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Literature Review on the Most Popular of NFTs Types

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Abstract

Non-fungible tokens (NFTs) are transferrable rights to digital assets, such as art, in-game items, collectibles, or music. The phenomenon and its markets have grown significantly since early 2021. This study aims to find the most popular NFT type. This study uses a qualitative research method processing data using NVivo with four steps: Gathering information, Coding, running queries and Reporting. We investigate the interrelationships between NFT sales, NFT users (unique active blockchain wallets), and the pricing of Bitcoin and Ethereum. The results reveal that there are 26 published articles in the targeted journals and websites, and they are mainly focused on the popularity area. The research findings show that Collectibles trigger an increase in NFT sales. Also, ether price shocks reduce the number of active NFT wallets. The results show that Collectibles markets affect the growth and development of the NFT marketplace since they are the most popular among NFTs.

Keywords: Blockchain, Tokenization, Non-Fungible Token, NFT Type

I. Introduction

Non-Fungible Token or NFT, are digital assets representative of physical or digital creative work or intellectual property, including music, digital art, games, gifs, video clips, and more. "Non-fungible" in NFT means that each token is not exchangeable with another token, making each token a unique entity representing a specific object. These tokens consist of digital information in the form of media (music, video, image), the value of which can be calculated in terms of cryptocurrencies. The NFTs are part of the Ethereum blockchain in particular but differ from Ethereum coins which are fungible and exchangeable with similar types of assets [1].

In the 2021 bull market, a new asset class is gaining considerable attention from the crypto community. This asset is an art collection of unique images that utilize a crypto technology called NFT. NFT is a digital asset based on crypto technology. NFT collections can cost hundreds of thousands of US dollars, so why it is widespread, and how we can buy one?[2], and many other industries such as music, sports and fashion are also experimenting with this emerging technology [3].

NFTs are often compared to digital certificates of ownership. The certificate, in the form of data recorded on a blockchain, signifies ownership of an associated digital item not contained the data itself. A blockchain is a digital database that records data on a decentralized computer network without a central authority. [1][4] There are two parts to an NFT):

- NFT item. The digital item associated with an NFT is described in an NFT's metadata. These items are typically stored off-chain, meaning they item is not directly stored on a blockchain.
- NFT metadata (called a token). NFT meta-

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data1 is stored on a blockchain and typically includes information identifying the underlying NFT item, its online location, ownership, and transaction information.

Blockchains have limited storage space and high network traffic, so storing an NFT's underlying digital asset on a blockchain might be expensive and inefficient. Instead, digital assets are typically stored on a separate hosted website or a decentralized peer-to-peer file storage system.

A. Types of NFTs

There are endless potential applications for non-fungible tokens (NFTs). However, since we're still in the early stages of the non-fungible era, it might be some time before we see large-scale projects that aren't related to art in one way or another. To this end, NFT projects these days typically fall into one of ten categories. Here's everything you need to know about them. [5]

1. PFPs and Avatars

This format is what most internet users outside the NFT sphere think of when they think of NFTs. And that's by design, a quick search of 'NFTs' on Twitter will net you a sea of tweets from users with avatars consisting of Bored Apes, CryptoPunks, Cool Cats, Doodles, and all their offshoots and spinoffs.

2. One-of-one (1/1) artwork

During the minting phase of NFTs, creators can split up their work into multiple editions that may only differ on the blockchain. This means different editions of the same piece may appear identical to each other visually but possess different edition numbers or token IDs.

3. Generative art

Generative art is precisely what it sounds like, art that a computer has generated in some way. While often created by a generative algorithm or artificial intelligence (AI), some works created by physical robots also fall under this definition.

4. Collectibles

The recent boom of the sports trading card and memorabilia market hasn't just happened IRL. It's also taking place online, as evidenced by projects like NBA Top Shot.Despite that project's well-documented rise and fall, collectibles remain a viable format for NFT projects, especially related to already-popular IP.

Figure 1 Colletible NFTs [5]

5. Photography NFTs

Photography NFTs are growing in popularity and are poised to see continued growth in 2022 as more established photographers hop aboard the platform.

6. Music NFTs

At this point, most people are aware of the music industry's failure to provide artists with sustainable ways to make a living off of their work. So while streaming services take most of the revenue, the musicians struggle.

7. Gamified NFTs

With NFT-driven play-to-earn (P2E) games, also known simply as "crypto games", players can own in-game assets like skins, weapons, digital accessories, characters, and virtual land in the metaverse and trade these digital assets to earn financial rewards. Some popular games include Axie Infinity, Gods Unchained, and Decentraland.

8. NFT event tickets

As the Web3 ecosystem grows, NFT use cases evolve beyond digital art and avatar NFTs. For example, event tickets have become a way to build music and other event presence tallies on the blockchain. NFT ticketing enables holders to use tokens as access passes for live and virtual events.

9. Membership passes

Although NFT-based memberships are their unique sector of the NFT space, for the most part, they've grown and developed alongside PFPs to

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provide incentives to holders. These exclusive programs use NFTs as access keys to unlock several services and rewards, including virtual and real-life experiences.

10. Domain names

Domain name NFTs have been a prominent part of the NFT ecosystem since before the term "NFT" was even coined. Nowadays, prominent platforms like Ethereum Name Service and Unstoppable Domains have made it extremely simple for users to purchase and manage domain names for their websites, wallets, NFTs, and other digital assets.

The popularity of the Non-Fungible Token (NFT) has risen rapidly since 2020, becoming one of the most popular applications in the Fintech field. However, there has yet to be an attempt to perform a systematic review in this new area. Therefore, this study aims to find the most popular NFT type.

There are few prior studies on the financial aspects of NFT markets. Nadini et al. map the NFT ecosystem based on sales and traded volume across different projects, stakeholders, and other relevant characteristics [6]. While Dowling examines the pricing behavior of a particular NFT project, Decentraland, which enables the trading of digital plots of land in a blockchain-based multiverse [7]. He uses wavelet coherence analysis to identify any co-movement between the cryptocurrency and the NFT markets. He examines three major NFT submarkets (Decentraland, CryptoPunks, and AxieInfinity) and the prices of Bitcoin and Ether. The results suggest that cryptocurrency pricing behavior can help understand NFT pricing patterns. We found macro data on the Ethereum-based NFT market, specifically the trading volume of all NFTs in USD and the number of blockchain wallets. It allows us to identify to what extent these markets influence each other or co-move.

II. Method

This study uses a qualitative research method [8], processing data using NVivo. We define qualitative research as an iterative process in which an improved understanding of the scientific community is achieved by making new significant distinctions resulting from getting closer to the phenomenon studied. This formulation is developed as a tool to help improve research designs. Additionally, it can facilitate teaching, and communication between researchers, diminish the gap between researchers, help to address critiques of qualitative methods and be used as a standard of evaluation of qualitative research.

NVivo is a software program used for qualitative and mixed-methods research. Specifically, it is used for the analysis of unstructured text, audio, video, and image data, including (but not limited to) interviews, focus groups, surveys, social media, and journal articles. It is produced by QSR International. As of July 2014, it is available for both Windows and Macintosh operating systems.

Here the steps of the processing:

Step 1: Gather information

The first step towards conducting qualitative data analysis is gathering all the comments and feedback you want to analyze. This data might be captured in different formats, such as on paper, post-it notes, online forums, and surveys, so it's essential to get all your content into a single place.

Step 2: Coding

The next step in this process is coding the comments and, most importantly, reading and deciding how each should be organised.

Step 3: Run queries

Once you have coded all the data, it is time to run the queries. In essence, this means looking for insights into the data. The reporting requirements will determine the extent and type of the queries during this step.

Step 4: Reporting

The final step is reporting on the findings, a critical step as the opportunity to tell the story of the learning from the consultation. If it fails to do this step well, the community will lose faith in the process and might even face potential community outrage. Being transparent and timely is the best way to avoid this situation.

III. Discussion

Literature review in NVivo can be done in several stages, namely Import Literature, Import data, Classify Sources, Code and Annotate, Memo, and Query and Visualyze, which can be explained as follows.

A. Import data

The first step is importing sources or information used in the literature review. References can be imported manually, for example, pdf documents, reports, journal articles, and websites. There are 26 published articles in the targeted journals and websites, mainly focused on the popularity area.

B. Coding

On There are several types of codes in NVivo. One type is theme nodes are codes that represent the themes or topics that you find in your data. It is based on the ten types of FNTs, as shown in Figure 2.

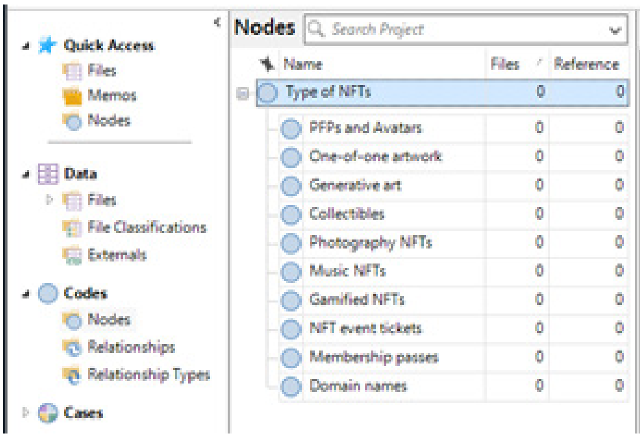

Figure 2 Nodes

C. Run query

Word Frequency Query allows us to find out the number of times the selected item appears. Seeing how many words appear can help us identify themes and concepts. Word Frequency Query can be run for specific sources, such as files, folders, and externals, as can be seen in Figure 3.

The Word Cloud, how the most frequent word appears, is collectible comparing artwork, music, game, and generative. The apparance of collectible is the biggst one. Therefore, the most popular is the collectible NFTs.

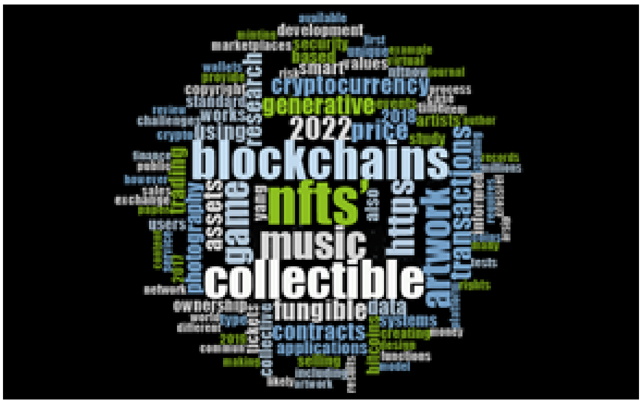

Figure 3 Word Cloud of Word Frequency Query

IV. Conclusion

This study examines the to find the most popular NFT type using qualitative method. The research findings show that Collectibles trigger an increase in NFT sales [9]. Also, ether price shocks reduce the number of active NFT wallets. Finally, the results show that Collectibles markets affect the growth and development of the NFT marketplace since they are the most popular among NFTs.

Future research is suggested to collect the data from interviews and open-ended surveys.

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