

working to help artists reach their potential and connect with fans while supporting hundreds of thousands of American jobs. In support of its mission, the RIAA works to protect the intellectual property and First Amendment rights of artists and music labels; conducts consumer, industry, and technical research; and monitors and reviews state and federal laws, regulations, and policies.

SAG-AFTRA is the world's largest labor union representing media artists with over 160,000 media artists, including recording artists, actors, and other media professionals in the music, motion picture, television, commercial, and new media industries. SAG-AFTRA members are the faces and voices that entertain and inform America and the world. SAG-AFTRA exists to secure strong protections for all media artists, including through collective bargaining the wages, hours, and working conditions of its members. For recording artists, this includes its National Code of Fair Practice for Sound Recordings.

Introduction

Human creative expression is at the core of our members' businesses and is vital to our nation's culture and economy. The United States boasts over one million revenue-generating sound recording artists and songwriters.² Overall, the music industry contributes \$170 billion to the nation's economy, supports 2.47 million jobs, and accounts for over 236,000 businesses in the United States.³ For every dollar of direct revenue within the U.S. music industry, an additional 50 cents is created in an adjacent industry that contributes to the U.S. economy.⁴

The music industry invests in, uses, and drives emerging technologies, such as NFT-enabled projects, that help fans discover, experience, and engage with music and with the artists who create the music. NFTs present new opportunities for the legitimate music ecosystem that can benefit all of its stakeholders, including songwriters, sound recording artists, musicians, music publishers, record labels, and music fans. Indeed, NFTs provide new revenue streams for music creators, provide fan-driven digital collectables and fan loyalty experiences, enable live concert event attendees to access related recorded music, increase the opportunity for legitimate music collaborations, and provide a means to offer authentic virtual merchandise in the metaverse.

However, just as with other emerging technologies, NFTs are sometimes used to exploit music without authorization of, or compensation to, its creators or other rights owners. NFTs are also sometimes offered in ways that can harm music fans, recording artists, or other stakeholders, such as when an NFT uses a recording artist's name or likeness or trademarks without authorization. Compounding these problems, the decentralized and multi-jurisdictional nature of NFT ecosystems, along with the usual separation of the NFT (on-chain) and underlying digital asset (off-chain), can make enforcement of rights in the NFT space challenging. Record companies are vigilant in protecting their artists against the growing scourge of unauthorized

² Source: <http://50statesofmusic.com/?USImpact>.

³ Source: <http://50statesofmusic.com/?USImpact>.

⁴ Source: The U.S. Music Industries: Jobs & Benefits, the 2020 Report, prepared by Economists, Inc. for the Recording Industry Association of America (December 2020), available at <https://www.riaa.com/wp-content/uploads/2021/02/The-U.S.-Music-Industries-Jobs-Benefits-2020-Report.pdf>.

uses of their names, likenesses, or other protectable attributes in the context of NFTs (as elsewhere), but effective enforcement can be elusive.

Nevertheless, as discussed below, at this time, the enforcement challenges presented by NFTs do not appear to be unique to NFTs and are similar to those already present with online intellectual property infringement more generally. History has shown that as music consumption patterns evolve and consumers embrace new technology, infringement and those who seek to profit from copyright theft will follow. That trend is being born out in the NFT ecosystem just as it did with physical media, downloads, peer-to-peer, and streaming. Accordingly, we do not see a present need for changes in current copyright or trademark law that are unique to NFTs, and simply point to the same deficiencies (particularly regarding copyright law) that we have identified regarding online infringement in other contexts.⁵ We also caution the Offices against recommending changes in copyright or trademark law that are unique to NFTs while this still-developing technology remains in its relative infancy.

With this background in mind, we offer the following comments:

Comments

Current and Potential Uses of NFTs (question 1).

The music industry has engaged in a range of diverse NFT-related projects, including, by way of example, the following types of projects that are exemplified by the specific examples listed in the footnotes:

- *Proof of Attendance.* NFTs that serve as mementos of a fan’s attendance at a live musical event.⁶
- *Access to Live Events & Physical Items.* NFTs that grant the NFT holder rights to access live events, future rewards, discounts on physical merchandise and the like.⁷ Sometimes, these rights are combined with other types of rights granted in connection with an NFT.⁸

⁵ See, e.g., “Section 512 of Title 17, A report of the Register of Copyright,” U.S. Copyright Office, May 2020, available at <https://www.copyright.gov/policy/section512/section-512-full-report.pdf>; Music Community Comments in the matter of Section 512 Study: Notice and Request for Public Comment, Docket No. 2015-17, Apr. 1, 2016, available at <https://www.regulations.gov/comment/COLC-2015-0013-89806>; Music Community Additional Comments in the matter of Section 512 Study: Notice and Request for Public Comment, Docket No. 2015-17, Feb. 21, 2017, available at <https://www.regulations.gov/comment/COLC-2015-0013-92433>.

⁶ See, e.g., “Warner Music Group Partners with Leading Web3 Protocol POAP Inc. to Mint Shared Memories as NFTs – Atlantic Records rapper Kevin Gates to tap into the technology, commemorating the sold-out Red Rocks top of his Khaza Tour on April 16,” Warner Music Group, Apr. 14, 2022, available at <https://www.wmg.com/news/warner-music-group-partners-leading-web3-protocol-poap-inc-mint-shared-memories-nfts-36346>; “Defected Records enter Web3 with Proof of Attendance NFT at Upcoming Croatia Festival,” NFT Culture, Aug. 3, 2022, available at <https://www.nftculture.com/nft-news/defected-records-enter-web3-with-proof-of-attendance-nft-at-upcoming-croatia-festival/>; Morgan, Sarah, “POAP NFTs Will be Release[d] by American Express at ACL Music Fest,” Next NFT Drop, Oct. 5, 2022, available at <https://nextnftdrop.com/news/poap-nfts-will-be-release-by-american-express-at-acl-music-fest/>.

⁷ Id. See also <https://stickmentoys.com/utility>.

⁸ Id. See also <https://lgndmusic.com/>.

- *Limited Digital Pressings & Virtual Vinyl*. NFTs that entitle the NFT holder to a limited edition digital pressing of a track or album or to purchase music NFTs known as virtual vinyl.⁹ These may also include artwork and the option to redeem unlockable rewards.¹⁰
- *Digital Trading Cards*. NFTs that entitle the NFT holder to digital photo / audiovisual cards of the sound recording artist(s).¹¹
- *Artist-Branded Digital Wearables*. NFTs that enable the NFT holder to add digital "wearables" to their avatar in a particular metaverse.¹²
- *Participation in Copyright Royalties*. NFTs that entitle the NFT holder to a percentage share of digital streaming royalties associated with the recording that is the subject of the NFT.¹³ Sometimes, these arrangements are referred to as fractional ownership of music rights.¹⁴
- *Participation in Decision-making*. NFTs that give the NFT holder the ability to participate in certain decisions regarding a particular music project or development of an artist's career.¹⁵

⁹ See <https://www.sound.xyz/>; <https://lgndmusic.com/> and <https://serenade.co/@muse>; See also James, Benjamin, "Muse's New Album Will be the First NFT to Impact the UK Music Charts," *Billboard*, Aug. 1, 2022, available at <https://www.billboard.com/pro/muse-new-album-nft-uk-australia-music-charts/>; "LGND.io Partners with Warner Music Group, Polygon on New Music and Collectibles Platform," *WGM Communications*, Dec. 6, 2022, available at <https://www.wmg.com/news/lgnd-io-partners-with-warner-music-group-polygon-on-new-music-and-collectibles-platform>; Irwin, Kane, "Warner Music Group to Release Polygon Music NFTs Through LGND Platform," *Decrypt.co*, Dec. 6, 2022, available at <https://decrypt.co/116533/warner-music-group-polygon-music-nfts-lgnd>; and King, Ashley, "LGND.io Partners with Warner Music Group, Polygon on New Music and Collectibles Platform," *Digital Music News*, Dec. 6, 2022, available at <https://www.digitalmusicnews.com/2022/12/06/lgnd-io-partners-with-warner-music-group-polygon-on-new-music-and-collectibles-platform/>.

¹⁰ Id.

¹¹ Lee, Zinia, "BTS Agency Hybe Partners with Crypto Exchange Operator to Sell NFT Photo Cards," *Forbes*, Nov. 5, 2021, available at <https://www.forbes.com/sites/zinniale/2021/11/05/bts-agency-hybe-partners-with-crypto-exchange-operator-to-sell-nft-photo-cards/?sh=6981c8ca2152>.

¹² "Genies will sell one-of-a-kind digital goods for Shawn Mendes," *Venture Beat*, Feb. 25, 2021, available at <https://venturebeat.com/games/genies-will-sell-one-of-a-kind-digital-goods-for-shawn-mendes/>; see also <https://opensea.io/collection/genies>; <https://opensea.io/assets/ethereum/0x495f947276749ce646f68ac8c248420045cb7b5e/105227954358508556400726543892593280633486599217815009542877566381008290316289>.

¹³ See, e.g., the Matt Cooper – Something Beautiful NFT collection on Royal.io, described at <https://royal.io/editions/matt-cooper-something-beautiful?tier=GOLD>; see also James, Benjamin, "Here are the Biggest Music NFTs in November: Indie Artists Take Spotlight in Shock Month for Crypto," *Billboard*, Dec. 2, 2022, available at <https://www.billboard.com/pro/biggest-music-nfts-november-top-drops-month-crypto-collapse/>; Shutler, Ali, "Nas to sell royalty rights to two of his songs as NFTs," *NME*, Jan. 9, 2022, available at <https://www.nme.com/news/music/nas-to-sell-royalty-rights-to-two-of-his-songs-as-nfts-3133351>.

¹⁴ Speakman, Jay, "Royal: Invest in Music NFTs and Support Creators," *Blockzeit*, Nov. 23, 2023, available at <https://blockzeit.com/royal-invest-in-music-nfts-and-support-creators/#:~:text=Royal%20is%20a%20marketplace%20for,invest%20in%20their%20favorite%20artists>.

¹⁵ "Warner Music Group and OpenSea Join Forces to Expand Web3 Opportunities for Artists," Sept. 29, 2022, available at <https://www.wmg.com/news/warner-music-group-and-opensea-join-forces-to-expand-web3-opportunities-for-artists>. See also <https://probablyalabel.io/>; <https://opensea.io/assets/ethereum/0x2c89a52a7156a3fb0bf416d5231b68748e4c283c/387>; James, Benjamin, "Warner Records' Web3 Label Sold 5,555 NFTs in 7 Minutes. Now it Wants to Share IP Rights with Fans," *Billboard*, Nov. 30, 2022, available at <https://www.billboard.com/pro/warner-records-probably-label-web3-nfts-ip-rights/>.

- *Copyright Ownership.* NFTs that provide an NFT token and give the NFT holder copyright ownership in a specific digital asset.¹⁶
- *Access to Fan Communities & Virtual Experiences.* NFTs that grant the NFT holder access to fan communities, exclusive content, and token-gated experiences.¹⁷

As is evident from these examples, NFTs are being used in the music space to authenticate, and provide some rights or licenses to, particular images, audio files, audiovisual files, and virtual and physical experiences.¹⁸ We also know of companies that are offering ticketing platforms based on NFTs.¹⁹ At the end of the day, fan demand and fan preferences will drive the adoption of these classes of NFTs and any new classes of NFTs in the music space.

IP-Related Challenges Associated with NFTs and NFT Markets (question 2).

Emerging technology markets have always posed IP challenges in the music ecosystem and elsewhere, and NFTs are no different. These challenges can be organized broadly into the following three buckets:

- *Education/Communication.* NFT sellers and marketplaces may have challenges ensuring that they and their potential buyers have adequate information about the scope of IP rights that are being conveyed with an NFT associated with a particular digital asset, and what rights are being reserved. As noted above, the scope of rights could run from personal, non-commercial uses such as an early-access listen, to some rights for a revenue share of streaming royalties for a particular song, to a full copyright in the artwork. In each case, there are limitations or reservations that should also be communicated clearly. For example, a right to listen does not include any right to distribute the music. Also, where an NFT acts to transfer the copyright in a unique piece of artwork, and that artwork is similar to other artwork in the NFT collection, the copyright provided will not extend to other artwork in the NFT collection. Finally, we note the need for seller education on the secondary NFT marketplace to ensure that the seller understands what rights in the underlying asset s/he is conveying (and thus giving up access to upon the sale of the NFT).
- *Rights Acquisition.* Another challenge for those wanting to offer legitimate NFTs is to ensure they have acquired the appropriate IP rights for the assets and marketing associated with the NFT. For example, for music, the rights must include not only the

¹⁶ “Warner Records launch ‘free-to-mint’ Stickmen Toys NFTs,” music:)ally, May 23, 2022, available at <https://musically.com/2022/05/23/warner-records-launch-free-to-mint-stickmen-toys-nfts/>. See also <https://stickmentoy.com/termsandconditions>.

¹⁷ “Kingship, “NFT Supergroup signed to 10:22PM, to Offer Virtual Key Cards that Unlock Virtual World, Experiences, Products, and Music,” Universal Music Group, May 10, 2022, available at <https://www.universalmusic.com/kingship-nft-supergroup-signed-to-1022pm-to-offer-virtual-key-cards-that-unlock-virtual-world-experiences-products-and-music/>.

¹⁸ We also note that there are secondary markets for these NFTs, whether through the originating platform or platforms like OpenSea.

¹⁹ See, e.g., <https://relictickets.com/>.

licenses for the sound recording but also the musical composition and must address which of the exclusive copyright rights (e.g., reproduction, distribution, public performance) are being conveyed. Separate rights would also need to be secured if the NFT includes cover art or other visual or audiovisual work(s). For items associated with a band or sound recording artist, the rights should also include appropriate trademark authorizations and rights of publicity clearances, as applicable.

- *Enforcement.* We have seen several instances of infringers marketing unauthorized NFTs that infringe on the copyright, trademark, and name and likeness rights of our members or their sound recording artists. These infringing NFTs include, among other things, NFTs related to album cover art, band logos and trademarks (including, but not limited to, band names), and offers associated with our members' recordings.²⁰ Challenges to enforcement against such infringing activity include the following:
 - *Decentralization.* The decentralized nature of much of the NFT ecosystem can impede effective enforcement. For example, while an NFT marketplace may take down the offering of an infringing NFT, the underlying infringing digital asset may be still be available at another associated online location or decentralized network which may or may not be subject to U.S. jurisdiction and whose operators may or may not be known. Moreover, where the digital asset is stored on a decentralized network, operators on those networks will often claim that the files cannot be removed, which raises further enforcement challenges.²¹
 - *Inadequate Tools.* Many NFT marketplaces do not offer adequate tools to allow rightsholders to search and identify infringing products on their platforms (e.g., limited or no API access). This makes it difficult to identify infringements at scale. Also, to our knowledge, only one NFT marketplace uses content recognition tools to limit the appearance of infringing NFT music offerings on its platform.
 - *Shielded Identities.* Rightsholders have further challenges identifying the parties to an NFT transaction. While the transaction is recorded on the blockchain and therefore subject to public inspection, the information only includes the crypto wallets associated with the transaction. Rightsholders must engage in significantly more investigation to identify the person/s connected to those crypto wallets.

²⁰ See, e.g., "RIAA Moves Against HitPiece – Calls for Permanent End to Bogus NFT Site's Infringement of Artist Rights," RIAA, Feb. 4, 2022, available at <https://www.riaa.com/riaa-moves-against-hitpiece-calls-for-permanent-end-to-bogus-nft-sites-infringement-of-artist-rights/>; Forde, Eamonn, "Greatest Hit: RIAA Targets HitPiece over NFT Infringements," Forbes, Feb. 7, 2022, available at <https://www.forbes.com/sites/eamonnforde/2022/02/07/greatest-hit-riaa-targets-hitpiece-over-nft-infringements/?sh=5926ad344275>; See also *McCullum v. Opolous*, 2022 U.S. Dist. LEXIS 214634 (C.D. Cal. 2022) (Court denied motion to dismiss for lack of personal jurisdiction in a dispute alleging that the defendant NFT marketplace operator, without authorization from sound recording artist Lil Yachty, marketed the platform as associated with Lil Yachty, and that the platform would offer music NFTs of Lil Yachty's music).

²¹ At present, the cost of storing digital assets on chain is very costly leading most digital assets to be stored on off-chain third-party storage services. However, immutability could present a greater issue in the future, if the cost of storing digital assets on chain becomes more reasonable.

Use of NFTs to Document the Authenticity of an Asset, Seller’s Authority to Sell an Asset or Transfer any Relevant IP Rights with an Asset and Any Limitations Related to IP Rights Surrounding the Sale of Purchaser’s Use of an Asset, and Challenges Posed by Such Activities (questions 4 and 5).

As the Offices know, it is important to differentiate among: (1) the NFT token (which is what is published or recorded to the blockchain) and its “smart contract” or software that sets some transaction parameters concerning the NFT (also linked to the blockchain transaction), (2) the underlying assets associated with that NFT (which are not “on the blockchain” but rather stored separately, often on a centralized or decentralized “off chain” server or, rarely, directly in the smart contract), (3) the intellectual property rights that cover the underlying asset, and (4) any separate legal terms governing the use or enjoyment of the NFT token or underlying asset.

NFT tokens and the use of blockchain technology permit anyone to inspect the transaction history associated with the NFT token, which history is considered “immutable.” Everyone can see which crypto wallet minted the NFT, and which crypto wallet has bought and sold the NFT token. This provides for some limited provenance and accountability information, but by itself provides no information about who owns or controls the crypto wallet.

Some regard an NFT token as proof of ownership of the rights or privileges associated with the underlying asset (or the particular copy of the asset) associated with the NFT, even where other digital copies of the asset exist.²² However, mere proof of ownership of the NFT token does not tell you, by itself, whether or not the original minter of the NFT is a trusted source for the underlying asset, whether the underlying asset is authentic, or whether the minter has the right to grant any IP licenses or rights in the underlying asset. Neither does mere ownership of the NFT token, without more, establish any transfer of ownership rights in the copyrights, trademarks, or other intellectual property governing the underlying digital asset. In fact, to our knowledge, the leading specification for NFT smart contracts does not include any express, standardized mechanism for the seller to document their authority to transfer any IP rights associated with the asset, to identify what IP rights are being granted, or to document what conditions or limitations apply to those grants.²³

To address these issues, NFT minters in the music industry often use a separate legal agreement, and provide related information on their websites, to clearly outline who is the minter of the NFT, what intellectual property rights will be conveyed to the NFT buyer, and what limitations

²² Hogan, Mark, “Why do NFTs Matter for Music?,” PitchFork, Mar. 5, 2021, available at <https://pitchfork.com/thepitch/why-do-nfts-matter-for-music/>.

²³ See ERC-721, available at <https://erc721.org/>. While this specification provides for metadata to describe the NFT generally, it does not, to our knowledge, include specific fields to document these items. And describing the rights granted in a standardized, NFT contract could get complicated very quickly given the temporal and territorial nature of IP rights.

and conditions apply to those rights.²⁴ We believe that inclusion of this additional documentation is important for transparency and accountability purposes.

Many NFT marketplaces do not disclose (either by choice or for lack of necessary information) the provenance of the NFT or what rights and limitations are associated with the underlying asset.²⁵ Sometimes that information can be found if the original NFT minter provides such information on their website, and there is a link from the marketplace to that website. However, this is not an adequate solution. Instead, NFT marketplaces should directly disclose such information to potential buyers on their marketplace, and should obligate sellers on their marketplace to provide and disclose such information to their marketplace.

Finally, we note that the NFT industry may mature to the point where such documentation is made available in a standardized fashion within an NFT smart contract. However, for the reasons noted above, one needs more documentation than the assertions in a smart contract to have confidence in the authenticity of the underlying assets, that the grant of rights is valid, and that the assertions in the smart contract concerning the rights and limitations can be adequately enforced. Even with better smart contracts, for enforcement and transparency purposes, such information should also be clearly and conspicuously made available to the potential buyer outside of the NFT smart contract.

Use of NFTs to Manage IP Rights (question 6).

NFTs, by themselves, under current specifications, are an inadequate tool to obtain, license, transfer, enforce, or otherwise manage intellectual property rights. Among other things:

- Commentators are divided on the legal enforceability of smart contracts, including those associated with NFTs, and uncertainty surrounds their enforceability.²⁶ While a few

²⁴ See, e.g., <https://stickmentoys.com/team>; <https://stickmentoys.com/faq>; <https://stickmentoys.com/termsandconditions>; <https://www.kingship.io/faq>; <https://www.kingship.io/team>; <https://privacy.umusic.com/web3/terms/>.

²⁵ Also, to our knowledge, most NFT marketplaces do not engage in adequate due diligence to verify the NFT seller's identity, the authenticity of the underlying asset, nor if the NFT seller has the appropriate licenses and clearances to grant the rights in the NFT. As noted infra, NFT marketplaces should engage in such due diligence.

²⁶ See, e.g., Herpy, Jonathan, "Smart Contracts and What You Need to Know," *Forbes*, May 17, 2022, available at <https://www.forbes.com/sites/forbesbusinesscouncil/2022/03/17/smart-contracts-and-the-law-what-you-need-to-know/?sh=30a3271d3d03> ("Given the unique nature of smart contracts and the ways they differ from traditional paper agreements, there are concerns surrounding their enforceability. In general, smart contracts are enforceable as long as they follow the basic rules of contractual agreements."), versus Binance Blog, "All You Need to Know about NFT Smart Contracts," *Binance*, Aug. 4, 2022, available at <https://www.binance.com/en/blog/nft/all-you-need-to-know-about-nft-smart-contracts-568745413587703085> ("[S]mart contracts are not actually legally binding, unlike traditional contracts. This means that while these lines of code help execute outcomes on a blockchain, they cannot enforce off-chain agreements"). See also Busch, Kristen, "Blockchain: Novel Provenance Applications (R47064)," *CRS Report No. R47064*, Congressional Research Service, Apr. 8, 2022, p. 10, available at <https://crsreports.congress.gov/product/pdf/R/R47064/3> ("Although governments enforce contractual obligations and property rights, proponents argue smart contracts could complement or replace the services of some intermediaries, such as bankers, accountants, and lawyers. However, disintermediation through smart contracts may face technical and legal obstacles, such as enforceability, among other issues." (citations omitted)).

states have made efforts to recognize smart contracts in their statutes, many states have not recognized the legal status or enforceability of smart contracts.²⁷

- The blockchain associated with the NFT does not tell you who are the actual parties to the transaction, but rather only the identity of the crypto wallets associated with the transaction. The wallet information does not provide any certainty as to who the parties are or if they have the rights to grant the rights purportedly granted.
- As noted above, to our knowledge, smart contracts associated with NFTs are not comprehensive enough to effectively address and implement the myriad of duration, territory, scope, and other conditions and limitations that should be addressed when conveying IP rights. They also, to our knowledge, do not have any mechanism to deal with reversions of rights if and when they occur. In addition, there is inherent conflict between any territorial limitations that may be addressed in a smart contract and the non-territorial nature of NFT marketplaces.
- NFTs are susceptible to fraudulent practices where a person claims rights in intellectual property associated with the underlying asset that the person does not actually have. As noted above and in certain court cases, some NFT sellers have minted NFTs for assets that infringe third-party intellectual property rights, either by direct copying or by creating a derivative work of a third party's copyrighted works or by marketing the underlying asset in a manner that is confusingly similar to a third party's trademarked goods and services.²⁸

As noted above, some IP holders use “off-chain” written legal contracts to have an enforceable and clear tool concerning the rights granted in connection with an NFT, and the limitations associated with those rights. Similarly, to our knowledge, most royalty payments associated with NFTs are handled “off chain,” including any royalties associated with a resale of an NFT.

To better guard against IP abuses associated with NFTs, it would be helpful if NFT minters and marketplaces implemented the following practices (as applicable)²⁹:

- Engage in practical “know your business customer” practices to know who the seller is and engage in adequate due diligence to ensure the seller has the appropriate rights to sell the NFT and grant the rights in the underlying digital asset.
- Use effective content recognition solutions to proactively identify and take mitigating action against potentially infringing audio, visual, or audiovisual based NFTs.

²⁷ CRS Report No. R47064 at p. 10, 15.

²⁸ See, e.g., *McCollum v. Opolous*, 2022 U.S. Dist. LEXIS 214634 (C.D. Cal. 2022); *Hermes Int'l v. Rothschild*, 2022 U.S.P.Q.2d (BNA) 476 (S.D.N.Y. 2022)); *Yuga Labs, Inc. v. Ripps*, 2022 U.S. Dist. LEXIS 234124 (C.D. Cal. Dec. 16, 2022); *Playboy Eners Int'l v. www.playboyrabbitars.app*, 2021 U.S. Dis. LEXIS 222422 (S.D.N.Y. 2021).

²⁹ In addition, where the digital asset is stored separately, those parties that control, in whole or in part, the storage of the digital asset or the pointers to the digital asset, or protocols or deployments of protocols for such storage, should also implement appropriate practices to take down or disable access to infringing digital assets. They should do so regardless of whether the storage is on centralized servers, cloud storage, or stored via a decentralized storage protocol or network. This should include not only gateways, but also those that provide native apps that can access the infringing content directly or those that offer incentives for storage.

- Use best practices to securely store (as applicable) the underlying digital asset that is the subject of the NFT,³⁰ and where applicable, design systems whereby exclusive access to the underlying digital asset or experience is relinquished when an NFT owner subsequently sells an NFT and is provided to the new owner instead.
- Develop and adopt best practices concerning (i) tools to allow rights holders to scan for infringements on the platform at scale, (ii) notice-and-takedown procedures for NFTs associated with infringing digital assets, such as trusted notifier policies, including the ability to accept notices at scale, and (iii) reasonable repeat infringer practices designed to terminate repeat infringers in appropriate circumstances and to thwart the ability of a repeat infringer to offer NFTs under a different account.

Use of IP Rights to Protect Assets Associated with NFTs and Combat NFT-Related Infringement (question 7 & 8).

The music industry depends for its existence on ownership or control of exclusive intellectual property rights in music, audiovisual works, and artwork, as well as in trademarks and rights of publicity associated with labels, bands, and sound recording artists. We rely on these rights to protect, license, and monetize our assets, as well as to engage in enforcement when these rights are violated in any arena, including in the NFT space. As noted elsewhere in these comments, our members have licensed some of their IP for certain NFTs and have taken enforcement measures (including takedown notices and cease and desist letters) against marketplaces or other services that offered infringing NFTs.

In general, NFTs do not appear to pose unique issues that would require a change in U.S. trademark or copyright law at this time. However, there are well-known deficiencies in copyright law that limit its ability to address online infringement generally, and in particular with respect to cross-border enforcement and the overbroad scope of the DMCA safe harbors. These deficiencies are no less a problem in the context of infringement associated with NFTs, and include those problems raised in our comments to the Copyright Office in connection with its DMCA study and those noted in the Copyright Office report on the DMCA safe harbors,³¹ as well as the issues that the SMART Copyright Act bill is intended to address.³²

³⁰ See, e.g., CSA Security Guidance for Critical Areas of Focus in Cloud Computing, available at <https://cloudsecurityalliance.org/research/guidance/>.

³¹ See Music Community Comments in the matter of Section 512 Study: Notice and Request for Public Comment, Docket No. 2015-17, Apr. 1, 2016, available at <https://www.regulations.gov/comment/COLC-2015-0013-89806>; Music Community Additional Comments in the matter of Section 512 Study: Notice and Request for Public Comment, Docket No. 2015-17, Feb. 21, 2017, available at <https://www.regulations.gov/comment/COLC-2015-0013-92433>; and “Section 512 of Title 17, A report of the Register of Copyright,” U.S. Copyright Office, May 2020, available at <https://www.copyright.gov/policy/section512/section-512-full-report.pdf>.

³² See, e.g., “Armstrong and Chu Introduce SMART Copyright Act to Protect Creators,” Rep. Armstrong’s Office, Dec. 16, 2022; available at <https://armstrong.house.gov/media/press-releases/armstrong-and-chu-introduce-smart-copyright-act-protect-creators>.

IP-Related Disputes and Infringements Associated with NFTs (questions 9 and 10).

To date, the RIAA has sent over 400 infringement takedown notices to NFT marketplaces for NFTs that infringe our members' trademarks or copyrights. For the most part, the NFT listings are taken down. However, sending a takedown notice to an NFT marketplace only results in removal of the specific offer listing; it does not necessarily remove the underlying infringing asset, which is usually stored elsewhere, nor does it trigger the takedown of listings associated with the same digital asset or prevent the future creation of listings associated with the same digital asset.

We have also sent cease and desist letters to NFT sites that infringe our members' works. For example, in February 2022, RIAA sent a cease and desist letter to HitPiece, an NFT platform that, without authorization, marketed NFTs associated with RIAA's members' sound recordings and artists on a massive scale, listing thousands of NFTs.³³ The site immediately ceased its activity³⁴ and subsequently relaunched its platform with a much smaller catalog of NFT offerings, using Audible Magic content recognition technology to help verify ownership of music prior to minting an NFT and to guard against unauthorized use of music in NFTs.³⁵ As the HitPiece founder noted, "[w]e need to be buttoned up when we allow any portion of our service to be publicly available. By buttoned up, I mean having secured the necessary rights to any content that is made available through our platform."³⁶

Members of the music industry have also instituted lawsuits against NFT platforms or sellers for offering NFTs that infringe on their rights. For example, the well-known recording artist Lil Yachty sued Opolous, an NFT minter and exchange, and related entities for, among other things, trademark infringement for use of his trademarks in promoting the platform.³⁷ To our knowledge, that case is still pending.

IP Portfolio Management and Planning (question 11). As with any emerging technology that can be used to monetize music-related assets, care needs to be taken to ensure that all of the

³³ "RIAA Moves Against HitPiece – Calls for Permanent End to Bogus NFT Site's Infringement of Artist Rights," RIAA, Feb. 4, 2022, available at <https://www.riaa.com/riaa-moves-against-hitpiece-calls-for-permanent-end-to-bogus-nft-sites-infringement-of-artist-rights/>. See also, Robinson, Kristin, "RIAA Threatens Lawsuit Against NFT Platform HitPiece over 'Flagrant' IP Violations," Billboard, Feb. 4, 2022, available at <https://www.billboard.com/pro/riaa-hitpiece-major-labels-nft-platform/>.

³⁴ "RIAA Moves Against HitPiece – Calls for Permanent End to Bogus NFT Site's Infringement of Artist Rights," RIAA, Feb. 4, 2022, available at <https://www.riaa.com/riaa-moves-against-hitpiece-calls-for-permanent-end-to-bogus-nft-sites-infringement-of-artist-rights/>; Forde, Eamonn, "Greatest Hit: RIAA Targets HitPiece over NFT Infringements," Forbes, Feb. 7, 2022, available at <https://www.forbes.com/sites/eamonnforde/2022/02/07/greatest-hit-riaa-targets-hitpiece-over-nft-infringements/?sh=5926ad344275>.

³⁵ "HitPiece Official Launches Music Artist NFT Platform and Announces First-of-its-Kind Partnership with Audible Magic to Ensure Authentic Experiences," Audible Magic, Aug. 10, 2022, available at <https://www.audiblemagic.com/2022/08/10/hitpiece-officially-launches-music-artist-nft-platform-and-announces-first-of-its-kind-partnership-with-audible-magic-to-ensure-authentic-experiences/>.

³⁶ Leight, Elias, "Music NFT Startup HitPiece Relaunched, Months After Being Called a 'Scam Operation,'" Billboard, Aug. 15, 2022, available at <https://www.billboard.com/pro/hitpiece-relaunch-music-nft-site/>.

³⁷ See, e.g., *McCollum v. Opolous*, 2022 U.S. Dist. LEXIS 214634 (C.D. Cal. 2022).

appropriate rights – whether copyright, trademark, rights of publicity, or otherwise – are secured. This should involve, at a minimum, proper due diligence concerning the assets at issue, seeking appropriate copyright and/or trademark registrations to cover the particular use cases, and clarifying contractual arrangements to ensure that the assets can be licensed and monetized as intended.

Additional IP Issues Associated with NFTs (question 13). There are a variety of IP-adjacent issues that should be considered in connection with NFTs. These include:

- The need for proper due diligence and transparency in connection with the seller of NFTs. Just as there have been bills and laws in various jurisdictions calling for ecommerce entities to implement “know your business customer” requirements and to make the seller information transparent to the potential buyer,³⁸ there should be similar requirements applicable to NFT platforms.
- Development of uniform consumer disclosures related to the uniqueness of an NFT in a given marketplace and whether access to the underlying digital asset is available through other means on the public internet.
- Bad actors that use unsavory “wash trading” tactics,³⁹ wherein they simultaneously buy and sell their own infringing NFT offering to create an artificial demand for the NFT.⁴⁰ In addition to constituting infringement, these tactics violate unfair competition laws by competing inappropriately with legitimate NFT offerings.
- Bad actors that use “sleep minting” tactics,⁴¹ wherein they mint the NFT directly onto a well-known artist’s crypto wallet with the permission to pull the NFT back. This creates the illusion that the artist created the NFT, when in fact they neither created it nor authorized its creation.⁴²
- The Uniform Law Commission (ULC) has proposed amendments to the Uniform Commercial Code (UCC) to treat controllable electronic records (CERs), including NFTs

³⁸ See, e.g., Cal Civ Code Div. 3, Pt. 4, Title 1.4D (Online Marketplaces), effective Jan. 1, 2023, operative Jul. 1, 2023; Integrity, Notification, and Fairness in Online Retail Marketplaces Act or the INFORM Consumers Act, in the Consolidated Appropriations Act of 2023, H.R. 2617, 117th Cong. Div. BB, Title III, § 301 (2022), available at <https://www.govinfo.gov/content/pkg/BILLS-117hr2617enr/pdf/BILLS-117hr2617enr.pdf>; Stopping Harmful Offers on Platforms by Screening Against Fakes in E-commerce Act or the SHOP SAFE Act, H.R. 5374 (117th Congress), available at <https://www.congress.gov/bill/117th-congress/house-bill/5374>, and Stopping Harmful Offers on Platforms by Screening Against Fakes in E-commerce Act of 2021 or SHOP SAFE Act of 2021, S.1843, available at <https://www.congress.gov/bill/117th-congress/senate-bill/1843>.

³⁹ Sergeenkov, Andrey, “What is NFT Wash Trading?,” CoinDesk, Aug. 23, 2022, available at <https://www.coindesk.com/learn/what-is-nft-wash-trading/>.

⁴⁰ CoinDesk recently reported on a study that suggest that wash trading “accounted for over half of the total NFT trade volumes in 2022, and nearly 45% of all-time NFT volume” on Ethereum. See Perper, Rosie, “Over \$30B of NFT Trading on Ethereum is Wash Trading, Research Suggests,” CoinDesk, Dec. 23, 2022, available at <https://www.coindesk.com/web3/2022/12/23/over-30b-of-nft-trading-volume-on-ethereum-is-wash-trading-research-suggests/>.

⁴¹ Blau, Michael, “Identifying Authentic NFTs (Especially Against Attackers),” Andreessen Horowitz, Mar. 9, 2022, available at <https://a16z.com/2022/03/09/sleep-minting-nfts/#:~:text=Sleep%20Minting%20is%20when%20a.that%20NFT%20to%20a%20scammer.> .

⁴² Id.

and digital assets in which payment rights are embedded, as negotiable/tradeable.⁴³ However, the ULC notes that other laws, such as copyright law, may apply where the asset, such as a non-fungible token, is “tethered” to intellectual property. Should the ULC amendments become law, interested parties will need to analyze the intersection between the relevant UCC laws on this issue and copyright law.

- Tension between territorial legal rules and the decentralized nature of NFTs and related web3 architectures. In addition to the issues noted elsewhere between territorial IP laws and the global span of NFT marketplaces, the use of decentralized autonomous organizations (DAOs) by some NFT marketplaces and web3 storage networks creates uncertainty over who is responsible and accountable for the unauthorized activity at issue. While these are issues that have been around since the commercialization of the internet, they will continue to arise in the NFT space.

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We thank the Offices for the opportunity to provide these comments and look forward to working with the Offices on these issues as the NFT market develops.

⁴³ Source: Uniform Law Commission. See https://www.uniformlaws.org/viewdocument/enactment-kit-76?CommunityKey=1457c422-ddb7-40b0-8c76-39a1991651ac&tab=librarydocuments;https://higherlogicdownload.s3-external-1.amazonaws.com/UNIFORMLAWS/2a18c952-5db5-ca16-2274-8c7531990903_file.pdf?AWSAccessKeyId=AKIAVRDO7IEREB57R7MT&Expires=1671063682&Signature=rLy02HrhLIuzz3YHm5kGDkIzcrM%3D.