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# NFTs: The Latest Technology Challenging Copyright Law's Relevance Within a Decentralized System

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# NFTs: The Latest Technology Challenging Copyright Law's Relevance Within a Decentralized System

## **Cover Page Footnote**

\*J.D. Candidate, Class of 2023, Fordham University School of Law. Notes and Articles Editor, Volume XXXIII, Fordham Intellectual Property, Media & Entertainment Law Journal. Thank you to Nicole Kim, Caroline Vermillion, and Laura Rann for their assistance, feedback, and revision in writing this Note. Thank you to Professor Shlomit Yanisky-Ravid for her guidance and expertise. Thank you to Reid Carroll for inspiring me to write this paper and to Susan Light Carroll, Francis Carroll, Daniel Levinson, and Vicki Light for their encouragement and unwavering support.

# NFTs: The Latest Technology Challenging Copyright Law's Relevance Within a Decentralized System

#### Rebecca Carroll\*

Non-fungible tokens ("NFTs") redefine society's understanding of digital ownership and transform how creators distribute original works to consumers. This unique and often misunderstood technology has the potential to yield extraordinary value for both creators and consumers. While NFTs have existed for some time now, the recent frenzy caused by several high-value sales of NFTs exposed a number of unanswered legal questions, particularly in copyright law. NFTs also raise ideological concerns over how much, if any, government oversight and regulation should exist over the "open" internet. This Note explores copyright law's application to NFTs and seeks to address a number of unanswered copyright law questions, including who has the right to mint a copyrighted work into an NFT. This Note then seeks to address how extending application of copyright law to the decentralized system can support the ideals of a free and open internet.

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<sup>\*</sup> J.D. Candidate, Class of 2023, Fordham University School of Law. Notes and Articles Editor, Volume XXXIII, Fordham Intellectual Property, Media & Entertainment Law Journal. Thank you to Nicole Kim, Caroline Vermillion, and Laura Rann for their assistance, feedback, and revision in writing this Note. Thank you to Professor Shlomit Yanisky-Ravid for her guidance and expertise. Thank you to Reid Carroll for inspiring me to write this paper and to Susan Light Carroll, Francis Carroll, Daniel Levinson, and Vicki Light for their encouragement and unwavering support.

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#### INTRODUCTION

Non-fungible tokens ("NFTs") captured the world's attention when a digital artist known as Beeple sold his artwork, "Everydays: The First 5000 Days," as an NFT for \$69 million. Prior to expanding into NFTs, Beeple previously sold only one print of his work for \$100.<sup>2</sup> After the record breaking \$69 million sale, Beeple is now

Sam Dean, \$69 Million for Digital Art? The NFT Craze Explained, L.A. TIMES (Mar. 11, 2021, 10:34 AM), https://www.latimes.com/business/technology/story/2021-03-11/nft-explainer-crypto-trading-collectible [https://perma.cc/7A6E-UULF]; see also Jacob Kastrenakes, Beeple Sold an NFT for \$69 Million, VERGE (March 11, 2021, 10:09 AM), https://www.theverge.com/2021/3/11/22325054/beeple-christies-nft-sale-cost-everydays-69-million (last visited Apr. 25, 2022).

<sup>&</sup>lt;sup>2</sup> See Kastrenakes, supra note 1.

ranked among the top three most valuable living artists.<sup>3</sup> Typically, when a consumer purchases a piece of artwork, ownership over the physical piece of art exchanges hands. However, in an NFT transaction, the buyer does not obtain ownership over the work of art by physical possession; instead, the buyer only obtains ownership of the NFT, which acts as a *certificate* of ownership.<sup>4</sup> For example, the buyer of Beeple's \$69 million transaction obtained ownership solely over the NFT itself, not Beeple's actual, physical artwork.<sup>5</sup>

The promise of NFTs is a transformative one: NFTs redefine how society thinks of "ownership" and introduces scarcity to the internet for the first time. Digital information is generally, by nature, accessible to all; however, NFTs create limitations and conditions on ownership of digital content. NFTs have potential to democratize industries such as art, film, and music, by enabling creators to profit from their works without using a middleman or needing to sign away rights to their own work to a larger entity, such as a record label. However, it remains to be seen whether NFTs will ultimately maintain this utopic goal long term. While NFTs have existed since 2017, the recent frenzy caused by several high-value sales of NFTs raises a number of novel legal questions, particularly in copyright law. A non-exhaustive list of copyright concerns includes: determining the extent to which copyright laws apply to NFTs, identifying

<sup>&</sup>lt;sup>3</sup> *Id*.

See id.

Dean, *supra* note 1.

<sup>&</sup>lt;sup>6</sup> See Mitchell Clark, NFTs, Explained, VERGE (Aug. 18, 2021, 9:20 PM), https://www.theverge.com/22310188/nft-explainer-what-is-blockchain-crypto-art-faq [https://perma.cc/AK45-8KNF].

<sup>&</sup>lt;sup>7</sup> *Id.* ("NFTs are designed to give you something that can't be copied: ownership of the work.").

<sup>&</sup>lt;sup>8</sup> Rebekah Bastian, *The Diversity, Equity and Inclusion Potential of NFTs*, FORBES (Oct. 24, 2021, 5:58 PM), https://www.forbes.com/sites/rebekahbastian/2021/10/24/the-diversity-equity-and-inclusion-potential-of-nfts/?sh=7eac147a3179 (last visited Mar. 24, 2022).

<sup>&</sup>lt;sup>9</sup> See Robert Farrington, NFTs: Solid Investment or Future Beanie Babies?, FORBES (Apr. 13, 2021, 10:33 AM), https://www.forbes.com/sites/robertfarrington/2021/04/13/nfts-solid-investment-or-future-beanie-babies/?sh=2260cc203569 (last visited Mar. 24, 2022).

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 [https://perma.cc/3DTM-5P8K].

the parties entitled to mint a copyrighted work into an NFT, enforcing applicable rights, and understanding the intersection between contract law and copyright law. NFTs also raise ideological concerns over how much, if any, government oversight and regulation should exist over the "open" internet.

This Note seeks to examine the copyright implications of NFTs. It specifically explores: (1) copyright law's application to NFTs; (2) challenges enforcing copyrights within NFT marketplaces; and (3) the extent to which NFTs promote the ideals of a free, open internet, or alternatively, create additional internet gatekeepers in need of regulatory control.

Part I provides NFTs' background, explains their functionality, and discusses how they derive value. Part I then offers an overview of the current copyright regime in the United States and explores copyright's application to NFTs. Part II illustrates the numerous legal challenges NFTs currently raise. It focuses primarily on questions raised under copyright law, including how copyright protections apply, if at all, to the specific use of minting a copyrighted work into an NFT. Part II also examines the role of contract law in enforcing such protections and examines whether NFTs promote the ideals of a free culture over the internet, or merely shift control and power from one entity to another. Part III illustrates how extending copyright protections to the use of minting supports a fundamental ambition of NFT marketplaces—incentivizing artists to create and disseminate works as NFTs.<sup>11</sup> It concludes by addressing how NFT marketplaces can more effectively enforce rights, reducing a need for government regulation.

#### I. Understanding the NFT & Copyright Law Conundrum

NFTs offer a utopic vision for artists, where proof of ownership and originality can exist in the digital world for the first time. Unlike traditional markets for dissemination, NFTs offer opportunities for artists to forgo use of middlemen and instead, distribute directly to

<sup>&</sup>lt;sup>11</sup> See Steve Kaczynski & Scott Duke Kominers, How NFTs Create Value, HARV. BUS. REV. (Nov. 10, 2021), https://hbr.org/2021/11/how-nfts-create-value [https://perma.cc/V246-S6Q9].

consumers.<sup>12</sup> Further, NFTs stand to provide digital and underrepresented artists the opportunity to generate profit from their works in the digital marketplace.<sup>13</sup> Previously, the only way for some artists to disseminate works to consumers was transferring their rights to a larger entity, such as a record label.<sup>14</sup> For others, disseminating creative works to consumers involved sharing a large percentage of profits with a gallery, for example, who would market and distribute the work to an interested buyer.<sup>15</sup> However, NFTs now allow artists to retain rights in their works and earn royalties from secondary sales.<sup>16</sup>

NFTs seemingly offer an opportunity to put control over a creative work's distribution back into the hands of the creator. It shifts power from the hands of few into the hands of the many. NFTs were founded on ideals of redefining digital ownership and promoting a more democratic digital world. However, some argue that NFTs merely shift exclusionary control from one entity to another by creating new forms of gatekeepers and middlemen in the NFT marketplace and high-net worth buyers. Pro NFTs to fulfill the utopic vision to protect artists from the current necessity of signing away copyrights and ownership in a creative work, this Note argues

Grace Kay, Crypto Art Could Become a Primary Source of Income for Musicians and Potentially Cut Out Major Labels, Bus. Insider (Mar. 21, 2021, 8:12 AM), https://www.businessinsider.com/how-crypto-art-muscians-primary-income-nfts-record-labels-2021-3 [https://perma.cc/DX9E-AQTV].

Bastian, *supra* note 8.

<sup>&</sup>lt;sup>14</sup> See id.; Carly A. Kessler, NFTs Are Reshaping Artists' IP Rights, BLOOMBERG L. (MAR. 24, 2021, 4:00 AM), https://news.bloomberglaw.com/ip-law/nfts-are-reshaping-artists-ip-rights [https://perma.cc/8ZP8-N4CH].

Bastian, *supra* note 8; Kessler, *supra* note 14.

<sup>16</sup> Clark, *supra* note 6.

<sup>&</sup>lt;sup>17</sup> See Kessler, supra note 14 (discussing Bluebox, a new NFT platform used by artists, such as Taylor Bennett, who is selling seventy-five percent of the copyrights to their upcoming records to fans).

<sup>&</sup>lt;sup>18</sup> See Terry Nguyen, NFTs, the Digital Bits of Anything That Sell for Millions of Dollars, Explained, Vox (Mar. 11, 2021, 1:59 PM), https://www.vox.com/thegoods/22313936/non-fungible-tokens-crypto-explained (last visited Mar. 24, 2022).

See, e.g., Drew Schwartz, NFTs Won't Save Small Independent Musicians—But the Blockchain Could, Vice (Mar. 19, 2021, 5:43 PM), https://www.vice.com/en/article/jgqweb/nfts-non-fungible-tokens-and-the-music-industry-blockchain

<sup>[</sup>https://perma.cc/8577-ZD37] ("[I]t's hard to find examples of it offering a windfall to those who could actually use the money: small and midsize independent musicians.").

that some amount of copyright protection must exist over the creative work minted into an NFT.

#### A. Demystifying NFTs

As it is important to understand how and why NFTs raise copyright questions, Part I.A. of this Note provides background on NFTs, how they work, and how to conceptualize their ever-expanding influence on society. At a high level, an NFT is a digital asset that acts like a certificate of originality or authentication.<sup>20</sup> This Note considers the key characteristics of NFTs: (1) non-fungibility; (2) certification of ownership; and (3) unique identification code.<sup>21</sup>

#### 1. Non-Fungibility

Fungibility is a characteristic of an asset that defines whether "items or quantities of the same or similar type are exchangeable and of equal value when transferred or utilized."<sup>22</sup> If the asset can be exchanged for an item of equal value, it is fungible.<sup>23</sup> NFTs, however, are non-fungible because each token is unique and cannot be replaced or replicated.<sup>24</sup> Similar to other non-fungible assets, such as baseball cards and real estate,<sup>25</sup> NFTs derive value primarily from their uniqueness, scarcity, and demand.<sup>26</sup> Although a digital image of a work represented by an NFT may be infinitely replicated, there can only be one token.<sup>27</sup> One person's use of the intangible image,

<sup>&</sup>lt;sup>20</sup> See Louis DeNicola, What to Know About Non-Fungible Tokens (NFTs)—Unique Digital Assets Built on Blockchain Technology, Bus. Insider, https://www.businessinsider.com/nft-meaning [https://perma.cc/8WCZ-XS9W] (Feb. 17, 2022, 11:13 AM).

See generally Clark, supra note 6.

<sup>&</sup>lt;sup>22</sup> Tonya M. Evans, *Cryptokitties, Cryptography, and Copyright*, 47 AIPLA Q.J. 219, 246 (2019).

<sup>&</sup>lt;sup>23</sup> *Fungible*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/fungible [https://perma.cc/4ZZ6-XYRS].

See Clark, supra note 6; see also Dean, supra note 1.

<sup>&</sup>lt;sup>25</sup> See Joe Cortez, Fungible: What the 'F' in NFT Stands for and Why It Matters, Bus. Insider (Nov. 4, 2021, 6:19 PM), https://www.businessinsider.com/fungible-meaning [https://perma.cc/KTL4-JN9N].

See Evans, supra note 22, at 247.

<sup>&</sup>lt;sup>27</sup> See Robyn Conti & John Schmidt, What Is an NFT? Non-Fungible Tokens Explained, FORBES, https://www.forbes.com/advisor/investing/nft-non-fungible-token/ [https://perma.cc/T636-KBX2] (Feb. 15, 2022, 12:15 PM) ("Each has a digital signature that makes it impossible for NFTs to be exchanged for or equal to one another.").

such as through sharing on a social media platform, does not interfere with the NFT owner's use of their tangible asset.

#### 2. Certificate of Originality

Beeple's sale of his artwork titled "Everydays: The First 5000 Days" as an NFT is a prime example of how NFTs act as certificates of originality. While someone could still make a perfect digital copy of Beeple's artwork and share it on social media without altering the work in any way, they would neither own the NFT nor the artwork itself. Only the NFT owner has the proof of ownership over the original. 30

A novel feature of NFTs that makes them more challenging to comprehend is that an NFT can be anything.<sup>31</sup> It can represent physical or digital artwork, music, videos, sports memorabilia, documents, design patterns, and so on.<sup>32</sup> Truly, there can be an NFT for any item. Today, its most popular mainstream use is for digital and physical artwork.<sup>33</sup>

Even more notable is that the NFT itself does not contain the actual item—neither the original nor a copy of it.<sup>34</sup> Instead, the item represented by the NFT, such as a digital artwork, exists somewhere else entirely.<sup>35</sup> This is why NFTs are best understood as certificates of originality. When a buyer purchases an NFT for a digital artwork, what the purchaser really owns is a digital asset certifying that the work is the original.<sup>36</sup> The NFT remains the certificate of originality, no matter how many times a JPEG of that digital artwork is

<sup>&</sup>lt;sup>28</sup> See Josie Thaddeus-Johns, Beeple Brings Crypto to Christie's, N.Y. TIMES (Oct. 14, 2021), https://www.nytimes.com/2021/02/24/arts/design/christies-beeple-nft.html [https://perma.cc/58MB-TL43].

<sup>&</sup>lt;sup>29</sup> *Id*.

Clark, supra note 6.

<sup>31</sup> See id.

<sup>&</sup>lt;sup>32</sup> *Id*.

<sup>&</sup>lt;sup>33</sup> See Logan Kugler, Non-Fungible Tokens and the Future of Art, 64 COMM. ACM 19, 19 (2021).

<sup>&</sup>lt;sup>34</sup> See Jack Morse, So You Spent Millions on an NFT. Here's What You Actually Bought, MASHABLE (Mar. 13, 2021), https://mashable.com/article/what-is-an-nft-non-fungible-token [https://perma.cc/93C6-QWB4].

<sup>35</sup> See id.

<sup>36</sup> See id.

downloaded or shared over the internet.<sup>37</sup> Further, ownership of the NFT does not equal ownership of the underlying item.<sup>38</sup> Whether a buyer holds any ownership or rights to the underlying artwork depends on the individual transaction and the marketplace<sup>39</sup> used for the transaction.<sup>40</sup>

#### 3. Unique Identification Code (Metadata)

If a buyer does not acquire the actual work represented by an NFT, what exactly *is* acquired? When a buyer purchases an NFT, the actual purchase consists of information, or a bit of code, known as metadata.<sup>41</sup> The metadata contains instructions about how an NFT owner can access the item the NFT represents.<sup>42</sup> It also contains information about the NFT's subject matter, such as the name of the work, the artist, or a description of the work.<sup>43</sup>

The NFT is tied or "linked" to the digital or physical object.<sup>44</sup> Presently, NFTs fall into one of two categories: "on-chain" and "off-chain." On-chain NFTs contain all the instructions for viewing or accessing the item it represents. <sup>46</sup> Off-chain NFTs provide instructions, or a link, to a separate database where the digital file for the item is housed. <sup>47</sup>

<sup>&</sup>lt;sup>37</sup> See Edward Ongweso Jr., NFT Collector Sells People's Fursonas for \$100K in Right-Click Mindset War, VICE (Nov. 18, 2021, 12:01 PM), https://www.vice.com/en/article/pkpbay/nft-collector-sells-peoples-fursonas-for-dollar100k-in-right-click-mindset-war [https://perma.cc/Y3C3-P6DN] ("[T]hat receipt lets us verify the creator and come to consensus on the original version no matter how many times it's reproduced or remixed.").

<sup>&</sup>lt;sup>38</sup> See Jonathan Schmalfeld, Copyright Violations Could Crash the NFT Party, FORTUNE (Aug. 4, 2021, 6:00 AM), https://fortune.com/2021/08/04/nfts-copyright-violations-penalties-non-fungible-tokens-collectibles-nfttorney-jonathan-schmalfeld/ [https://perma.cc/5U5K-X3ND].

<sup>39</sup> See infra notes 60–64.

See DeNicola, supra note 20.

<sup>41</sup> See Morse, supra note 34.

<sup>42</sup> See id.

<sup>43</sup> See id.

<sup>&</sup>lt;sup>44</sup> See Ajit Tripathi, NFTs Can Bring the Real World On-Chain, CoinDesk (Sept. 14, 2021, 8:27 AM), https://www.coindesk.com/business/2021/03/17/nfts-can-bring-the-real-world-on-chain/ [https://perma.cc/4TMN-DYCY].

<sup>45</sup> See id.

<sup>&</sup>lt;sup>46</sup> See id.

<sup>47</sup> See id.

## a) How NFTs Work

NFTs are created through a process called "minting" and are traded on a blockchain. Blockchain technology is referred to broadly as a distributed ledger. Put simply, blockchain technology provides a ledger to store and record data on the internet. The ledger, which can also be understood as a database, keeps track of the transfer of virtual currency. Unlike other databases and registries, the blockchain is decentralized, meaning that no one central authority controls the information. Instead, the responsibility for oversight and management is distributed among users within the network.

Blockchain also serves as an irreversible, incorruptible, trustworthy, and transparent database.<sup>55</sup> Data stored on a blockchain is visible to all participants, "creating a high level of transparency."<sup>56</sup> When this technology was originally created, it provided a safe and secure mechanism for transferring a unique piece of digital property from one internet user to another for the first time.<sup>57</sup> "[B]lockchain's

<sup>&</sup>lt;sup>48</sup> See Nicholas Rossolillo, A Complete Guide to Minting NFTs, MOTLEY FOOL (Mar. 7, 2022, 10:23 AM), https://www.fool.com/investing/stock-market/market-sectors/financials/non-fungible-tokens/nft-minting/ [https://perma.cc/Q7GT-6LNM]; see also Ekin Genc, Buying NFTs During Presales and Public Mints: Things You Should Know, COINDESK (Feb. 8, 2022, 10:42 AM), https://www.coindesk.com/learn/buying-nfts-during-presales-and-public-mints-things-you-should-know/ [https://perma.cc/TR2B-SZ3F] ("[M]inting as a term may seem confusing because it refers both to a collection becoming part of the blockchain and to a collector buying an item from that collection for the first time.").

<sup>&</sup>lt;sup>49</sup> See DeNicola, supra note 20; Evans, supra note 22.

See DeNicola, supra note 20; Evans, supra note 22, at 234.

<sup>&</sup>lt;sup>51</sup> Mitchell Clark, *Blockchain Explained*, VERGE (Sept. 9, 2021, 6:00 PM), https://www.theverge.com/22654785/blockchain-explained-cryptocurrency-what-is-stake-nft (last visited Mar. 24, 2022).

SHAWN S. AMUIAL ET AL., THE BLOCKCHAIN: A GUIDE FOR LEGAL & BUSINESS PROFESSIONALS § 1:2, Westlaw (database updated Oct. 2016).

<sup>&</sup>lt;sup>53</sup> Clark, *supra* note 51.

<sup>54</sup> Id

<sup>55</sup> See Shlomit Yanisky Ravid & Grace Monroy, When Blockchain Meets Fashion Design: Can Smart Contracts Cure Intellectual Property Protection Deficiency?, 85 ALB. L. REV. (forthcoming 2022).

<sup>&</sup>lt;sup>56</sup> Sebastian Pech, Who Owns the Blockchain? How Copyright Law Allows Rights Holders to Control Blockchains, 16 J. Bus. & Tech. 59, 63 (2021).

Katya Fisher, Once Upon a Time in NFT: Blockchain, Copyright, and the Right of First Sale Doctrine, 37 CARDOZO ARTS & ENT. L.J. 629, 630 (2019).

Internet of value actually makes ownership of digitally scarce assets possible."58

NFTs are bought and sold in several different marketplaces, such as OpenSea.io, Rarible, and NiftyGateway, and the parties transact by way of "smart" contracts. <sup>59</sup> Although there is no universally agreed-upon definition of a smart contract, it is often simply defined as a self-executing agreement. <sup>60</sup> As related to NFTs, any reference to a "smart contract" is, in actuality, a reference to software code that is stored and runs on a blockchain. <sup>61</sup> The terms of the smart-contract agreement exist in the form of code and are self-executed upon the happening of certain pre-defined circumstances. <sup>62</sup> The creation and sale of an NFT is also governed by the terms of services in the various marketplaces. Depending on which marketplace is chosen, different terms will apply to the NFT. <sup>63</sup>

#### b) The Value Proposition

The popularity and mania surrounding NFTs is primarily fueled by its introduction of scarcity, by creating limitations on conditions of ownership of digital content.<sup>64</sup> Under the economic scarcity principle, people value an item more when it exists in small quantities.<sup>65</sup> However, while the NFT satisfies the scarcity, it does not create the

Evans, *supra* note 22, at 249.

James G. Gatto, NFT License Breakdown: Exploring Different Marketplaces and Associated License Issues, NAT. L. REV. (Sept. 21, 2021), https://www.natlawreview.com/article/nft-license-breakdown-exploring-different-marketplaces-and-associated-license-issues [https://perma.cc/Z47Q-6RKM].

<sup>60</sup> See Josh Stark, Making Sense of Blockchain Smart Contracts, COINDESK (Sept. 11, 2021, 8:18 AM), https://www.coindesk.com/markets/2016/06/04/making-sense-of-blockchain-smart-contracts/ [https://perma.cc/DG6J-3VBU].

<sup>61</sup> *Id* 

Alexander Savelyev, Contract Law 2.0: "Smart" Contracts as the Beginning of the End of Classic Contract Law 2 (Nat'l Rsch. Univ. Higher Sch. Econ., Working Paper No. WP BRP 71/LAW/2016, 2016).

<sup>63</sup> See Gatto, supra note 59.

<sup>64</sup> See Nguyen, supra note 18.

<sup>65</sup> See James Chen, Scarcity Principle, INVESTOPEDIA (Dec. 18, 2020), https://www.investopedia.com/terms/s/scarcity-principle.asp#:~:text=The%20scarcity%20 principle%20is%20an,desired%20supply%20and%20demand%20equilibrium [https://perma.cc/D5X7-HCUZ]; see generally Terry Nguyen, The Value of NFTs, Explained by an Expert, Vox (Mar. 31, 2021, 9:30 AM), https://www.vox.com/thegoods/22358262/value-of-nfts-behavioral-expert (last visited Mar. 24, 2022).

demand.<sup>66</sup> Not every NFT sells for millions of dollars.<sup>67</sup> Although several high-priced NFTs have captured the world's attention, it is neither the price nor the potential earnings from an in-demand NFT that makes the technology valuable.<sup>68</sup> Just like a work of art, the derivation of value differs for each NFT and between both players involved: the creator and the consumer.<sup>69</sup>

One might wonder why someone would pay millions of dollars for Beeple's NFT when the digital artwork can be copied, downloaded, and distributed widely across the internet. In general, NFTs are innovative because they redefine society's perception of ownership and values. Many NFT artists do not create artwork with the same ideals as fine artists. Rather, the NFT space "really values community and the identity of the artists behind the project in a way that was not nearly as important before."

Additionally, a creator who has not yet expanded to a digital medium may value the opportunity NFTs provide to do so without a middleman.<sup>73</sup> Some creators derive noneconomic value from the community aspect offered by NFT marketplaces, such as facilitating artistic community and direct connections with fans.<sup>74</sup> NFTs can be valuable for disseminating creative works to fans without giving up any rights or physical possession over work products.<sup>75</sup> For

<sup>&</sup>lt;sup>66</sup> *Id*.

<sup>67</sup> See Eileen Kinsella, Think Everyone Is Getting Rich Off NFTs? Most Sales Are Actually \$200 or Less, According to One Report, ARTNET (Apr. 29, 2021), https://news.artnet.com/market/think-artists-are-getting-rich-off-nfts-think-again-1962752 [https://perma.cc/2MT8-9QSJ]; Koba Molenaar, NFTs Statistics—Sales, Trends and More [2022], INFLUENCER MKTG. HUB (Jan. 20, 2022), https://influencermarketinghub.com/nfts-statistics [https://perma.cc/FL3U-UQLA] ("53.6% of NFTs that were sold on OpenSea in March 2021 were for less than \$200.").

<sup>68</sup> See Kaczynski & Kominers, supra note 11.

<sup>69</sup> See id.

<sup>&</sup>lt;sup>70</sup> See Evans, supra note 22, at 249–52.

<sup>&</sup>lt;sup>71</sup> See Raisa Bruner, *Teen Artists Are Making Millions on NFTs. How Are They Doing It?*, TIME (Sept. 7, 2021, 4:54 PM), https://time.com/6093982/nft-art-teens-money/ [https://perma.cc/C23T-82JN].

<sup>&</sup>lt;sup>72</sup> *Id*.

<sup>&</sup>lt;sup>73</sup> See Bastian, supra note 8.

<sup>&</sup>lt;sup>74</sup> See Andrew R. Chow, NFTs Are Shaking Up the Art World—But They Could Change So Much More, TIME (March 22, 2021, 12:38 PM), https://time.com/5947720/nft-art/ (last visited Mar. 24, 2022).

<sup>&</sup>lt;sup>75</sup> See generally Morse, supra note 34.

example, at an NFT conference in New York City, renowned film producer and screen writer Quentin Tarantino announced that he minted seven NFTs—each uniquely tied to pages from his original handwritten *Pulp Fiction* script—to be sold at auction.<sup>76</sup> In his speech, Tarantino stressed that no amount of money in the world could convince him to give someone the physical pages of his handwritten film script, and that he would he never publicly display it in a museum.<sup>77</sup> Instead, he was willing, for the first time, to make select copies available to consumers as NFTs, to allow them to beneficially access the script and decide how to use it, all without forfeiting his physical ownership or rights to the work.<sup>78</sup>

A creator may also derive economic value from minting and selling a work as an NFT in the form of royalties on subsequent sales. <sup>79</sup> Of course, some may also be attracted to the high-value sales recently garnered by NFTs. <sup>80</sup> Additionally, for the creators of the NFT marketplaces, value appears to come from attracting nontechnical people to cryptocurrency platforms. <sup>81</sup>

Separately, consumers may have both economic and noneconomic incentives to purchase an NFT. They may similarly find value in the community aspect of connecting with other fans and enthusiasts, or in the ability to claim ownership over an exclusive item (whether or not they have any ownership rights to the underlying work). <sup>82</sup> A buyer might value the ability to view or access an item previously unavailable before NFTs and blockchain technology. <sup>83</sup>

Louis DeScioli, *Tarantino at NFT.NYC, Quintin Tarantino*, YouTube (Nov. 2, 2021), https://www.youtube.com/watch?v=egPjm8yjsaE [https://perma.cc/L3GT-TP74].

<sup>&</sup>lt;sup>78</sup> See id.; see also Ben Davis, Inside the NFT Rush: Entrepreneurs Promise NFTs Will Destroy the Gatekeepers, While Jockeying to Become the New Gatekeepers, ARTNET (Nov. 25, 2021), https://news.artnet.com/opinion/nft-rush-part-2-2039452 [https://perma.cc/AW8J-F4MA].

<sup>&</sup>lt;sup>79</sup> See Taylor Locke, *This 28-Year-Old Artist Made Over \$130,000 Selling NFTs in Just 5 Months*, CNBC (Jul. 9, 2021, 12:46 PM), https://www.cnbc.com/2021/07/09/millennial-artist-made-over-130000-selling-nfts-in-about-5-months.html [https://perma.cc/B6Y3-D634] (discussing how royalties earned off of future sales of NFTs can provide a sense of financial stability for an artist).

See, e.g., Thaddeus-Johns, supra note 28; Kinsella, supra note 67.

<sup>81</sup> See Tripathi, supra note 44.

<sup>82</sup> See Clark, supra note 6.

<sup>83</sup> See DeScioli, supra note 76.

Again, consider Tarantino and his decision to mint digital copies of pages from his original hand-written screenplay, which he never chose to release before.<sup>84</sup> In this case, a consumer may value the NFT for the chance to view the unique, never-before-seen work, rather than deriving value over ownership of the digital asset itself.

Whatever the buyer or seller values, one thing is universal—NFTs redefine our understanding of "ownership" in a virtual world and offer creators a new digital means of dissemination. <sup>85</sup> For NFTs to continue offering scarcity and profitability for artists, there is still, in fact, a need for copyright protection over creative works on the internet. This Note illustrates how affording a creator copyright protection over specific uses involved with NFT transactions does not require expanding the scope of copyright law. The remainder of this Part provides an overview of U.S. copyright law, explores the extent to which copyright protections should automatically apply to new emergent technologies, if at all, and illustrates the role contract law plays in enforcing copyright law.

## B. United States Copyright Regime

The Constitution designates copyright law to "promote the Progress of Science and Useful Arts." It does not, however, dictate authors' degree of control. Defining the scope of copyright protection was instead left to legislators and courts, and has evolved over time with the emergence of new technologies. <sup>87</sup> In the United States, today's copyright regime is primarily grounded in utilitarian ideals. <sup>88</sup> Under the dominant economic theory, copyright law seeks to achieve an optimal balance between maximizing production and wide dissemination of expressive works to consumers. <sup>89</sup> This

<sup>&</sup>lt;sup>84</sup> *Id*.

<sup>85</sup> See infra discussion accompanying notes 71–84.

<sup>&</sup>lt;sup>86</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>&</sup>lt;sup>87</sup> See Jane C. Ginsburg, Copyright and Control Over New Technologies of Dissemination, 101 COLUM. L. REV. 1613, 1618–19 (2001); Ben Depoorter, Technology and Uncertainty: The Shaping Effect on Copyright Law, 157 U. PA. L. REV. 1831, 1835 (2009) (discussing the formative effects of technology on copyright law).

Willian M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUDS. 325, 326 (1989); see also Amy Adler, *Why Art Does Not Need Copyright*, 86 GEO. WASH. L. REV. 313, 313 (2018).

Landes & Posner, *supra* note 88; Adler, *supra* note 88.

derives from the idea that greater access by others to copy works of authorship prevents a creator from appropriating enough of the social value to cover the initial investment required to produce the work. When a creator has a lower chance of recouping these costs, the chance the work will be created to begin with is also decreased. From this perspective, creators who are insufficiently compensated will have fewer incentives to create a work when balanced against the cost of creating. Page 192

Congress sought to solve this problem by conferring upon a creator a bundle of limited rights to exclude others from copying their works. 93 "Copyright converts . . . a nonexcludable resource into a partially excludable one in order to allow the copyright owner to internalize a substantial part of the social value of the work," thus incentivizing creation. 94

However, providing creators with exclusionary control comes with the cost of interfering with the general public's use and access to the work as a resource. Legal scholars, William Landes, a University of Chicago Law Professor and American economist, and Judge Richard Posner, a former Federal Appellate judge, summarized this trade off: "[f]or copyright law to promote economic efficiency, its principal legal doctrines must, at least approximately, maximize the benefits from creating additional works minus both losses from limiting access and the costs of administering copyright protection." <sup>95</sup>

Today, U.S. copyright law protects "original works of authorship fixed in any tangible medium of expression." Copyright ownership automatically vests in an author as soon as an original, creative, expression is fixed in a tangible form. A copyright grants the

<sup>&</sup>lt;sup>90</sup> Landes & Posner, *supra* note 88; Adler, *supra* note 88.

Landes & Posner, *supra* note 88; Adler, *supra* note 88.

<sup>&</sup>lt;sup>92</sup> Landes & Posner, *supra* note 88; Adler, *supra* note 88.

<sup>93 17</sup> U.S.C. § 106.

Oren Bracha & Talha Syed, *Beyond Efficiency: Consequence-Sensitive Theories of Copyright*, 29 Berkeley Tech. L.J. 229, 237–38 (2014) (discussing a shift in public discourse about copyright policy from economic analysis to new normative approaches the author calls "democratic and distributive theories").

Landes & Posner, *supra* note 88, at 326.

<sup>&</sup>lt;sup>96</sup> 17 U.S.C. § 102(a).

<sup>&</sup>lt;sup>97</sup> *Id.* §§ 102, 302.

rights holder the exclusive right to reproduce, distribute, publicly display and perform the work, and create derivative works. While registration is not required to gain copyright protection, registration can enhance copyright protection. For example, registration gives a copyright holder options to receive different forms of compensation when bringing a lawsuit. Additionally a certificate of registration received before or within five years after the original work was first published, constitutes prima facie evidence for the validity of a copyright. On

Copyright law recognizes eight categories of protected subject-matters: (1) literary works; (2) musical works; (3) dramatic works; (4) pantomimes and choreographic works; (5) pictorial, graphic, and sculptural works; (6) motion pictures and other audiovisual works; (7) sound recordings; and (8) architectural works. <sup>102</sup> Copyright does not extend to any idea, procedure, or process—only expressions. <sup>103</sup>

While copyright law is intended to prevent copying, it does not extend to all uses of copyrighted works. There are limited exceptions where certain uses are permitted, such as "fair use." The fair use exception permits the unauthorized use of a copyrighted work in certain circumstances for purposes such as "criticism, comment, news reporting, teaching... scholarship, or research." However, absent a finding of fair use, a person is liable for copyright infringement if they infringe a copyright owner's exclusive rights without authorization. This means that any person who copies, produces

<sup>&</sup>lt;sup>98</sup> *Id.* § 106.

<sup>99</sup> See Jane C. Ginsburg, The U.S. Experience with Copyright Formalities: A Love/Hate Relationship 5–6

<sup>(</sup>Colum. L. Sch. Public L. & Legal Theory Working Paper, Paper No. 11-225, 2010), https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=2625&context=faculty\_scholarship[https://perma.cc/678F-GPRY].

<sup>&</sup>lt;sup>100</sup> 17 U.S.C. § 412.

<sup>&</sup>lt;sup>101</sup> Id. § 410(c).

<sup>&</sup>lt;sup>102</sup> *Id.* § 102(a).

<sup>&</sup>lt;sup>103</sup> *Id.* § 102(b).

<sup>&</sup>lt;sup>104</sup> *Id.* § 107.

<sup>105</sup> *Id.* (referring to *Id.* § 106).

<sup>106</sup> Id

<sup>&</sup>lt;sup>107</sup> *Id.* § 501(a).

a derivative, publicly displays or performs, or distributes a copyrighted work has infringed on the lawful owner's rights. 108

#### 1. The Intersection Between Contract and Copyright Law

Consistent with contract principles, it is well understood that intellectual property rights can be transferred, released, and licensed. A copyright owner who wishes to voluntarily transfer all or certain rights for specific uses may do so by way of a contract. In an NFT transaction, it is particularly important to have a harmonious relationship between copyright and contract law.

If an artist wishes to sell an entire music album to consumers as an NFT, the contract between the artist and the individual consumer will determine what rights, if any, the consumer has to the album. For example, if an artist wants to give the buyer the right to publicly display the album, <sup>113</sup> the artist could include a term in the agreement that allows the buyer to exert this particular right. However, if the artist does not negotiate a separate contractual agreement over the sale of the NFT tied to the music album, then the terms and conditions of the marketplace likely control. <sup>114</sup>

#### 2. Applying Copyright Law Principles to NFTs

On its face, an NFT itself is not likely entitled to copyright protection, because it is essentially data on a blockchain that does not fall under the existing criteria for copyright protection. <sup>115</sup> However, the work *represented* by the NFT is protected. Some argue that copyright owners do not automatically retain copyright protections over their works in every new channel of distribution formed by new

<sup>&</sup>lt;sup>108</sup> Id

<sup>&</sup>lt;sup>109</sup> See Raymond T. Nimmer, Breaking Barriers: The Relation Between Contract and Intellectual Property Law, 13 BERKELEY TECH. L.J. 827, 830–31 (1998).

<sup>&</sup>lt;sup>110</sup> Id

<sup>&</sup>lt;sup>111</sup> 17 U.S.C. § 201(d).

<sup>&</sup>lt;sup>112</sup> *Cf.* Nimmer, *supra* note 109, at 832.

<sup>&</sup>lt;sup>113</sup> 17 U.S.C. § 106(5).

See, e.g., Gatto, supra note 59.

See Lynne Lewis et al., Non-Fungible Tokens and Copyright Law, 33 INTELL. PROP. & TECH. L.J. 18, 19 (2021).

technologies.<sup>116</sup> However, courts and Congress have historically identified that unlicensed distribution of a copyrighted work impairs the creator's opportunity to employ new markets for dissemination.<sup>117</sup> To encourage creators to participate in new modes of exploitation and promote wide dissemination, Congress afforded copyright owners control over their decision to enter new markets.<sup>118</sup> For NFTs, courts will likely recognize that unlicensed distribution of copyrighted works as NFTs harms the creator's opportunity to disseminate their works in this new digital market.

It is no surprise that copyright infringement is running rampant in the NFT space. When minting an NFT, the NFT does not automatically prove that the seller is the original creator of the item. Purther, the mania caused by NFTs' immensely high selling prices has produced a new breed of opportunists who have taken to turning other people's work into NFTs.

#### II. LEGAL CHALLENGES RAISED BY NFTS

Part II of this Note provides an overview of three legal questions raised by NFTs under copyright law, including: (1) who has the right to mint a preexisting copyrighted work into an NFT; (2) how are copyright protections enforced; and (3) to what extent can these rights be transferred, if at all. Part II also explores the longstanding conflict between copyright law and new emergent technologies.

Two weeks following Tarantino's announcement of his NFT auction, Miramax, the film studio that produced and owns the rights to *Pulp Fiction*, filed a still-pending lawsuit against Tarantino over

See Ginsburg, supra note 87.

<sup>&</sup>lt;sup>117</sup> See id. at 1613.

<sup>118</sup> See id

<sup>119</sup> See, e.g., Schmalfeld, supra note 38 (describing a specific instance of copyright infringement in the NFT space); see also Justin Scheck, OpenSea's NFT Free-for-All, WALL ST. J. (Feb. 12, 2022), https://www.wsj.com/articles/openseas-nft-free-for-all 11644642042?st=ouz50qst53h03qw&reflink=article\_email\_share [https://perma.cc/GD2R-B9SG].

See Gatto, supra note 59; Rossolillo, supra note 48.

<sup>121</sup> See Ben Munster, People Are Stealing Art and Turning It into NFTs, VICE (Mar. 15, 2021, 12:39 PM), https://www.vice.com/en/article/n7vxe7/people-are-stealing-art-and-turning-it-into-nfts [https://perma.cc/DVM8-Y7ZE].

the tokens he created related to the film. <sup>122</sup> In its complaint, the film studio argues that Tarantino directly infringed on its exclusive rights to "the motion picture *Pulp Fiction*[,] and all its elements in all stages of development and production," stating that Tarantino's limited "Reserved Rights' under the operative agreements are far too narrow for him to unilaterally produce, market, and sell the *Pulp Fiction* NFTs." Further, Miramax argues Tarantino's Reserved Rights "do not contain any forward-looking language" and thus do not apply to any media or rights not known to them at the time the Original Rights Agreement was formed, such as NFTs. <sup>124</sup>

DC Comics, which "long has allowed artists to sell original inkand-paper drawings used in comic books," sent notices to their comic artists, prohibiting them from selling original artwork of their characters as NFTs. 125 These examples illustrate just two of many legal claims that are likely to arise over who has the right to create an NFT for a copyrighted work.

There are two overarching legal questions raised by NFTs: what laws apply and how are they enforced? While this Note focuses primarily on copyright law, NFTs raise a number of legal challenges that implicate additional areas of law, such as trademark law, the right of publicity, securities law, and contract law. <sup>126</sup> In addition to

<sup>&</sup>lt;sup>122</sup> See Adi Robertson, Mirimax Sues Quentin Tarantino Over Pulp Fiction NFTs, VERGE (Nov. 17, 2021, 11:49 AM), https://www.theverge.com/2021/11/17/22787216/miramax-pulp-fiction-quentin-tarantino-nft-lawsuit (last visited Mar. 25, 2022).

Complaint ¶ 3, Miramax, LLC v. Tarantino, No. 2:21-cv-08979, 2021 WL 5359414
(C.D. Cal. Nov. 16, 2021).

<sup>&</sup>lt;sup>124</sup> *Id.* ¶ 22.

Matt Pearce, Who Can Sell a Wonder Woman NFT? The Guy Who Drew Her or DC Comics?, L.A. TIMES (Apr. 14, 2021, 2:56 PM), https://www.latimes.com/entertainment-arts/story/2021-04-14/nfts-intellectual-property-marvel-dc-comics-who-gets-to-make-millions [https://perma.cc/BDA2-QRP4].

See Robert Heim, NFTs and Securities Laws: How to Create and Sell Compliant Non-Fungible Tokens, JD SUPRA (Mar. 30, 2021), https://www.jdsupra.com/legalnews/nfts-and-securities-laws-how-to-create-2017505/ [https://perma.cc/WNJ3-23WZ]; Adi Robertson, Nike Is Testing NFT Trademark Law by Suing a Sneaker Reseller, VERGE (Feb. 10, 2022, 1:20 PM), https://www.theverge.com/2022/2/10/22925252/nike-stockx-shoe-lawsuit-vault-nft-trademark-infringement (last visited Apr. 25, 2022); Ghaith Mahood et al., NFTs and the Right of Publicity, JD SUPRA (Aug. 16, 2021), https://www.jdsupra.com/legalnews/nfts-and-the-right-of-publicity-9050692/ [https://perma.cc/P83X-PVBA].

the number of legal questions raised under copyright law—which will be addressed in subsequent sections—NFTs also raise a number of ideological issues concerning the extent to which regulation should exist over the internet.

#### A. Who Has the Right to Mint a Copyrighted Work Into an NFT?

For the creator who still holds the exclusive rights to their work, ownership and rights to mint and sell works as NFTs are more easily defined, especially when the work is physical or visual art. <sup>127</sup> Often times those creators of a work are entitled to mint their original works into NFTs, sell the NFTs in a marketplace, and generate royalties. <sup>128</sup>

Identifying who has the right to mint a copyrighted work into an NFT becomes more complicated when a creator licensed certain uses of their work or where an artist transferred their rights but retained a license for certain uses. In both scenarios, the issue becomes whether minting the work into an NFT falls within the scope of the creator's licensing agreement or the entity to whom the creator transferred the rights. It is likely that few, if any, contracts entered into prior to the explosion of NFTs contain express terms around use of a work for NFTs. Thus, many disputes over this issue will likely depend on how the terms of the agreement are interpreted. This is the legal issue at the heart of the Miramax-Tarantino dispute. 129

In deciding to proceed with its lawsuit against Tarantino, Miramax argued that Tarantino's sale of the NFTs "devalues" its efforts to avail itself of the NFT market and "could mislead others into believing they have the rights to pursue similar deals or offerings, when in fact Miramax holds the rights . . . . "130 Despite the

<sup>&</sup>lt;sup>127</sup> See Mitra Ahouraian, The Complexities of NFT Creation and Ownership in Entertainment, FORBES (Dec. 9, 2021, 9:15 AM), https://www.forbes.com/sites/forbesbusinesscouncil/2021/12/09/the-complexities-of-nft-creation-and-ownership-in-entertainment/?sh=61a545fd7509 (last visited Mar. 24, 2022).

<sup>128</sup> See id

<sup>&</sup>lt;sup>129</sup> See Ryan Faughnder, The 'Pulp Fiction' NFT Fight Isn't Really About NFTs, L.A. TIMES (Nov. 23, 2021, 6:00 AM), https://www.latimes.com/entertainment-arts/business/newsletter/2021-11-23/why-quentin-tarantino-may-have-a-case-in-pulp-fiction-nft-suit-the-wide-shot [https://perma.cc/6NLQ-QYLY].

Alex Weprin, Miramax Sues Quintin Tarantino Over 'Pulp Fiction' NFTs, HOLLYWOOD REP. (Nov. 16, 2021, 12:00 PM), https://www.hollywoodreporter.com/

lawsuit, Tarantino plans to proceed with the sale of the NFTs, arguing that he excluded certain rights under his "Reserved Rights" clause of the agreement. Among the many license agreements that govern the parties' relationship, in the agreement at issue, Tarantino reserved the rights to:

live performance, print publication (including without limitation screenplay publication, "making of" books, comic books and novelization, in audio and electronic formats as well, as applicable), interactive media, theatrical and television sequel and remake rights, and television series and spinoff rights. <sup>132</sup>

Thus, the issue will turn on the court's interpretation of the contract, and whether minting copies of the screenplay falls under the language of the agreement. <sup>133</sup> This may also serve as a test for whether current copyright laws are sufficiently flexible to adjudicate the new technologies.

It remains undecided whether licensing agreements prior to the existence of NFTs will be held to apply to the designation of NFT rights. Should agreements extend to minting works into NFTs when an artist did not reasonably anticipate signing away this specific use at the time the agreement was executed? Additionally, until the courts determine who may mint a work into an NFT, joint authors may neither own nor automatically have the right, indicating a need for negotiation among the creators. These questions illustrate the complexities of identifying who among rights holders can mint a copyrighted work into an NFT. The analysis of this topic, however, is best reserved for another, more in-depth discussion.

Outside the intricacies of identifying who has the rights to mint and sell a copyrighted work as an NFT, it is easier to identify who

 $movies/movie-news/quentin-tarantino-sued-pulp-fiction-nft-1235048725/\\ [https://perma.cc/68L8-QL6F].$ 

See Sophie Caraan, *Quintin Tarantino Sued by Miramax Over 'Pulp Fiction' NFTs*, HYPEBEAST (Nov. 17, 2021), https://hypebeast.com/2021/11/quentin-tarantino-sued-by-miramax-pulp-fiction-nfts [https://perma.cc/3GDD-P2Z9].

 <sup>132</sup> Quintin Tarantino Responds to Miramax's Lawsuit, JD SUPRA (Dec. 21, 2021),
https://www.jdsupra.com/legalnews/quentin-tarantino-responds-to-miramax-s-4553794
[https://perma.cc/ZH82-PBR7].
133 Id.

does not have such right: those who do not hold any copyrights to creative works. 134 Consequently, someone who owns an original piece of physical art, but has not acquired any copyrights over the work, is not entitled to mint and sell an NFT of their physical piece of art. 135

#### B. Policing Infringement & Enforcement of Rights

Challenges to enforcing copyright protections over NFTs are not so different from the challenges that have existed since the internet's inception. Presently, two enforcement mechanisms are available to a rights holder. The first is to issue a DMCA takedown notice to the marketplace and ask for the removal of the NFT from auction on the marketplace's platform. 136 The 1998 Digital Millennium Copyright Act ("DMCA") was enacted to address the relationship between copyright law and new technologies and, among other restrictions, establish certain protections for online service providers for infringing users. 137 In application, when an artist discovers their work is being sold as an NFT without permission, they file a DMCA takedown notice claiming their rights have been infringed under the law. 138 The marketplace then removes the NFT from being sold and the seller has the option to file a DMCA claim that their work was removed by mistake or misidentification; the marketplace may decide to put it back up on their platform. 139

The second available mechanism is to file a suit against the infringer. While DMCA takedown notices may be useful prior to a work being sold, they are not useful after the fact. <sup>140</sup> The novel and practical challenges raised by NFTs for enforcing the rights of a copyright holder arise from the volume of marketplaces where a seller can simultaneously auction an NFT, and from the buyer and seller's

See Ahouraian, supra note 127.

<sup>135</sup> Id

<sup>&</sup>lt;sup>136</sup> See 17 U.S.C. § 1201 (added as part of Digital Millennium Copyright Act); see also Scheck, supra note 119.

<sup>&</sup>lt;sup>137</sup> 17 U.S.C. § 1201; see also Raymond Nimmer, Information Wars and the Challenges of Content Protection in Digital Contexts, 13 VAND. J. ENT. & TECH. L. 825, 837 (2011).

<sup>&</sup>lt;sup>138</sup> See, e.g., 17 U.S.C. § 1201.

<sup>139</sup> See, e.g., id.

See Schmalfeld, supra note 38.

ability to remain anonymous. <sup>141</sup> While blockchain technology can be used to trace secondary transactions of an infringing NFT from the seller to each subsequent buyer, those parties likely transact under a pseudonym, making it nearly impossible for an artist to bring a viable claim against infringers. <sup>142</sup> Additionally, with the volume of marketplaces and the seller's ability to list the same infringing artwork as an NFT across a number of venues, it is much more difficult for an artist to discover all infringing uses before the work is sold. <sup>143</sup> For example, in 2021, an infringer posing as street artist Banksy, sold \$900,000 worth of NFT artworks on OpenSea, without Banksy's permission or involvement. <sup>144</sup> While the platform blocked the user upon learning of the infringement, the scammer still managed to keep the profits from the sale. <sup>145</sup>

Additionally, even if a buyer can be identified, there are further questions about what remedies, if any, are available to an innocent buyer of an NFT sold by a scammer. Are they required to return the NFT to the artist? If so, must the wrongful seller reimburse the purchase? Are the unknowing buyers entitled to keep an NFT and profit from subsequent sales? The answers may be revealed once courts evaluate how copyright law applies to NFTs.

## C. Transfer of Ownership

When NFTs initially gained popularity, the crypto community amplified another issue: whether a buyer of an NFT receives any exclusive rights to the underlying work. The answer is now widely established as "no."<sup>146</sup> Instead, "[t]he creator retains the right to control copying and distribution of the creative work, just as the creator

<sup>141</sup> *Id.*; see also Lewis, supra note 115, at 19.

See generally Schmalfeld, supra note 38.

<sup>&</sup>lt;sup>143</sup> See generally Mitchell Clark, How to Create an NFT—and Why You May Not Want to, VERGE (Dec. 8, 2021), https://www.theverge.com/22809090/nft-create-opensea-rarible-cryptocurrency-ethereum-collectibles-how-to [https://perma.cc/HW5C-3TAF].

See Kelly Crow, Scammers and Hackers See New Frontier in NFT Art, WALL St. J. (Aug. 27, 2021, 7:13 AM), https://www.wsj.com/articles/scammers-see-new-frontier-in-nft-art-11629896400 [https://perma.cc/89BM-TCMR].

<sup>&</sup>lt;sup>145</sup> See id.

<sup>&</sup>lt;sup>146</sup> See Ghaith Mahmood, NFTs: What Are You Buying and What Do You Actually Own?, FASHION L. (Mar. 18, 2021), https://www.thefashionlaw.com/nfts-what-are-you-buying-and-what-do-you-actually-own/ [https://perma.cc/4ZHV-6JA3].

did before minting the NFT."<sup>147</sup> Thus, when a person buys an NFT of a copyrighted work, the copyright holder retains the exclusive right. <sup>148</sup> This is no different than when a person buys physical artwork; the artist still retains the exclusive right to reproduce, prepare derivative works, distribute copies, and publicly display the artwork. <sup>149</sup> Generally, purchasing physical works also comes with the right to sell, distribute, and transfer the specific physical work to a subsequent owner under a longstanding principle known as the first sale doctrine. <sup>150</sup> However, it remains unclear whether a buyer of an NFT is protected by the first sale doctrine. <sup>151</sup>

Generally, for a creator to protect and enforce their copyright in a legitimate NFT transaction, they must rely on the contract's construction and wording. Contract law plays an important role in enforcing copyright law for NFTs. NFTs and the blockchain on which it is recorded allow artists to program a set of contracts with the buyer governing the use of the work. This allows the artist to contract directly with the buyer (as opposed to using a middleman) and define what rights, if any, are transferred with the purchase. Additionally, NFTs are also bought and sold through third-party marketplaces with their own terms and conditions for the buyers and sellers to follow. 156

Today, there are generally three different categories of NFT marketplaces.<sup>157</sup> The first is the virtual marketplace that offers buyers and sellers the opportunity to connect and establish a community and does not independently verify the creator or the work attached

<sup>&</sup>lt;sup>147</sup> Juliet M. Moringiello & Christopher K. Odinet, *The Property Law of Tokens*, 75 FLA. L.R. (forthcoming 2022) (manuscript at 41).

<sup>148</sup> See id.

<sup>&</sup>lt;sup>149</sup> 17 U.S.C. § 106.

<sup>&</sup>lt;sup>150</sup> Id. § 109.

<sup>&</sup>lt;sup>151</sup> See Desiree Moshayedi, Does the First Sale Doctrine Apply to NFTs?, COLUM. L. Sch. Blog (Jan. 5, 2022), https://clsbluesky.law.columbia.edu/2022/01/05/does-the-first-sale-doctrine-apply-to-nfts [https://perma.cc/V5G6-EJFN].

See Gatto, supra note 59.

<sup>&</sup>lt;sup>153</sup> Nimmer, *supra* note 109, at 827.

<sup>154</sup> Thaddeus-Johns, *supra* note 28.

<sup>.55</sup> *Id* 

Gatto, *supra* note 59.

<sup>&</sup>lt;sup>157</sup> *Id* 

to an NFT.<sup>158</sup> The second type of marketplace is similar, but conducts some level of verification for creators and their works.<sup>159</sup> The third type offers the work from a single rights holder, such as NBA Top Shot, where people can buy and sell digital collectables of NBA moments.<sup>160</sup>

While many NFT marketplaces offer artists opportunities to earn royalties from future sales, in practice, this is not a guarantee. <sup>161</sup> To illustrate, when an artist sells their NFT to a buyer in one marketplace, the buyer may subsequently move the NFT to a secondary marketplace. <sup>162</sup> When that buyer sells the NFT on the secondary marketplace, currently, the original seller is not able to recoup any royalties from that sale. <sup>163</sup> In order for creators to obtain royalties in this scenario, interoperability across marketplaces is necessary. <sup>164</sup> One solution currently being considered is using smart contract standards to contain a uniform code for programming royalties. <sup>165</sup>

## D. Control vs. Free Open Internet

Copyright law is often relationally framed as an attempt to restrict progress sought by the new technologies that enable exploitation of copyrighted works. As with other new and novel technologies, the application of copyright law to NFTs involves

<sup>&</sup>lt;sup>158</sup> See, e.g., Anatol Antonovici, NFT Marketplaces: A Beginner's Guide, COINDESK (July 12, 2021), https://www.coindesk.com/tech/2021/07/12/nft-marketplaces-a-beginners-guide/ [https://perma.cc/CK7U-SG2S] (showing a marketplace that helps buyers and sellers build communities but without user verification).

See, e.g., id. (showing another marketplace that provides additional user verification).
See, e.g., id. (showing another marketplace operated by a single rights holder).

<sup>&</sup>lt;sup>161</sup> See Dev, Can NFT's Generate Royalties?, MEDIUM (Nov. 1, 2021), https://medium.com/metapherse/can-nfts-generate-royalties-cc652dd432a9 [https://perma.cc/CG8G-RMYM].

<sup>&</sup>lt;sup>162</sup> See id.

<sup>&</sup>lt;sup>163</sup> See id.

Interoperability is defined as the ability for computer systems or software to connect and exchange information with each other. *See Interoperability*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/interoperability#other-words [https://perma.cc/ZRZ2-FDWM].

See Michael Dore, Legal Issues to Watch in Navigating the Secondary Market for NFTs, DAILY J. (Apr. 27, 2021), https://www.gibsondunn.com/wp-content/uploads/2021/05/Dore-Legal-issues-to-watch-in-navigating-the-secondary-market-for-NFTs-Daily-Journal-04-27-2021.pdf [https://perma.cc/7ADQ-WAE3].

See generally Ginsburg, supra note 87.

acknowledging whether the technology enables exclusionary control at the expense of limiting public access.<sup>167</sup>

Prior to the internet, the high cost of copying helped preserve rightsholders' interests. 168 "The advent of new technology proved 'a mixed blessing for copyright owners."169 It opened new opportunities for artists to create and disseminate creative works. However, it also enabled copiers to reproduce, disseminate, and display the works at little to no cost. 170 Today, as soon as a creative work is released online, anyone can make near-perfect and unlimited digital copies of it and electronically distribute those copies. <sup>171</sup> As Harvard Professor Lawrence Lessig aptly noted: "an important point about copyright law is that, though designed in part to protect authors, the control it was designed to create was never to be perfect." <sup>172</sup> Copyright law was not designed to expressly grant "control," but rather intended to afford a creator a bundle of rights over certain uses. 173 Ever since the internet's inception, scholars, courts, and legislators have grappled with the extent and means of protection for intellectual property interests in a digital world. Within this discourse, many scholars seek to challenge whether copyright protections should exist at all in the digital world. 174

Copyright law has long been at war with technology. Advocates of weak copyright protection and broad public access "emphasize the value of low or no-cost content." They believe that "strong rights . . . diminish the ability of subsequent parties to use part or all of the original work in their own . . . ." Much of their argument stems from the valid concern that each new technology and novel means of dissemination will also lead to new forms of control. 177

<sup>&</sup>lt;sup>167</sup> *Id.* at 1616.

<sup>&</sup>lt;sup>168</sup> See id. at 1614.

<sup>&</sup>lt;sup>169</sup> Evans, *supra* note 22, at 227.

<sup>170</sup> *Id.* at 227–28.

<sup>&</sup>lt;sup>171</sup> See Neil Weinstock Netanel, Copyright and a Democratic Civil Society, 106 YALE L.J. 283, 285 (1996).

<sup>&</sup>lt;sup>172</sup> LAWRENCE LESSIG, CODE 2.0 179 (2006).

See Ginsburg, supra note 87, at 1615.

See, e.g., LESSIG, supra note 172. See generally Adler, supra note 88.

Nimmer, *supra* note 137.

<sup>176</sup> Id. at 839.

<sup>&</sup>lt;sup>177</sup> *Id.* at 840.

And, arguably, new forms of technology may offer the creator stricter and nearly impenetrable means of control over works than are available in the physical world.<sup>178</sup> For example, when a reader buys a physical copy of a book, they can read it as many times as they want, lend it to a friend, and display it on a shelf.<sup>179</sup> However, when a reader downloads a digital book, there may be software that regulates how often they read the book or whether they can send it to a friend.<sup>180</sup> On the other hand, rights enhancers strive to focus on "preserving strong support and incentives for creative work[s]," and preserving innovation with strong intellectual property rights.<sup>181</sup>

When Satoshi Nakomoto invented the Bitcoin blockchain, Nakomoto envisioned a goal to make a "decentrali[z]ed value-transfer system, shared across the world and virtually free to use." Nakomoto's vision for the technology is to empower individuals to control their own assets in order to reduce control by governments and powerful intermediaries. Is In contrast to the previous peer-topeer technologies, which enabled copies of creative works to be widely distributed, NFTs and the blockchain make it possible to own a scarce, digital item.

NFTs introduce a new type of relationship between a creator and a consumer. By introducing the concept of owning a scarce, digital item into the internet, NFTs redefine society's perception of ownership and exclusivity over the internet. Similar to Nakomoto's vision for the Bitcoin blockchain, many believe that NFTs can "democratize art" by removing the barriers that currently prevent artists from directly profiting from their works. In redefining ownership

<sup>&</sup>lt;sup>178</sup> See, e.g., LESSIG, supra note 172, at 171.

<sup>179</sup> Id

<sup>&</sup>lt;sup>180</sup> *Id*.

<sup>&</sup>lt;sup>181</sup> Id.

<sup>&</sup>lt;sup>182</sup> Evans, *supra* note 22, at 233.

<sup>&</sup>lt;sup>183</sup> *Id.* at 232–33.

See, e.g., Nilay Patel, Can the Law Keep Up with Crypto?, VERGE (Feb. 22, 2022, 10:54 AM), https://www.theverge.com/22944579/crypto-bitcoin-internet-law-nft-tiktok-dances-tonya-evans-interview [https://perma.cc/9NJA-HYJA].

<sup>&</sup>lt;sup>185</sup> See Evans, supra note 22, at 249.

<sup>&</sup>lt;sup>186</sup> See id. at 222.

See Davis, supra note 78.

over the internet, NFTs also offer artists more control over the dissemination of their works.

While the copyright holder's ability to exert control over the internet may seem exactly like the concerns expressed by advocates of weak copyright protections over the internet, in effect this is not the case. The unique application of copyright law to NFTs does not necessarily cause greater exclusion of public access to works. For example, providing an artist with copyright protection from the unauthorized dissemination of an infringing NFT does not necessitate excluding public access to digital copies over the internet. It is still possible for users to make exact copies of a digital work and share on social media. Instead, it merely allows the artist to profit from that work by identifying the "original" and assigning ownership to it. 189

Potentially threatening the vison for a more democratic internet, an artist can determine the contractual terms of an NFT sale.<sup>190</sup> On one hand, this may be a deserved and welcomed power shift to the artist; on the other hand, it opens the door for a creator to implement inflexible contractual restraints on the buyer's use of the work.<sup>191</sup> However, an artist's ability to control what, if any, copyrights a buyer receives upon purchasing a creative work, is no different than the copyright implications that existed prior to NFTs.

NFTs have the potential to release artists from leaning solely on corporate distributors, on whom they currently rely, to bring a work to the public. <sup>192</sup> This may even result in greater public access to an

See Nimmer, supra note 109, at 840.

See Patricia Search, Intellectual Property Rights in Cyberspace, 32 LEONARDO 191, 191 (1999).

<sup>&</sup>lt;sup>190</sup> See Gatto, supra note 59 (suggesting that a copyright owner include additional terms in a licenses and/or include a separate PDF attachment in the NFT listing with additional terms, along with notice stating: "by buying the NFT, the purchaser is agreeing to the third party's terms.").

<sup>&</sup>lt;sup>191</sup> Jennifer Lahm, Buying a Digital Download? You May Not Own the Copy You Purchase, 28 Touro L. Rev. 211, 215–16 (2012).

See Tatiana Cirisano, Copyrights Royalty Splits & More: 'Ruthless' NFT Market Sparks New Legal Debates, BILLBOARD (May 25, 2021), https://www.billboard.com/pro/nft-market-legal-debates-royalty-splits-copyright-analysis/ [https://perma.cc/8FRJ-RZBN].

artist's work because the artist can dictate what works to distribute, rather than a powerful intermediary making those decisions. 193

The choice to disseminate an original creative work lies primarily with the person holding the rights. <sup>194</sup> In *Leatherman Tool Group*, *v. Cooper Industries*, *Inc.*, <sup>195</sup> the Court of Appeals for the Ninth Circuit stated that even if "public policy favors movement of information into public arenas, this does not create a public right of access to information held by a private person." <sup>196</sup> Similarly, the decision to disseminate a creative work as an NFT or restrict it from entering a digital domain lies with the copyright holder. As a societal norm, this determination and the associated profit earned from the work should be for the artist. If copyright protections did not extend to this use, anyone who wishes to capitalize on the NFT gold rush would be able to copy the artist's work and sell it for a high value. And, the demand for digitally scarce NFTs might result in an infringer foreclosing an artist's opportunity to make future profit.

#### III. SOLUTION

This Part illustrates how copyright law should apply to a copyrighted work minted into an NFT, proposes how to enforce such protections, and argues that extending copyright protections to this unique application does not threaten public access to copies of works on the internet.

#### A. Optimal Level of Protection

It is now more important than ever to identify the extent of copyright protections granted to NFTs. In the digital world where copying and redistribution is effortless and most users "regard unauthorized copying as socially acceptable," <sup>197</sup> the rampant infringing acts across the NFT marketplaces is unsurprising. <sup>198</sup>

See Ginsburg, supra note 87, at 1647.

See Nimmer, supra note 109, at 834.

<sup>&</sup>lt;sup>195</sup> 131 F.3d 1011, 1014–15 (Fed. Cir. 1997).

<sup>&</sup>lt;sup>196</sup> *Id.*; see also Nimmer, supra note 109, at 833–34 (restating the principle confirmed by the court in Leatherman Tool Group).

<sup>&</sup>lt;sup>197</sup> Nimmer, *supra* note 137, at 833.

<sup>&</sup>lt;sup>198</sup> See, e.g., Scheck, supra note 119.

Copyright holders should be protected against unauthorized use of their works for minting and selling NFTs. Maintaining copyright protection over works minted into NFTs may be justified by public policy to support and empower individual artists to directly profit from their works. It may also be justified by the "reality that content creation and distribution thrived when rights were being reinforced to reflect developing digital systems." In the digital era, where one can make perfect copies at no cost, there are still ways for artists to profit from their works housed on the internet. NFTs stand to offer artists a rare opportunity to directly control the dissemination of their works and verify the originals. 201

The value of ownership of a digitally scarce item that NFTs offer over the internet would arguably be unavailable if the underlying creative works were not protected. If an artist is unable to prevent others from copying and selling their work as an NFT, the artist will be foreclosed from profiting from the work as an NFT. In this unique circumstance, excluding others from creating an infringing NFT may even incentivize consumers to produce new creative works, <sup>202</sup> further promoting the constitutional purpose of copyright. Applying copyright law to the use of minting a creative work into an NFT will give artists protection from others appropriating their creative works and protects the consumer from purchasing an infringing NFT. Therefore, adapting the existing copyright law framework to this particular use likely enhances public access to creative works.

NFTs and blockchain technology exist in a decentralized system that values community, trust, and authenticity. The marketplaces where users transact seem to share these similar values and hope to attract original artists to sell their works on the various platforms. However, the current NFT market has enabled a flourishing of

<sup>&</sup>lt;sup>199</sup> Nimmer, *supra* note 137, at 828.

See Evans, supra note 22, at 220.

<sup>201</sup> See id.

See generally Clive Thompson, The Untold Story of the NFT Boom, N.Y. TIMES, https://www.nytimes.com/2021/05/12/magazine/nft-art-crypto.html [https://perma.cc/P3J3-B865] (Aug. 12, 2021).

scammers trying to sell artists' work without their permission. <sup>203</sup> For NFTs to have longevity and shift power away from few large entities to many individual artists, <sup>204</sup> artists need strong incentives. This requires providing an artist with the right to exclude others from minting and selling the artist's work as an NFT. An artist should also be afforded a certain amount of copyright protections over the work represented in the NFT, allowing them to control what rights, if any, are transferred to a buyer. However, certain rights should still transfer to a buyer upon purchase, so as to prevent unreasonable restrictions by the artist. For example, a buyer should be permitted to publicly display a work and sell or transfer an NFT on a secondary market. This strikes an optimal balance by providing the artists with protections and incentives to recoup the costs of minting their works into NFTs, while also enabling public access to the work.

#### B. Setting the Rules and Standards

In Lawrence Lessig's book *Code and Other Laws of Cyber-space*, Lessig argues that in cyberspace, code is the law.<sup>205</sup> Over-the-internet markets can create incentives for people to behave in certain ways, and the decisions programmers make set the rules and barriers by which users must abide.<sup>206</sup> The public is more likely to trust the data recorded on the blockchain when the public is involved in setting and enforcing the standards for a decentralized ledger.<sup>207</sup> Trust in its use and value can only be maintained so far as its reputation is established for providing a means of verifying original ownership, authenticity, and transparency.

Presently, most marketplaces are unable to verify whether a creator is the original rights holder before an NFT is offered for sale. <sup>208</sup>

<sup>&</sup>lt;sup>203</sup> See generally Anil Dash, NFTs Weren't Supposed to End Like This, ATLANTIC (Apr. 2, 2021), https://www.theatlantic.com/ideas/archive/2021/04/nfts-werent-supposed-end-like/618488/ [https://perma.cc/4HDE-GS3J].

<sup>&</sup>lt;sup>204</sup> See Ryan Browne, NFT Sales Are Dropping but Believers Still See a Future for Digital Collectibles, CNBC (June 15, 2021, 3:00 AM), https://www.cnbc.com/2021/06/15/nft-price-crash-what-next-for-digital-collectibles.html [https://perma.cc/337J-L68N].

<sup>&</sup>lt;sup>205</sup> Lessig, *supra* note 172.

<sup>&</sup>lt;sup>206</sup> Id

<sup>&</sup>lt;sup>207</sup> See generally Clark, supra note 51.

See Gatto, supra note 59.

To help reduce governmental regulation over marketplaces, the marketplaces could take on more responsibility assisting artists with protecting and enforcing their rights. They may do this by requiring stricter proof of verification before an NFT can be offered for sale in their marketplaces. While this may not help plaintiffs sue potential infringers, it would help identify attempts to sell infringing NFTs upfront.

There may be concern that marketplaces will become powerful gatekeepers, merely shifting control from one powerful entity—such as a major film studio—to another: the NFT marketplace. However, while gatekeeping powers are presently distributed across many different marketplaces, power will likely become concentrated in a small number of marketplaces;<sup>209</sup> particularly, those trying to prevent infringing activities and help collectors purchase only authorized works. To maintain an equal power distribution across several marketplaces and promote artists' independence, the marketplaces should adopt an industry standard to reduce unauthorized copyright from the outset.

#### CONCLUSION

The NFT-created marketplace provides artists with a new, digital means of dissemination and the opportunity to profit off their works. NFTs have the potential to displace some of the existing power and control held by large distributors of copyrighted works, placing more control in the hands of individual artists. To fulfil this utopic goal, promote the wide dissemination of creative works, and incentivize production of new creative works, strong protections must extend to the copyrightable works minted into NFTs. Extending copyright law to this new means of dissemination would mitigate certain challenges in a way that is beneficial to creators. NFT marketplaces have an incentive to implement systems and best practices that assist creators in enforcing copyright protections to maintain the reputation of trust and reliability and thus attract the very creators for whom this decentralized system was built.