Description of the technology -- NFT+Finance

Non-Fungible Tokens (NFTs) differ from Fungible Tokens (FTs), which were originally used for digital ownership and collectibles. NFTs emerged to meet the growing demand for unique, verifiable digital assets. Their ability to provide scarcity, verifiability, and immutability has expanded their value beyond collectibles, driving innovation in finance with services like collateralized loans and tokenized assets.

According to Popescu (2021, p. 26), “a Non-Fungible Token is a representation of a unique digital asset that cannot be equally swapped or traded for another NFT of the same type.” Additionally, NFTs can represent both digital and physical assets, such as video clips and artwork, within a network. The underlying technology behind NFTs is blockchain, which Musan (2020, p. 7) defines as: “a decentralized network that keeps transaction records and acts as a source of trust. The data stored on the blockchain is immutable and updated by the peer-to-peer network.” This ensures that NFTs have a verifiable property, as their authenticity can be easily proven by tracking their transaction history on the blockchain.

Popescu (2021) further highlights several key properties of NFTs within the financial ecosystem. These include limited supply, which ensures scarcity and helps maintain market value; indivisibility, meaning NFTs cannot be broken down into smaller parts, which aids in determining their value; and indestructibility, which protects the value of NFTs, as the data associated with them cannot be destroyed or altered.

Additionally, NFTs incorporate fixed components to implement the aforementioned properties. According to the ERC-721 standard (Ethereum.org, 2025), each NFT is identified by a unique tokenId and a contract address.

Currently, NFTs have gained significant popularity in the finance industry, giving rise to the concept of NFTFi. Positioned between NFTs and decentralized finance (DeFi), NFTFi aims to provide financial services outside of traditional systems (such as bank transfers or cash) (Coinbase, n.d.). This has significantly increased liquidity and opened new opportunities within the NFT market.

Why NFT is a “Disruptive Innovation”

According to the Week 3 lecture slide, disruption is “a process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses.” Disruptive innovations typically emerge from two footholds: low-end and new-market.

The low-end foothold primarily targets customers who are over-served by existing products. As the slide states, it “comes at the bottom of the market and takes hold within an existing network before moving upmarket and challenging the incumbent” (Week 3 lecture slide, p. 43). An example is Xiaomi, which is seen as a lower-cost version of Apple. While its phone functionality isn’t as advanced as Apple’s, it meets the needs of over-served customers.

The new-market foothold focuses on creating a new market. Specifically, it provides functionalities not offered by existing products. As the slide notes, it “takes hold in a completely new value network and appeals to customers who have previously gone without the product” (Week 3 lecture slide, p. 43). A prime example is the personal computer. According to Harvard Business School Online (2022), “the personal computer created a new market segment that wasn’t being served by mainframes: individuals.”

Based on the definitions provided, NFTs are disruptive innovations because they create new-market footholds. Unlike Fungible Tokens (FTs), which are interchangeable, NFTs are unique and represent one-of-a-kind items. This uniqueness allows NFTs to open new markets, such as enabling artists to monetize their work. However, NFTs cannot be considered low-end disruptive innovations, as they are not a simplified version of existing products.

Reference

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