



**BEFORE THE
U.S. COPYRIGHT OFFICE**

**Study on Non-Fungible Tokens and Related
Intellectual Property Law Issues**

Docket No. PTO-C-2022-0035

COMMENTS OF THE COPYRIGHT ALLIANCE

The Copyright Alliance appreciates the opportunity to submit the following written comments in response to the [Notice of Inquiry](#) (NOI) for the Study on Non-Fungible Tokens and Related Intellectual Property Law Issues published jointly by the U.S. Copyright Office and U.S. Patent and Trademark Office in the Federal Register on November 23, 2022.

The Copyright Alliance is a non-profit, non-partisan public interest and educational organization representing the copyright interests of over 2 million individual creators and over 15,000 organizations in the United States, across the spectrum of copyright disciplines. The Copyright Alliance is dedicated to advocating policies that promote and preserve the value of copyright, and to protecting the rights of creators and innovators. The individual creators and organizations that we represent rely on copyright law to protect their creativity, efforts, and investments in the creation and distribution of new copyrighted works for the public to enjoy.

As with most new technologies, non-fungible tokens (NFTs) present both opportunities and challenges. Our responses below explain that we believe NFTs represent potential opportunities for copyright owners and creators to distribute and commercialize their works in new and innovative ways while reaching new audiences and increasing fan engagement.

However, many creators and copyright owners have experienced problems with NFT-related infringement and fraudulent activity that require attention. Ultimately, we believe at this time that NFTs do not pose any particularly unique issues that would require a change in copyright law. Finally, during the January 31st roundtable sessions there were discussions spanning a wide range of NFT-related topics—not all of which had a clear connection to copyright law. We recommend that the Copyright Office’s study focus only on issues that directly implicate copyright law.

1. Please describe:

- a. The current uses of NFTs in your field or industry, including the types of assets associated with NFTs (e.g., digital assets, physical goods, services); and*
- b. Potential future applications of NFTs in your field or industry, including the types of assets that could be associated with NFTs (e.g., digital assets, physical goods, services).*

Below are summaries of current NFT uses and potential future applications by many of the creative industries represented by the Copyright Alliance.

i. Sports Leagues

Stakeholders in sports collectibles and trading card markets were quick to recognize the potential in NFT technology, and the major sports leagues were some of the first among content creating industries to offer officially licensed NFTs to the public. In 2019, the National Basketball Association (NBA) partnered with Dapper Labs, a Canada-based blockchain technology company, to create and offer for sale to the public “Top Shot moments,” consisting of copyrighted images and video clips of NBA stars in action. In 2021, Dapper Labs reported that NBA Top Shots had generated over \$230 million in sales.¹ The National Football League (NFL) launched a similar project in 2021 with its own line of football “moments” called “NFL All Day,”² and Ultimate Fighting Championship (UFC) recently announced the launch of “UFC Strike” moments.³ As our comments will discuss later in more detail, these NFTs grant the owner limited non-exclusive, non-transferable rights to display the content on certain marketplaces and for personal, non-commercial use.

¹ See Jabari Young, *People Have Spent More Than \$230 Million Buying and Trading Digital Collectibles of NBA Highlights*, CNBC (Feb. 28, 2021), <https://www.cnbc.com/2021/02/28/230-million-dollars-spent-on-nba-top-shot.html>.

² See Richard Lawler, *The New Pro Football NFT Marketplace Has a Name: NFL All Day*, THE VERGE (Nov. 24, 2021), <https://www.theverge.com/2021/11/24/22801332/nfl-all-day-nft-sports-top-shot-collectible-dapper-labs>.

³ See Jacob Feldman, *UFC, Dapper Labs Announce UFC Strike in Bid for NFT Knockout*, SPORTICO (Jan. 20, 2022), <https://www.sportico.com/business/tech/2022/ufc-nfts-ufc-strike-launch-dapper-labs-1234658762/>.

ii. Music & Recording Artists

Musicians and record labels were also early entrants into the NFT space, understanding that the technology represents a new way to directly connect fans with their favorite bands and artist. In 2021, bands like the Kings of Leon began offering NFTs associated not only with new songs and albums, but also unique digital album art and exclusive perks. For example, in addition to including links to download a new album, the Kings of Leon NFTs included front row tickets and a VIP experience at any live concert the band headlines for life.⁴

Musicians of all stripes have entered the NFT market, including artists like hip-hop icon Snoop Dogg and the pioneering Grimes—who in 2021 sold \$6 million worth of digital works over the course of one short auction.⁵ While some of the NFTs offered by bands and popular musicians are associated with their sound recordings, some incorporate no underlying music and offer access to digital works of visual art, photographs, or “experiences” that could include access to live or virtual events. For example, Snoop Dogg’s “A Journey With the Dogg” collection offers “memories from his early years with art inspired by the NFT movement including an original track ‘NFT’ — an instant classic that is inspired by the movement.”⁶

In early 2021, acclaimed hip-hop artist Nas launched a limited series that further pushes the boundaries of what’s possible in the NFT space by giving fans the opportunity to share streaming royalties in his music.⁷ Partnering with the Royal streaming platform, Nas offered three NFTs that grant the purchaser different tiers of streaming royalties in “Ultra Black,” the lead single from his 2021 Grammy award winning “King’s Disease.” According to Royal, the

⁴ See Samantha Hissong, *Kings of Leon Will Be the First Band to Release an Album as an NFT*, ROLLING STONE (Mar. 3, 2021), <https://www.rollingstone.com/pro/news/kings-of-leon-when-you-see-yourself-album-nft-crypto-1135192/>.

⁵ See 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>.

⁶ See Crypto.com, *Snoop Dogg Announces the Release of His First NFT Collection: “A Journey with the Dogg”*, PR NEWSWIRE (Mar. 30, 2021), <https://www.prnewswire.com/news-releases/snoop-dogg-announces-the-release-of-his-first-nft-collection-a-journey-with-the-dogg-301259014.html>.

⁷ See Ali Shulter, *Nas to Sell Royalty Rights to Two of His Songs as NFTs*, New Musical Express (Jan. 9, 2022), <https://www.nme.com/news/music/nas-to-sell-royalty-rights-to-two-of-his-songs-as-nfts-3133351>.

first of its kind NFT “is a huge opportunity to revolutionize the music industry” by “democratizing ownership.”⁸

iii. Video Games

Digital assets have long been a part of the gaming experience, and game makers have been experimenting with NFTs that offer exclusive in-game features that players can buy or acquire through play-to-earn models. Ubisoft, the company behind the massively successful Assassin’s Creed and Far Cry series, began offering in-game NFTs in late 2021.⁹ In its Ghost Reckon Breakpoint game, players can earn unique cosmetic items called “Digits” that are then stored in the players digital wallet and can be resold or traded. Reactions to in-game NFTs have been mixed, and some game publishers have expressed concerns surrounding NFT-related scams and fraudulent behavior by gamers who already traffic in the games highly coveted “skins” and other in-game assets.¹⁰

iv. Photography & Visual Art

In 2022, Getty Images, a leading visual content creator and marketplace, announced a partnership with Candy Digital to develop and distribute NFTs associated with copyrighted works from Getty’s library.¹¹ A press release explains that “[p]hotography and NFT collectors will be able to seamlessly purchase, sell and trade official digital collectibles through the Getty Images marketplace on Candy, which will support primary and secondary market transactions and purchases using credit card or crypto payments.”¹² The “digital collectibles” created and distributed through the partnership will draw on Getty’s diverse portfolio of more than 465 million images and will incorporate never-before-seen and rare images “alongside contemporary

⁸ *Id.*

⁹ See Julian Dosssett, *The Video Game Industry Was Hot on NFTs. Then Came Hacks and a Market Meltdown*, CNET (July 8, 2022), <https://www.cnet.com/features/nfts-are-coming-for-your-video-games-players-get-ready/>.

¹⁰ See Mitchell Clark, *Epic’s CEO Has Bad News if You Were Hoping to See Fortnite NFTs*, THE VERGE (Sept. 27, 2021), <https://www.theverge.com/2021/9/27/22696978/epic-tim-sweeney-nft-scam-concerns-web-3>.

¹¹ See Getty Images, *Getty Images Enters Exclusive Partnership with Candy Digital to Introduce its First-Ever NFTs*, GETTY IMAGES (May 17, 2022), <https://newsroom.gettyimages.com/en/getty-images/getty-images-enters-exclusive-partnership-with-candy-digital-to-introduce-its-first-ever-nfts>.

¹² *Id.*

images in a variety of different digital formats for people to view and collect for the very first time.”¹³

While a healthy market for digital art has existed for many years, the advent of NFTs has resulted in a flurry of transactions involving preexisting physical works converted to digital art, preexisting digital works, and new digital works created solely for the purpose of NFT offerings. Last year, the Andy Warhol Foundation partnered with Christie’s auction house and sold five unique versions of digital works created by Warhol in the 1980s that were recovered from a floppy disc in 2014.¹⁴ Sales of the five NFTs garnered over \$3 million, generating buzz throughout the fine art world.¹⁵ In early 2022, Picasso’s heirs announced a series of over one thousand NFTs associated with ceramics painted by the late artist.¹⁶ Some of the NFTs will be paired with music by Picasso’s great-grandson—a DJ—and are “meant to introduce Picasso to a younger generation.”¹⁷

There have also been many NFTs in the form of trading cards or fan collectables, such as the popular “bored ape” NFTs offered by the Bored Ape Yacht Club (BAYC). These type of NFTs have generated significant revenue. For example, the BYAC NFT collection, which include a board ape digital image collectibles and an entry ticket to an online social club, passed \$1 billion in total sales in early 2022.¹⁸

v. Films & Television

The motion picture industries have primarily used NFTs to create unique digital memorabilia based on films and television shows. In 2021, Warner Brothers launched an NFT promotional campaign to coincide with the highly anticipated release of “Dune,” offering

¹³ *Id.*

¹⁴ See Helen Holmes, *Christie’s Sold NFT Versions of Andy Warhol’s 1980s Digital Art for \$3,377,500*, OBSERVER (May 30, 2021), <https://observer.com/2021/05/christies-andy-warhol-nfts/>.

¹⁵ *Id.*

¹⁶ See Shanti Escalante-De Mattei, *Picasso Heirs to Offer NFTs of the Artist’s Ceramic Work*, ARTNEWS (Jan. 26, 2022), <https://www.artnews.com/art-news/news/picasso-nft-1234616740/>.

¹⁷ *Id.*

¹⁸ See Max Knoblauch, *Bored Ape Yacht Club NFTs Pass \$1 Billion in Total Sales*, MORNING BREW (Jan. 4, 2022), <https://www.morningbrew.com/daily/stories/NFT-Bored-Ape-Yacht-Club-pass-1-billion-sales>.

“exclusive assets taken directly from the film.”¹⁹ Members of the Motion Picture Association (MPA) have created NFT collections associated with motion pictures and television shows including *Spiderman: No Way Home*, *The Matrix*, *Star Wars*, *Jurassic Park*, *Fast and the Furious*, *Ghostbusters*, *Back to the Future*, *Star Trek*, *Stranger Things*, *Love, Death + Robots*, *Adventure Time*, *Powerpuff Girls*, and more.²⁰ As the MPA explains in its comments to this study, the copyrighted content associated with the NFTs may be static images or permit a small amount of animation.

Other independent producers are experimenting with NFTs that include not only access to content, but also exclusive perks. In early 2022, House of Kibba productions announced a live action sci-fi series, “GenZeroes,” that would be augmented by motion graphic comic books and be offered exclusively through NFTs.²¹ According to the producers of the series, “token holders will enjoy benefits like live streamed ‘behind the scenes’ access, early and special releases of series content, and also residuals and benefits from deals with other platforms as determined by the smart contracts and NFT utilities.”²² Similarly, the animated series “Stoner Cats,” created in 2021 by Mila Kunis and Ashton Kutcher, is only available to those who purchased a limited series NFT.²³

NFTs based on copyrighted movie, television, and comic book characters are now being offered in limited edition releases through the Veve platform, which is an app that provides a marketplace for licensed digital collectibles.²⁴ The Veve app is the first platform to offer NFTs from legacy brands like Marvel, Disney, Pixar, and many others. According to Veve’s website,

¹⁹ See *NFTs launched for Warner Bros movie Dune. Start of a trend?*, LEDGER INSIGHTS (Sept. 13, 2021), <https://www.ledgerinsights.com/nfts-launched-for-warner-bros-movie-dune-start-of-a-trend/>.

²⁰ See *Spiderman*: <https://spiderman.wdny.io/redeem>; *The Matrix*: <https://niftys.com/thematrix>; *Stranger Things*: <https://www.candy.com/netflix>; *Love Death + Robots*: <https://opensea.io/collection/love-death-robots-official>; *Ghostbusters*, *Powerpuff Girls*, *Adventure Time*, *Star Trek* et al.: <https://www.veve.me/>

²¹ See Andreas Wiseman, ‘*Hawkeye*’ and ‘*Van Helsing*’s Aleks Paunovic to Lead NFT Sci-Fi Series ‘*GenZeroes*’, DEADLINE (Jan. 11, 2022), <https://deadline.com/2022/01/hawkeye-van-helsing-aleks-paunovic-nft-series-genzeroes-1234908029/>.

²² *Id.*

²³ See Jamie Redman, *Mila Kunis’ ‘Stoner Cats’ NFT Sale Pulls in \$8M—Animated Series Can Only Be Watched by NFT Holders*, BITCOIN.COM (July 29, 2021), <https://news.bitcoin.com/mila-kunis-stoner-cats-nft-sale-pulls-8m-series-can-only-watched-nft-holders/>.

²⁴ See Veve Home Page, <https://www.veve.me/> (last visited Jan. 20, 2023).

its app offers fans NFTs that can be “purchased, sold and traded, upgraded and customized, placed in virtual showrooms, shared on social and more.”²⁵

Studios and production companies have recognized that NFTs represent alternative revenue sources as well as new ways to engage audiences and fans. Complex licensing arrangements may cause some stakeholders to hesitate before entering the space, but according to the head of a blockchain powered streaming service, “[e]very major production company is looking into using NFTs to drive fan engagement and find new revenue lines.”²⁶

vi. Literary Works & Publishing

Books and other literary works are not what most associate with NFTs, but many authors and publishers are exploring the technology for new opportunities. Some independent writers are creating images of their novel covers or even pages of text that they then sell as an NFT that includes a link to “unlock” or download a full version of the work.²⁷ Some writers are experimenting with the technology to connect more directly with readers and release works in innovative ways. Authors like Rex Shannon are releasing each page of a forthcoming novel as an NFT, with each page made available to the public once the NFT is sold.²⁸ A recent article says the process “essentially functions like a time-staggered Patreon, each buyer helping fund access to an ongoing body of work.”²⁹

Several publishing startups have begun experimenting with offering access to and ownership of literary works through NFTs. Companies like Readl, Scenarex, and Publica are harnessing blockchain technology to enable authors to offer NFTs that provide access to their literary works and shares of royalties.³⁰ A recent report explained that the Readl app allows

²⁵ *Id.*

²⁶ See Simon Chandler, *This is How NFTs Might Change TV and Film Industries*, CRYPTONEWS (Oct. 3, 2021), <https://cryptonews.com/exclusives/this-is-how-nfts-might-change-tv-and-film-industries.htm>.

²⁷ See Walker Caplan, *The Rise of the Crypto Writer? On What Literary NFTs Might Mean for the Book World*, LIT HUB (June 25, 2021), <https://lithub.com/the-rise-of-the-crypto-writer-on-what-literary-nfts-might-mean-for-the-book-world/>.

²⁸ *Id.*

²⁹ *Id.*

³⁰ See Elle Griffin, *The Crypto Revolution Wants to Reimagine Books*, ESQUIRE (July 21, 2022), <https://www.esquire.com/entertainment/books/a40654712/crypto-books-future/>.

readers to “buy an NFT that gives them access to royalty sharing, with readers earning 30 percent of the royalties [the author] earns from ebook and NFT sales.”³¹ These type of literary NFT projects also give authors the opportunity to offer readers unique bonus features like illustrations, author’s notes, and special forewords.³²

News outlets also began experimenting with offering articles as NFTs in 2021, with the New York Times selling an NFT of an article about NFTs for over half a million dollars.³³ In addition to linking to a PNG of the article, the NFT package guaranteed the buyer a congratulatory voice memo from the host of *The Daily* podcast and a feature in a follow-up article about the NFT’s sale.³⁴ While the sale of the NFT was a huge success, the money was donated to a charity and it appears to be more a one-off “meta” experiment than the start of a continuing business model.

2. Please describe any IP-related challenges or opportunities associated with NFTs or NFT markets.

i. Challenges

In addition to non-IP related fraud and criminal activity surrounding some NFTs,³⁵ there have been problems with NFT sellers taking images of works they find on the internet and falsifying ownership information. Piracy and counterfeiting can be a problem in situations where an user mints and offers for sale an NFT that incorporates copyrighted content without authorization. A recent Reuters report detailed the experience of the family of a deceased concept artist whose drawings were copied from his website and displayed and offered for sale

³¹ *Id.*

³² See Oluwademilade Afolabi, *Literary NFTs: A New Way to Collect and Enjoy Your Favorite Books, Poems, and Articles*, MAKE USE OF (Nov. 9, 2022), <https://www.makeuseof.com/what-are-literary-nfts/>.

³³ See Mitchell Clark, *The New York Times Just Sold an NFT for More Than Half a Million Dollars*, THE VERGE (Mar. 25, 2021), <https://www.theverge.com/2021/3/25/22350663/new-york-times-nft-auction-half-million-dollar-article-charity>.

³⁴ *Id.*

³⁵ See Allyson Versprille, *Crypto, NFTs Are Rife With ‘Mountains’ of Fraud, IRS Says*, BLOOMBERG (Jan. 26, 2022), <https://www.bloomberg.com/news/articles/2022-01-26/irs-seeing-mountains-and-mountains-of-fraud-with-crypto-nfts>.

as NFTs on OpenSea.³⁶ Family members notified OpenSea and succeeded in having the NFTs taken down, but not long after, more infringing posts appeared. It's unclear whether the family utilized DMCA notices to effectuate the initial takedowns, but a statement from an OpenSea representative, which said "it is against our policy to sell NFTs using *plagiarized* content" (emphasis added), reveals a troubling lack of familiarity with copyright law and the infringement problems plaguing the platform.³⁷ As "the world's first and largest" NFT marketplace, OpenSea should know the difference between plagiarism—which involves false representation of another's ideas or work as one's own, but is not illegal—and the copyright infringement laws that it is subject to as an online platform hosting user-generated content.³⁸

The COO of DeviantArt, an online platform with 61 million registered users where artists can display digital art as NFTs, recently said that NFT technology is "driving art theft on a 'mind-blowing' scale."³⁹ Since the beginning of September 2021, the platform has flagged more than 90,000 instances of potential fraud.⁴⁰ And that's just one platform out of an ever-increasing number of marketplaces, many of which require no assurances of ownership or authentication from sellers.

In early 2022, some platforms began offering music-related NFTs without authorization or any recognition of the copyright implications of doing so. One example is HitPiece, which launched a beta version of a marketplace that sold NFTs associated with hundreds of thousands copyright-protected songs and albums.⁴¹ While the NFTs didn't contain or link to any actual sound recordings, they included album art and other intellectual property that was allegedly scraped from Spotify. Musicians, rights holders, and the Recording Industry Association of America (RIAA) were quick to denounce HitPiece and threaten legal action, after which the website was taken down and replaced with a lone message that read: "We Started the

³⁶ See Avi Asher-Schapiro, *Booming NFT Art Market Plagued by 'Mind-Blowing' Fraud*, CONTEXT (Jan. 18, 2022), <https://www.context.news/digital-rights/booming-nft-art-market-plagued-by-mind-blowing-fraud>.

³⁷ *Id.*

³⁸ See OpenSea Home Page, <https://opensea.io/> (last visited Jan. 20, 2023).

³⁹ See Asher-Schapiro, *supra* note 32.

⁴⁰ *Id.*

⁴¹ See Aaron Moss, *Is HitPiece the Fyre Festival of NFT Startups?*, COPYRIGHT LATELY (Feb. 6, 2022), <https://copyrightlately.com/is-hitpiece-the-fyre-festival-of-nft-startups/>.

Conversation and We're Listening.”⁴² In August 2022, Hitpiece relaunched after “having secured the necessary rights to any content that is made available through our platform.”⁴³

These challenges are further exacerbated by the decentralized nature of the NFT ecosystem and the frequent obfuscation of an NFT's seller's identity. For example, often times the underlying digital asset is stored separately from the NFT to which it relates, which complicates enforcement. Also, NFT marketplaces often do not provide sufficient information for public to know the true identity of the seller or minter of the NFT.

Finally, during the Copyright Office's roundtable session on *NFT Technical Processes*, it was suggested that the decentralized nature of Web3 does not further complicate or exacerbate the removal of infringing material (or NFTs that point to infringing material) from the internet or the blocking of access to infringing material. The explanation provided was that access to material on blockchain networks and Web3 generally is controlled by gateways, which are computers systems that act as content delivery networks and “sit[] between clients (such as your browser or mobile device) and a number of other systems and helps translate traffic from one protocol to another.”^{1[1]} It was suggested that a gateway could simply block access to an NFT associated with infringing material. However, there are a variety of different gateways, including application programming interfaces (APIs), through which content is made available. Blocking a “hash” associated with infringing material may disable access at the browser level, but that does not mean the material could not be accessed through alternate means. Further, blocking at the gateway level assumes that an NFT is created and made available in a way that would allow gateway operators to easily identify and block NFTs associated with infringement. This assumption discounts the many ways that bad actors could mint NFTs and make them available via other mechanisms. Ultimately, we do not believe that gateways represent a fool-proof solution to NFT-related infringement, and we urge the Copyright Office to refrain from concluding otherwise.

⁴² See Eamonn Forde, *Greatest Hit: RIAA Targets HitPiece Over NFT Infringements*, FORBES (Feb. 7, 2022), <https://www.forbes.com/sites/eamonnforde/2022/02/07/greatest-hit-riaa-targets-hitpiece-over-nft-infringements/>.

⁴³ See Evan Minsker, *HitPiece, the Infamous Music NFTs Startup, Relaunches with Actual Musician Partners*, PITCHFORK (Aug. 15, 2022), <https://pitchfork.com/news/hitpiece-the-infamous-music-nfts-startup-relaunches-with-actual-musician-partners/>.

ii. Opportunities

One of the possible benefits of NFTs lies in their potential to accurately and transparently track the often-complex division of ownership of the numerous exclusive rights comprising copyright through smart contracts. Some have noted that NFTs may provide an opportunity to automate the process of keeping track of rights that can be divided, transferred, and subsequently conveyed to different parties, in different fractional interests, and on different terms.⁴⁴ However, to our knowledge, current NFT smart contract specifications do not have standardized mechanisms to account for the full complexity of copyright licensing.

By design, NFTs themselves are indivisible, but some believe that will soon change and they will be used to designate divided ownership interests in a single work. Copyright lawyers have predicted that, if NFTs do become divisible, a purchaser could sell fractional shares of an NFT and the copyright owner could receive a percentage of both the resale of the NFT and each subsequent individual interest in that NFT.⁴⁵ This may create additional avenues for artists, fans, and rightsholders to further participate in the monetization of copyrighted works.

3. Please describe how NFT markets affect the production of materials subject to IP protection.

While several NFT projects are based on commercialization of newly created copyrighted works, many other NFT projects, such as the NBA's Top Shot series, incorporate pre-existing copyrighted materials, like video clips from sporting events. In the photography space, projects like the above-mentioned partnership between Getty Images and Candy Digital involve the creation of NFTs based on pre-existing photographs in Getty's library of works. So, while some NFT projects involve new works—particularly works of digital visual art—created specifically to be associated with NFTs, it's difficult to say how NFT markets have affected the production

⁴⁴ See Ron Dreben & Amelia Pennington, *Nonfungible Tokens and Copyright: Diligence Issues to Consider*, MORGAN LEWIS (Apr. 12, 2021), <https://www.morganlewis.com/pubs/2021/04/nonfungible-tokens-and-copyright-diligence-issues-to-consider>.

⁴⁵ *Id.*

of materials subject to copyright protection when so many projects incorporate pre-existing works.

4. Please describe whether, how, and to what extent NFTs are used by or could be used by IP rights holders (including those who hold trademarks, patents, and/or copyrights) to:

- a. Document the authenticity of an asset;*
- b. Document the seller's ownership of or authority to sell an asset;*
- c. Document the seller's authority to transfer any relevant or necessary IP rights associated with an asset; and*
- d. Document any limitations related to IP rights surrounding the sale, or the purchaser's use, of an asset.*

NFTs can represent digital certificates of authenticity that can prove ownership of certain rights in a work. When an NFT is minted, it is accompanied by a unique alpha numeric code that resides on the blockchain.⁴⁶ Theoretically, only one purchaser of an NFT will ever be able to own that unique code, which proves the authenticity of the underlying asset associated with the NFT. Authentic, original creators offering for sale a limited series of a work could mint NFTs that incorporate unique codes that authenticate ownership of each work in the limited series. Because the NFTs live on a decentralized blockchain ledger, which is built to be secure and “immutable,” they would be instantly verifiable as authentic without the need of any third-party verification.

However, NFTs can be minted by anyone capable of using token standard creation tools, and the ownership details included in the NFT can be whatever the NFTs creator includes. So, while those ownership details will be transparently and immutably stored on a decentralized blockchain network, there are no guardrails at the point of creation or minting that would ensure the NFT's creator has the right to use or convey rights in an associated work. As the World Intellectual Property Organization noted, “anyone with sufficient technical knowledge and the appropriate tools can generate their own token, and this token can include any information that is

⁴⁶ See Stuart Levi et al., *NFTs Raise Novel and Traditional IP and Contract Issues*, BLOOMBERG LAW (Mar. 30, 2021), <https://www.skadden.com/-/media/files/publications/2021/03/nftsraisenovelandtraditionalipandcontractissues.pdf>.

entered by the author” and “[t]his means that anyone can make erroneous ownership claims and write them into the blockchain.”⁴⁷

A significant problem that copyright owners and creators have frequently encountered in the NFT space is that there is often no way to ensure that the creator or seller of an NFT has any authority to mint the NFT, sell it, or transfer any relevant rights to the associated asset. While the most popular and established NFT marketplaces like OpenSea claim that they require authentication of ownership and disclosures surrounding transfers of rights, there are many platforms that simply facilitate transactions by matching sellers and buyers and require no verification of ownership or authority to sell the NFT.⁴⁸

Many NFTs that incorporate copyrighted content include express terms that limit the rights granted in the underlying work to the display of the work for non-commercial use or as part of an online marketplace. The NBA’s Top Shot NFTs include express language that purchasers are only granted a limited non-exclusive, non-transferable right to display the content on certain marketplaces and for “personal, non-commercial use.”⁴⁹ NFL All Day’s terms include similar language and also say that purchasers only “have the right to swap your Collectible, sell it, or give it away.” Ultimately, the rights conveyed to an NFT purchaser can be dictated by the copyright owner in the terms of the NFT legal contract, and any rights that are not expressly conveyed will be retained by the copyright owner.

5. Please describe whether, how, and to what extent NFTs present challenges for IP rights holders, or those who sell assets using NFTs, with respect to the activities described in Question 4 above.

The creation of NFTs is sometimes referred to as “permissionless” because the token standard used to mint NFTs is free and open to the public.⁵⁰ This permissionless culture raises

⁴⁷ See Andres Guadamuz, *Non-fungible Tokens (NFTs) and Copyright*, WIPO MAGAZINE (Dec. 2021), https://www.wipo.int/wipo_magazine/en/2021/04/article_0007.html.

⁴⁸ See Asher-Schapiro, *supra* note 32.

⁴⁹ See NBA Top Shot, *Terms of Use*, NBA TOP SHOT (Aug. 31, 2022), <https://nbatopshot.com/terms>.

⁵⁰ See William Entriken et al., *EIP-721: ERC-721 Non-Fungible Token Standard*, ETHEREUM IMPROVEMENT PROPOSALS (Jan. 24, 2018), <https://eips.ethereum.org/EIPS/eip-721>.

significant concerns about whether the creator and/or seller of an NFT is the copyright owner of the associated work or is authorized to assign rights related to the work. There is considerable controversy surrounding the creation and sale of NFTs that are linked to works that have been reproduced and displayed without authorization. While NFT marketplaces like OpenSea explain the DMCA’s notice and takedown process in their terms of service, it seems that, just as with more traditional online infringement, only those who have the resources and know-how to monitor for and identify infringements are aware of the NFT-related theft—meaning the problem is likely much more substantial than realized.⁵¹

Groups of creators have attempted to raise awareness of what they see as a rampant infringement problem in NFT creation and distribution. In an interview from early 2022, a member of the Twitter group @NFTtheft spoke about artists who are finding more and more unauthorized NFTs of their works sold through “verified” accounts on various NFT marketplace platforms.⁵² The artist interviewed explained that while token and blockchain technology may work well to verify the transactional history of an NFT, the NFT itself is “incapable of proving anything about a piece of art.”⁵³ Furthermore, the artist noted numerous other concerns, including that OpenSea has rejected valid takedown notices and that members of the creative community are often harassed by NFT defenders when they attempt to enforce their copyrights.⁵⁴

While major platforms like OpenSea claim that they require authentication of ownership and disclosures surrounding transfers of rights, there are numerous marketplaces that simply facilitate transactions by matching sellers and buyers but fail to require verification of ownership.⁵⁵ In these marketplaces, fraud and infringement is even more prevalent, the terms of the NFT take on greater significance, more diligence is required of the buyer, and monitoring by copyright owners for infringement is critical. However, even when a copyright owner detects infringement, it’s unclear whether marketplaces expeditiously remove the listing before an

⁵¹ See Gregory J. Chinlund & Kelley S. Gordon, *What Are the Copyright Implications of NFTs?*, REUTERS (Oct. 29, 2021), <https://www.reuters.com/legal/transactional/what-are-copyright-implications-nfts-2021-10-29/>.

⁵² See Neil Turkewitz, *2021: The Year of the NFT*, MEDIUM (Jan. 25, 2022), https://medium.com/@nturkewitz_56674/2021-the-year-of-the-nft-24cbe958134a.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ See Asher-Schapiro, *supra* note 32.

infringing NFT is sold. Moreover, even if a copyright owner succeeds in having a listing removed using a DMCA takedown notice, identifying the infringing party is extremely difficult because the blockchain data may only include an alphanumeric address and the person responsible could be located anywhere in the world.⁵⁶ In addition, the underlying content is often digitally stored separately from where the NFT is offered. This creates additional challenges to fully effective enforcement.

6. Please describe whether, how, and to what extent NFTs are used by, could be used by, or present challenges or opportunities for IP rights holders (including those who hold trademarks, patents, and/or copyrights) to:

a. Obtain their IP rights;

b. Transfer or license their IP rights;

c. Exercise overall control and management of their IP rights (e.g., digital rights management tools, mechanisms to facilitate the payment of royalties, etc.); and

d. Enforce their IP rights, including any mechanisms that could mitigate infringement or help ensure compliance with contractual terms associated with the sale of an asset.

We are not aware of any situations in which NFTs are used by copyright owners to “obtain” their rights. A copyrighted work associated with an NFT would have already been fixed in a tangible medium before the NFT is minted, meaning that copyright rights would already exist and not be affected by the NFT’s creation. It’s possible that offering an NFT for sale on a public marketplace would constitute publication of a previously unpublished associated work and would thereby affect the rights of the copyright owner and things like copyright term and deposit requirements.

Creating a database of copyright ownership for unregistered works through NFTs that are stored on blockchain networks may have some benefit in the sense that copyright owners can prove ownership through transparent, public records. As the World Intellectual Property Organization recently noted, “[i]n some way, all NFTs could be seen as a form of registration,

⁵⁶ See Levi, *supra* note 44.

insofar as blockchain could operate as an immutable record of ownership claims, acting as a means of verifying or determining authenticity.”⁵⁷ However, those benefits are less a question of “obtaining” rights than they are providing proof of the work’s existence. Further, that alternative “form of registration” would not convey the same benefits as traditional registration through the Copyright Office. Finally, the centralization of records with a governing authority, as is the case with the Copyright Office, provides additional benefits to address concerns with fraud, mistakes, revocation, etc. which could be challenging to address with a decentralized network.

As discussed in the responses above, because NFTs can operate as records of transactions, they could theoretically be used in the same way a traditional contract or instrument of conveyance would be used to transfer or license certain rights in an associated work. Many NFT sales involve the transfer of very limited, non-commercial rights, but others grant more expansive rights to the NFT owner. For example, the Bored Ape Yacht Club (BAYC) series of NFTs grant owners commercial usage rights to their “apes,” meaning they can create and sell merchandise that feature the ape image.⁵⁸ Other NFTs include terms that allow for commercialization up to a certain amount. The popular CryptoKitties NFTs include license terms that an owner can commercialize their own merchandise, so long as the revenue does not exceed \$100,000 annually.⁵⁹

Some platform developers and copyright owners are experimenting with technologies that would use NFTs as a new form of digital rights management and allow copyright owners to exert more control over works associated with the NFT. For example, the RAIR platform, which describes itself as a “leading NFT minting engine,” has launched a blockchain-based digital rights management platform through which users can upload copyrighted works such as videos, books, music, source code, or art and have them stored inside an NFT. According to a RAIR

⁵⁷ See Guadamuz, *supra* note 46.

⁵⁸ See Elizabeth D. Ferrill et al., *Demystifying NFTs and Intellectual Property: What You Need to Know*, FINNEGAN (May 10, 2022), <https://www.finnegan.com/en/insights/articles/demystifying-nfts-and-intellectual-property-what-you-need-to-know.html>.

⁵⁹ *Id.*

press release, creators can then “license, own, and control the distribution of their content and make money on sales and royalties.”⁶⁰

In the e-book space, there have been many startups that focus on providing digital rights management through NFTs. Platforms like Publica, Book Token, and Scenarex offer opportunities for authors to publish literary works as part of an NFT, with the ability of those authors to not only be compensated for sales and subsequent transfers via smart contracts, but also to prevent piracy and other unauthorized use through the incorporation of digital rights management tools.⁶¹ While the e-book industry already relies heavily on digital rights management to protect literary works, these NFT projects present new ownership paradigms through which smart contracts can include specific terms as to whether a purchaser can alienate content, share it with others, create derivative works, and so on. Moreover, an e-book publisher or author could potentially more effectively control secondary markets and ensure that some revenues from subsequent transfers go back to the original seller or NFT creator.⁶²

Mitigating infringement of works associated with NFTs is largely done through the same mechanisms that exist outside of the NFT space. For example, digital rights management tools that encrypt files and prevent unauthorized use can be employed for works associated with or incorporated into NFTs just as they would in a more traditional distribution context. Similarly, digital watermarks can be utilized to tag and track copyrighted materials that are associated with NFTs. The metadata embedded in the NFTs code may present opportunities to mitigate infringement and ensure compliance with contractual terms by incorporating transparent and trackable ownership and identifying information. However, because there is no rights verification guardrails at the point of minting an NFT, the associated metadata could also be used to falsify ownership data.

⁶⁰ See Eileen Brown, *New Platform Uses NFTs as a Gateway for Digital Rights Management*, ZDNET (Mar. 4, 2021), <https://www.zdnet.com/finance/blockchain/new-platform-uses-nfts-as-a-gateway-for-digital-rights-management/>.

⁶¹ See Bill Rosenblatt, *Can Blockchain Disrupt the E-Book Market? Two Startups Will Find Out*, FORBES (Aug. 18, 2018), <https://www.forbes.com/sites/billrosenblatt/2018/08/18/can-blockchains-disrupt-the-e-book-market-two-startups-will-find-out/>.

⁶² *Id.*

7. Please describe how and to what extent copyrights, trademarks, and patents are relied on, or anticipated to be relied on, in your field or industry to:

- a. Protect assets that are associated with NFTs;
- b. Combat infringement associated with NFT-related assets offered by third parties; and
- c. Ensure the availability of appropriate reuse of NFT-related assets.

The growth of NFTs and NFT markets has not changed the way copyright owners protect their works and combat infringement, but it does present new challenges surrounding monitoring for and combatting online infringement. As discussed in other responses, copyright owners continue to rely on digital rights management tools such as digital watermarks to protect copyrighted material and track unauthorized use. When copyright owners identify NFTs on an online marketplace that make unauthorized use of copyrighted material, their options for stopping the use or having the associated material taken down are largely the same as they are for more traditional forms of online infringement. Primarily, copyright owners must rely on the DMCA's notice and takedown process to have infringing material removed, which can be complicated by the fact that the works associated with the unauthorized content are often not stored on the online marketplaces.

Like other online services or platforms that make available copyrighted materials, legitimate NFT marketplaces can avail themselves of the DMCA's safe harbor provisions by complying with section 512(c)'s requirements. This includes responding expeditiously to remove or disable access to material that is claimed to be infringing when they receive a compliant takedown request from a copyright owner. However, as noted in a recent report on the intersection of NFTs and the DMCA, when an NFT marketplace honors a takedown request, it merely prevents the work associated with the NFT from being displayed for sale on the marketplace.⁶³ The NFT itself, if already minted, resides on the blockchain, cannot be deleted or changed, and would still "point" to a location where an infringing work is found.⁶⁴ While this is

⁶³ See Stuart Levi et al., *How the DMCA Applies to NFTs*, BLOOMBERG LAW (May 2022), https://www.skadden.com/-/media/files/publications/2022/05/how_the_dmca_applies_to_nfts.pdf.

⁶⁴ *Id.* at 4.

not the ideal result for the copyright owner, it's not unlike problems faced when targeting more traditional links to infringing content with DMCA notices. Copyright owners can succeed in having that link removed, but the infringing content still exists online and would likely soon be accessible in a different location or via a different link. In that way, NFT-related infringement is yet another whack-a-mole battlefield in the notice and takedown arena.

Ensuring appropriate reuse of NFT-related assets will depend on the terms and conditions that govern the NFT transfer, including what rights convey with subsequent transfers. Because NFTs are transparent records that reside on blockchain networks, copyright owners are theoretically able to track the ownership of an NFT associated with a copyrighted work if they believe the terms are being violated. For example, if an NFT includes terms that allow only for personal, non-commercial use, and the NFT is conveyed to someone who begins to make unauthorized derivative works, the copyright owner could identify the current NFT owner and enforce their rights.

8. Are current IP laws adequate to address the protection and enforcement of IP in the context of NFTs? If not, please explain why, including any gaps in current IP laws, and describe any legislation you believe should be considered to address these issues.

While new and complex technologies will often require careful consideration of how copyright laws apply, we believe at this time that NFTs do not pose any particularly unique issues that would require a change in copyright law.⁶⁵ Regarding copyright limitations and exceptions, we do not believe that blockchain technology or NFTs alter the established application or boundaries of fair use or the first sale doctrine. Fair use is and should continue to be applied on a case-by-case basis, and there is nothing inherently novel about NFTs that would require a departure from a case-specific application of the four-factor test.

Because the NFT is simply a token that includes a digital contract that may include terms associated with the underlying work, and not the work itself, the first sale doctrine is not

⁶⁵ While we do not believe that any special laws are needed to address NFTs, that does not mean that new and effective laws to combat infringement in the digital age—whether NFT-related or not—are not needed.

implicated in the transfer or sale of *the NFT itself*.⁶⁶ Moreover, in cases involving digital works, like MP3s, courts have made unequivocally clear that the resale of a digital work is not covered by the first sale doctrine.⁶⁷ Similarly, in *Disney Enterprises Inc. v. Redbox Automated Retail LLC*, a federal court found that the first sale doctrine does not apply to the sale of digital download codes that gave the purchaser an option to create a copy in the future.⁶⁸ If an NFT grants the owner a similar option to download a copy of a work, then subsequent transfers would not be covered by the first sale doctrine. Ultimately, the first sale doctrine would not limit liability for the post-sale reproductions of any digital files associated with NFTs.

9. Please describe any IP-related impacts those in your field or industry have experienced in connection with actual or intended uses of NFTs. When relevant, please describe any legal disputes that have arisen in the following contexts, and the outcome of such disputes, including citations to any relevant judicial proceedings:

- a. The relationship between the transfer of an NFT and the ownership of IP rights in the associated asset;*
- b. The licensing of IP rights in the asset associated with an NFT;*
- c. Infringement claims when either (i) an NFT is associated with an asset in which another party holds IP rights, or (ii) IP rights in the asset associated with an NFT are owned by the NFT creator;*
- d. The type and/or scope of IP protection afforded to the NFT creator, including when that party is not the creator of the associated asset; and*
- e. The application of one or more of the exclusive rights under 17 U.S.C. 106 to transactions involving NFTs.*

As discussed in previous responses, the transfers of NFTs offered by many of the industries represented by the Copyright Alliance are subject to express legal terms that limit the purchaser's rights in the associated copyrighted works. These transfers typically convey rights to

⁶⁶ The first sale doctrine may be applicable if a claim of copyright is made in the terms of the NFT contract.

⁶⁷ *Capitol Recs., LLC v. ReDigi Inc.*, 910 F.3d 649 (2d Cir. 2018).

⁶⁸ *Disney Enters., Inc. v. Redbox Automated Retail, LLC*, 336 F. Supp. 3d 1146 (C.D. Cal. 2018).

personal, non-commercial use or to display the work on an NFT marketplace. Just as with traditional transactions, unless expressly assigned or licensed, the “bundle of rights” enumerated in section 106 of the Copyright Act are retained by the copyright owner. While NFT transfers that convey complete copyright ownership of the associated work may be something that creators are experimenting with, it is not common in the industries discussed above.

There have been a number of copyright disputes involving infringement claims related to copyrighted material associated with NFTs, but it’s worth noting that while NFTs are involved, many of the cases are effectively disputes over the terms of contracts and have not resulted in groundbreaking decisions on the intersection of copyright law and NFTs. Perhaps the most high-profile copyright infringement case to date involving NFTs was Miramax’s lawsuit against director Quentin Tarantino for his planned sale of scanned pages of the *Pulp Fiction* screenplay as NFTs. In November of 2021, shortly after Tarantino announced that he would be auctioning off seven separate screenplay scenes as NFTs, Miramax sued Tarantino and his Visiona Romantica company alleging that the NFTs are derivative works, the creation and sale of which violate intellectual property rights that Miramax claims he assigned to it around the time of the film’s release in 1994.

Critics of the lawsuit were quick to point out that the NFTs of the screenplays would likely not actually embed or store the underlying assets—the portions of the copyright protected screenplay—but would simply be tokens associating the buyer with digital versions of the screenplay that exist “off chain.”⁶⁹ Those digital scans would likely constitute derivatives of the copyrighted screenplay, but Tarantino’s contract expressly grants him the right to publish the screenplay in electronic format. Miramax argued the NFTs are not publications and instead unauthorized derivative works. But as observers pointed out, the same controversy would exist if Tarantino attempted to sell digital portions of the screenplay entirely outside of the NFT context.⁷⁰ The case ultimately settled, but even if it had gone to trial, it’s likely the courts

⁶⁹ See Aaron Moss, *Miramax, Tarantino and a Fight Over Bright Shiny Objects*, COPYRIGHT LATELY (Nov. 21, 2021), <https://copyrightlately.com/miramax-tarantino-and-a-fight-over-bright-shiny-objects/>.

⁷⁰ *Id.*

analysis would have centered around contract terms and the definition of publication, rather than produce any NFT-specific copyright determinations.

Another case, *TamarindArt v. Husain*, in the Southern District of New York touches on a key derivative work issue that could test the boundaries of the rights of someone who creates an NFT of a work they purchased from someone else.⁷¹ After receiving a cease-and-desist letter related to its creation of NFTs based on a painting it bought in 2002, TamarindArt filed a declaratory judgment of non-infringement against the estate of Maqbool Husian, the now-deceased artist who created the painting. The complaint alleged that the defendants granted TamarindArt an exclusive, royalty-free, worldwide license to display, market, reproduce and resell all or any part of the artwork “including all intellectual property in respect thereof,” and that the license includes the right to reproduce images of the artwork “on all digital and off-line media.”⁷² Husain filed counterclaims alleging copyright infringement, claiming that TamarindArt has “no right to reproduce, distribute copies, create derivative works based on it or display it publicly.” While the copyright infringement counterclaims were eventually dropped by Husain in June 2022, the case may portend future litigation in which the meaning of a derivative work is challenged by the unauthorized display of a copyrighted work in an NFT.⁷³

10. Please describe any instances you have observed in which a party has sent or received:

- a. A notification of claimed copyright infringement, counternotice or material misrepresentation, pursuant to 17 U.S.C. 512, in connection with an NFT; and*
- b. Other IP-related legal claims seeking the removal or reinstatement of NFT-associated materials. For each such instance, please describe the nature and outcome of this claim or process, including whether the material was ultimately removed, and if so, whether the material subsequently reappeared. If an infringement or 17 U.S.C. 512(f) action was filed, please provide citations to the court docket and any relevant judicial decisions.*

⁷¹ *TamarindArt, LLC v. Husain et al*, S.D.N.Y., No. 22-cv-00595.

⁷² *Id.*

⁷³ See Kelcee Griffis, *NFT Rights Suit by Indian Artist M.F. Husain’s Estate Is Dropped*, BLOOMBERG LAW (June 29, 2022), <https://news.bloomberglaw.com/ip-law/artists-estate-drops-ownership-defense-in-nft-copyright-suit>.

There have been many reports from individual creators regarding unsuccessful attempts to combat NFT-related infringement through the use of DMCA takedown notices. In early 2022, visual artists RJ Palmer and Aja Trier detailed their frustrating experiences with takedown notices following the discovery of “tens of thousands” of NFTs associated with their works.⁷⁴ While Trier said that she was able to convince OpenSea to take down NFT listings that made unauthorized use of her works, it was only after thirty-seven had been sold.⁷⁵ According to Palmer, sending takedown notices became such an overwhelming daily routine that he eventually gave up. The report on Palmer and Trier claims that platforms like OpenSea are “barely moderated, forcing artists to actively patrol...to try to get their work taken down.”⁷⁶ Further frustrating creators is the fact that NFT sellers are not required to provide proof of ownership or even their real name to start an auction on OpenSea and other NFT marketplaces, whereas copyright owners must share personal information and proof of ownership to effectuate a takedown.

One noteworthy example of DMCA takedown notices successfully removing infringing NFT-related content involved the takedown of thousands Sad Frog District NFTs based on the popular Pepe the Frog meme.⁷⁷ In August of 2021, the creator and copyright owner of Pepe the Frog, Matt Furie, sent DMCA takedown notices to the OpenSea platform requesting the removal of 7,000 NFT listings that made unauthorized use of his work. While OpenSea honored the takedowns, it did so begrudgingly, stating that “[w]e know this is likely disappointing, and we don’t enjoy doing it—that said, we must comply with lawful takedown requests.”⁷⁸ It’s also troubling that the NFT project had been “officially verified” by OpenSea prior to the DMCA notices and had already generated \$4 million in trading volume. It’s worth noting that Furie was aware of the project before its official launch—which occurred after his warnings to the Sad Frog District creators were ignored—and has experience fighting online piracy. Unfortunately, many creators are not aware that their works are being associated with NFTs without their

⁷⁴ See Collier, *supra* note 50.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ See Andrew Hayward, *Pepe the Frog Meme NFTs Removed From OpenSea After Copyright Dispute*, DECRYPT (Aug. 17, 2021), <https://decrypt.co/78788/pepe-the-frog-meme-nfts-opensea-copyright-dmca>.

⁷⁸ *Id.*

permission and they lack the time, resources, and know-how to constantly monitor for and combat infringement.

11. Please describe the extent to which adjustments are being made to IP portfolio planning and management in light of the emergence of NFTs.

We are unaware of any such adjustments at this time.

12. Please describe any experiences in seeking IP protection for, or use of, assets associated with NFTs in foreign jurisdictions.

We are unaware of any experiences in seeking IP protection for assets associated with NFTs in foreign jurisdictions at this time.

13. Please identify any additional IP issues associated with NFTs that you believe the Offices should consider in conducting this study.

In the context of NFT marketplaces that allow anyone to upload and list NFTs without any personal identifying information, it's unclear whether or how copyright owners would be able to subpoena the online service to disclose the identity of an infringer. While a copyright owner may be able to use a DMCA takedown notice to have the material removed and/or the NFT delisted from the marketplace, identifying the source of infringement using a 512(h) subpoena would be difficult (if not impossible) if the marketplace merely provides a listing that "points" to the NFT, which is hosted in a different location. NFTs are stored on blockchain networks but also in an owner's virtual wallet, which can store material associated with NFTs like digital works of visual art.⁷⁹ A DMCA takedown notice or 512(h) subpoena could be sent to the digital wallet service provider, which may have the ability to remove an NFT that incorporates infringing material from a user's wallet and identify the NFT owner. However, because NFTs are immutable and theoretically reside indefinitely on a blockchain network, it's

⁷⁹ See Vrinda Mathur, *Everything You Need to Know About NFT Wallets*, ANALYTICS STEPS (May 25, 2022), <https://analyticssteps.com/blogs/everything-you-need-know-about-nft-wallets>.

unclear whether an NFT would ever be able to be “deleted” or taken offline. The potential for an NFT associated with infringing material to “live forever” on the internet is a concern for copyright owners and should be a topic of consideration as the Copyright Office conducts its study.

Respectfully submitted,



Kevin R. Madigan

VP Legal Policy & Copyright Counsel
Copyright Alliance
1331 F Street, NW, Suite 950
Washington, D.C., 20004
(202) 540-2243
kmadigan@copyrightalliance.org