Insights into Blockchain Tokens and Crypto Art’s Effect on the Art Market

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Part I: Introduction

A. Non-Fungible Tokens (“NFTs”) Rise in the Art Market

Despite some early flirtations with blockchain technology, it was not until early 2021 that the art market finally sank its teeth into the complex digital world of

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1 Margaret Carrigan, Major Ebsworth Collection Sale at Christie’s Marks the First Blockchain-Recorded Auction, THE ART NEWSPAPER (Oct. 11, 2018),
blockchain technology. Even though “non-fungible” tokens, “NFTs” for short, have gained notoriety in the press, how they are defined can be a surprisingly thorny question to answer and still appears to be understood only by a relative few. However, answering this question is essential in order to spot the potential legal issues associated with NFT transactions. Therefore, this article begins by addressing what an NFT is.

By now, most readers are likely familiar with the concept of cryptocurrency, which is comprised of “fungible” tokens bought and sold using blockchain technology and tracked on a digital ledger. Cryptocurrency tokens are fungible in that each is readily exchangeable with another, both having an inherently equal value, the same way that a one-dollar bill is readily exchangeable with another one-dollar bill. For example, one Bitcoin for one Bitcoin; one ETH for one ETH.

By contrast, NFTs are like cryptocurrency in that they are tokens bought and sold using blockchain technology and tracked on a digital ledger. However, they are unlike cryptocurrency in that they are “non-fungible,” i.e., not readily exchangeable with one another for equal value. Rather, each NFT is a token that points to a unique underlying asset, such as a digital artwork, a YouTube video, a song, or even, in some cases, a physical asset. An NFT may be conceptualized as an expression of ownership over that unique underlying asset.

Many critics have wondered aloud at what the benefit of buying an NFT might be, especially when ownership of an NFT does not necessarily convey the traditional bundle of ownership rights over the unique underlying asset. The perceived problem is encapsulated in the following description of an NFT as “a publicly available token that


2 Jonathan Zittrain and Will Marks explain that cryptocurrency is just “blockchains whose core function is to record the sale of unique internet tokens that need not point to anything at all and yet are independently accorded value because they’re commonly understood to be currency.” See infra note 3. Blockchain technology results in the sale execution being permanently stored electronically in a way that cannot be modified by anyone. For example, many NFTs are purchased via marketplaces for “ETH,” which is the abbreviation for the cryptocurrency called Ether (the name is a synonym for “vapor”). Ether can be purchased from websites such as Coinbase. Once someone has Ether, they can then use crypto wallet websites (such as Metamask) to purchase NFTs and/or crypto art through different marketplaces that use blockchain technology to execute the purchases and sales.
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links to a work. For example, for a digital picture, the token may be a unique number and a link to a copy of the picture, hosted on a service such as the InterPlanetary File System (IPFS). The token itself is visible to all, as is the work to which it points, so anyone else can look at the work and download it” (emphasis added). The crux of this perceived value problem is that minting an NFT for a digital asset does not prevent others from accessing and viewing that digital asset in a way that may be very similar to how the owner of the NFT might access and view the digital asset.

Irrespective of any criticisms, the past year has proven there is a true market demand for NFTs and that big-money buyers are coming to the table. In 2021, the market for NFTs exploded, with approximately $10.7 billion traded in the third quarter of 2021, up from a staggering $2.3 billion sold in the first quarter and $2.4 billion worth of NFTs traded in the second quarter. It remains to be seen whether the majority of these buyers are speculators, long-term investors, collectors, or hobbyists simply looking to get into the experience. There are clear experiential and sociological benefits associated with participating in the NFT market, including supporting artists and other content creators, taking part in a new digital movement and community, and acquiring the bragging rights associated with NFT ownership on the internet. As Jonathan Zittrain and Will Marks put it, “[A]n essential part of NFTs’ value is that they don’t convey anything resembling traditional ownership.”

While it was the March 2021 $69 million Christie’s Beeple sale which seems to have grabbed the public’s attention, the NFT market has been around for some time.

4 Christopher N. LaVigne & Georges Lederman, A Digital Art Gold Rush? – The Regulators Are Watching, WITHERS WORLDWIDE (Apr. 1, 2021),
B. The (Recent) History of Crypto Art

Any conversation regarding NFTs would be incomplete without discussing the basis of an NFT’s market value: the unique underlying asset itself. As discussed above, while NFTs may involve a variety of unique underlying asset types, this article focuses on digital art as the unique underlying asset.

When most people think of art, they think of oil on canvas paintings hanging on the walls of museums and galleries. The underlying art to which NFTs point tends to be different. What NFTs have brought to the forefront is this other universe of art—namely, “crypto art.” Rather than emerging as an artistic movement among artists, crypto art seems to have begun as a movement among computer programmers experimenting with the concept of ownership. The general consensus about crypto art’s history is that a project named “CryptoPunks” originally gave rise to the crypto art movement.

CryptoPunks is an art project launched in 2017 by two creative technologists (i.e., software developers), Matt Hall and John Watkinson, operating through their entity Larva Labs. They were each already interested in physical collectibles and, through Larva Labs, began to consider methods for creating digital collectibles. Recognizing that a key limiting factor was that collectors wouldn’t be able to determine how rare certain digital collectibles actually were, they found a digital method of verifying rarity and ownership—through the blockchain. While anyone could make a digital copy of a CryptoPunk, Larva Labs’ innovation was that only one person could officially own a


7 10 Things to Know about CryptoPunks, the Original NFTs, CHRISTIE’S (Apr. 8, 2021), https://www.christies.com/features/10-things-to-know-about-CryptoPunks-11569-1.aspx.


9 Cryptopunks – the NFTs That Started It All – Their Origin Story and Future Plans, MODERN FINANCE (Apr. 8, 2021).
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CryptoPunk as established through a digital contract encoded on the Ethereum blockchain: in essence, an NFT of a CryptoPunk.10

CryptoPunks, the digital artworks, are comprised of 10,000 uniquely generated characters. What do CryptoPunks look like? Larva Labs describes them as “24x24 pixel art images, generated algorithmically. Most are punky-looking guys and girls, but there are a few rarer types mixed in: Apes, Zombies and even the odd Alien.”11 At the beginning of the CryptoPunks project, artwork could be claimed free of cost by anyone with an Ethereum wallet; however, all 10,000 characters have been claimed, so interested parties must purchase them from the character owners via a marketplace.12 For economic context, a CryptoPunk sold on October 28, 2021, for 124,457.07 ETH ($532,414,877.01 USD).13

C. The Life Cycle of the NFT

To understand some of the legal issues that can arise and areas in which to exercise caution, a broad strokes understanding of the NFT production process, from the creation of the digital artwork, through the minting of the NFT and its sale to the collector or investor, is vital.

Creating the NFT

The first step, of course, is the creation of the unique underlying asset (e.g., the digital artwork). Next, the artist will generally set up a digital wallet through a third-party crypto wallet provider, such as MetaMask or Coinbase. The crypto wallet is software that simplifies the user experience and enables a user to interface with the relevant blockchain (usually Ethereum for NFTs) and conduct transactions across various blockchains.14 Many artists will then link their wallets to a marketplace

11 Id.
12 Id.
13 @cryptopunksbot, TWITTER (Oct. 28, 2021, 7:52 PM), https://twitter.com/cryptopunksbot/status/1453872415591829504.
14 See Ethereum Wallets, ETHERIUM, https://ethereum.org/en/wallets/. Coinbase, a digital wallet provider, describes crypto wallets as, “Unlike a normal wallet, which can hold actual
platform, such as Rarible, NiftyGateway MakersPlace, SuperRare, or Foundation. These platforms may agree to cover any minting fees or may charge the artist upfront for the minting or gas fees, in which case the artist will generally need to buy cryptocurrency to pay upfront.

To mint the NFT, the artist will need to upload the digital artwork to the URL that will be included in the NFT's metadata—this is how the NFT "points" to the digital artwork. The artist then provides the URL and some basic information about the artwork, such as its name and a brief description, to the platform in order to initiate the minting of the NFT. This information will be incorporated in the NFT's metadata once minted.

**The “Smart” Contract**

Most NFTs are minted using the ERC-721 contract standard on the Ethereum blockchain. The ERC-721 standard sets out the information that should be included in the token when it is minted or first recorded on the blockchain, with the artist's address on the blockchain documented as the creator. Once the NFT has been minted

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cash, crypto wallets technically don’t store your crypto. Your holdings live on the blockchain, but can only be accessed using a private key. Your keys prove your ownership of your digital money and allow you to make transactions. If you lose your private keys, you lose access to your money.” *What Is a Crypto Wallet?* COINBASE, https://www.coinbase.com/learn/crypto-basics/what-is-a-crypto-wallet. “How does the blockchain know which crypto is yours? It uses algorithmically generated password-like codes that only the holder has access to. When you first set up a crypto wallet—whether it’s a software wallet like Coinbase Wallet or Metamask a hardware wallet like Ledger—it generates a string of simple words, which is your seed phrase. The wallet also uses the seed to create private keys—which allow you to send or spend your crypto. Think of the wallet as being like a password manager for crypto, and the seed phrase as being the master password… If you delete or lose your wallet without carefully saving your seed phrase, you lose access to your crypto.” *What Is a Seed Phrase?* COINBASE, https://www.coinbase.com/learn/crypto-basics/what-is-a-seed-phrase?from=for_you.

15 Many NFTs use the InterPlanetary File System (IPFS), which ensures the content remains accessible so long as it is hosted by at least one person on the IPFS network. This is discussed further below.

onto the blockchain, this metadata cannot be altered, and the creator address will always appear as such. Thereafter, the NFT exists on the blockchain as a piece of code containing this minimal metadata.\textsuperscript{17}

Ethereum’s NFT page states, "NFTs are minted through smart contracts that assign ownership and manage the transferability of the NFT’s."\textsuperscript{18} To both an attorney and a layperson, the term "smart contract" may bring to mind a traditional contract—a series of written terms and conditions to which parties in a transaction mutually agree. However, a smart contract is a computer program, written in code, that will automatically execute certain functions when specified pre-conditions have been met. Although the smart contract may specify the requirements for a purchase or sale to be completed, it does not typically contain terms defining a legal arrangement to be enforced in a court or otherwise.\textsuperscript{19} Many marketplace terms and conditions will include a disclaimer stating that the NFT purchaser is responsible for being able to read the code of the smart contract.

\textbf{The NFT Marketplace}

Most NFTs are created using the Ethereum blockchain and must be bought and sold using the cryptocurrency Ether. That said, there are many third-party marketplaces that interact with the Ethereum platform and enable purchasers to complete transactions using an interface that greatly simplifies the purchasing process and even often permits the use of a credit card. However, excluding the case of an off-chain transaction,\textsuperscript{20} purchasing NFTs on the Ethereum blockchain nearly always


\textsuperscript{18} \textit{Non-Fungible Tokens (NFT)}, ETHEREUM, https://ethereum.org/en/nft/.


requires that the purchaser pay in Ether. As discussed below, although it may feel counter-intuitive, paying for an NFT with Ether is considered a realization event for U.S. taxpayers and may result in the recognition of income, to the extent that the Ether’s value on the NFT purchase date exceeds the Ether’s value on the date the owner purchases the Ether.

Each marketplace has its own terms of service that govern the purchase and sale of an NFT and will, therefore, affect the purchaser’s rights. It is important for purchasers of secondary market NFTs to recognize that the terms of service that governed the seller’s original purchase of the NFT (as well as the terms of service on any marketplaces used for any intervening sales) may also be relevant in determining the bundle of rights conveyed to the purchaser.

**Off-Chain Transactions**

The persistent rallying cry of NFT purists has been that the blockchain enables the creation of trustless peer-to-peer marketplaces that remove the need for traditional gatekeepers. In the art world, such gatekeepers necessarily include the major auction houses, but their role in NFT sales has been controversial among NFT purists. For instance, Christie’s’ role in the Beeple sale was criticized, in large part because of the way that the sale was conducted: off-chain.²¹

When sales take place through NFT marketplaces, any payment and ownership transfer is automatically verified and archived on the blockchain. However, auction houses, including Christie’s, generally continue to conduct their sales and accept payment off-chain. This means that the full transaction is not documented on the blockchain; rather, the change of ownership is documented manually in coordination with an NFT marketplace platform, as was demonstrated by the transfer from Beeple to a MakersPlace escrow account, and from the MakersPlace account to the buyer on the blockchain.²² While these sales have been open to criticism, it is indisputable that

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auction house sales of NFTs have played a massive role in making NFTs visible to the public.

**Resale Royalties**

Much has been said about the potential for NFTs to enable artists to benefit from secondary market sales of their works.

Once an NFT is in the buyer’s wallet, the buyer can generally resell the NFT using any NFT marketplace. Therefore, it bears mentioning here that the standard NFT contract, the ERC-721, does not provide for the payment of resale royalties back to the artist. In many cases, it is the market platform which enables resale royalties to be sent to the creator’s wallet address. For instance, MakersPlace notes that it withholds 12.5% of each secondary market sale, with 2.5% of the sale price going to MakersPlace and the other 10% paid to the creator as a royalty.\(^{23}\) However, if a collector or investor decides to resell on a platform that does not conduct such withholdings, the artist may not receive any royalties on a subsequent resale.\(^{24}\)

**Valuation & Insurance Concerns**

Because an NFT is not tangible personal property, it will not be covered by the typical fine art insurance policy. Fine arts insurers are unwilling to provide coverage since establishing a basis of valuation is almost impossible due to ongoing market volatility, a lack of market data, and a true understanding of what is being insured. Further, technology can change rapidly, so an NFT owner may one day own something that can no longer be viewed on antiquated software/hardware.

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Part II: U.S. Taxes & Other Legal Issues

A. U.S. Taxes

*State Transaction Taxes*

*Sales & Use Taxes*

Sales and use taxes are state-level taxes that generally apply to the sale and use of tangible personal property. For example, New York sales and use taxes are imposed on every sale or use of tangible personal property in New York, unless an exception applies. As NFTs are not considered tangible assets, they should generally be considered outside the scope of the sales and use tax net.

*State and Federal U.S. Income Taxes*

*Buy-Side: Treatment of Cryptocurrency Used to Purchase the NFT*

NFT purchases must generally be completed using cryptocurrency. For U.S. taxpayers, cryptocurrency is currently classified as a capital asset, not as fiat currency. Therefore, the disposition or exchange of cryptocurrency for the purchase of an NFT is a recognition event for income tax purposes and triggers the recognition of any gain in value of the cryptocurrency over its value at the time the taxpayer acquired it (i.e., its cost basis). For example, Mrs. Jones bought 1 ETH for $500 in 2018 and purchases an NFT for 1 ETH in 2021. The fair market value of 1 ETH at the time of the NFT purchase is $3500. Using 1 ETH in 2021 would trigger the recognition of the difference between $500 and $3500, or $3000 of income. Therefore, Mrs. Jones would owe income taxes on that gain. Since she owned the ETH for a period in excess of 1 year, she would recognize gain at the current federal long-term capital gains rate of 20% (plus, potentially, additional federal net investment income taxes and state income taxes).

*Sell-Side: Treatment of an NFT Sold by the Artist*

An NFT would not constitute a capital asset in the hands of a U.S. artist who created the NFT. IRC Sections 1221(a)(1) and (3) define capital assets (the income

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25 N.Y. TAX LAW § 1105(a).

from which may qualify for the lower capital gains rate at the time of sale) as excluding both self-created artistic compositions and inventory. Thus, in the hands of a U.S. artist, any gains from the sale of NFTs would constitute ordinary income which would be taxed at federal ordinary income rates of up to 37%, plus any applicable state income taxes.

**Sell Side: Treatment of the NFT Sold by the Investor/Collector**

At the time of writing, the IRS has not yet issued any formal tax guidance pertaining to NFTs sold by U.S. taxpayers. However, the general consensus appears to be that NFTs should be treated as collectibles under Section 1(h)(4) of the Internal Revenue Code of 1986, as amended. Any gain on the sale of an NFT held for more than one year would therefore generate capital gain, taxable at a rate of 28% rather than the general maximum rate of 20% imposed on sales of other capital assets. This would be in line with the way that artworks are traditionally treated for both investors and collectors.

The classification as a collectible bears mentioning because collectibles are defined by way of example in IRC Section 408(m)(2) as including: “(a) any work of art, [...] or (f) any other tangible personal property specified as a collectible by the IRS. There are no regulations or other guidance issued by the IRS which further defines the term ‘collectibles.’” Because Item (f) refers to “any other tangible personal property,” the question becomes whether the reference to “tangible personal property” confines the definition of “collectible” to personal property that is tangible. An NFT is clearly not tangible personal property. However, regardless of whether NFTs are classified as collectibles, collectors should recall that, as with the gains from the sale of any capital asset, the gains from the sale of an NFT may also be subject to an additional 3.8% net investment tax and other state taxes.

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28 Id. § 14.
29 I.R.C. § 408(m)(2).
The NFT investor or collector should also keep in mind that the NFT may be sold at a loss. For the investor, the loss may be deductible subject to the capital loss limitations under IRC Sections 1211 and 1212. However, the collector cannot deduct the loss on the sale of the NFT because such a loss on the sale of a personal use asset is disallowed under IRS Section 165(c).

Additionally, a collector or investor may want to take an income tax deduction for a charitable donation by contributing the NFT to an exempt organization. At the outset, one must keep in mind that such a plan is problematic since finding the fair market value of an NFT when there are no or very few comparable sales makes substantiating the amount of the claimed income tax deduction very difficult. However, if the donor can get past the valuation issue, then donating an NFT for a fair market value deduction may be simpler than donating a physical work of art. The reason is that, because an NFT is not tangible personal property, the “related use rule” of IRC Section 170(e)(1)(A) would not apply.

Finally, we note that the determination of whether NFTs should be classified as collectibles may have farther reaching implications than the applicable tax rate. For instance, with some narrow exceptions, acquisitions of “collectibles” by individual retirement accounts (IRAs) or qualified retirement plans may be penalized and should generally be avoided.

**B. Other Legal Considerations**

Blockchain technology is an undeniable advance as it provides a publicly available ledger of the historical transactions involving each NFT. However, the perceived security of blockchain transactions may have, in some cases, caused participants in the marketplace to lower their guard, subjecting them to a variety of frauds or making them victims of unforeseen flaws that are not broadly understood or recognized by the market, but which are apparent to a few. The section below addresses traps for the unwary which have developed since the advent of the NFT craze.

**Authenticity**

The blockchain’s strength is that it makes the transaction history for a particular token available to the public. Specifically, an NFT transfer, including timing and

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purchase price, between various addresses on the blockchain is generally publicly available information. However, this does not solve several major potential issues.

First, the blockchain addresses are not generally publicly or verifiably tied to the names of particular individuals. Marketplaces may provide a solution to this process by vetting and standing behind the identities of particular artists, but there have already been cases of scammers setting up addresses on the blockchain purporting to be for established artists and then minting and selling NFTs. This recently occurred on OpenSea, where such a scammer impersonated Banksy and sold $900,000 worth of NFTs before the real-life Banksy alerted the platform to the issue. Because Ethereum is a decentralized network, there is no clear recourse for the purchasers, who were unable to get back their Ether or return their NFTs.

Aside from scammers pretending to be artists, one should also be concerned about individuals minting NFTs for artworks that are available online but that were created by other users. For instance, DeviantArt, a longstanding website for digital art, announced that because so many scammers were illegally reselling its artists' artworks as their own NFTs, it has begun employing AI software to scour blockchains and NFT platforms for matching artworks.

Finally, with respect to providing perfect provenance, one must recognize that the blockchain ledger is limited to showing the transactions that take place between different blockchain addresses. There is no reason why an individual could not create multiple accounts to hold NFTs—just as investors create special purpose vehicles or holding companies to isolate different assets. If the investor or collector decides to transfer the account to another party, such a transaction would not be recorded on the blockchain. That said, because the private keys for an account cannot be changed, this could create security risks which would need to be addressed if the transferor and transferee are unrelated third parties and do not trust one another.

**Hosting the Digital Artwork**

Ensuring the ongoing maintenance of the NFT file at the URL contained in the NFT’s metadata is vital to the NFT’s ongoing value—if the domain owner redirects the URL or fails to pay hosting bills, the digital artwork may no longer be accessible at


33 *Id.*
the URL listed in the NFT’s metadata. For this reason, many NFTs use the IPFS, which ensures the content remains accessible so long as it is hosted by at least one person on the IPFS network. For instance, Foundation does this automatically when artists mint using its platform.34

**Securities and Anti-Money Laundering Regulations**

Headlines touting black market transactions involving cryptocurrency have already demonstrated the potential abuses of cryptocurrency platforms. Because transactions involving NFTs typically require the use of cryptocurrency in order to complete a transaction, it follows that the vices of the cryptocurrency market should plague the NFT market.

In 2020, Congress enacted the Anti-Money Laundering Act of 2020 (AMLA) to focus on concerns of money laundering associated with both cryptocurrency and high-value artwork. The legislation directs the Financial Crimes Enforcement Network (FinCEN), an agency of the U.S. Department of the Treasury, to develop regulations which will likely affect art dealers, virtual currency traders, and NFT platforms. These regulations will potentially require the impacted entities’ registration with FinCen, recordkeeping and reporting, and the development of internal protocols and policies.35 On September 23, 2021, FinCEN issued an advance notice of proposed rulemaking to solicit public comment on the implementation of the 2020 AMLA as to the antiquities trade in the United States.36 This announcement, coupled with the July 2020 U.S. Senate report about money laundering and the art market, leads us to anticipate regulatory scrutiny coming to the art NFT world imminently.

Finally, there has been some discussion by the Securities and Exchange Commission over whether or not NFTs ought to be considered securities. If so, anyone offering ownership interests in the United States would trigger SEC reporting requirements related to the registration, marketing, and sale of those NFT interests, and would be subject to certain anti-fraud provisions, the violation of which could result in civil and criminal penalties to the issuer. Therefore, in addition to the legal, tax, and security issues discussed above, this is also an area to keep under watch.

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