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NFT AS THE BASIS OF DIGITAL SPACE*Tsiunchyk D.R.**Belarusian State University of Informatics and Radioelectronics, Minsk, Republic of Belarus**Kushnerova S. E. – lecturer of the department of foreign languages*

Annotation. This article explains what NFT technology is, why it has become so widespread and what its applications already exist. We will analyze whether it is a temporary hype or our common future in the digital world and classify the key advantages and disadvantages of this technology. Finally, the article describes the situation that has developed in the market regarding NFT technologies.

Keywords: blockchain, NFT, financial products.

In 2022 everyone has already heard about such a revolutionary technology as blockchain. But its use is impractical and expensive for storing and maintaining big data. If to consider videos, music, high-resolution images, social networks - traditional blockchain is not suitable for storing all the above-mentioned. During the development of blockchain technologies, NFT solved this problem.

A Non-fungible token is a file in which a unique sequence of characters is embedded, in which information about the owner and authenticity of the token is encrypted. The transfer is carried out using transfers based on the Ethereum blockchain, the so-called “smart contracts”, and the cost, as in any market, is determined by the “supply-demand” scheme [1].

Any common items (ex. headphones) are interchangeable goods: an unlimited number of them can be released and they will all be the same. Currencies and cryptocurrencies also have the property of interchangeability, but in addition they are also subject to fragmentation, for example, a dollar can be exchanged for two 50 cent coins. In contrast to them NFT cannot be replaced by an analog or divided into parts.

There are two ways to create NFT: either independently minted in the blockchain using a programming language or created on special platforms where the process is automated. In the second case it is enough to register on the site, upload a file, attach a description and pay a commission. Moreover, files can be of any format: text, photos, videos, 3d models, and even domain names for websites.

Secure digital ownership and authentication open up new forms of application on a daily basis. The main areas are considered:

1. Art and collectibles.
 - The oldest auction house Sotheby's put up for sale NFT in April 2021 and earned \$100 million in a year. According to Christie's, in 2021 NFT sales accounted for 8% of total sales of works of contemporary art [2].
2. Tags for determining originality.
 - In 2019 Nike patented a system called CryptoKicks to verify the authenticity of physical sneakers [3].
3. Advanced Financial products.
 - Lending secured by NFT. This is possible due to the steady growth of verified NFT collections. (NFTFi)
 - Using NFT technology as an insurance contract: "Insure from Yearn Finance".
4. Social networks.
 - In January 2022 the social network Twitter announced the introduction of NFT.
5. Gaming industry – GameFi.
 - In December 2021, Ubisoft announced Ubisoft Quartz, "NFT initiative that allows you to buy artificially scarce digital items using cryptocurrency" [4].
6. Metaverses.

– A social world where you can spend time - having fun with friends, socializing, receiving banking services or working. A place where you can organize a business meeting, a new concert or a project presentation without wasting time and money.

In the coming years, the sphere will continue to develop and we'll see examples of use in new, non-obvious areas of activity. At the moment, NFT is the key to the most important technological trends of the decade. NFT makes cryptocurrencies and blockchain more accessible to the mass user.

Let's define top advantages of blockchain and its components for NFT:

1. Digital ownership and authentication of the NFT tag.
2. Creating and selling an NFT is technically an easy task and can be done by anyone.
3. Decentralized data storage.

– At the moment, data on smart contracts and NFT cannot be hacked, stolen or changed.

4. The speed of work is around a million transactions per second.
5. Low commissions.
6. Proof of copyright and deductions

–The author can set royalties from the sale of his NFT. If the NFT is resold later, the author will receive a percentage of the profits.

7. Scalability.

– Blockchain is ready to accept billions of people into its ecosystem [5].

Due to the widespread use of NFT technologies and their integration into our daily life, a number of problems have appeared:

1. Fraud based on NFT.
2. The ability to disable the server that stores links to keys.
3. With the purchase of NFT, no copyrights are legally transferred to the user. There is another situation when the existence of NFT violates the copyright.
4. The absence of large-scale universally recognized projects.
5. Investment risks [6].

However, all these problems can be solved. NFT raises a lot of legal and technical disputes, but as the market matures, they will be resolved. Besides, the advantages of NFT always have the upper hand over the limitations. It is possible to address the existing limitations of NFT with slight adjustments and ensure the best results.

There is no doubt that NFT is a promising technology that will stay with us for a long time. It was recognized in 2017 and developers from all over the world are in the process of integrating it, searching for its application in all possible forms. Furthermore, the NFT space is fast-changing and new projects pop up every day. It is difficult to predict the future of NFT, but one thing is for sure, it is here to stay. One important factor is the ability of NFT to provide utility in games and other applications.

In my opinion, at the moment the main problem of NFT is that the projects lack a flagship, there is no universally recognized project or example to rely on. Many companies have taken a wait-and-see attitude and are monitoring the market situation. As soon as this project appears, this one will become a new round of digital progress, comparable to the appearance of the opportunity for everyone to enter the digital space.

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