



How I Came to Love NFTs

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IN THIS ISSUE, WE DISCUSS:

- >> What NFTs are and why they're prompting so many questions today
- >> Why one of the biggest criticisms of NFTs is actually one of its strongest features
- >> Three key reasons why Arts and Collectibles NFTs are so important ... and so often misunderstood

Admit it: The first time you heard about non-fungible tokens, or NFTs, you probably thought they were ridiculous.

Maybe it was when Beeple's *Everydays* **sold for \$69 million at a Christie's auction**. Or when **Rolling Stone put the picture of a Bored Ape on its cover**. Or when **NBA Top Shots** became water cooler conversation No. 1.

NFTs are new. Different. Sometimes confusing. And nearly always interesting.

At Bitwise, we've been getting lots of questions from clients about NFTs. They remind me of the kinds of questions we got about Bitcoin and Ethereum in 2017 and 2018, when people realized something exciting was happening but didn't know exactly where to start.

In this special *Notes from the CIO*, I thought I'd offer a few thoughts on NFTs, including what they are, why they matter long-term, and why investing in today's most popular NFTs may be an exciting opportunity.

WHAT IS AN NFT?

NFTs are a technology that allows individuals to register the ownership of a digital item on a blockchain. Each NFT is unique; hence the "non-fungible" part. That's in contrast to crypto assets like bitcoin, where every bitcoin is essentially identical to every other bitcoin.

By introducing individual scarcity into the digital world, NFTs create the possibility of owning specific digital items. For the first time in history.

That's a big idea, and the potential applications are enormous for property titles, music rights, identity documents, etc.

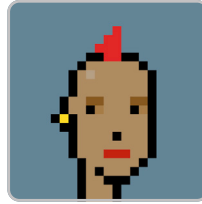
So far, the most widespread applications lie in the arts. One example: **Christie's has now sold more than \$100 million in NFTs at auction**, with iconic pieces from collections like CryptoPunks and Bored Ape Yacht Club gavelling for millions.

Some NFTs represent cultural icons and artifacts, such as the CryptoPunks and Bored Apes collections below. They are a digital outgrowth of pop culture, perhaps the equivalent of comic books or sneakers in the physical world.



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CryptoPunk #4996

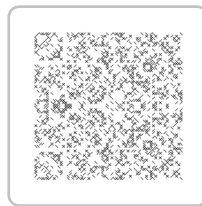


Bored Ape #8692

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After spending significant time in the NFT space for the past year, I'm convinced they have a big role to play in our future, and that people who dismiss them as strange, silly, or weird are missing a bigger point.

Other NFTs aim for “high art” aesthetic value, such as the Fidenza and Autoglyphs collections shown below. Many of these build on the **generative art** movement that started in the mid-1960s, redirecting it into a new, digitally native medium.



Autoglyph #403



Fidenza #986

Will these early NFTs stand the test of time? After spending significant time in the NFT space for the past year, I'm convinced NFTs have a big role to play in our future, and that people who dismiss them as strange, silly, or weird are missing a bigger point, as they did with Bitcoin, Ethereum, and other crypto assets in the past.

Here are the three primary reasons why I think Arts and Collectibles NFTs are a big deal.

REASON 1: DIGITALLY NATIVE ART AND CULTURE FOR A DIGITALLY NATIVE GENERATION

The rise of crypto over the past 10 years has created a new generation of digitally native wealth, to the tune of more than \$2 trillion. We should not be surprised that this new generation demands its own art and has its own cultural totems, different from the past. Every generation does.

That doesn't mean everyone will like it, of course. Contemporary art often offends older generations: Picasso was **labeled a madman by his dealer**, and early reviews of Jackson Pollock's work called it **“a joke in bad taste.”** Hating your parents' music (and them hating yours) is a tired cliché.

But as wealth continues to shift from older generations to more digitally native cohorts, the desire for digitally native art is likely to increase. Investors today have the once-in-history opportunity to own the early, iconic examples of that art.

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REASON 2: NFTS ARE MORE THAN ART — COMMUNITY, SOCIAL SIGNALING, AND UTILITY

NFTs can be imbued with capabilities that far exceed those of their physical counterparts, starting with community.



Collections like the Bored Ape Yacht Club embrace this explicitly: Every Bored Ape NFT comes with a “membership” in the “Yacht Club.” This membership provides exclusive access to parties, merchandise drops from top fashion designers, additional NFT distributions, and more.

But even projects that eschew formal clubs have vibrant online communities, where like-minded people with similar tastes can meet, connect, and share ideas.

There is a powerful element of social signaling with NFTs as well. Many individuals use iconic NFTs from collections like Bored Apes and CryptoPunks as their avatars for online platforms like Twitter. These digital billboards announce their taste, wealth, and worldview in the same way that hanging a Calder or a Warhol on your wall would in polite society.

(Actually, NFTs do it much better: I can only show off my painting to the 20-100 people that visit my house each year, but I can show off my NFT to the entire internet ... or at least my tens of thousands of Twitter followers.)

This digital signaling extends into popular culture, where many A-list celebrities have adopted NFTs as extensions of their personal brand, including musical icon Jay-Z (CryptoPunks) and Tonight Show host Jimmy Fallon (Bored Ape). Aligning with these cultural leaders is appealing to many, and some big-name brands are already taking notice: Visa added a CryptoPunk to its art collection, Adidas is collaborating with the Bored Ape Yacht Club, and Nike just acquired an NFT studio.



Posting NFTs from iconic collections announces a person’s taste, wealth, and worldview in the same way that hanging a Calder or a Warhol on your wall would in polite society.



In the physical art world authenticity can only be verified through a cumbersome process executed by experts. NFTs, on the other hand, can be authenticated cryptographically.

REASON 3: NFTS CAN BE INFINITELY SHARED BUT ARE IMPOSSIBLE TO FAKE

The first criticism of NFTs I hear is usually: “But if I can just right-click and save an exact copy of this digital artwork in my computer, how can it be valuable?”

What many fail to understand, and what really clicked with me, is that in the NFT world this is not a bug but a feature. NFTs have taken a problem that has always existed in traditional art — unauthorized copying — and turned it on its head, so that instead of being a threat to the artwork’s value, copying can be a source of value.

Consider how pervasive the problem of forgery currently is in the traditional art market. Old Master forgeries can sell for seven figures or more, and can fool even the world’s top collectors and museums. There’s clearly something about the scarcity and authenticity of the original work that makes it valuable, but in the physical art world authenticity can only be verified through a cumbersome process executed by experts — so forgers are getting rich while collectors are getting duped.

NFTs, on the other hand, can be authenticated cryptographically in a seamless fashion.

Few people like to sport artistic and cultural items that everyone else knows are clearly fake even if they look a lot like the original; consider the shade thrown at “Folex” watches. When someone shares the image of an NFT that they don’t own, there is no question of them successfully passing it off as their own — the blockchain record can clarify true ownership instantaneously. Instead, they are in effect advertising it, and nearly all of the value accrues to the true token holder.





Some of the best investment opportunities occur when embedded biases shield others from a new space.

NFTS AS AN INVESTABLE ASSET CLASS

This resistance to forgery — made possible by the authenticating power of blockchain technology — also allows NFTs to be transferred just like any other crypto asset. NFTs boast liquid, peer-to-peer, 24/7 marketplaces in which everyone can be assured that the digital item they are acquiring is the real deal. Contrast this with the traditional art market, where its dealers, auction houses, and other intermediaries often charge double-digit-percent fees.

In the end, no one has to invest in Arts and Collectibles NFTs, the same way no one has to invest in traditional art and culture.

But some of the best investment opportunities occur when embedded biases shield others from a new space. In the case of NFTs, the list of such biases runs long: People are often skeptical of new art forms. They historically undervalue digital goods. They can be biased against items that skew younger. And so forth.

NFTs follow digital gold and **decentralized finance** as the third large-scale real-world use case of crypto. We are still early in their growth, but it's already very exciting.

ABOUT BITWISE

Based in San Francisco, Bitwise is one of the largest and fastest-growing crypto asset managers. As of November 30, 2021, Bitwise managed over \$1.6 billion across an expanding suite of investment solutions. The firm is known for managing the world's largest crypto index fund (OTCQX: BITW) and pioneering products spanning Bitcoin, Ethereum, DeFi, and crypto-focused equity indexes. Bitwise focuses on partnering with financial advisors and investment professionals to provide quality education and research. The team at Bitwise combines expertise in technology with decades of experience in traditional asset management and indexing, coming from firms including BlackRock, Blackstone, Facebook and Google, as well as the U.S. Attorney's Office. Bitwise is backed by leading institutional investors and asset management executives and has been profiled in Institutional Investor, CNBC, Barron's, Bloomberg, and The Wall Street Journal. For more about Bitwise, visit www.bitwiseinvestments.com.

ABOUT MATT HOUGAN

Matt Hougan is one of the world's leading experts on crypto, ETFs, and financial technology. He is the Chief Investment Officer for Bitwise Asset Management, the world's largest provider of cryptocurrency index funds. He was previously CEO of ETF.com and Inside ETFs, where he helped build the world's first ETF data and analytics system, the leading ETF media site, and the world's largest ETF conference. Matt is co-author of two publications for the CFA Institute Research Foundation: "A Comprehensive Guide to Exchange-Traded Funds" and "Crypto assets: The Guide to Bitcoin, Blockchain and Cryptocurrencies for Professional Investors." He is a crypto columnist for Forbes, a three-time member of the Barron's ETF Roundtable, a member of ETFdb's ETF Hall of Fame, and the eighth person to receive a Lifetime Achievement Award from ETF.com for contributions to the ETF industry.

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NFTs are an extremely new artistic and cultural phenomenon, and interest in such artwork could wane. If the demand for NFT artwork diminishes, the prices of NFT items could be negatively affected. There exists shallow trade volume, extreme hoarding, low liquidity and high bankruptcy risk in the market for NFTs. NFTs are also subject to risks and challenges associated with intellectual property rights and fraud.

