367</sup> Emery Winter et. al., *Yes, you Have to Pay Taxes on the Sale of NFTs*, VERIFY (Feb. 4, 2022), <https://www.verifythis.com/article/news/verify/taxes-verify/sale-of-nfts-taxed-by-irs/536-c8bfd4-e3e3-4c07-8131-467da84b4246>.

<sup>368</sup> *Id.* (concluding that calculation not applying to U.S. Dollars is not prominent issue as most NFTs can only be purchased with cryptocurrency).

<sup>369</sup> Fennimore, *supra* note 359.

<sup>370</sup> Iacurci, *supra* note 360.

<sup>371</sup> Fennimore, *supra* note 359.

<sup>372</sup> Shehan Chandrasekera, *How Are Non-Fungible Tokens (NFTs) Taxed?*, BLOOMBERG TAX (May 26, 2021), <https://news.bloombergtax.com/daily-tax-report/how-are-non-fungible-tokens-nfts-taxed>; I.R.C. § 408(m)(2)(A).



Liechtenstein, brought suit against several anonymous defendants for the alleged theft of \$8 million in cryptocurrency from one of its digital wallets.<sup>373</sup> The Supreme Court of New York granted LCX's preliminary injunction and restraining order, and ordered that the defendants would be served with a copy of the order "via a special-purpose Ethereum-based token (the Service Token) delivered-airdropped into the Address . . . [s]uch service shall constitute good and sufficient service for the purposes of jurisdiction under NY law on the person or persons controlling the Address."<sup>374</sup>

Similarly, in England, Fabrizio D'Aloia, Italian engineer and founder of Microgame (an online gambling company), sued "persons unknown" for the alleged theft of cryptocurrency worth around £2 million.<sup>375</sup> The British High Court allowed him to serve the defendants via NFT, with the court stating that serving process in this manner was likely to put the defendants at greater notice of the order and subsequent proceedings.<sup>376</sup>

While these orders are being seen as "welcome examples of [courts] embracing new technology,"<sup>377</sup> this new method of service of process also gives rise to several questions, such as when service takes effect, if or when the defendants would discover the tokens, and privacy law issues.<sup>378</sup> Blockchain wallet owners are also wary of interacting with unexpected or unknown tokens due to the rise of malicious or spam tokens that are airdropped, since, if they interact with these malicious tokens, they then run the risk of their entire cryptocurrency wallets being dissipated.<sup>379</sup> Finally, not many law firms are currently equipped to create and send NFTs, especially at short notice in time sensitive litigations.<sup>380</sup> To serve process in this manner they would have to rely on third parties.<sup>381</sup>

Ultimately, while NFTs can potentially be used in various stages and areas of litigation beyond the service of process, careful weighing of the risks and

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<sup>373</sup> Michael Jacobs, *Service of Proceedings via NFT on the Blockchain - A Novel Fad or The Future of Civil Procedure?*, JDSUPRA (June 22, 2022), <https://www.jdsupra.com/legalnews/service-of-proceedings-via-nft-on-the-6632858/>.

<sup>374</sup> *Id.* (stating that delivery of token via 'airdrop' means sending token from one wallet on the blockchain to another, usually on an unsolicited and unexpected basis); *LCX AG v. John Doe Nos. 1-25, No. 154644/2022, N.Y.S. 2022, at \*2* (Order to Show Cause and Temporary Restraining Order).

<sup>375</sup> Sam Tobin, *High Court Permits Service by NFT in 'English Legal First'*, L. SOC'Y GAZETTE (July 13, 2022), <https://www.lawgazette.co.uk/news/high-court-permits-service-by-nft-in-english-legal-first/5113106.article>.

<sup>376</sup> *Id.*

<sup>377</sup> *Id.*

<sup>378</sup> Jacobs, *supra* note 373.

<sup>379</sup> *Id.*

<sup>380</sup> *Id.*

<sup>381</sup> *Id.*

benefits will be required before it becomes the norm.<sup>382</sup>

## V. PRACTICAL EXPERIMENT

I chose NFTs as the focus for this paper because, like everyone else, I had seen new information about them almost every day and had read a lot of the near constant media coverage. Considering their novelty, my hope was that I would be able to find an abundance of material that would further my research and allow me to write this paper. However, once I began doing the research I noticed one glaring problem. Not only did I not know what an NFT was, or how they worked, but I also did not understand cryptocurrency in general beyond a very basic level. Consequently, the first step was to read some articles written by people who were either experts in the cryptocurrency field, or people who had experience with creating and minting NFTs and could talk about them.

It did not take me long to realize that, while this was a good first step, it would not be enough. The articles I read were not really furthering my understanding of the subject because NFTs are such a niche area. Given all technical knowledge and terms of art required to understand their working, extensive research was required to understand even the articles or papers explaining NFTs. Each article would contain more new terms causing a vicious cycle of reading and research that was ultimately leading nowhere.

To alleviate this issue, and try and see if there was another point of view from which I could look at it, I decided to conduct two practical experiments. First, to buy an NFT, and second, to create an NFT of one of my own paintings and put it up for sale. This way I would be able to better understand the process from both the buyer and seller point of view.

### A. Buyer's Perspective

My first brush with NFT transactions was relatively simple. I came across a LinkedIn post which provided a link inviting people to buy an NFT in support of Ukraine, titled "*Stand with Ukraine*."<sup>383</sup> When I clicked on the link, it took me to the MAUER digital page which showed the NFT and a link for buying it at \$10 using a credit card or cryptocurrency.<sup>384</sup> Five simple clicks later, I owned my first NFT, and in the process I had also made a virtual statement in support of Ukraine.

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<sup>382</sup> *Id.*

<sup>383</sup> Will Foulkes, LINKEDIN, <https://www.linkedin.com/feed/update/urn:li:activity:6905080787151261696/> (last visited Apr. 20 2023).

<sup>384</sup> *Stand with Ukraine*, MAUER (Feb. 28, 2022), <https://www.mauer.digital>.

The “*Stand with Ukraine*” special piece was created by artiste Filepe Posada on the MAUER digital platform.<sup>385</sup> MAUER is an art project that tells extraordinary stories of a divided world and is building a digital Berlin Wall of 10,316 unique art pieces; one for every day the Wall stood.<sup>386</sup> MAUER is hosted by Forza Ikonja, described as the “rocket-powered incubator of NFTs.”<sup>387</sup> It, “help[s] brands, artists and influencers realize projects that make the Metaverse a more exciting space.”<sup>388</sup> For the “*Stand with Ukraine*” special piece, MAUER minted 43,287,512 editions of the Posada piece, one for each Ukraine citizen.<sup>389</sup> 100% of the proceeds from the sale of these NFTs are going to three Ukrainian charities, including 10% royalty from any resale of the NFTs.<sup>390</sup>

### B. Seller’s Perspective

Once I had bought my first NFT, I understood the practical aspects of an NFT transaction much better than I had when I first decided to conduct this experiment. Armed with this newfound sense of confidence, I began the experiment of minting my own NFTs and selling them.

First the easy part – I took high resolution photos of several of my paintings. Then to make things interesting from a copyright perspective, I also took several photos of my younger brother’s drawings and paintings, and borrowed (read: took without consent) some of my dad’s landscape photos which he usually posts on our shared family cloud.

I now had several digital images and not a clue on what to do next. Here’s where I learned my first lesson – a digital image is not an NFT. A digital image needs to be converted into an NFT by a process called minting.<sup>391</sup> So, I fell back to the ubiquitous search engine – Google. It pointed me to an excellent “how to create and sell NFT ‘for dummies’” kind of article, which listed clear and easy steps with screenshots of each step for creating and listing an NFT for sale.<sup>392</sup>

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<sup>385</sup> *Id.* (“This artwork embodies the spirit of my recent collaboration with Mauer. The message is simple: No matter our differences in views, we are all brothers and sisters from the same source. I hope we could take a pause and learn to recognize the flame of humanity in our neighbor’s eyes. And find the courage to stand against any form oppression and divisiveness that threatens that humanity. Today we stand strong in support for our brothers and sisters in Ukraine.”).

<sup>386</sup> *Mauer.Digital*, FORZA IKONIA, <https://www.ikonja.com/#our-thinking>.

<sup>387</sup> *Forza Ikonja*, FORZA IKONIA, <https://www.ikonja.com/#our-thinking>.

<sup>388</sup> *Id.*

<sup>389</sup> MAUER, *supra* note 384.

<sup>390</sup> *Id.* (noting the three Ukrainian charities are “Return Alive,” “Everybody Can,” and “Ukraine Humanitarian Fund.”).

<sup>391</sup> Taylor, *supra* note 49.

<sup>392</sup> Mitchell Clark, *How to Create an NFT - And Why You May Not Want To*, THE VERGE (Dec. 8, 2021), <https://www.theverge.com/22809090/nft-create-opensea-rarible->

Step one required choosing a digital platform (like MAUER for the “*Stand with Ukraine*” NFT) for minting my NFTs. OpenSea was recommended as one of the easier ones and more importantly, was free (referred to as “lazy minting”).<sup>393</sup> Obviously, I was not going to spend valuable dollars from a student budget to conduct this experiment, so OpenSea was a perfect solution.

Step two required choosing the storage. A minted NFT needs to be stored in a digital wallet.<sup>394</sup> Once again, my “for dummies” article helpfully recommended Coinbase as a preferred digital wallet as it stored NFTs and multiple cryptocurrencies, thus providing the greatest flexibility to both the buyer and the seller.<sup>395</sup>

Step three was relatively easy. It simply required linking the Coinbase wallet to a marketplace.<sup>396</sup> OpenSea made this easy to do from within the platform.

At this stage, I knew the steps and tools required to mint an NFT but was still intimidated by the process. That’s when I realized that there were references to an iOS app in my “for dummies” article.<sup>397</sup> So, I searched the Apple store on my iPhone and found apps for OpenSea, Coinbase and Coinbase Wallet. Setting up an account on all three apps was easy. For privacy reasons and to maintain my anonymity, I decided to create a new Gmail ID for use in this experiment. Linking the Coinbase wallet to the Coinbase/OpenSea marketplace was also easy. Next step, minting my first NFT.

It took a couple of attempts on the OpenSea app, but finally it worked. My first NFT was minted and listed for sale using the free Polygon blockchain (as opposed to the paid Ethereum blockchain). My second NFT was easier to mint, and it took only one attempt to create it. I listed my NFTs for a fixed price and not for auction.

I am now waiting for someone to buy my NFTs. I understand that this requires publicizing them on various social media platforms – something that I have not yet done. But the unanswered questions remain – I own the intellectual property rights to my paintings. I also have the copyright for NFTs I create. However, when someone buys my NFTs, what do I need to do to ensure that I retain the copyright, especially to my paintings?

Similar questions arise for the NFTs I created of my brother’s artworks. Who owns the intellectual property rights to the NFTs of his artworks considering that

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cryptocurrency-ethereum-collectibles-how-to.

<sup>393</sup> Alex Atallah, *Create NFTs For Free On OpenSea*, OPENSEA BLOG (Dec. 29, 2020), <https://opensea.io/blog/announcements/introducing-the-collection-manager/> (defining lazy minting as process allowing creation of NFTs without upfront costs which are generally charged by miners at fluctuating rate); *id.*

<sup>394</sup> Clark, *supra* note 392.

<sup>395</sup> *Id.*

<sup>396</sup> *Id.*

<sup>397</sup> *Id.*

I created the NFTs with his consent? Is it me or my brother? The NFTs of my father's photographs raise slightly different questions. Does he have any intellectual property claims to the NFTs I created from his photos, since he had posted them on our shared family cloud?

The jury is still out on these questions. Ultimately, to some extent the value of NFTs will determine who the law will favor. The greater the value generated, the more strenuous the fight will be to claim intellectual property rights over them. Based on all the research I have conducted to be able to write this paper, I believe that copyright law may be the most suited to protecting NFTs, since NFTs share many similarities with items that are traditionally copyrighted, such as physical artworks or literary works.

However, the best way to protect the rights of all the parties to the transaction would be to have clear purchase agreements in place before the transaction takes place. These agreements could define what rights each party has, what rights are being transferred or retained, whether the NFTs can be resold, and what happens to the rights and royalties if they are. For example, in my own case, if there had been an agreement in place, there would be no question of who owns the copyright to original paintings and photographs, who owns the copyright to the NFTs, what rights are transferred, and what the buyer can do with the NFTs.

## VI. CONCLUSION

NFTs are non-fungible tokens that are essentially digital certificates of authenticity whose identity is verified on a blockchain, and can represent almost any real or intangible property.<sup>398</sup> In fact, these days it seems as though what can be an NFT is limited only by one's imagination.

NFTs are not new inventions.<sup>399</sup> They have been around for nearly two decades – since 2012.<sup>400</sup> However, they have grown in popularity over the past few years.<sup>401</sup> But because they were a relatively unheard of phenomenon until late 2020, there was no real focus on regulating them.<sup>402</sup> With their boost in popularity, that can no longer be the case.<sup>403</sup> Laws need to be put in place to

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<sup>398</sup> Van Boom, *supra* note 17; Martin, *supra* note 9.

<sup>399</sup> A. Hamilton, *The Beginning of NFTs – A Brief History of NFT Art*, ZENO (Mar. 3, 2022), <https://www.zenofineart.com/blogs/news/the-beginning-of-nfts-a-brief-history-of-nft-art>.

<sup>400</sup> *Id.*

<sup>401</sup> *Id.*

<sup>402</sup> Reeds Solicitors, *Are Non-Fungible Tokens Legally Regulated?*, LEXOLOGY (Aug. 30, 2022), <https://www.lexology.com/library/detail.aspx?g=abdac300-8b09-40d2-853d-98a0db241fb2#:~:text=Under%20US%20securities%20law%2C%20for,its%20individual%20characteristics%20and%20features.>

<sup>403</sup> De, *supra* note 1.

govern the various aspects of NFTs, from their creation to their sale.<sup>404</sup> Laws also need to be adapted or developed for aspects surrounding the transactions, like taxation for example.<sup>405</sup>

Over the course of this paper, I have looked at three different branches of IPR laws: copyright, trademark, and patent. Through my research, and the two experiments I conducted, I have concluded that although trademark laws and patent laws can be adapted to fit NFTs, as they currently stand, copyright laws are likely the best fit. I believe above all else that the best way to protect the rights of the creators, the sellers, and the buyers of NFTs would be to have an iron-clad purchase agreement in place that details all the rights that each party to the transaction has, or retains.

Ultimately, given the diverse nature of NFTs, a one size fits all approach is likely not possible, or feasible. Our legal system has a long way to go before there is any structure in place to regulate NFTs, and this structure will only come over time, as more and more of these cases end up in courtrooms across the country. Until that happens, I believe that the laws outlined in this paper are a good starting point.

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<sup>404</sup> *Id.*

<sup>405</sup> Fennimore, *supra* note 359.

