

What and Why You Need to Know about Non-Fungible Tokens (NFTs)

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Abstract- Non-fungible tokens (NFTs) are transferrable rights to digital assets, such as art, in-game items, collectables or music. The phenomenon and its markets have grown significantly since early 2021. They are bought and sold online, frequently with cryptocurrency, and they are generally encoded with the same underlying software as many cryptocurrencies. An NFT can be understood as a Certificate which confirm that the holder of certificate are owner of the asset. NFT are built on Blockchain, which can be understood as a public ledger (in the layman term) so anyone can check the real owner and transaction history. We try to understand the impact of NFTs in our society and how it is changing our world. Using daily data between January 2021 and December 2021, we can see that more users are buying NFT even when the price of Bitcoin and Ethereum are declining. A staggering 1.99 Million NFTs sold in the month of December (2021) on Polygon network alone. In July, less than 50 Thousand were sold. The results suggest that NFT have proven its value, this new Web3.0[2][3][4] assets class have proven valuable in our society.

Keywords - NFT, Cryptocurrency, Web3, Fungible

Introduction

An NFT is a digital asset that depicts real-world objects such as art, music, in-game objects and videos. They are purchased and sold online, frequently with cryptocurrency, and they are

usually encrypted with the same underlying software as much crypto.

Although they have existed since 2014, NFTs are now gaining prominence as they become an increasingly popular way to buy and sell digital art. An astonishing 1.99 Million NFTs sold in December (2021) on **Polygon** network alone. In July, less than 50 Thousand were sold.

NFTs are also typically unique in their kind, or at least one of the rarest, and have unique identification codes. "NFT essentially creates a digital scarcity".

This contrasts strikingly with most digital creations, which are almost always infinite in the offering. Hypothetically, cutting off the supply should raise the value of a given asset, assuming it's in demand. Now, you must be thinking that anyone can view the individual images—or even the entire collage of images online for free. So why are people willing to spend millions on something they could easily screenshot or download?

Because an NFT allows the buyer to own the original item. Not only that, it contains built-in authentication, which serves as proof of ownership. Collector's value those "digital bragging rights" almost more than the item itself.

How is NFT different from Cryptocurrency?

NFT stands for non-fungible token. It's generally built using the same kind of programming as

cryptocurrency, like Bitcoin or Ethereum[9] but that's where the similarity ends.

Physical money and cryptocurrencies are “fungible,” meaning they can be traded or exchanged for one another. They're also equal in value—one dollar is always worth another dollar; one Bitcoin[10] is always equal to another Bitcoin. Crypto's fungibility makes it a trusted means of conducting transactions on the blockchain[1].

NFTs are different. Each has a digital signature that makes it impossible for NFTs to be exchanged for or equal to one another (hence, non-fungible). One Limited Edition NFT of Sachin Tendulkar, for example, is not equal to NFT of Kunal Pandya because they're both NFTs. Let's take another example NFT of Dhoni's winning sixer in ODI World cup is much more valuable than his own Everyday Sixer. I think you get my point.

NFT allow to own a part of History, in digital form and of course gives a bragging right.

How Does NFT Work?

NFTs exist on a blockchain, which is a distributed public ledger that records transactions. You're probably most familiar with blockchain as the underlying process that makes cryptocurrencies possible. Specifically, NFTs are typically held on Ethereum blockchain, although other blockchains support them as well. An NFT is created, or “minted” from digital objects that represent both tangible and intangible items, including:

- Art
- GIFs
- Virtual avatars and video game skins
- Designer sneakers
- Music

Even tweets count. Twitter co-founder Jack Dorsey sold his first ever tweet as an NFT for more than \$2.9 million[5]

What Are NFTs Used For?

Blockchain Technology and NFTs afford artists and content creators a unique opportunity to monetize their wares. For example, artists no longer have to rely on galleries or auction houses to sell their art. Instead, the artist can sell it directly to the consumer as an NFT, which also lets them keep more of the profits. In addition, artists can program in royalties so they'll receive a percentage of sales whenever their art is sold to a new owner. This is an attractive feature as artists generally do not receive future proceeds after their art is first sold.

Art isn't the only way to make money with NFTs. Brands like Charmin and Taco Bell have auctioned off themed NFT art to raise funds for charity. Charmin dubbed its offering “NFTP” (non-fungible toilet paper), and Taco Bell's NFT art sold out in minutes, with the highest bids coming in at 1.5 wrapped ether (WETH)—equal to \$3,723.83 at time of selling.

Nyan Cat, a 2011-era GIF of a cat with a pop-tart body, sold for nearly \$600,000 in February [6]. And NBA Top Shot generated more than \$500 million in sales as of late March. A single LeBron James highlight NFT fetched more than \$200,000. Even celebrities like Amitabh Bachchan[7] and Salman Khan[8] are jumping on the NFT bandwagon, releasing unique memories, artwork and moments as securitized NFTs.

According to me and many experts, by 2025 everyone will own an NFT. I give you reason why I think so. Your metro pass will be an NFT. Your favourite Football team's season pass will be NFT. Even college and Office ID card will be NFT.

Literature Survey

According to an article published in the Critical Blockchain Research Initiative (CBRI) Working Papers, 2021

There is a category of blockchain-based virtual assets known as non-fungible tokens (NFTs) which have garnered incredible investor interest in a very recent and short period[12]. NFTs are described by some as a craze, and by others as the future of digital art. Investors have expressed interest in various types of NFTs, with some being auctioned in the millions of dollars, despite in essence

representing little more than code - but code to which a buyer has ascribed “value,” despite questions of its comparative scarcity as a digital object.

In December, 2020 the sale of NFTs were estimated at \$12 million, but exploded to \$340 million two months later in February, 2021. Indeed, the rising success of certain NFTs raises fascinating questions about what “value” and “scarcity” might mean with respect to blockchain technology.

The non-fungibility of a digital asset itself appears to have created an entire category of digital objects to which individuals would ascribe value; and while non-fungibility is a property that is tangential to the original premise of a distributed virtual ledger, it may come to represent a significant alternative space of blockchain development and exchange going forward. The purpose of this paper, then, is to draw attention to the questions of value and scarcity as they pertain to NFTs specifically, and to blockchain and digital assets more widely.

Beyond visual artistic works, audio-centered creative works can also be tokenized as NFTs. In the early 2000s, there was an industry-wide fear that musicians would lose the ability to earn from their intellectual property the way that they did when audio cassettes or CD sales were the norm. Online platforms such as torrents caused even further concern that piracy would be rampant and musicians would be unable to earn. Although solutions such as Spotify offered a partial approach to online music monetization, this business model has not been as successful as comparable movie or TV show alternatives (e.g., Netflix). NFTs may be offer another partial mode of monetizing musical assets. In March, 2021 several well-known musicians began to create NFT-based musical assets.

There are numerous token standards that exist for NFTs. For example, the Ethereum ERC-721[13] standard of CryptoKitties was the first to be used for the NFT category, since it has an inheritable Solidity smart contract mechanism that allows developers to create new compliant contracts by importing it from a library (OpenZeppelin source

library). The Ethereum ERC-1155[14] standard is another notable Ethereum variant that offers “semi-fungible” options and the potential to build ERC-721 assets. Aside from the Ethereum standards, Bitcoin Cash and 6 Flow (from the creators of Cryptokitties) also offer NFT-usable standards.

There is a risk that NFTs might fade from wider public interest in the longer run, particularly if the contentious notions of value and scarcity that are purported by NFT owners are challenged too prominently; and also, if a larger series of hacks and sabotage-activities of malignant actors occurs too frequently to preserve any confidence in NFTs as a store of value. These risks notwithstanding, the volume of interest in NFTs is certainly high as of this writing, and may even grow if a wider audience remains interested in tokenization of collectible categories represented through virtual mediums in a decentralized and distributed manner. NFTs may, in fact, come to represent an important alternate space of blockchain development and exchange, beyond the realm of cryptocurrencies that have grown into significant prominence over the past decade. If this alternate space of NFTs grows at a pace and to an extent similar to cryptocurrencies, then it will constitute one more significant avenue of blockchain technologies, and further affirmation that the full extent of decentralized, distributed ledger technology has yet to be discovered. In other words, the “value” of blockchain has not been fully uncovered, and there is no “scarcity” of imaginative uses of blockchain technologies in the future.

Conclusion

NFTs does remind me of how ICOs were like in 2017. Right now as more projects are flooding the market as it's lucrative, it's hard to determine which one is a get-rich-quick scheme for the NFT creator and which projects are legit.

It is still at an early and experimental stage as people are learning how blockchain and NFT technology could work. We feel like the narrative surrounding NFTs would continue to evolve as more people discover what are the best use cases for the technology.

In our personal experience seeing behind the scenes where Jingles launched an NFT project, we could see him trying to explore ways to harness and apply the technology in his work. Like how bitcoin used to be a currency and now it's a stored value. We could see cool inventions and innovations in this space. NFTs appeals to high-risk taker investor with an opportunity to make huge profits if you can discern what is a good investment.

Cryptocurrency is already considered quite a volatile investment for many. So if you are someone who likes to play it safe, perhaps NFT might not be your cup of tea as you could potentially lose all the money that you put in But if you are still keen to see how you can still participate and have a stake future of blockchain technology, but you are not really sure which NFT projects are good, you can consider investing in cryptocurrency instead.

NFTs are bought and sold using cryptocurrency are usually Ethereum, Solana, Cardano, Terra. These cryptocurrencies can be bought from various exchanges[11] such as Binance, Coinbase, Wazirx, CoinSwitch Kuber, and many more. Typically, we would buy our cryptocurrency via exchanges.

According to us, we will see the NFT Winter (some are calling Crypto Winter). Meaning we will see large number of crypto Currency and NFT Projects will become valueless and only a few number of NFT Project will survive this Winter. The project that will bring true value to society and create a productive atmosphere and eco-system for its user and team will thrive and come out strong as ever. Just like DOTCOM Boom we will see history to repeat itself.

NFT has a bright present and brighter Future. learn more and more about NFT. Most importantly Invest in NFT projects that you feel make valuable to change in society and your life, instead of watching charts and changing price, Watch how this NFT will change your life.

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