



United States Patent and Trademark Office
Madison East Building
600 Dulany Street
Alexandria, VA 22314

United States Copyright Office
Library of Congress
101 Independence Avenue SE
Washington, DC 20540

February 3, 2023

Re: International Trademark Association Comments On The Study On Non-Fungible Tokens
And Related Intellectual Property Law Issues, Docket No. PTO-C-2022-0035

Submitted online via: www.regulations.gov

The International Trademark Association (INTA) would like to thank the United States Patent and Trademark Office (USPTO) and the United States Copyright Office (USCO) for the opportunity to provide comments on their Study on Non-Fungible Tokens and Related Intellectual Property Issues, 87 Fed. Reg. 71584 (Nov. 23, 2022).

The following comments were prepared by INTA's Emerging Issues Committee, the Blockchain Subcommittee, in conjunction with the Trademark Office Practices Committee, USPTO Subcommittee, the Internet Committee, the Copyright Committee, and staff.

The International Trademark Association is a global association of brand owners and professionals dedicated to supporting trademarks and complementary intellectual property (IP) to foster consumer trust, economic growth, and innovation, and committed to building a better society through brands. Members include nearly 6,500 organizations, representing more than 34,350 individuals (trademark owners, professionals, and academics) from 185 countries, who benefit from the Association's global trademark resources, policy development, education and training, and international network. Founded in 1878, INTA, a not-for-profit organization, is headquartered in New York City, with offices in Beijing, Brussels, Santiago, Singapore, and Washington, D.C., and a representative in New Delhi. For more information, visit inta.org.

Sincerely,

A handwritten signature in blue ink, appearing to read "Etienne Sanz de Acedo". The signature is stylized and cursive.

Etienne Sanz de Acedo
Chief Executive Officer

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DISCLAIMER

To illustrate various points in this comment, there may be references to trademarks and pending litigation. However, in no way should these references and examples be construed by the reader to reflect an endorsement or position of the trademark owners referenced.

All information provided by the International Trademark Association in this document is provided to the public as a source of general information on the Non-fungible Tokens in relation to trademarks and other related intellectual property issues. In legal matters, no publication, whether in written or electronic form, can take the place of professional advice given with full knowledge of the specific circumstances of each case and proficiency in the laws of the relevant country. While efforts have been made to ensure the accuracy of the information in this document, it should not be treated as the basis for formulating business decisions without professional advice. We emphasize that trademark rights and related intellectual property laws vary from country to country, and between jurisdictions within some countries. The information included in this document will not be relevant or accurate for all countries or states.

Question 1

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).**

1.a.

NFTs relating to or impacting trademarks are already used in a variety of ways. NFTs can be linked to digital or physical assets, each of which can be bought or sold under a trademark identifying source or origin.

Digital assets include art, design, music, digital fashion, collections and more. For example, there are digital collections of art works such as the well-known Bored Ape Yacht Club. Shoe manufacturers have created digital versions of sneakers that can be purchased and kept, just as a sneaker collection. Others, such as McDonalds, have created digital versions of sandwiches and food that can be bought and sold online. Video replays of basketball plays have been turned into digital NFTs akin to a basketball card that can be bought, sold, and traded online as well. Similarly, a celebrity or other notable figure could create a digital image of themselves that can be bought, sold, or traded online akin to a fan club membership.

NFTs can be used to bridge the divide between the digital and physical worlds as well. For example, companies and individuals can create NFTs that entitle the holder to an additional service, experience, or other tangible real-world item. Such examples include access to memorabilia, video highlights, and more.

NFTs can also be connected to real-world physical assets in an attempt to fight counterfeits. For example, NFTs are currently being used to authenticate expensive sneakers or rare bottles of alcohol.

Web3 domain names are classified as Utility NFT's. Web3 domain names serve a similar function as normal Web2 domains, in that they map user-friendly identifiers to blockchain-based digital addresses. The primary uses for Web3 domains are: Digital Wallets; Usernames; and/or Digital Identities.

1.b.

The potential future reach of NFTs is vast, building upon the uses already seen in the marketplace. For instance, future digital assets, including artwork versions of well-known brands and brand products can be expected as brands seek to find new ways to interact with consumers in the physical and digital worlds. NFTs can give sports fans a new way to interact with teams and players, own highlights, and trade player cards in the digital world. We would expect that the use of NFTs to authenticate a limited experience, e.g. meet and greet or other access to rare items, will increase.

One of the biggest potential expansions of the use of NFTs is in connection with the tracking and sale of authentic products, and prevention of counterfeit products. While this is a current use case in some scenarios, see above, the use of NFTs to authenticate rare products can be expected to increase over time.

Summary of Major Concerns

Establishing ownership of NFTs, particularly those that may incorporate real-world items, may be difficult in the future. Application of existing laws surrounding first amendment/free speech implications, derivative artworks, and more will need to either expand to this space or be modified to fit the realities and expectations of consumers in the NFT space.

As companies seek to explore NFTs for authentication, the potential application and protection of those authentication mechanisms may be difficult, especially if a company is trying to do so through the trademark registration system.

NFTs linked to digital assets

The quintessential use case for NFTs, to date, has been the sale and trade of digital assets like art, design, music, and digital fashion. In particular NFTs have been used to claim ownership of the digital assets, providing a number of benefits for both NFTs' sellers and buyers, as well as for the general public.

With respect to this traditional use case, the value of NFTs stems from creating digital scarcity for digital assets which - differently from the physical ones - are ordinarily capable of infinite dissemination online.

For the buyers, minting NFTs over digital assets represent an opportunity to claim "digital bragging rights" also in the digital world where there are more obstacles for monitoring and claiming ownership.

For sellers of NFTs, these tokens represent an opportunity to increase revenue by introducing digital scarcity also in the virtual environment. Furthermore, the smart contracts which govern NFTs can be customized to include royalty payments on future sales to the original creator of the digital related asset. Authors can include in the smart contracts a provision containing a specific resale right (so called "*droit de suite*") reserving an agreed royalty on the further sales of the NFTs in the same way as for physical works of art. In this regard, the smart contracts governing NFTs play a pivotal role because the blockchain technology ensures the fulfillment of various conditions, including potentially the payment of the compensation to the holder. Through an innovative and secure technology such as the blockchains, there is a guarantee that any subsequent sales will be duly checked and that the NFT's initial owners will receive all the due royalties. There is no way to defraud the system, because every transfer or movement is recorded in the blocks.

NFTs linked to physical assets

Another popular and functional use case for these innovative tokens is to link NFTs to physical assets and to trade and transfer them as proxies for the already existing products or for products that have still to be manufactured and created.

This use case is beneficial for a number of different factors:

The NFT can be easily traded and distributed without the need for the purchaser to deal with the physical product;

Double option for the NFT purchaser who can decide whether to trade the NFT on the blockchain or to redeem the physical product as the NFTs constitute certificates of ownership for the product;

Security, transparency and traceability over the purchase as the purchaser is entitled to redeem the original product.

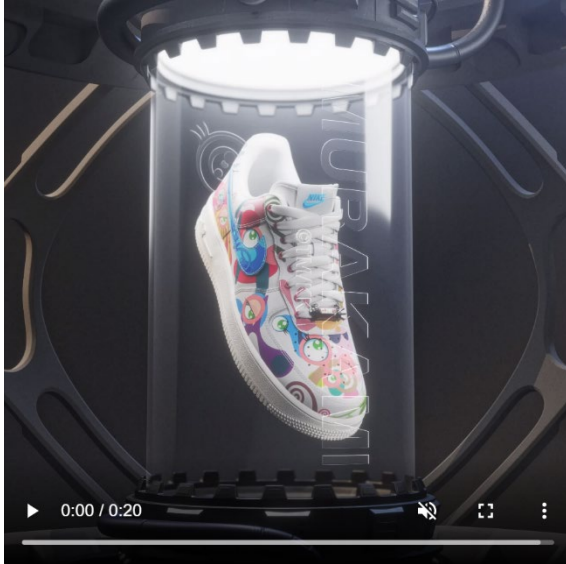
Each physical product thanks to the NFT is uniquely identifiable and tethered to a sole unique NFT and the blockchain technology mitigates any risk of infringement of the original product.

However, there may be challenges in linking the physical product to the NFTs. Indeed, the physical product itself may be a copy of the authentic product.

In light of the above mentioned remarkable benefits, many different industries in a number of sectors have started to mint NFTs linked to physical products allowing the consumers to redeem an NFT for the corresponding physical products.

Fashion & Sport Industries

Companies in the Fashion & Sport industry have started to realize very original models of shoes, firstly creating the virtual assets minting NFTs that depict very original designs and then purchasing to consumers giving the opportunity for NFT holders to use the NFT to redeem for physical merchandise. NFTs play a new key role and can be interesting for collectors because they introduce a new vision of art and creativity also in the footwear environment given that shoes designs become virtual and are authenticated through blockchain technology. The consumer is in the position to collect the sneakers both in the real world and in the metaverse.



RTFKT x Nike Air Force 1 - Murakami DNA

(<https://opensea.io/fr/assets/ethereum/0xa49a0e5ef83cf89ac8aae182f22e6464b229efc8/68>)

Wine & Spirits Industries

Wine and spirit industries have started to trade NFTs linked to some of their most prestigious wine and/or spirits trying through the introduction into the blooming global crypto-asset market to reach new types of consumers. NFTs could be created as limited editions and linked only to peculiar rare wine and spirits products and then traded on blockchain platforms. The advantage for consumers is that products can be kept safely stored until redemption. This is beneficial because luxury wines and spirits can then be stored in specific conditions and come with guarantees of authenticity, integrity, and traceability (and helps fight counterfeiting).



Johnnie Walker Masters of Flavors (<https://blockbar.com/brands/Johnnie%20Walker/657c3b94-d711-4146-8d5b-963525952319>)

Art Collections

The multifaceted nature of NFTs overcomes the possibility to have redeemable tokens that can be exchanged with consumer goods. Indeed, NFTs could also be exchanged in order to obtain real artworks.

In one example, the well-known artist Damien Hirst created an NFT-based art collection “The Currency” which gave buyers of the NFT a choice in choosing to keep the unique NFT or the corresponding original physical work. The peculiarity of the creative option is that the owner of the NFT has to decide which version to keep, and the other will be destroyed (i.e. either the NFT or the physical work will be burned). As explained on the website of the project “*The collector has to decide between the digital NFT or the physical artwork, but cannot keep both. This exchange is a one-way process, so choose carefully.*” See <https://currency.nft.heni.com/info>.



“The Currency” collection (<https://currency.nft.heni.com/info>)

Artistic Works

Artists can digitize their physical artwork by scanning or photographing it and by turning the result of the digitalization into a token in the blockchain.

There are several perceived advantages: it allows artists to show and sell their art without having to resort to a gallery. This gives artists complete control over the sale of their artistic works without necessarily paying a gallery commission. Moreover, it allows artists to have potential gain from future sales due to resale royalty implementation. In fact, NFTs can be programmed to give a percentage of future sales to their creators, providing the artist an opportunity to be compensated for secondary sales of their works.

As an example, the Boston Museum of Fine Arts offered a collection of NFTs of 24 of the museum's French pastels. Drawn from the MFA's collection of Impressionist artworks, the capsule exhibition features works by Pierre-Auguste Renoir, Edgar Degas, Claude Monet and more. Proceeds from each sale will support the study, treatment and conservation of two paintings of Edgar Degas.

The Vienna Belvedere Museum created a collection of 10,000 NFTs and each one is a unique part of the high-resolution image of *The Kiss* by Gustav Klimt.



Other kinds of so-called “generative art,” or blockchain native art provides artists the potential to create art via algorithm, with the art initially only existing in its NFT form. For example, the popular Art Blocks series allows artists to curate an algorithm, by which minters of the art randomize the art and fix it permanently as an NFT in the process of it being purchased. See, e.g., <https://www.artblocks.io/learn>. Some versions of this generative artistic process allow the entirety of the generative art to be stored “on chain.” See, e.g., <https://www.larvalabs.com/autoglyphs>.

Collections

Bored Ape Yacht Club Collection

Background – As described on the Bored Ape [website](#), “[Bored Ape Yacht Club] is a limited NFT collection where the token itself doubles as [the collector’s] membership to a swamp club for apes.” Examples of the individual NFTs offered under the collection are show below:



Bored Apes (Source: www.boredapeyachtclub.com)

Bored Ape Yacht Club (colloquially, “Bored Ape” or “BAYC”) is a collection of digital artworks that provide owners an avatar-based Non Fungible Token (“NFT”) featuring a unique cartoon ape and, more recently, a variety of virtual and real world perquisites for Bored Ape NFT holders. Thus, as the “yacht club” portion of the collection’s name suggests, BAYC was born out of the co-founder’s vision for not only providing digital art, but creating an exclusive community made up of Bored Ape owners as well.

BAYC hired professional illustrators to provide the underlying project graphics, which were then fed into an algorithmic program that randomly generates thousands of images with unique combinations of facial features, furs, glasses, and other props or distinct visual characteristics. Certain traits—gold fur, laser eyes, biker vests—show up more rarely, making apes with those traits perceived as more valuable.

Each Bored Ape, which is generated by an algorithm that randomly mixes the various traits, remains hidden until the initial collector pays for it, so buying an ape avatar was a bit like playing a slot machine. In other words, if someone was randomly assigned an ape with the right alignment of traits, a collector could profit wildly by subsequently flipping it to the next purchaser for a higher price. As a result, some NFTs have led to rampant price speculation and market participants seeking extraordinary profits.

Commercial Value – The project’s name is a reference to the crypto slang of “aping in” to a big investment in hopes of an uncertain but large profit. BAYC has since come to represent one of the more prestigious NFT collections on the market. After launching in April 2021, Bored Ape’s value has surpassed \$2 billion in total sales, amassing 11,831 buyers and over 32,000 total transactions. To date, the most valuable single Bored Ape (Ape No. 8,817) sold at a Sotheby’s auction for \$3.4 million. As just another example, a bundle of 101 Bored Ape NFTs resold for

\$24.4 million in an auction also hosted by the fine-art house Sotheby's. Some notable celebrities that own BAYC NFTs include Tom Brady, Snoop Dogg, Jimmy Fallon, Post Malone, Paris Hilton, Madonna, Kevin Hart, Neymar Jr., and others.

NFT Holder Value – In response to the popularity surrounding Bored Ape, Wylie Aronow (the BAYC co-founder) stated that BAYC aims to be a “Web3 lifestyle company.” Beyond the already-popular use of character-based NFTs as a status symbol for owners, BAYC NFT holders enjoy additional perks as the tokens serve as a digital identity and access pass that unlocks membership to an exclusive online community space called “the swamp club,” as well as invites to exclusive in-person events (Ape Fest), and even IP rights over the image and artwork for personal or commercial uses. In other words, prior to Bored Ape, NFTs mainly served as mere avatars whose value derived from the rarity of the digital asset. BAYC on the other hand released secondary assets like “Bored Ape Kennel Club,” “Mutant Serum,” and “Mutant Ape Yacht Club,” all of which have increased BAYC's perceived value, brought more users into the ecosystem, and rewarded previous holders by giving away a select number of these secondary collections to existing BAYC NFT holders.

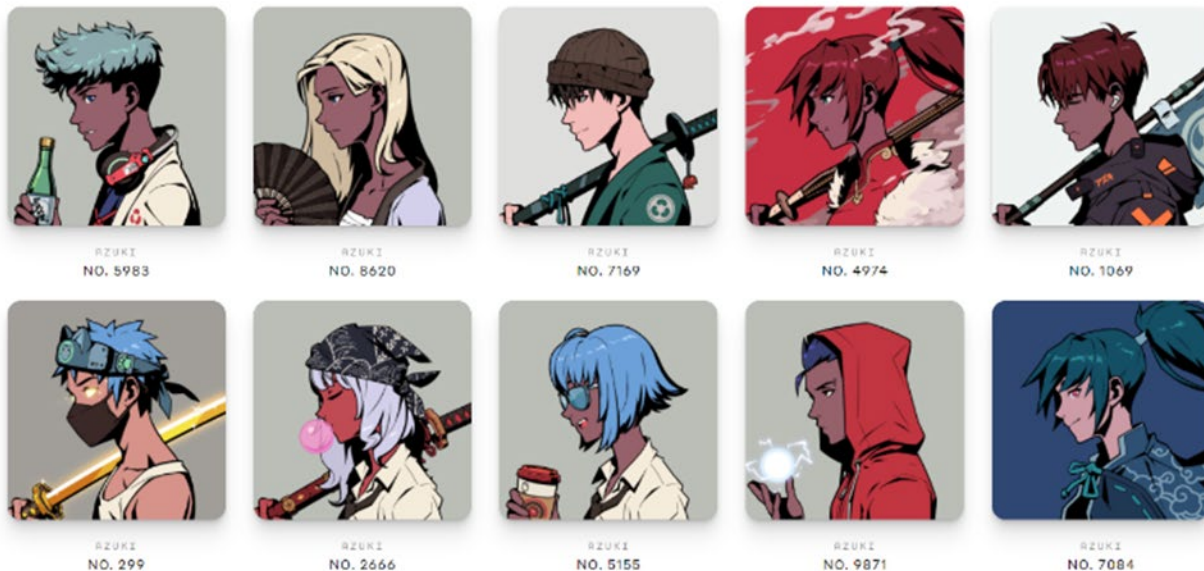
NFT as IP Wave –To date, BAYC remains one of the most prominent NFT collections that provides not only ownership of the token, but also provides the holder commercial rights to the underlying art. Thus, many have credited Bored Ape as popularizing a new frontier in the “NFT as IP” wave, *i.e.*, NFT collections that provide the holder with commercial usage rights that allow the holders to create and sell derivative works based on the underlying art. The BAYC Terms and Conditions explain: “When you purchase an NFT, you own the underlying Bored Ape, the Art, completely.” Regarding personal use, the Terms explain that NFT holders are granted “a worldwide, royalty-free license to use, copy, and display the purchased Art, along with any extensions that you choose to create or use.”

In addition, NFT holders are also granted “an unlimited, worldwide license to use, copy, and display the purchased Art for the purpose of creating derivative works based upon the Art (“Commercial Use”). Examples of such Commercial Use would e.g. be the use of the Art to produce and sell merchandise products (T-Shirts etc.) displaying copies of the Art.” While many collectors may purchase a BAYC NFT for the hope of a lucrative future resale, others have explained that owning the underlying commercial rights to the Bored Ape NFT allows them to use their Ape as the basis for new derivative works, or even as a source identifier for their own goods or services. For example, two BAYC owners have told *The Verge* that they are in talks to launch their own products that feature their Ape. One BAYC member explained to *The Verge* that, as a member who works in the cannabis industry, licensing was part of the appeal from the beginning. He purchased his ape for 15 ETH, or around \$45,000, in August 2021 and thought of it as an investment in branding and marketing opportunities. Even celebrities and other media companies have purchased Bored Apes to capitalize on the trend.

Azuki

Background – Azuki is a collection of 8,700 anime-themed NFT avatars that were released in January 2022. The Azuki collection was created by Chiru Labs, a group of four Los Angeles-based artists and developers who describe themselves as “the skaters of the internet.” In terms of the NFTs, each Azuki is essentially a profile picture project with randomized traits and visual characteristics with distinct anime-inspired visuals. Like BAYC, Azuki NFTs are generated through a randomized selection of visual characteristics, which were originally developed by the

project's lead artist (known as Steamboy) based on "skateboarder" style anime portraits. Examples of the individual NFTs offered under the collection are show below:

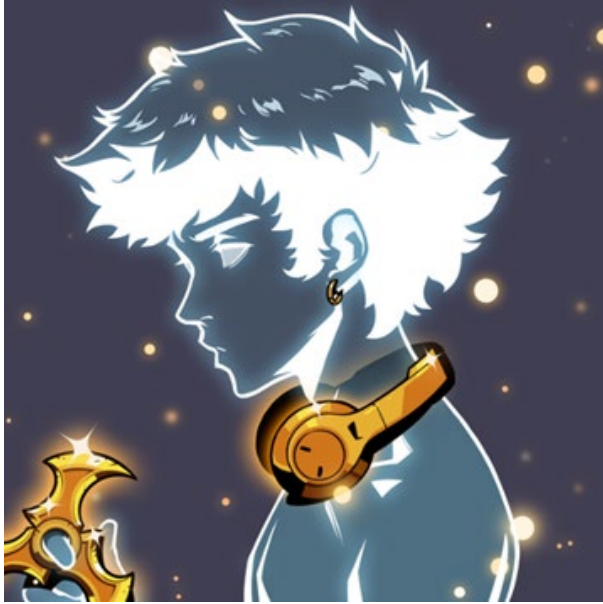


Azuki gallery (source: www.Azuki.com)

In addition, like BAYC's swamp club, Azuki NFT holders are also provided membership access to "the Garden," which provides exclusive real-world offerings such as streetwear and figurine collectibles, as well as virtual events and additional NFT offerings." As described on the official [website](http://www.Azuki.com), the Garden "is a corner of the internet where art, community, and culture fuse to create magic ... [blurring] the lines between the physical and digital worlds."

Commercial Value – The Azuki NFTs, which were released for sale on January 12, 2022, through the Open Sea marketplace, were originally priced at \$3,400 each. Within minutes, the entire initial release of the 8,700 NFTs sold out, with total sales at this point reaching over \$29 million. Like other successful NFT collections, the subsequent trading of Azuki following the initial sales further solidified Azuki's commercial value, as Azuki amassed \$300 million in total transaction volume across several major NFT marketplaces including Open Sea, Nifty, and Rarible.

Azuki is built on Ethereum, which is a blockchain-based platform best known for its cryptocurrency, "ETH." To date, the most expensive Azuki sold was Azuki #9605 (shown below), which sold for 420.69 ETH (roughly \$1.42 million):



Azuki #9605 (Source: www.OpenSea.io)

Following initial sales and subsequent trading, Azuki was one of the few NFT collections to initially reach a floor price of over 20 ETH (\$62,069), which helped to ensure the stability of the overall market for Azuki NFTs. As of April 2022, Azuki’s overall sales volume sits at slightly over 200,000 ETH, currently worth roughly \$786 million, amassing 14,391 buyers and 31,837 total transactions.

NFT Holder Value: Owning an Azuki NFT grants the user access to exclusive NFT drops, streetwear collabs, live events, and more as they become members of The Garden.

As previously mentioned, those who have access to The Garden, i.e., those who own Azuki NFTs, are offered exclusive virtual and in-person perquisites. For example, on March 30th, 2022, Azuki hosted its first in-person garden party in Los Angeles, which was limited to Azuki holders and a guest of their choice.

Secondary Collections: During the March 30th event mentioned above, Azuki owners were surprised with the release of Azuki’s new collection, “Something Official,” whereby all Azuki holders were airdropped two unrevealed NFTs per Azuki collectible that was already in their wallet. Initially, the NFTs started as a digital crate, which was later updated on April 1st to reflect a crate containing a pile of dirt. The third iteration saw not only the dirt being replaced with a red bean pod, but also a change to the collection’s name. Renamed from “Something Official” to “BEANZ,” the collection consisted of 20,000 BEANZ NFTs. Holders of this collection receive access to a holders-only Discord channel, which is an online discussion forum where Azuki owners can discuss a variety of topics ranging from the Azuki NFTs specifically to anime and manga more broadly.

Azuki has also recently sought to create a brand extension of new NFTs based on one of the more famous original Azuki NFTs (Azuki #40, shown below). Azuki launched a collection of “Bobu Tokens,” which fractionalized the original Azuki #40 NFT into what is known as a “fractional.art vault.” The vault is a decentralized smart contract that locks the NFT so it cannot be sold by a single person or owner of the fractional tokens. Instead, owning a Bobu Token

allows owners to “participate in collective governance over Bobu’s character in the Azuki universe” and “to join an experiment in decentralized character IP governance.” Simply put, Bobu Tokens are not ownership in the underlying NFT, but each token represents a vote used for governance over the use and commercialization of that NFT.



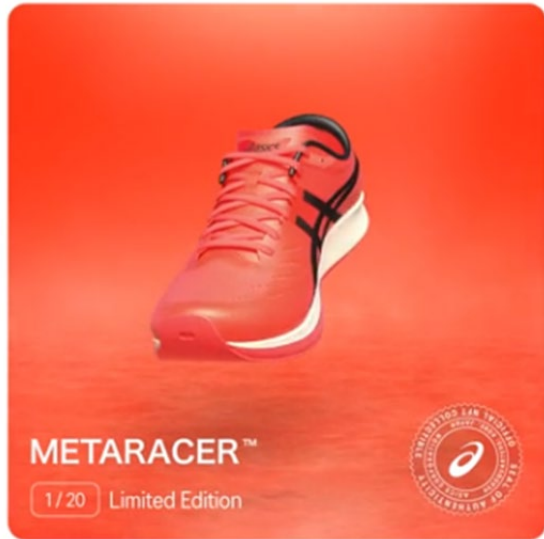
Azuki #40, “Bobu” (source: <https://www.azuki.com/bobu-101>)

For example, the first governance proposal where Bobu Token holders could vote was “should we send Bobu to space?” Azuki partnered with STELLAR, a student research organization that builds and sends research projects to the International Space Station (ISS), to lead a vote to decide whether to send 2,000 Bobu Tokens (roughly \$1 million) to space “inside a ledger nano, aboard a SpaceX rocket in a NASA mission to the ISS.” Bobu Token holders not only could vote on whether or not to do so, but also how much the community would donate to STELLAR to continue their research in the future. Details concerning this proposal can be found at <https://bobu.azuki.com/proposals/should-we-send-bobu-to-space>.

Examples of NFT Commercialization by Brands

ASICS

In July 2021, the shoe brand ASICS announced its first-of-its-kind footwear release in the form of NFTs that will be available via digital auction. The ASICS SUNRISE RED™ NFT COLLECTION is described as “a celebration of sport and a first step in building a future where digital goods inspire physical activity.” The collection consists of 189 NFTs comprising nine different ASICS digital footwear products. The shoes were featured in a limited-edition release made up of 20 NFTs per shoe, and a gold edition release featuring each shoe in a metallic gold colorway with just one NFT per shoe. Examples of the NFT collection are shown below:



ASICS SUNRISE RED, METARACER (Source: <https://nft.asics.com/>)

All ASICS SUNRISE RED owners received digital 3D models and textures of their NFT shoes to use in animation projects and other applications, including the metaverse. To date, ASICS has not applied for any marks related to NFTs or the Metaverse, although its website's use of the "™" symbol in connection with collection name may suggest that such an application is foreseeable. To date, total sales of the SUNRISE RED collection through the Open Sea marketplace have reached 24.1 ETH (roughly \$45,895) and an associated floor price at 4.9 ETH (roughly \$9,331). While 155 of 189 total NFTs have been collected to date, all the Gold Edition NFTs (the 1-of-1 NFT of a particular model) within the collection have been purchased, with prices ranging from 0.5 to 1.6 ETH (roughly \$900 to \$3,000).

ASICS also announced that all proceeds from the project would be invested in a digital artist residency program, called the ASICS Digital Goods Artist-in-Residence program. The program is designed to reinvest in the next generation of digital shoe artists, aimed at both established and emerging digital artists from around the world who connect with ASICS' mission to inspire physical activity through digital goods. Each partnership is valued at up to \$250,000 to each individual artist selected for the program.

Joe Pace, Head of Business Development, ASICS Running Apps, commented: "At ASICS we strive to be at the forefront of innovation in the sporting goods sector. So, while we are excited to drop the world's first digital shoe release from a major sporting goods company, this is only the beginning. In coming together with some of the most creative and forward-thinking digital artists in the world through our new Artist-in-Residence program, our long-term vision is to push the boundaries of digital goods to inspire physical activity."

Additionally, Asics recently partnered with StepN, a "move-to-earn" Web3 running app, to release a limited-edition StepN-Asics Sneaker NFT mystery box collection through the Binance NFT marketplace. To participate, users have to download the StepN app, purchase an NFT and run or walk in the real world to earn tokens. Users are able to spend their earnings in the StepN ecosystem or swap them to an external account and cash out for profit. An example of the NFTs created through this collaboration is shown below:



StepN x ASICS NFT Sneaker #395802589 (Source: <https://www.binance.com/en/nft/product/83357652>)

Compared against the SUNRISE RED collection, Asics' collaboration with StepN has seen more significant commercial success. Currently, Binance reports the total sales volume of NFTs traded in the marketplace for the StepN x Asics NFT Sneakers collection as roughly \$21 million.

McDonalds

NFT Offerings: In November 2021, McDonalds created a limited number of NFTs in celebration of the McRib's 40th anniversary. The NFT was a digital version of the sandwich, which consumers had to enter for a chance to win, rather than purchasing directly. To enter, customers needed to follow McDonald's Twitter account and retweet the Sweepstakes Invitation tweet anytime between November 1st and 7th, with the ten winners selected by November 12th. Those winners had the McRib NFT (shown below) added to their digital wallet which allowed them to "enjoy [the McRib] year-round ... digitally."



McRib NFT (Source <https://corporate.mcdonalds.com/corpmcd/en-us/our-stories/article/OurStories.40-anniversary-mcrib.html>)

McDonald's China branch also released a set of 188 NFTs on October 8th, 2021 to celebrate their 31st anniversary in the Chinese market. Branded as the "Big Mac Rubik's Cube" collection, each NFT was distributed among employees and consumers as part of a similar giveaway. The NFTs themselves were built on the Conflux public blockchain and created in partnership with a digital asset creation agency, Cocafe. The Big Mac Rubik's Cube NFTs (shown below) were designed based on the three-dimensional structure of McDonald's China's new office headquarters in Shanghai.



Big Mac Rubik's Cube (Source www.cryptotimes.io)

Given that both collections were provided as part of a giveaway promotion, both collections reflect a broader trend of various brands using NFTs for primarily marketing and PR-related purposes, as opposed to artistic or expressive purposes. Notably, McDonalds is not the only fast-food chain company to release their own branded NFTs. For example, Taco Bell has previously released a collection of taco-themed GIFs and images on the NFT marketplace Rarible. Other brands like Pepsi, Burger King, and Starbucks have also sought to expand their brand's presence in the NFT space by releasing limited edition NFT collectibles. Indeed Starbucks recently announced a blockchain-based loyalty program called "Starbucks Odyssey" which "will offer members the ability to earn and buy digital collectible stamps (NFTs) that will unlock access to new, immersive coffee experiences." See

<https://stories.starbucks.com/press/2022/starbucks-brewing-revolutionary-web3-experience-for-its-starbucks-rewards-members/>.

Related NFT Trademark Applications: More recently, McDonalds has applied for a trademark in the US to “operate a virtual restaurant featuring actual and virtual goods, operating a virtual online featuring home delivery.” (App. No. 97,253,179). Filed on February 4, 2022, the application was for the MCDONALD’S mark in connection with services under International Class 43; namely, for “operating a virtual restaurant featuring actual and virtual goods, operating a virtual restaurant online featuring home delivery.” Currently, the application was accepted by the Office for meeting the minimum filing requirements but has not yet been assigned to an examiner. While the application was filed under an Intent-to-Use basis, McDonalds has not yet offered or advertised any future offering of the services applied for in connection with the application.

NBA Top Shot Moments

Background: NBA Top Shot was created as a partnership between the National Basketball Association (NBA), the National Basketball Players Association, and Dapper Labs. Top Shot is a blockchain-based platform that allows sports fans to buy, sell, and trade non-fungible tokens (NFTs) of NBA video highlights (akin to a digital version of a basketball card). The project originated in 2019, spent most of 2020 in development, and rose to popularity with upwards of a million registered users in 2021. An example of the Top Shot marketplace and collectible “Moments” are shown below:

The screenshot shows the NBA Top Shot Marketplace interface. At the top, there are navigation links for BETA, DROPS, MARKETPLACE, CHALLENGES, COMMUNITY, and BLOG. A 'LOG IN' and 'SIGN UP' button is also present. The main heading is 'MARKETPLACE' with a 'CODE OF CONDUCT' link. Below this are tabs for 'FOR SALE', 'LATEST SALES', and 'TOP SALES'. A search bar is available with the text 'Search by players, teams, and sets'. There are also filters for 'Newest Listings', currency, and other settings. A 'CLEAR FILTERS' button is visible, with 'Legendaries' selected. The main content area displays four items for sale, each in a 3D cube format:

Player	Rarity	Lowest Ask	Avg Sale
MAGIC JOHNSON	Legendary #/85 (LE)	USD \$2,800.00	USD \$2,802.75
JIMMY BUTLER	Legendary #/99 (LE)	USD \$625.00	USD \$673.67
MARCUS SMART	Legendary #/99 (LE)	USD \$688.00	USD \$1,128.62
JAYSON TATUM	Legendary #/99 (LE)	USD \$1,999.00	USD \$1,502.10

NBA Top Shot Marketplace (Source: <https://nbatopshot.com/marketplace>)

At its core, NBA Top Shot offers fans the chance to collect “Moments,” which are tradable NFTs that contain dynamic media content, including a video clip of a specific game highlight as well as other relevant information, such as statistics about the specific game and the player featured in the clip. Moments vary in terms of scarcity and value. For example, there different tiers of Top Shot Moments, each available at different price points:

Genesis Ultimate (1 copy): Available only through extraordinary events

Platinum Ultimate (3 copies): Available only through special events

Legendary (25–99 copies): Found in legendary packs — starting at \$230 USD; typically containing six common Moments, three rare Moments, and one legendary Moment

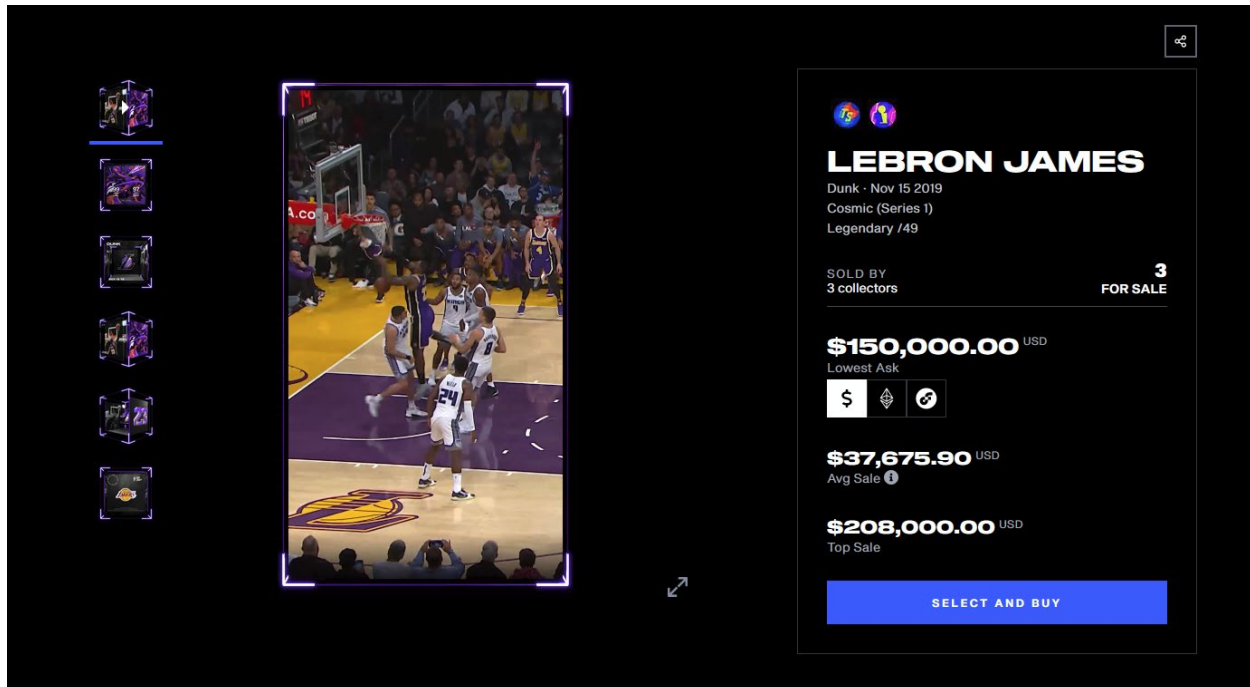
Rare (150–999 copies): Found in rare- and higher-level packs, starting at \$22 — each rare pack guaranteed to contain at least one rare Moment

Common (1,000+ copies): Found in common packs, starting at \$9 for nine Moments

In terms of how consumers can collect these NFTs, most Moments are first released as part of a digital “pack,” which users can purchase directly from NBA Top Shot. Similar to traditional trading cards, collectors will not know prior to purchasing the pack what is contained within the pack, and the pack, once opened will reveal each of the “Moments” contained therein. Top Shot also provides “Challenges” for users to accumulate a specific set of Moments in order to earn a bonus Moment. The Moments won in Challenges often cannot be found anywhere else. Thus, Challenges encourage users to trade among themselves, thereby ensuring an engaged and active market. Moreover, NBA Top Shot Moments can also be collected through peer-to-peer trading (again, very similar to traditional trading card practices). However, unlike physical cards, each Moment’s authenticity and scarcity is readily verifiable (via the Flow blockchain), and the full transaction history and past sale prices of each Moment are available for everyone to see. Further, while Moments can only be sold and traded on Top Shot’s official platform, the user community determines the fair market value of every Moment after the initial point of sale. To date, peer-to-peer trading accounts for more than 95% of total sales.

Trademark Registrations: To date, the NBA has acquired trademark registrations for the word marks **NBA TOP SHOT** (U.S. Registration Nos. 6,629,616 (class 9), 6,569,842 (class 41), and 6,435,118 (classes 35 and 42)). These registrations include use of the mark in connection with downloadable virtual goods and digital media, providing non-downloadable digital collectibles for use in digital environments for entertainment purposes, and providing digital collectible services, respectively. While each application was initially refused on the basis that an existing registration was likely to cause consumer confusion, the NBA was able to establish that the cited registration (**NBA DEVELOPMENT LEAGUE**, Registration No. 3186084) was owned by an entity that operates under the NBA. In addition, while all applications were initially filed under an intent-to-use basis, the Trademark Office has since accepted the NBA’s specimens of use. Notably, however, the NBA has yet to file an application for the **MOMENTS** mark, which is still used alongside the TM symbol on the Top Shot Marketplace.

Commercial Success: As of May 2022, more than 800,000 accounts were registered on Top Shot, and these users have collectively generated over \$1 Billion USD in sales volume. NBA Top Shot’s success can be attributed to the scarcity of packs, which typically sell out within seconds of their release. To date, the most valuable Top Shot Moment (LeBron James dunking on Sacramento Kings’ Nemanja Bjelica) sold for roughly \$200,000 in February 2021. An example of the current listing, which shows the current asking price of \$150,000, for the LeBron Top Shot Moment is shown below:



LeBron James Moment (Source: <https://nbatopshot.com/listings/p2p/c561f66b-5bd8-451c-8686-156073c3fb69+de32d3fb-0e6a-447e-b42a-08bbf1607b7d>)

In addition, several NBA players have also seen the value in Top Shots and are contributing to the project in their own ways, further demonstrating the overall success of the collection. For example, New Orleans Pelicans’ Josh Hart is a Top Shot user himself and occasionally livestreams himself opening new packs. Other players have even begun trading Moments for real-life experiences, such as offering courtside seats or a specific game jersey in exchange for a Moment.

Lastly, NBA Top Shot’s commercial success can also be explained by the fact that the Top Shot digital marketplace is designed to be more intuitive and accessible for sports fans already familiar with analog trading cards, regardless of their familiarity with cryptocurrencies and blockchain technology.

IP Rights over Moments: Unlike other NFT collections such as BAYC, the NBA still owns the highlight footage used in every Moment, and the organization’s media partners still are allowed to broadcast the video clips that are sold as Moments. In addition, if a user violates the terms of service, Top Shot can suspend or delete that user’s account and Moments from the platform without advance notice. In other words, while the digital record of each Moment cannot be “deleted” in the traditional sense, the Top Shot team does have the ability to remove any Moments that otherwise violate the terms of service, and the ability to exclude users from the NBA Top Shot marketplace. In these respects, buying a Top Shot Moment is significantly

different from buying a physical trading card, or even from buying other NFTs, and is more analogous to purchasing a software license that is revocable from users who violate the terms.

NFT for Sports/Entertainment Fan Engagement

From collectibles featuring famous athletes or iconic moments in the history of every sport^[1], to fan tokens of the most followed clubs^[2] that give the owners the opportunity to unlock unique rewards, games or even influence their decisions, the sports industry has been shaken to its core, and many new and exciting developments are coming in the near future because of NFTs.

Just imagine how NFTs can replace physical trading cards with custom digital assets that can be accessed and traded online, or even be used to replace physical tickets to enter game venues. The use of NFTs in these scenarios is not a pointless endeavor, but instead solves fairly common problems such as fraudulent tickets creating massive lines at sport events^[3], or the loss of value caused by the simple deterioration of physical cards. Beyond digital collectibles and tickets, NFTs can be integrated into live sports games as virtual access tokens.

They also offer new ways for fans to support their favorite teams and interact with them. You can think of sports NFTs as the traditional player trading cards, transformed through blockchain technology into different forms of NFTs that sports enthusiasts can collect — memorabilia, gifs, video highlights, game badges, and much more. In addition, they are tradable on NFT marketplaces.

Some sports NFTs also serve as a form of fan club membership that gives holders exclusive perks, such as access to meet-and-greet events with athletes. Sports NFTs in general can offer new ways for fans to support teams and athletes and interact with them.

Moreover, the gaming side of the sport industry, traditionally dominated by games such as FIFA or the average fantasy football league, has been shaken by a project called Sorare^[4]. Sorare allows the player to own NFT versions of players (which are now NFTs, game assets that can be owned and traded using blockchain technology) and create his very own fantasy football team to compete with others players. By doing so, the player is now back in the driver's seat and has full control of his roster, making it a perfect proof of concept of a decentralized game on the blockchain that can revolutionize the industry.

Individual athletes can also issue their own NFT collections to engage their fan base. Similar to trading cards, athlete NFTs establish a connection between the player and their supporters. Furthermore, athletes can maintain their IP rights by issuing NFTs themselves. As NFT creators, they can receive royalty fees from the resales of their NFTs.

We are currently at the first stages of NFTs and the blockchain in the sports industry. As this technology matures and becomes more prevalent, the need for clear rules, accountability and regulation will become increasingly important, especially when it comes down to their underlying intellectual property rights and ownership rules. As NFTs mature, there are more practical applications for sports NFTs, all set to transform the industry in exciting ways. Loyal fans can

demonstrate their passion by holding sports NFTs, while sports clubs and their athletes can offer fans long-term value through NFT's growing utilities.

Future investigation should include the Sorare case dealing with Soccer, baseball and basketball.

^[1] <https://autograph.io/>

^[2] <https://fantoken.com/inter/it/> - <https://www.socios.com/>

^[3] <https://www.mirror.co.uk/sport/football/news/french-officials-show-fake-champions-27102736>

^[4] <https://sorare.com/>

E. Web3 Domain Names

Web3 domain names are classified as Utility NFT's. Web3 domain names serve a similar function as normal Web2 domains, in that they map user-friendly identifiers to blockchain-based digital addresses.

The primary uses for Web3 domains are:

- Digital Wallets
- Usernames
- Digital Identities

The most Web3 popular domain extensions are: .ETH, .CRYPTO and .NFT. There are also blockchain projects that are issuing top-level domains for individual and corporate use.

The most popular Web3 domain projects are:

- Ethereum's .ETH top-level domain
- Unstoppable Domain's .CRYPTO, .NFT and .WALLET top-level domains
- Handshake's top-level domains

Recent registration totals, as of January 31, 2023 include:

- .ETH: 2,179,015
- .CRYPTO: 583,858
- .NFT: 316,162
- .WALLET: 284,883
- Handshake top-level domains: 9,907,342

Question 2

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

I. Introduction

IP issues created by emerging technologies like NFTs are grounded in the framework of existing legal doctrines but do not always fit neatly within them. The proliferation of NFTs has created increased mass marketing through new and unregulated online marketplaces in a new metaverse ecosystem driven by the tenet of decentralization which presents both intrepid and bold infringements and procedural IP challenges as well as immense opportunity for brand expansion, licensing and development. NFTs have presented a myriad of challenges stemming from understanding the technology and how NFTs are created, owned, transferred, the relevant currencies for purchasing them, the channels of distribution for NFTs, and how they are stored.

II. IP-Related Challenges

The creation of NFTs raises questions as to whether existing IP laws and regulations cover the creator's claimed rights created through the blockchain technology. For example, some NFTs, like CryptoPunks, are generated algorithmically. Because they are not invented or created by a human being, they may not be eligible for design patent protection or copyright protection in countries that require human invention/authorship (e.g., the U.S.). Thus, a visual eye on the NFT itself will not inform the viewer whether the visual artwork appearing is protected under copyright laws. NFTs that are mere artwork (i.e., are not created by human-machine interaction), e.g. Beeple's First 5000 Days, may not be eligible for design patent protection as a graphical user interface in the U.S. or other countries, like China, Japan, and Korea. NFTs that have been made, sold, offered for sale, or otherwise made available to the public more than a year before the filing of an U.S. design patent application may be time-barred for design patent protection. Some NFTs might not be creative enough to meet the U.S. Copyright Office's unpredictable Originality standard to obtain copyright protection. Creation also raises questions as to the mechanism of transfer of IP rights in the NFT as well as the ability for a purchaser of an NFT to verify acquisition of IP rights when making the purchase.

Brands are eager to know whether current IP laws in their jurisdictions and other jurisdictions are sufficient to cover the emerging issues arising from the creation and sale of NFTs. For example, do brands have to expand the scope of their IP portfolios to cover NFTs, possibly embarking on expensive global registration projects, or does their existing registrations expand to cover the same use of their marks in this digital medium?

Since there is no clear verification of IP rights for NFTs, it is difficult for both brands and potential purchasers to verify licenses for NFTs or the authenticity of an NFT creator that is not brand sponsored. The pseudonymous wallet, as opposed to a verifiable individual or entity, makes it difficult for brands/artists to identify the creators of NFTs that may infringe trademarks or copyrights. Further, because NFT markets are international, enforcement can become complicated jurisdictionally. Other enforcement challenges include dealing with unsophisticated purchaser and sellers who may have different understandings regarding what rights are being transferred with the acquisition of an NFT, which may lead to disputes that may not easily be addressed under existing law. Finally, IP rights owners often find themselves playing a game of whack-a-mole against infringers who continually re-post or jump from one marketplace to another after being taken down—if the marketplace is even willing to take the NFT down. To date, the decentralized and unregulated nature of NFT transactions has made enforcement against NFTs challenging in the NFT marketplace because many do not have take-down procedures like ISPs or on-line marketplaces such as Amazon have.

NFT marketplaces themselves have the challenge that under current laws it is unclear how to determine a fake from another's authentic creation, e.g., impersonating NFTs vs. transitional NFT that can have its own distinguishable rights (non-infringing). Infringers can easily create and sell NFTs using others' copyrighted works and/or brands – and infringement isn't always readily apparent to potential purchasers or marketplaces.

Regulating infringement claims of a marketplace that applauds non-regulation is a challenge. From a brand perspective, however, the current method of “takedown” that in actuality “hides” the posting on the user's site account (because to destroy means the NFT must be burned from blockchain), is wholly inadequate because the infringer can simply repost the infringing NFT. But whether to apply a notice and take-down procedure like the US DMCA presents questions as to how to manage false claims and what the standard of liability may be for contributory liability of the marketplace. While a recent Chinese decision held an NFT platform liable for contributory infringement for sale of unauthorized NFTs, there likewise in China has been regulatory uncertainties for the NFT marketplaces due to lack of clear policies and guidelines on the mandate of take down notices and their enforceability, a lack of uniformity of procedure and unclear enforcement mechanisms in case of “cross-border NFT transactions.”

A further challenge that has yet to be addressed is whether traditional courts will be able to enforce orders of infringement, injunctions, monetary damages, and jurisdictional controversies. NFT cases are so new that in addition to understanding the application of tests for IP infringements, unfair competition, and false designation of origin, the enforcement of judgments is an unknown for brand owners.

Apart from creation, registration and enforcement, there are also transactional challenges with NFTs. The transfer and transactional use of an NFT is typically governed by a smart contract. A smart contract is code embedded into the NFT software. In the US, copyright assignments must be in writing but smart contracts (code embedded into the NFT) to transfer NFTs do not include a written assignments, and, thus, under current law will not likely count as a transfer of copyright in original artwork appearing on the NFT itself. IP laws regarding licensing and assignment in Asian countries, particularly India and Singapore stipulate that any licensing and assignment agreement must be in writing. It is uncertain whether the smart contracts in the NFT space for the same fulfill these legal requirements and can be legally accepted. The authors also inquire as to whether the revocation of a transfer of an NFT would be possible under any circumstance if there is a violation of the provisions of a smart contract by the purchaser and the procedure for

such revocation. What is the extent of IP rights that can be bestowed upon the NFT buyer while allowing the creator to simultaneously retain ownership and control of the IP in the NFT?

NFTs can present ambiguities in the interpretation of transactions from the standpoint of other existing laws. For instance, there could be a lack of clarity as to how taxation laws of a country apply to NFT transactions. Due to the anonymity of the infringer in the NFT space, there is also a concern as to how penal laws could be invoked in situations like money laundering or other security risks. In certain countries, like India, there is no clear jurisprudence or legislative guidelines regarding the legality and admissibility of smart contracts and their admissibility. It is mostly interpretation from different laws.

Finally, some countries do not have laws or regulations governing the trade of NFTs. From an Asia perspective, some jurisdictions like Japan do not have legislation that include NFTs, which are issued on blockchains, within the definition of 'crypto assets'. Simultaneously, there are various countries in Asia that do not have any rules that control the trade of NFTs and thus ambiguity surrounding the legality of cryptocurrencies in India is one of the impediments to NFT trading.

III. IP Opportunities

NFTs are not only problematic. They also present a new medium for artists and brands to connect directly with audiences, to market in new, creative, opportunistic ways with consumers and for artists, musicians and creators to receive compensation for their work. NFTs have allowed brand owners to expand beyond their traditional markets into new spaces like gaming, the metaverse and virtual worlds, and to explore new licensing revenues in the digital space. NFTs have also opened up new revenue streams for celebrities and influencers through IP licensing.

Blockchain technology underlying NFTs can potentially be used to certify and record ownership and licensing of IP rights, and it may also be used to authenticate works of art, branded products, music, videos, games, or other content of value. NFTs serve as a digital certificate of ownership/provenance, which create "scarcity" and help drive up the value of digital assets.

For creators, the additional opportunity is that there is a relatively easily accessible new technology medium to create and distribute their works that doesn't require established barriers to entry such as "middleman" distributors such as record labels, galleries, or internet platforms terms of use (e.g., Twitter, Instagram), and that allows ease of marketing across the Internet.

Further, in countries that limit artists' resale royalty rights (e.g., the U.S.), NFTs provide artists the possibility to obtain resale royalties on subsequent sales of the artists' digital works.

The creation of NFTs have provided an opportunity for brands and individuals alike to have their own tokenized IP assets that can be commercially exploited in the future and have presented an increase in marketing and brand building opportunities as newer and innovative campaigns launch providing means to build customer loyalty, engagement and retention. When balanced with the ability to enforce IP, opportunity abounds.

Question 3

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

General overview

An NFT (Non-Fungible Token) is defined as a non-interchangeable token, a one-of-a-kind asset. NFTs represent the ownership of unique items, which can be digital (such as GIFs, videos, or songs), tangible (such as deeds, tickets, or legal documents), or even representative of assets that exist in the real world (such as collectibles or product features). NFTs possess' incontestable ownership status, which is guaranteed by the blockchain and smart contract technology.

As the popularity of NFTs has grown, the NFT market has climbed to more than \$40 billion in value, according to the 2021 NFT Market Report released by blockchain data company Chainalysis.

Main platforms

An NFT marketplace is a digital platform for buying and selling NFTs. These platforms allow people to store and display their NFTs plus sell them to others for cryptocurrency or money. Some NFT marketplaces also allow users to mint their NFTs on the platform itself.

In exchange for a fee, the NFT marketplace will typically handle the transfer of an NFT from one party to the other.

Each NFT marketplace has its own system for how it operates. The types of NFTs available, fees, payment options, permitted blockchains and other rules will depend on which one is chosen by the user.

When an account is created with an NFT marketplace, all available options for sale can be browsed. Payment methods can be added, and some require a link to a crypto wallet to pay with crypto, while others allow use of a credit card.

Some sites allow the purchase of the NFT directly for a fixed price, while others will use an auction.

If a transaction is completed, the NFT marketplace will record it on its blockchain showing the change of ownership.

As of January 2023, according to Forbes, the top five NFT marketplaces are, in this order: Open Sea, Rarible, NBA Top Shot, Binance and Nifty Gateway

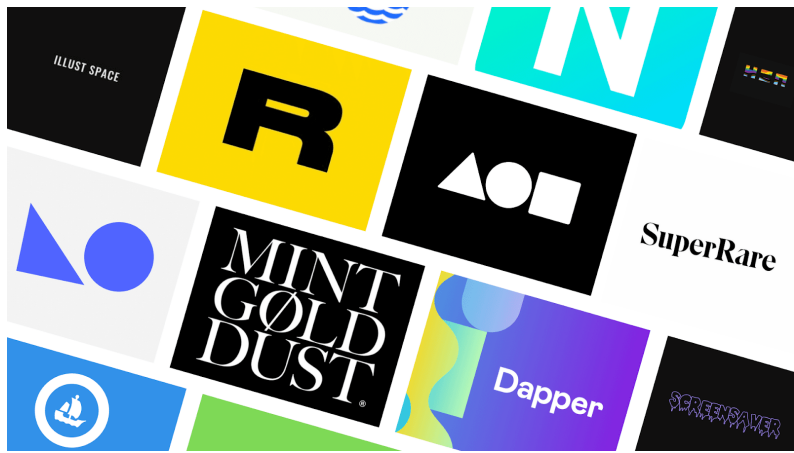


Figure 2: NFT revenue predictions 2018 -2027.

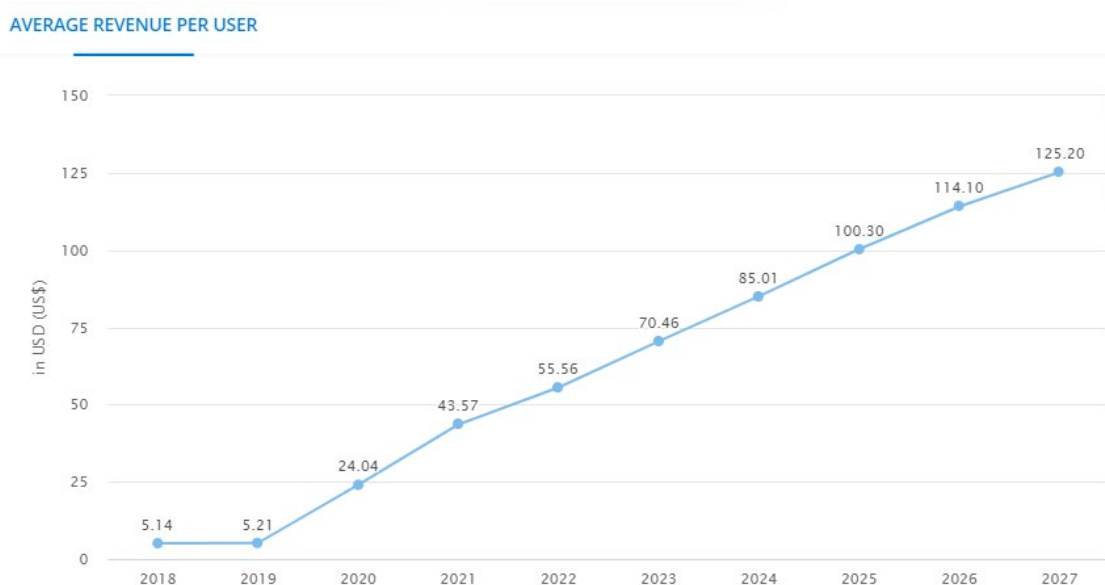


Figure 3: Average revenue per user projections 2018-2027.

Particularities of the NFT market and their impact on IP

General overview

Several types of intellectual property are protected by laws. However, the enforcement of these laws remains a challenge within the realm of blockchain-based creations, where NFTs are sometimes made from stolen art and questions over creative ownership rights, as well as other issues.

NFTs are assets. However, they are not in of themselves equal to the underlying digital or physical asset which they represent or any intellectual property rights therein. Therefore, when purchasing an NFT, buyers need to carefully review the terms and conditions of sale and be sure to understand exactly what they are buying and what they can rightfully do with it. Important questions may arise, such as:

Will IP rights in the underlying asset be assigned as part of the NFT sale?

Something which occurs when there is an express written and signed assignment of the relevant rights for the IP to be effectively transferred.

On the other hand, as is more common, if the IP rights will be licensed:

What is the scope of the license?

The answer to these questions will determine how, and to what extent, the underlying asset can be exploited, and will no doubt also impact the price the buyer is willing to pay.

Issues: Acquisition, Transactions and Litigations

Who owns the IP of an NFT?

The ownership over the intellectual property of an NFT is not always clearly defined and is often challenging to fit NFTs into the traditional framework of copyright law.

When an NFT is minted or sold, a blockchain's smart contract will automatically execute the transfer of ownership, including any rules applicable to the NFT like terms of purchase or resale opportunities. This often means that when an NFT is traded, a license that informs collectors about what they can and can't do with their new asset goes along with it.

Most NFT creators restrict commercial use and include a license that only gives holders the rights to "use, copy and display" the NFT.

As an example, they cite that Twitter founder Jack Dorsey sold his first-ever tweet as an NFT to a buyer named Sina Estavi. While Estavi owns the non-fungible token linked to the tweet, Dorsey retains the copyright, which means that Estavi cannot print the tweet on T-shirts or sell other merchandise without Dorsey's permission.

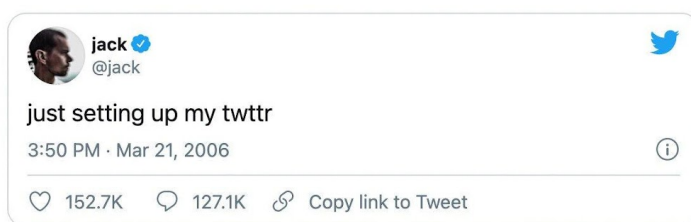


Figure 4: NFT of the first tweet.

There are different types of licensing designations: personal and commercial.

Under a personal license, buyers can only use the NFT artwork for non-commercial purposes. For example, a collector can use the NFT as their profile picture on social media or display the art in their home using a digital frame. But holders can't use their asset to make a profit, like selling prints of the artwork or using the artwork to create a spin-off book series.

A commercial license allows a creator to designate some rights to a buyer while still retaining ownership and control of the IP. In some cases, this includes allowing the buyer to sell the NFT artwork on merchandise, creating a TV show with an NFT character or even plastering the image on a food truck, as seen with the Bored & Hungry restaurant project.

There are also a growing number of alternative licenses that NFT artists are using to designate usage rights to their artwork.

One example is the Attribution-Noncommercial 4.0 International (CC BY-NC 4.0) license that NFT artist Kelly Milligan chose for his generative art collection titled Act of Emotion. Under this license, buyers of his NFTs are free to "remix, transform and build upon the material," but in doing so must give appropriate credit to Milligan and not use the material for any commercial purposes.

NFT creators can also choose to add a royalty rate during the minting process, with royalty specifications added to the smart contract. Moreover, NFT royalties can give creators compensation each time their NFT is sold. This option presents a new way for artists to continue monetizing their work beyond the initial sale with lingering IP rights.

Copyright issues

Two main issues arise in relation to copyright and NFTs: the question regarding copyright ownership and transfer, and the issues regarding IP infringement and enforcement in the digital world.

The question of online assignment of the copyrights in creative works can create legal issues as present copyright laws may not be able to tackle issues of transfer of ownership in the digital space.

Traditional copyright law states that transfer of ownership or assignment can only be done in writing signed by the assignor or his represented agent. However, NFTs basically being smart contracts are devoid of written transfer of rights.

The case of NFTs get complicated when the NFTs brought from an original copyright holder (who transfers ownership through a digital certificate) is subsequently brought by Buyer 2 from Buyer 1 on a digital marketplace with no per-se written or digital signed copy of transfer of ownership. The smart contract with its unique identifiers would act as a means of tracing the previous owners and subsequent transfer, however it is still unclear if this would be recognized in copyright law.

Apart from issues of the ownership and transfer, issues of misuse of the IP enforcement also arise. Unauthorized minting (publishing your work through an NFT on the blockchain to make it purchasable) or the use of the digital asset, redistributing or communicating on other platforms not envisaged by the copyright owner may lead to infringement suits.

Counterfeiting

Counterfeiting is another important possible issue to keep in mind when dealing with NFT IP rights. To avoid this issue, it is useful to check that the seller has the right to sell the asset(s) that they are acquiring.

This means looking if the asset is a copyright work, such as a digital piece of art, or a digital handbag that features a brand name, one will want to check the chain of title to ensure that the original creator or IP owner authorized the minting of the NFT in the first place. If they did not, then one could be purchasing an NFT for a counterfeit.

To reduce the chances of this happening, one should look to make the purchase through a reputable NFT marketplace and conduct some research into the NFT seller, which might include a review of their account, online feedback and associated social media. Other indicators that the NFT is for a counterfeit could be the price point or its availability for purchase in several different marketplaces. One can also inspect the metadata and any digital certificate issued via a reputable blockchain explorer.

While an NFT cannot be duplicated, others could attempt minting new NFTs for copies of the original asset to create confusion and profit off the original brand.

A recent example of this is the Hermes Birkin bag, known worldwide for its design and exclusivity. An NFT created with an image mimicking the bag could — and has — become made and sold without attribution to the Hermes brand.

Hermes recently sued artist Mason Rothschild for creating the “Metabirkin” NFTs, alleging that the use of this NFT would cause customer confusion. Hermes alleges that the artist, using the Birkin likeness, created digital renditions of the Birkin handbags, and has sold them for thousands of dollars. But while Hermes has trademarks for its leather goods, specifically its handbags, the NFTs sold are not classified as leather goods.

They are digital assets, for which Hermes does not have a trademark. Rothschild argues both that his use of the trademark is protected by the First Amendment because the NFT Meta Birkins are covered in fur, and are a social commentary, and that the use of the Birkin trademark is an artistic expression that does not mislead consumers.

On May 5, 2022, the court, in the Southern District of New York, denied the defendant's motion to dismiss, indicating that the court would issue an opinion for this case. It remains to be determined whether Hermes will prevail.



Figure 5: Metabirkin

Can NFTs Be Used to Protect Against Counterfeiting?

Because the NFTs themselves cannot be duplicated, companies are beginning to use them to fight counterfeiting. The practicalities can be nuanced, but the ability of NFTs to help fight counterfeiting stems from the ability to distinguish original digital copies from subsequent copies. This allows companies and buyers, in turn, to verify natively digital and tokenized physical assets using the blockchain.



Figure 6: Cryptokicks - Nike.

Question 4

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.**

a. Creation of NFT assets.

Existing “real” IP assets including collectibles, art, etc. are minted into NFT designs, which are then licensed or sold as assets. The blockchain is used to document the authenticity of such NFT assets, by documenting the seller’s ownership and/or authority to sell or license such assets, and by maintaining a permanent and immutable ledger of such ownership rights and transfers.

b. Document the authenticity of an asset;

Blockchain technology facilitates authenticity of IP rights through the minting on the blockchain. This ability to authenticate goods through NFTs is a valuable opportunity for brands to promote goods/services and to fight counterfeiting. It also allows a brand to cryptographically “sign” that a particular asset is directly associated with the IP rights holder. This can be exploited in many industries such as alcohol, fashion, art and sports and entertainment. For example, an NFT can be used to trace the authenticity of goods. It can also be used to promote events and sale transactions, and even resale transactions.

c. Document the seller’s ownership of or authority to sell an asset;

Through blockchains, ownership of IP rights can be verified and conditions/restrictions on the authority to transfer IP rights and royalties can be controlled through smart contracts imbedded in the NFT code and on creator websites (e.g. Yuga Labs).

d. Document the seller’s authority to transfer any relevant or necessary IP rights associated with an asset;

Smart contracts and creator websites can be used to document restrictions/rights for transfer of assets, stated transferred IP rights, set royalties and track/authenticate such transfers.

e. Document any limitations related to IP rights surrounding the sale, or the purchaser’s use, of an asset.

See d. Above.

Question 5

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.

There is a broad consensus among institutions and stakeholders regarding the potential benefits offered by Blockchain and NFT technology. However, there is also a considerable level of uncertainty in relation to some legal aspects of it, which directly affect intellectual property owners.^[1]

a. Challenges:

1. The first regulatory challenge is the lack of a central authority. Decentralization is a key element of blockchain and NFTs. This means that there is no central authority responsible for legal compliance and ultimate accountability of the information exchange by its users. This is also applicable to the technology itself since there is no central system/location where the information is stored. These problems are evident in permissionless systems. On the contrary, in private-permissioned systems, it should not be difficult to identify the legal entity responsible for legal compliance.

2. Second, some challenges arise from the fact that users of blockchain technology are in different jurisdictions. Founder, nodes and users are normally in different jurisdictions. This should not be an unsolvable problem since the current private international law rules give answer to the problem of deciding what is the law applicable. However, it may be convenient to harmonize rules dealing with blockchain technologies and create an authority (similar to ICANN) to deal with controversies on a simple and centralized way. Otherwise, enforcing resolution in the many jurisdictions which may be involved may be a big challenge.

3. Also, one of the biggest challenges in the Blockchain ecosystem is the anonymity/pseudonymity of its users.

Anonymous and pseudonymous identities of Blockchain users are very frequent. In fact, Bitcoin founder(s) identity (Satoshi Nakamoto) still remains anonymous. Following that, many in the crypto community are operating under their own pseudonym. This creates a huge problem from an enforcement point of view. Again, this depends on the type of blockchain. In private-permissioned systems, it should be easy to identify the real user behind a pseudonym. In public permissionless, it may be complicated.

4. Clarifying IP rights ownership under the Copyright, Trademark, Moral Rights and other laws. For example, what is the impact of artificial intelligence applications on copyright ownership, and use requirements under the Trademark law.

b. Enforcement:

1. DMCA deficiencies as applied to Notice and Takedown in NFT marketplaces. In the NFT (crypto) space it's not always easy to identify the infringer for notice requirements. The NFT technology doesn't provide an easy/efficient way to "take down/destroy" and infringing NFT.
2. Fair Use - it's unclear how this doctrine applies to NFTs incorporating 3rd party IP.
3. NFT transfers - It can be unclear what IP the NFT authenticates, and what if any of those rights transfer to a subsequent assignee, if rights can transfer by contract between creator/seller/purchaser.
4. Does first sale doctrine apply to NFTs? Changes to the current Copyright Act may be required to address IP rights and potential royalties on the transfer of NFTs from one party to another.

^[1] Some of these present challenges were described in detail in the WIPO's White Paper "Blockchain for IP Ecosystems", found here: <https://www.wipo.int/export/sites/www/cws/en/pdf/blockchain-for-ip-ecosystem-whitepaper.pdf>

Question 6

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.**

a. Obtain their IP rights;

The primary purpose of an NFT is to prove ownership. The general public became aware of NFTs when the internet started to buzz with stories about images of Bored Apes being sold for hundreds of thousands of dollars. A Bored Ape NFT, like all NFTs, serve to authenticate ownership or membership. The holder of an NFT can use the NFT to prove ownership of a physical good or set of goods. This could be important to proving that a mark is used in commerce and for establishing who owns a particular mark.

b. Transfer or license their IP rights;

In a license or assignment, the owner may be required to provide representations as to ownership. An NFT can do that. The content of an individual NFT can be copied, but it will reside on a different blockchain domain name. By its nature, an NFT is non-fungible and therefore distinguishable. Thus, a check of the internet address will allow parties to check and confirm ownership.

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

An NFT, because it is located at an accessible web address, can be used to control, and manage IP rights. Commerce can be routed so that all transactions are verified by an NFT

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.

An asset's authenticity can be checked via the unique non-fungible blockchain domain name.

Question 7

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.**

Trademarks can be employed to protect not only assets that are associated with NFTs, but also to serve as a vital part of a company's overall brand strategy. Trademark rights, particularly when secured through registration, allow a party to build brand identity in any virtual environment which, in turn, allows greater control over one's brand to leverage rights to new goods or services, whether in the metaverse or in the "real" verse, and to present and facilitate licensing opportunities. In fact, many brand owners are quickly moving to extend their existing trademark registrations to cover uses that include NFTs. Care should be taken, however, to ensure that the trademark classification for the registration includes use in the virtual world. The importance of securing registrations in classifications of goods that stretch into the metaverse is reflected in a recent case involving Hermes. While Hermes was able to pursue other legal theories to protect its trademark, the lesson is clear: brand owners should make sure that their registrations cover non-tangible assets. Certain international classifications for goods as established by governing authorities have now been established. These should be relied upon wherever possible by the brand owner who seeks to protect its trademarks.

Trademarks, particularly where registered, can also assist with combatting against infringement. Trademark rights allow brand owners to better control and monitor uses of their intellectual property. NFTs that are linked to words or images may infringe or dilute a trademark, registered or not, by displaying the mark in connection with the asset associated with an NFT. Such infringement is actionable in court. Further, some NFT platforms provide an avenue for an internal process to address infringing uses by third parties without having to resort to a lawsuit and a trademark registration may assist in that process. However, where no particular process has been established, pursuing a claim against an infringing use in the metaverse may prove difficult, particularly in the case of internationally-based infringers and/or where it is difficult to identify the infringer whose actions are conducted anonymously or through byzantine and decentralized ownership. However, some lawsuits have been brought. For example, Nike sued StockX, an online marketplace where you can buy Nike products, despite not being authorized by Nike. That lawsuit remains pending.

Due to the nature of NFTs, trademark registration can be particularly effective for brand owners to combat counterfeiting, a species of trademark infringement. Because an NFT cannot be duplicated, it serves as a certificate of authenticity. As a result, a brand owner can distinguish copies of the underlying asset by referencing the blockchain, thus facilitating the identification of counterfeits in the virtual marketplace. In addition to

protecting against counterfeiting, NFTs may also be helpful in certain instances to prevent the sale of so-called “gray market” goods – i.e. products that are sold legally but without the brand owner’s permission.

Question 8

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.

The NFT market has already given rise to challenges in IP protection and enforcement that are not easily addressed under existing law. There are a number of issues that may require clarification through legislation and/or regulation, including:

1. Enforcement of trademark rights against users in the NFT space. Brand owners may want to enforce against unauthorized use of their brands associated with NFTs and other digital assets, even if they don't plan to enter the space. It's uncertain to what extent trademark rights in other types of products and services (for example, rights in fashion apparel) extend to 3rd party uses of digital versions embedded in the NFTs.
2. Trademark application requirements. Under current legal landscape there is ambiguity whether a Brand's existing trademark portfolio will cover these new digital NFT uses. Brand owners are in a quandary whether to file applications for NFTs and other digital assets to protect against infringement but run the risk that their applications will be invalid because they lack the necessary intent to use, or that they won't be able to prove use and ultimately register.
3. Authorship/creativity. Many NFT collections are based on works created with the assistance of AI or other computer technology – most commonly works of visual art, but also musical, literary and other works. Under current IP laws, because these works are not created solely by humans, it's unclear how much human creativity is required for IP protection.
4. DMCA takedown process. Changes to the process and clarification of rights/obligations may be needed, given the difficulties in identifying and notifying accused infringers and of permanently removing NFTs. Under current the DMCA, marketplaces are required to comply with strict notice and takedown procedures when a properly submitted infringement claim is submitted. Decentralization and pseudonymous ownership of NFTs makes it virtually impossible for marketplaces to strictly comply with the DMCA. NFT marketplaces face potential claims for violation of notice and takedown requirements, and IP owners face obstacles in getting infringements taken down.
5. Effect of an NFT sale on the copyright in the underlying work. Though NFT sales generally do not meet the requirements for an assignment specified in the Copyright Act, there's potential for misunderstanding between sellers and purchasers as to what rights are being transferred. Current law doesn't encompass transfer of rights through smart contracts (code written into the digital asset), which don't currently satisfy legal written document requirements to transfer IP rights.
6. Transfers of ownership and first sales. Changes may be needed to clarify how the first sale provision of the Copyright Act applies to transfers of NFTs, including their effect on royalties for creators.
7. Definitions of publication and of copyright owners' exclusive rights. The Copyright Act's current definitions may require clarification in the context of ownership and transfer of rights to clarify how these laws apply to infringement disputes involving NFTs.

8. Fair use. It's unclear how fair use rights apply in the context of NFTs, and whether they can be modified by the contract between creator/seller and purchaser.
9. Jurisdiction and choice of law in enforcement disputes. There are potential issues in determining which country's courts have jurisdiction, and what law applies, in infringement disputes involving parties outside the US. Some of the same issues currently exist in the "digital" space, but are more difficult to resolve in the context of NFTs, since they're typically traced to a pseudonymous wallet address rather than an individual or corporate entity, and there's no process for identifying and locating infringers, similar to UDRPs for domains. Brand owners, NFT creators and marketplaces all face enforcement challenges as a result of these jurisdictional issues.
10. Dispute resolution and enforcement procedures. Unlike conventional products, websites, or social media accounts, NFTs are difficult to remove permanently – the technology requires a "burning" of the NFT to remove it from the blockchain, and one needs to get access to the source to achieve this. Copyright and trademark owners often must chase infringing NFTs across marketplaces as they're reposted under new accounts. Current law doesn't provide adequate remedies for infringement in the NFT context, and there is no process similar to a UDRP for permanently taking down or transferring control over the infringing NFT.

Question 9

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.
-
- b. The relationship between the transfer of an NFT and the ownership of IP rights in the associated asset;

In certain cases, a brand owner's trademark or trade dress is incorporated in an NFT. The brand owner in those cases often is careful to identify to buyers that the purchase of the NFT is constitutes the purchase only of the digital asset backed by the non-fungible token. The purchase does not include the purchase or assignment of any IP assets, including any trademark rights or copyrights associated therewith.

b. The licensing of IP rights in the asset associated with an NFT;

NFTs creators and minters are sometimes highly focused on the decentralized elements of NFT and the IP associated therewith. Decentralization, however, often has inherent tension with IP rights and the interests of brand owners. For instance, a common model for NFT creators is sell and NFT to the purchaser together with a license to use the NFT and the image appearing thereon for any purpose whatsoever, including commercialization of the image.

While this decentralized business model is often enticing to creators, the downsides are myriad, including the risks of the image being associated with offensive or immoral material or statements and loss of potential revenue streams associated with imagery created by the creator. For the former, an unlimited license permits a NFT purchaser to use the imagery for potentially hate speech or a source of designation for an organization with a purpose that is anathema to the image's creator's stance. For the latter element, an NFT creator can miss out on substantial revenue if the purchaser of an NFT with an unlimited license uses the NFT's imagery to, for example, create a successful television show or movie.

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;

Claims similar to these are being actively litigated in *Nike, Inc. v. StockX LLC*, 1:22-cv-00983-VEC and *Hermes Int'l v. Rothschild*, 1:22-CV-00384. In addition, the Central District of

California recently denied a motion to dismiss in a case involving NFTs, finding that the *Rogers v. Grimaldi* test did not apply because the sale of NFTs was not an artistic work. *Yuga Labs, Inc. v. Ripps*, No. CV 22-4355-JFW(JEMX), 2022 WL 18024480, at *1 (C.D. Cal. Dec. 16, 2022))

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

The answer to this is similar to the answer for subpart C. The creators of NFTs also must consider whether a third party owns IP rights in the underlying imagery and materials depicted in an NFT. Regardless of the outcome of the cases referenced above, an NFT creator incorporating substantial elements of another's IP rights into an NFT undertakes significant risk.

e. The application of one or more of the exclusive rights under 17 U.S.C. 106 (Exclusive rights in copyrighted works) to transactions involving NFTs.

On the positive side, NFTs have enabled companies to offer semi-exclusive assets with chain-of-title tracking, bringing intangible asset control within reach of general consumers. For example, in the news we have seen organizations like Disney and the NBA deliver NFT products featuring their copyrighted assets. These have allowed their customers to not only hold the intangible assets in a semi-exclusive manner, but also easily demonstrate to others the license to those copyrighted works. We are starting to see the same in other collectible assets: no contracting, transacting, mediating, nor certifying third party. In that way, the exclusive rights under 17 U.S.C. 106 appear to be furthered by NFTs, enabling authorized NFT uses by copyright holders of their works.

On the negative side, NFTs have started to exacerbate the already-difficult situation with IP enforcement on the Internet, where our current laws and regulations seem to be inadequate. [Wollgast's article on IP Infringements on the Internet](#) provides a good description of those issues, mainly that bad actors are hiding behind anonymous Internet accounts, jurisdictional laws are inconsistent, and Internet laws do little to incentivize service providers to disable bad actor accounts if not incentivize them not to nothing at all. IP enforcement of NFTs is seeing the same issues, with vendors releasing NFT products without any responsible measures to combat down-the-road infringement. U.S. laws such as 47 U.S.C. § 230 shield Internet service providers from liability for user behavior when they provide certain mechanisms, and some NFT vendors seem to be relying on that argument but without providing adequate IP protection mechanisms within their products. Many trademark owners have begun to see their IP rights infringed by NFTs, such as trademark rights infringed by NFT domain names. The NFT vendors have been unwilling to provide mechanisms to combat such infringements and have instead ask IP rights holders to purchase potentially infringing NFT domain names before infringer do. The situation sounds similar to traditional domain names, but with NFT domain names there are no central parties running the backbone to implement rapid disablement processes nor even adequately track bad actors for a court action; one of the touted benefits of NFTs is that, once issued, it can run semi-anonymously over the distributed network. These cases deal with trademark rights over NFT domain names, but copyright enforcements will undoubtedly encounter the same walls once NFT websites start delivering infringing content. In that way, the application of exclusive rights under 17 U.S.C. 106 will be hampered by NFTs.

Question 10

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.

One law firm reports they submitted DMCA complaints concerning approximately 350 infringing listings over the past year to well-known NFT marketplaces, such as Mintable and Open Sea, on behalf of their clients (artists and content creators). These marketplaces generally removed NFTs with infringing content within 7 to 10 days of receipt of our DMCA complaint and follow-up outreach, and the infringing material did not subsequently reappear. The firm received no counternotices from the marketplaces or the sellers. Further, in those instances, they have not had to file IP-related legal claims given the responsiveness and infringing-listing removal speed of the marketplaces.

Each month, the law firm referenced above also sends standardized complaints against 14,000 individual webpages containing clear cut cases of intellectual property infringing content on various websites.^[1] About 10% of the complaints are DMCA takedown requests targeting copyrighted works. Most of the NFT intermediaries have adopted as standard procedure to process intellectual property infringement complaints the DMCA “system”, yet they also accept takedown based on other IP rights.

Almost all the removal requests have been approved and to date they have received information only on one counter notice which concerned a trademark matter. The intermediary referred the complainant and the complained party to solve the dispute between themselves as the issue did not concern a copyright claim, i.e. outside of the DMCA scope. In this particular case, the content was restored and the complained party altered its NFT listing terminating the trademark dispute. After the matter was solved, third parties uploaded similar infringing content on the same website.

In general, platforms carefully review both complaints and counter notices, hence one can assume that, in case complained content was not removed, notices were considered incomplete; not all platforms inform about the decision they take. If a counter notice is manifestly fraudulent, we believe intermediaries will ignore it and not forward it to the complainer. Sometimes platforms notify complained parties and grant them a certain time to voluntarily remove, edit or change the allegedly infringing content. Whilst this action might remove the infringement from an online marketplace, for instance, it will not necessarily remove the infringing NFT from the internet.

Lack of information on how intermediaries receive, process and act upon notices and counter notices does not allow to provide detailed information for the purpose of this study.

[1] See more at: NFTs: Trademark Applications & Online Enforcement Insights
<https://corsearch.com/content-library/blog/nfts-trademark-applications-online-enforcement-insights/>

Question 11

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

In our experience, a company's own web3 plans largely inform its IP filing strategy for NFTs and the metaverse. For example, brands that offer, or plan to offer, NFTs or virtual products or services in the metaverse tend to prioritize gap filings covering non-fungible tokens, virtual products, and virtual retail spaces (as applicable) in Classes 9 and 35. Expanded registrations are more important for web3-focused brands since they aid in licensing efforts and/or enforcement against unauthorized use of the brand's IP for competing digital offerings. On the other hand, companies that do not have interest or actual plans for web3 are typically relying on their existing trademark rights and filings to enforce against infringing virtual goods and services. This is particularly true in the U.S. as these companies would not have the necessary "bona fide intent to use" to support ITU trademark applications covering web3-focused goods and services.

We have also observed that certain companies are focused on defensive trademark filings to make sure they can protect against use of their marks in connection with NFTs and other virtual goods by third parties. To support these defensive filings, some companies are working to create their own virtual goods, even where the sale of virtual goods is not a core part of the business. This appears to be, at least in part, the result of uncertainty surrounding whether traditional goods and services will be deemed sufficiently related to NFTs and virtual goods such that companies can prevent third parties from using their marks in this new space.

Brands across the board are also increasingly seeking preemptive protections with respect to blockchain-related domains. As in the early days of the traditional Domain Name System, we have seen significant third-party squatting on branded blockchain-based domains. While some providers have trademark protection policies in place (e.g., Unstoppable's Protected Brands system or the Handshake Domains Trademark Disclaimer), these are often inconsistently applied, and many providers do not have protection policies at all. Further, these domains operate outside the remit of traditional domain governance bodies such as ICANN, so they are not subject to the UDRP nor other rights-protection mechanisms normally used for domain disputes. For this reason, brands are finding that it is critical to seek preemptive protections. For many brands this entails strategic defensive domain registrations for a company's top trademarks across the most popular alternative root domains, and planned participation in blockchain-domain blocking services once available.

Question 12

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

Thanks to the possibility to link NFTs to goods and services, trademark owners have been able to expand their offering at a global level in the crypto-asset market, to strengthen brand identity also in the new crypto and metaverse world and to reach a new type of public.

In these specific cases, law firms assisted the companies minting NFTs in relation to redeemable products and in particular to prestigious wines and spirits, with key advantages for the marketing of these "luxury" products in the alcoholic world. The creation of NFTs and their circulation on blockchain platforms facilitated to guarantee safety and ensure authenticity, integrity and traceability of the products and of the related IP rights (and also to allow to store the bottles in the company's safe storage avoiding the risk of detriment to the products for external conditions). This experience has shown that NFTs could be used as an effective measure to tackle counterfeiting.

In addition, the NFTs were linked to images depicting the trademarks owned by the company and this posed issues related to the filing of the trademarks in the relevant Nice classes for virtual products. In the previous months, many trademark owners have started to try to extend their existing trademarks through new applications to cover also virtual products as NFTs. The situation might change in the future thanks to the recent amendments which apply from 1 January 2023 to the Nice Classification (edition 12th) and will include in class 9 "*downloadable digital files authenticated by NFTS*". Companies will be able to ensure protection to their trademarks also in relation to NFTs, but should remember to apply also for these specific goods if of interest.

In addition to NFTs related to redeemable real physical products, we assisted clients in relation to the minting of NFT which represented experience designed for enhancing public engagement or which are related to digital art realized by crypto artists.

The assistance provided included the drafting of the terms governing the NFTs and their incorporation into the NFTs' metadata. These terms included also specific clauses related to the license over copyright and trade marks in relation to the underlying assets.

This could show how it is crucial for IP lawyers to be involved in drafting terms governing the NFTs which are included in smart contracts because they could provide specific rules over the related IP rights and mitigate the risk of IP right infringement.

The same nature of smart contracts which restrict the possibility of simply amending terms render crucial to accurately regulate any key aspects and to set out any specific right or restriction in case of transfer.

Question 13

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

We recommend that the USPTO also consider the concept of decentralization of intellectual property assets and NFTs, especially as they relate to intellectual property rights. Many NFTs and their creators and minters have seized on the concept of decentralized IP in which individuals essentially privatize ownership of IP assets, instead of relying on formalized societal structure. Put simply, many NFT creators want to own the way IP is controlled and owned, instead of having the USPTO regulate this. This has led to certain NFT creators and minters to grant wide ranging licenses and, in some cases, outright assignments of images and designs associated with NFTs. Such wide ranging licenses are often unregulated and lack quality controls typically required for trademark licenses. These issues can raise new and novel questions regarding trademark ownership, copyright ownership, naked licensing, adequacy of quality controls, and abandonment of trademark rights.

To the extent that the USPTO is making recommendations to policy/law makers vis-à-vis trademark protections and interoperability challenges, it should emphasize that NFT-related regulation be distinct and separate from cryptocurrency-related regulation.

Finally, as described during the answers, regarding TMs, USPTO should lead best practices to achieve clear rules for TM filings/classification; consistent rules for evidence of use to obtain registration, and to maintain rights, and to determine infringement.