

REVIEWING THE RELATIONSHIP BETWEEN BLOCKCHAIN AND NFT WITH WORLD FAMOUS NFT MARKET PLACES

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Abstract: Blockchain and NFTs (Non-Fungible Tokens) are two closely related concepts that have gained significant attention in recent years, particularly in the realm of digital assets and decentralized technologies. Blockchain and NFTs (Non-Fungible Tokens) share a symbiotic relationship, with blockchain serving as the underlying technology that empowers NFTs to function as unique digital assets. NFTs, on the other hand, leverage blockchain technology to address the longstanding challenge of proving ownership and authenticity in the digital realm. By representing unique assets on the blockchain, NFTs solve the problem of digital scarcity, enabling artists, musicians, game developers, and creators to tokenize and sell their digital creations as limited-edition, one-of-a-kind items. The indivisibility of NFTs ensures that each token represents a whole and unique piece of content, be it digital art, music, videos, or virtual real estate. This paper is reviewing the world famous NFT that are traded on popular Blockchain on world famous NFT market place such as Opensea and YoungParrot. Several international brand such as 9NFTMANIA have their NFT listed on such NFT market places.

Keywords: Blockchain, NFT, Opensea, YoungParrot, Ethereum, Matic, Core.

[1] Blockchain

Blockchain: A blockchain is a decentralized and distributed ledger that records transactions across a network of computers in a secure and transparent manner. Each transaction is grouped into a block, and these blocks are linked in a chronological chain, creating a secure and unalterable record of all transactions. At its core, blockchain provides the decentralized and immutable ledger where transactions are recorded in a transparent and secure manner. This decentralized nature ensures that no single entity has control over the entire system, promoting trust and transparency among participants. The immutability of the blockchain guarantees the integrity of transaction history, making it resistant to tampering or fraud.

1.1 Key Features:

1. Decentralization: No single entity has control over the entire blockchain. Instead, control is distributed among the network participants.
2. Immutability: Once a block is added to the blockchain, it is extremely difficult to alter the information within it.
3. Transparency: All participants in the network have access to the entire transaction history, promoting transparency.

1.2 Applications:

1. Crypto currencies: Blockchain is the underlying technology for crypto currencies like Bitcoin and Ethereum.
2. Smart Contracts: Self-executing contracts with the terms of the agreement directly written into code.
3. Supply Chain: Tracking and verifying the origin and authenticity of products.

[2] Literature review

There were a variety of research efforts in the field of blockchain and non-fungible tokens. Investigating the role that blockchain technology plays in making your greetings valuable was the primary emphasis of Mandeep Gupta (2033). This research attempt was undertaken with the intention of investigating the possible role that blockchain technology may play in considerably enhancing the value of greetings. This aim has been reached by taking into account the well-known blockchain-based greetings NFTs that have been built by Opensea and Young Parrot. New non-fungible tokens (NFTs) are being developed, and the Matic and Core blockchain networks are serving as the basis for these new tokens [1]. In their study from 2020, A. Ghosh and colleagues examined the dependability of blockchain technology as a safe basis for digital currency. Additionally, the writers provide an in-depth analysis of the underlying structure of the blockchain as well as the procedures that are used to carry out Bitcoin transactions. It is [2]. According to K. Wołk et al. (2020), the estimation of the value of cryptocurrencies in the near future was based on a meticulous examination of the buzz that occurs on social media platforms. It is [3]. In the year 2021, E. Şaşmaz and colleagues published their study on public mood with regards to cryptocurrencies, which was based on tweets. Four. M. H. Widiyanto et al. (2023) presented Twitter's massive data collection, which was then analyzed for sentiment in order to get insight into the feelings that Bahasa Indonesians have toward cryptocurrencies and non-fungible tokens (NFTs). In addition, the accuracy of the findings became better, going from 2% to 3%. It is [5]. L. Zhang et al. (2023) concentrated on the NFTs, artificial intelligence, social media, and ethics. They provide concrete proof that the mood of the general public should be taken into consideration while attempting to forecast the future value of CryptoPunks. Furthermore, they provide evidence of the ways in which the systems of valuation have evolved since the year 2021. It is [6]. In 2018, J. Abraham and colleagues concentrated their attention on making forecasts for the cryptocurrency industry. For the purpose of making its forecasts, T ediction used both SA and Tweet Volumes. The purpose of Twitter, which was rapidly being used as a source of news, was to enable the dissemination of information on the money and its expanding popularity [7]. In the year 2022, H. R. HASAN and colleagues contributed to the development of the NFT ecosystem by means of verification, credibility, and incentives. It is [8]. S. M. Raju and colleagues (2020) concentrated their attention on the forecast of the price of Bitcoin in real time by using machine learning and data on public opinion [9]. Zhang et al. (2022) focused their attention on the ethical issues that arise from the usage of non-transferable tokens. There were three different points of view that were considered when analyzing ethical concerns: product development, financial transactions, and relevant interactions on Twitter.

[3] Blockchain used by NFT

This paper is considering block chains such as Ethereum, Matic and Satoshi Core that are used for sale and purchase of different NFT product on Opensea and Youngparrot. However Satoshi Core is new technology. Still it is popular due its less fuel consumption.

Ethereum and Polygon (MATIC) are both blockchain platforms, but they serve different purposes and have distinct features. Here's a comparison between Ethereum and Polygon (MATIC):

3.1 Ethereum:

1. Purpose:

- Ethereum is a decentralized platform that enables the creation and execution of smart contracts and decentralized applications (DApps).
- It introduced the concept of a decentralized world computer, allowing developers to build a wide range of applications on its blockchain.

2. Consensus Mechanism:

- Ethereum currently uses a Proof-of-Work (PoW) consensus mechanism, but it is transitioning to Ethereum 2.0, which will implement Proof-of-Stake (PoS) to improve scalability and energy efficiency.

3. Scalability:

- Ethereum has faced scalability challenges, leading to network congestion and high transaction fees during periods of high demand.

4. Token Standards:

- Ethereum's most common token standard is ERC-20 for fungible tokens and ERC-721 for non-fungible tokens (NFTs).

5. Gas Fees:

- Ethereum transactions require gas fees, and during times of network congestion, these fees can become quite high.

3.2 Polygon (MATIC):

1. Purpose:

- Polygon is a layer 2 scaling solution for Ethereum, designed to enhance its scalability and provide a framework for creating interconnected blockchain networks.

2. Consensus Mechanism:

- Polygon employs a Proof-of-Stake (PoS) consensus mechanism, specifically a modified version known as PoS-secured sidechains.

3. Scalability:

- Polygon addresses Ethereum's scalability issues by providing a framework for building various types of scaling solutions, including sidechains and standalone blockchains.

4. Token Standards:

- While compatible with Ethereum's token standards, Polygon has its own set of standards like MATIC (a native utility token) and MATIC PoS Chain tokens.

5. Gas Fees:

- Transactions on Polygon generally have lower fees compared to Ethereum, making it more cost-effective for users and developers.

Comparison:

1. Scalability:

- Polygon is designed to address Ethereum's scalability challenges by providing a layer 2 scaling solution. It achieves this by offloading transactions from the Ethereum mainnet to its sidechains.

2. Consensus Mechanism:

- Ethereum is transitioning to PoS with Ethereum 2.0, while Polygon already operates on a PoS-based mechanism, which is more energy-efficient.

3. Use Cases:

- Ethereum is a general-purpose blockchain for building a wide range of decentralized applications, including finance, gaming, and more.




- Polygon focuses on improving scalability and supporting various use cases, especially those that benefit from lower transaction fees.

4. Token Standards:

- Both Ethereum and Polygon support similar token standards, making it relatively easy for projects to port their contracts and tokens between the two.

Ethereum is a foundational blockchain for decentralized applications, Polygon serves as a complementary scaling solution specifically designed to enhance Ethereum's scalability and reduce transaction costs. The choice between Ethereum and Polygon often depends on the specific needs of a project and the trade-offs between decentralization, security, and scalability.

Table 1 Different Blockchains

		
Ethereum	Matic	Satoshi Core

3.3 Satoshi Core

The Satoshi Plus consensus mechanism is considering best of Bitcoin along with Ethereum.

Decentralization and security have been ensured through Delegated Proof of Work (DPoW) from Bitcoin mining pools. Scalability along with compos ability have been achieved through Delegated Proof of Stake (DPoS) from CORE token holders.

[4] NFTs (Non-Fungible Tokens)

NFTs are unique digital assets that represent ownership or proof of authenticity of a specific item or piece of content. Unlike cryptocurrencies such as Bitcoin or Ethereum, which are fungible and can be exchanged on a one-to-one basis, NFTs are non-fungible, meaning each token is unique and cannot be exchanged on a like-for-like basis. NFTs leverage blockchain technology to ensure the scarcity, authenticity, and ownership of digital assets. Most NFTs are built on blockchain platforms like Ethereum, which supports the creation of smart contracts and non-fungible token standards (e.g., ERC-721). The blockchain serves as the decentralized and transparent ledger that verifies and records the ownership and transfer of NFTs. Blockchain provides the infrastructure for secure and transparent transactions, while NFTs use this infrastructure to tokenize and represent unique digital assets in a way that wasn't possible before the advent of blockchain technology.

Key Features:

1. Indivisibility: NFTs cannot be divided into smaller units. Each token represents a whole, unique item.
2. Ownership and Authenticity: NFTs use blockchain technology to prove ownership and authenticity of digital assets, such as art, music, videos, and virtual real estate.
3. Interoperability: NFTs can be bought, sold, and traded across various platforms that support the same blockchain standards (e.g., ERC-721 on Ethereum).








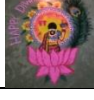
Applications:

1. Digital Art: Artists can tokenize their digital creations, allowing for ownership and transfer of unique digital pieces.
2. Gaming: NFTs are used to represent in-game assets, characters, and items.
3. Collectibles: NFTs enable the creation of digital collectibles, including virtual trading cards and unique virtual items.

4.1 Opensea Marketplace for Matic and Ethereum based NFT

For the purpose of this study, the worldwide market place Opensea, which is where Matic-based smart contracts are posted, was taken into consideration. It is shown in the following table, along with their names, total supplies, and URLs, that some of the most popular NFTs at opensea are located.


Table 1. List of NFT Listed on the Opensea platform

	Name	Total supply	URL	Blockchain
	Bored Ape Yatch	9998	https://opensea.io/collection/bo-redapeyachtclub	Ethereum
	Exclusi ve Bulb	20,000	https://opensea.io/assets/matic/0x47efeee942c3e416632f07b553cabea76b82d4c4/5	Polygon matic
	Happy Diwali Art 1	20,000	https://opensea.io/assets/matic/0x9fca9b08bd2a654ccda41c8257e43fdfa19204a3/5	Polygon matic
	Brush Art 1	20,000	https://opensea.io/assets/matic/0x47efeee942c3e416632f07b553cabea76b82d4c4/4	Polygon matic
	Rangoli 1	20,000	https://opensea.io/assets/matic/0x9fca9b08bd2a654ccda41c8257e43fdfa19204a3/1	Polygon matic
	Rangoli 2	20,000	https://opensea.io/assets/matic/0x9fca9b08bd2a654ccda41c8257e43fdfa19204a3/2	Polygon matic
	Rangoli 3	20,000	https://opensea.io/assets/matic/0x9fca9b08bd2a654ccda41c8257e43fdfa19204a3/3	Polygon matic
	Rangoli 4	20,000	https://opensea.io/assets/matic/0x9fca9b08bd2a654ccda41c8257e43fdfa19204a3/4	Polygon matic

4.2 Young parrot Marketplace for Core based NFT

A non-fungible token (NFT) market place that enables the creation, purchase, and sale of NFT on the Satoshi core chain is known as the Young Parrot Market Place. The current investigation is looking at the possibility of a core chain-based adorable avatar that is offered on the Young parrot market place.

Table 2. List of NFT Listed on the Young Parrot platform

	Name	Total Supply	URL	Blockchai n
	Mystical Wolf	150	https://app.youngparrotnft.com/core/launchpads/mystical-wolf	Satoshi core

	Baby bear	150	https://app.youngparrotnft.com/core/launchpads/baby-bear	Satoshi core
	Young Parrot	10000	https://app.youngparrotnft.com/core/collections/youngparrot-member#Items	Satoshi core
	Smart Cat	1700	https://app.youngparrotNFT.com/core/launchpads/smart-cat	Satoshi core
	Unique Butterfly	100	https://app.youngparrotnft.com/core/collections/unique-butterfly#Items	Satoshi core
	Unigecko	1000	https://app.youngparrotNFT.com/core/launchpads/unigecko	Satoshi core
	Amazing Cat	100	https://app.youngparrotnft.com/core/collections/amazing-cats#Items	Satoshi Core
	Avengers	500	https://app.youngparrotnft.com/core/collections/avengers#Items	Satoshi Core
	Sizzling Monster	80	https://app.youngparrotnft.com/core/launchpads/sizzling-monster	Satoshi Core

5. Conclusion

It has been observed that Ethereum based NFT consumes lot of fuel charges. Thus is suggested to make use of Matic blockchain that is consuming comparatively less fuel on open sea environment. Moreover in case of young parrot there are several block chains. But Satoshi core has been found secure, decentralized and scalable. Thus Satoshi core is preferable while purchasing NFT over young parrot platform.

6. Scope of research

Polygon has a promising future, driven by its mission to enhance the scalability and usability of blockchain networks. As Ethereum faces scalability challenges, Polygon's layer 2 scaling solutions offer a compelling alternative. The platform's multi-chain architecture allows it to support diverse use cases beyond decentralized finance (DeFi) and NFTs, including gaming, non-financial applications, and enterprise solutions. As Ethereum progresses toward Ethereum 2.0, Polygon's role in providing fast and cost-effective transactions through its interoperable sidechains and solutions is likely to become even more crucial. The

continued growth of the Polygon ecosystem, collaborations with projects, and community involvement will contribute to its sustained success. As a result, Polygon is well-positioned to play a significant role in the broader blockchain space. Moreover there is present of satohi Core that is considering huge population and available for NFT for buying and selling on young parrot platform.

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