

WHAT ARE NON-FUNGIBLE TOKENS AND HOW DO THEY WORK?

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The paper discusses the term of a non-fungible token (NFT). It covers the definition, history and characteristics of NFTs. The paper also deals with the topic of profiting from the sale of unique tokens. Due to the fact that the purchase of NFTs is very different from the usual collecting, the paper considers the emergence of new market trends.

First of all, you need to know what NFT is. The abbreviation NFT stands for a non-fungible token, also known as a unique token. NFT is a new solution to a problem as old as the Web: the endless copying of digital information on the Internet. When bits, files and pixels can be copied and pasted with a few clicks, concepts like ownership, originality, and access control often disappear. It is a digital asset that represents any unique object in the real world [1]. In fact, anything can be an object: music, images, text, video, 3D models (i.e., any digital product that claims to be unique). In the end, instead of hanging a real oil painting on the wall, the buyer gets a digital file. Collectors, gamers, artists and art lovers pay special attention to NFTs.

The same tokens are stored in the blockchain – a huge chain of blocks, each of which contains information. These blocks are stored on multiple computers at the same time without a central node. This kind of encryption makes the blockchain very difficult to hack, because you will be able to hack one block of information at best, and not the entire chain. That is why most of the cryptocurrencies work on the blockchain. One security risk for NFTs is that you can lose access to your unique token if the platform hosting the NFT goes out of business. A token is a record in one of the blocks, and there can be a lot of such records of the same type. For example, each individual bitcoin is an exact copy of another such bitcoin, which makes it possible to compare them with a currency. This means that they can be sold or exchanged one for another. Unlike cryptocurrencies, NFTs cannot be traded or exchanged for equivalence. An NFT is a way to transfer unique items from the real world to the blockchain. There is only one copy of a particular token. Thereby making it impossible for NFT to be equal to another. Like a bitcoin, tokens also contain ownership details for easy identification and transfer between token holders.

The history of NFT is very interesting and unusual. Although blockchain and cryptocurrencies have been known for years, NFTs are a relatively new phenomenon. They first appeared back in 2017 on the Ethereum blockchain platform. The popularization of NFTs started with CryptoKitties, a game which allows you to raise virtual cats. Each kitten is unique and has a price. They produce a new generation that has different unique characteristics compared to their parents.

NFTs are used in various fields. In the beginning, NFTs were created as an opportunity for digital content creators to make money thanks to collectors, gamers and art lovers. Now the main direction is the monetization of popularity. The record for the money earned from the sale was the painting “Everydays: The First 5000 Days” by the artist Beeple. It consists of all the images painted by the artist every day for five thousand days. The painting was sold for \$69 million in 2021. Another example of the possible use of NFTs is the purchase of digital tickets for a concert, football match or any other event. Because they are based on blockchains, NFTs can also work to remove intermediaries, simplify transactions and create new markets [2].

The next thing to talk about is the sale of tokens. There are many platforms that work with NFTs. Well-known services include OpenSea, Rarible, Niftygateway and SuperRare.

One of the main reasons why NFTs are criticized is a rather confusing relationship between tokens and copyrights. NFT ownership does not guarantee full rights to the item. But this is not the most significant thing for collectors. Exclusivity is what carries the main value. Blockchain securely records the fact that it was you who purchased this unique item. Collectors value these “digital bragging rights” almost more than the item itself. But NFTs can be seen as more than just part of a collection. The ability to resell NFTs allows you to consider them as an investment as well.

NFTs have already become very popular, and interest in this topic will only grow. NFTs are an evolution of the relatively simple concept of cryptocurrencies. Modern financial systems are made up of complex trading and credit systems. By providing a digital representation of physical assets, NFTs are a step forward in updating this infrastructure. Platforms are already introducing various innovations and attracting investors. One of the potential applications of NFT in the future is the recording of unique

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documents in the blockchain. Thanks to the security of the blockchain, diplomas, certificates, and various documents can be issued in NFT format, potentially helping to eliminate the risk of forgery.

References:

1. What Are Non-Fungible Tokens and How Do They Work? [Electronic resource]. – Mode of access: <https://nationalcybersecuritynews.today/what-are-non-fungible-tokens-and-how-do-they-work-cybersecurity-cyberattack/>. – Date of access: 19.03.2022.
2. Non-Fungible Token (NFT) Definition [Electronic resource]. – Mode of access: <https://www.investopedia.com/non-fungible-tokens-nft-5115211>. – Date of access: 19.03.2022.