

NFT AND BLOCKCHAIN AS THE FOUNDATION OF THE METaverse ECONOMY

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Abstract. With Facebook officially changed its name to Meta in Oct. 2021, a new stage of digital revolution has begun, as the metaverse has become a new norm of social networks. Blockchain and NFTs, or non-fungible tokens, happened to be the cornerstones of the modern era. The thesis examines the influence of the two technologies on digital market. Key models such as Play-to-Earn and Create-to-Earn are analysed and their impact on virtual commerce is being highlighted. By reviewing the implementing modern ideas and of legal aspects, the thesis forms an idea of how the global economics would look like.

Introduction. Blockchain is a decentralized, distributed, and public digital ledger that stores transactions in a sequence of cryptographically linked blocks. It was created by a person (or group of people) using the name Satoshi Nakamoto in 2008 for the Bitcoin cryptocurrency. Blockchain technology is based on three key concepts, that are decentralization, cryptography and smart-contracts [1] [3].

NFTs, or non-fungible tokens, are unique digital assets that use blockchain technology for verification. They serve as the proof of owning certain virtual goods such as digital real estate, in-game assets, art pieces, collectibles and avatars. NFTs are based on smart-contracts, such as Ethereum, Solana and Polygon [2].

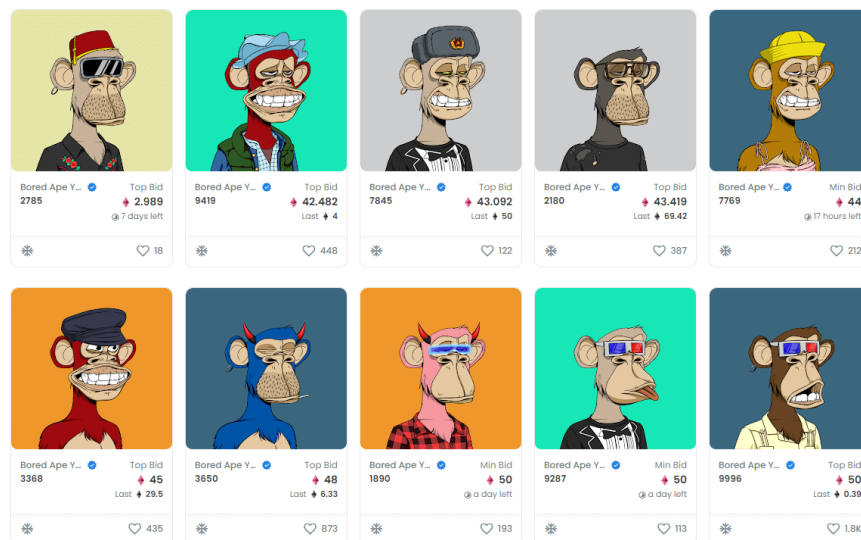


Fig. 1. Examples of NFTs

The metaverse economy includes transparency, security and decentralization, and is based on blockchain technology. Its main concepts are Play-to-Earn (P2E), that allows users to earn various rewards for participating, and Create-to-Earn (C2E), that rewards digital artists for creating content. Axie Infinity and Decentraland are platforms that allow users to trade, monetize, and engage with NFTs, and in such a way they demonstrate these concepts. Virtual worlds provide dozens of opportunities for monetization. Some of them are:

- Trading virtual goods.
- Selling, leasing, or hosting experiences on virtual real estates.
- Using NFTs as subscriptions for gaining access to special events.
- Using cryptocurrency or NFT fees for monetizing virtual events.

Metaverse economy connects both digital and physical marketplaces to redefine the industry and supply with job opportunities and entertainment options. The ideas develop and metaverse has all the potential to grow into a global economic environment [2] [3].

With NFTs gaining popularity in the metaverse, more and more legal issues have arisen. They vary from intellectual property rights to taxation, highlighting the importance of defining structures that are to regulate the difficulties. It is vital to preserve the sustainability and equity in the metaverse economy, as with the absence of proper regulation, the reputation of the system would be completely vanished.

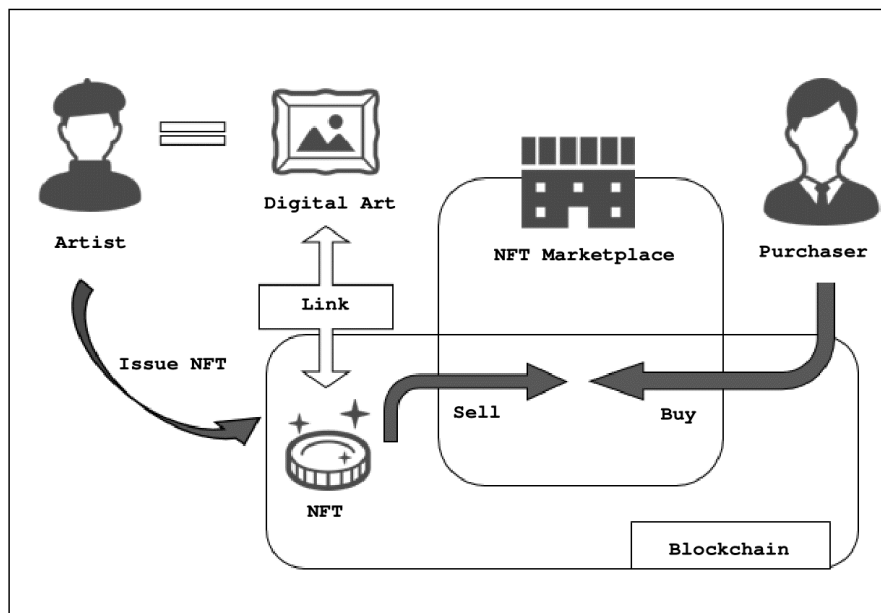


Fig. 2. Mechanism of NFT transactions

Both NFT purchasers and artists should stick to intellectual property rules as it is still unknown who has the right to own the NFT. There are NFT classifying concerns, whether they are assets, commodities, or digital goods. Moreover, taxes are also being discussed by the governments that are looking for an optimal solution to regulating the problem. The way blockchain transaction are committed might not

be regulated by the legal norms. It is necessary to protect customers that might experience fraudulent activities and deceptive marketing strategies. By implementing legal guidelines, the metaverse economy would be sustainable and trusted by many [4].

The rapid growth of the metaverse and NFTs has left its mark on global economics and digital interactions. Its future is predicted to be bright, as more and more ideas are being implemented nowadays. However, it is necessary to cope with all the legal, ethical, technical and environmental obstacles. NFTs would probably become the foundation to digital economics, including various daily life aspects [5].

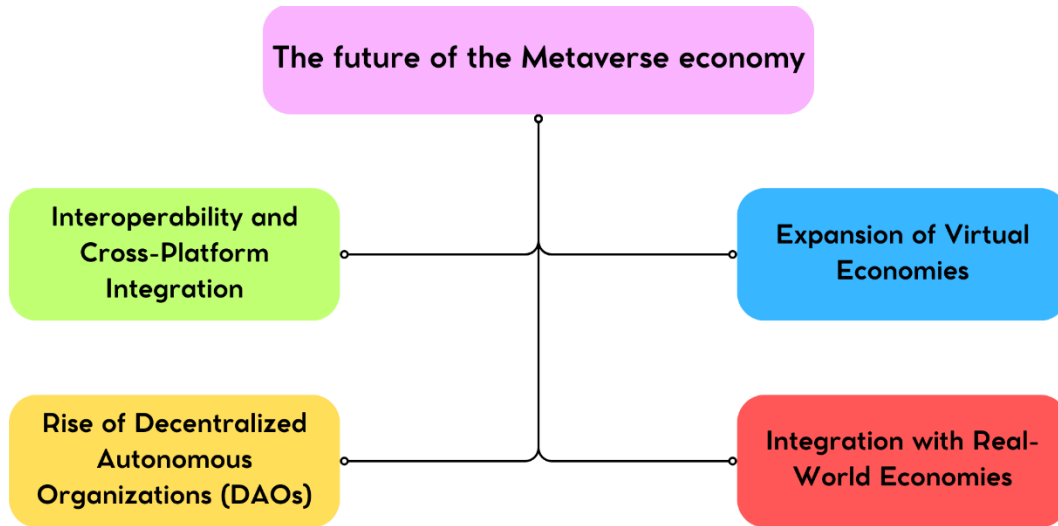


Fig 3. The future of the Metaverse economy

Summary:

The thesis declares the ways in which blockchain and NFTs are influencing the world of metaverse economics. NFTs give users the right of individuality, allowing them to own and create new virtual goods. Play-to-Earn and Create-to-Earn models, supported by blockchain, guarantee safe and decentralized transactions. NFTs and blockchain have all the inclinations to become something crucial and revolutionary to the global economics despite legal and environmental concerns.

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