



BLOCKCHAIN TECHNOLOGIES AND THE FUTURE OF ART

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Abstract: In this paper, we follow the position of art, artists and works of art with regard to the conditions in which the work of art is created, in an environment ruled by capitalist relations and the high-tech environment that accompanies them. The transition from analog to digital formats has opened new perspectives for artistic creation and distribution of works of art, but also problems related to copyright protection and fair monetization of works of art. The advent of blockchain technology, especially the Ethereum blockchain platform with open source technology and smart contracts, has enabled more efficient communication, distribution and monetization of artwork. The focus of this paper is especially narrowed on the emergence of NFT (Non Fungible Tokens) that can be carriers of the value of a work of art. They enable the uniqueness of the work to be maintained through controlled scarcity. We will present the ERC-721 standard, which enables the creation of NFT, as well as the first five leading platforms for placing NFT tokens on the blockchain through selected examples.

Keywords: artwork, value chain, copyright, blockchain, NFT.

Art and work of art

In this paper, we start from the assumption of the existence of beauty as a consequence of human sensory perception of the external environment. In that sense, the notion of beauty presupposes the ability to perceive the harmony and relationship of the constituents of the natural environment (matter, light, sound) as well as the ability of man to create his environment on the same principles or principles that he has established over time. We call this human ability to recognize and create according to the principles of beauty- art, the products of these efforts are works of art, and their authors are artists.

“Aesthetic behavior is also present in primitive cultures. The fact that the basic motivation in creating an object or in the manifestation of a certain behavior is not of an aesthetic character, does not mean that it is completely absent” (Kon, 2001, p.41). Aesthetic expression was an expression of being-in-the-world, but not of disinterested aimless liking, that is, it was directly related to the circumstances of human lives. Their default monetization was part of the overall economy of everyday life. The understanding of art as a separate sphere in which works of art are created can be linked only during Romanticism. It was a time when the narrow circle of aristocracy, for the sake of their own hedonism, could still afford the environment of top artists and creators of top works of art, which today we call classical or elite art, i.e. culture in the narrower sense of the word. With the disappearance of the ancient regime and the aristocracy with it, in late Romanticism from the middle to the end of the 19th century, the “heroes” of art slowly disappeared and their great works remained behind.

As soon as it has emancipated itself as a special, separate sphere of social life that has value in itself, art enters into a tense relationship with the new order that strives for increasing levels of economic rationality. On the one hand, on the waves of romanticism, art sees itself as a form of self-awareness of the spirit, a free and uninteresting activity that exists for its own sake and aims to tear us out of vulgar everyday life and direct us to higher spheres of spirituality. On the other hand, capitalism and the market economy recognize as value only that value which can be valorized on the market through solvent demand. Capitalism has built an environment in which the same rules apply to all products of human activity. And those are the expansion of competition in all sectors of society, including art, all on the basis of its four basic constituents: actors, their relationships, feelings of scarcity, desire for something. (Brunsson et al., 2020.)

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Artists, together with their works, in the conditions of socially designed competition as the foundation of the functioning of capitalism, very quickly found themselves on the periphery of social life. The very function of the work of art has changed, because the position of those who create those works has changed. The work of art becomes a commodity with its use and exchange value, and from then until today one of the basic preoccupations of the artist becomes the monetization of the work of art. On the other hand, economies of scale and capitalism as a system that feeds on mass consumption of material goods, are rapidly developing their technological base, which significantly affects the forms and techniques of artistic creation, as well as channels for distribution of works of art and their monetization. All arts as well as works of art become part of the industry - music industry, film industry and the like. In general, the entertainment and leisure industries.

It can be said that “the emergence of art was a short-lived adventure of humanity that lasted several centuries, that the time of art as a specific activity and a special view of the world, the time of art as another reality ended” (Uzelac, 2011, p.23). In the modern world, the aesthetic phenomenon is no longer manifested only in art, but is spreading to other spheres of human life, while aesthetics finds its foothold in direct contact with the media experience. (Vučković, 2007).

Art and money

For a long time, in the conditions of commodity-money relations, before the appearance of digital formats of works of art, the work of art was a whole in which material and intangible values were united. The value chain is largely the same as for other industrial products, with small differences in the key points where the highest value is generated. From scores, books, paintings, to film, LP and other “sound carriers”, the market for these products, as well as the capital generated around them, has grown throughout the twentieth century. The emergence of mass or popular culture, mass media and the growing connection between art and other industries (art in the function of design, marketing) accelerated the monetization of works of art and thus affected the overall social position and reputation of artists. Looking from that narrow point of view, we can say that it was a “golden age” for art, or for what is still left of art, artists and works of art.

When we look at the relationship between art and the capitalization of a work of art, we always start from the assumption that art is the reflection of humanity, goodness, trueness and beauty. The tension between art and money arises because in civil society art is seen as a kind of moral category, that it transcends everyday life, that is, it becomes a critical instance wherever its difference from morally debatable everyday life is noticeable (Graskamp, 2003). Is this immanent, critical, distance from the world in which the work of art is created, a sufficient reason that the issue of monetization of the work of art, the relationship between art and money, has a constant connotation of the tribunal that judges the moral obligations of the work of art? Instead of answering, we will ask a question; What is the difference between the institution of patronage in the Romantic era when classic art masterpieces are created, sponsorships and collectibles of large corporations, private collectors, state funding of culture or keeping works of art in digital wallets on a blockchain?

Somehow, at the end of the 20th century, as a logical consequence of this sequence of events, a concept emerged that symbolically unites this transformation and the symbiosis of art and capitalist logic, and that is the concept of cultural and creative industries. Although these “new industries” placed art in the narrower sense at the center of creative activities, this final and official imposition of culture and art into the economy only led to its even greater instrumentalization, reduction and blurring of its overall significance for wider social transformation. not just for economic growth. (Bajac, 2019).

A work of art in the digital age - from digital abundance to digital scarcity

Napster, the first internet platform for sharing music files, has fundamentally changed the music business and opened up moral dilemmas and problems of monetization of the work of art, which we have not seen the end recently. The fall of the Berlin Wall, the process of globalization and the creation of a single world market, and then the third, digital technological revolution, opened completely new perspectives and possibilities, but also problems and dilemmas related to the position of art, artists and works of art.

In the analog age, before these social and technological changes, it was harder to create an authentic and original work of art, but it was easier to preserve its value through scarcity, i.e. uniqueness, uniqueness (whether it is one copy or many controlled replicas), and thus the intellectual property over that artistic product. The digital age has brought digital technologies that have reduced the entire



observable world around us to ones and zeros, to binary code. Software tools with increasingly strong hardware support have opened up new perspectives for artistic creation in terms of creativity, technical possibilities, new art forms and directions, communication and distribution of artwork. It also enables a kind of democratization of art and the transience of talent without formal art education, because, as Howard Becker says, art creates a multitude of people, art worlds, not artists. "Many people with different talents contribute to artistic activity and the creation of the end product, but most do not receive recognition for that" (Aleksander, 2007, p.126).

All earlier, analogous contents, and even traditional art forms such as theatre performances, musical spectacles, live performances, etc. could be transferred to the digital format. The initial euphoria quickly subsided with the wider use of the Internet, increasing network bandwidth and making more powerful hardware devices cheaper. Content in digital formats could be freely reproduced and shared through the network, unauthorized (mis) used even for commercial purposes, without compensation to authors and respect for intellectual property. The development of the Internet, WEB2.0, which enabled interactivity, social networks and platforms, personal computer networking and peer-to-peer technology, opened a dark era in the field of artistic creation, as far as authors and the protection of their intellectual property are concerned. Attempts at legal regulation, digital protections, encryption and software applications have not significantly helped content authors in the fight to protect their intellectual property and monetize the artwork online and offline. Many industries have preferred to completely reorganize and transform the value chain, rather than exhaust themselves in the fight against piracy. Digital abundance flooded the web, it was enough to "reach out" (or click the mouse) and reap the fruits of other people's work and talent. In addition, art, the artist and the work of art were faced with the same, if not greater, problems than any other market player. The value chain, as well as the points where the highest value is generated, i.e. monetization of the work of art, were not under control and in favor of the artist as a creator of values, and therefore the recognition of the importance of art in society. In order for the value chain in the digital age to be fair and stimulating for all who participate in it, and especially for the artist, it is necessary to meet the following conditions:

1. That there is a single relevant database on all aspects of copyright in a work. However, in contrast to the global Internet art market, there are various national legislations governing intellectual property rights, as well as national databases and intellectual property protection agencies. These databases are not networked, coordinated and very often not relevant and updated.

2. To pay for copyrights to be fair and regular. However, payments are irregular, according to various criteria, always with the mediation of third parties, with many items of deductions, so that in the end the share of artists as creators of value is the smallest. In a word, the distribution of newly created value is not fair, and always to the detriment of the artist.

3. Transparency in value and access to relevant data. In practice, access to relevant information relevant to the creator of the work of art and the main generator of value is difficult, non-transparent if not impossible. Not only in the number of copies sold, but also in other information that would direct the artist in his behavior towards the audience, generally the market for his works of art.

Piracy and the non-fulfillment of the above-mentioned conditions have proven to be the main and unsolvable obstacles that the artist, the creator of the work of art, encounters. The digital revolution, like any other revolution, seemed to have eaten its own children.

Blockchain technology - light at the end of the tunnel?

Man creates new technologies in order to adapt to them later. Morality and the issue of trust among people have always been topics of discussion, and have never received a final epilogue. When it seemed that the war of trust was lost, a light appeared at the end of the tunnel, hope in the form of blockchain technology. In code we trust! His Majesty the Algorithm has emerged. He is relentless, incorruptible, impartial, has no ideology, and has the potential to circumvent all our weaknesses. Algorithmic regulation is based on the belief that automated decision-making processes are less flawless and malicious than people and their institutions.

Today, everyone who plans to function efficiently and purposefully, creates and exchanges the products of their work as values, in addition to narrow professional knowledge and talent, must also have basic knowledge of Internet technologies. Platforms based on new technologies, especially blockchain technology, have simplified the user interface to the maximum and do not require detailed knowledge of that technology. However, it is necessary to make an effort to acquire some basic knowledge that is necessary for the use of these useful platforms, especially for the placement of works of art, their protection from unauthorized exploitation and finally their fair monetization.



Blockchain technologies or Distributed Ledger Technologies (DLT) technologies are technologies that allow parties to share any type of digital value (including works of art in digital formats) on an equal basis without third parties or intermediaries. The blockchain is run through a distributed network of participants who follow the same rules defined by the algorithm to verify and add transactions to the blockchain. The most well-known consensus mechanism is the “Proof of Work”, which relies on the processing power of computers. The whole process is called mining, and miners are rewarded with cryptocurrency (Bitcoin, Ether) for the processing power involved when validating the transaction. The basic values on which this technology is based are: decentralization, immutability, transparency, security, privacy, openness.

In 2008, the Bitcoin blockchain released a person or entity under the pseudonym Satoshi Nakamoto into the hacking community. The first cryptocurrency transaction, Bitcoin, took place in January 2009. From then until today, no one has managed to disrupt the work of this platform, firstly, because the consensus algorithm is so clear and independent, even from the creator, secondly, its sustainability Bitcoin blockchain is based on complete decentralization, because it is managed by the entire community chain and decided by consensus (developers, nodes and miners) and third, fair incentives for all participants in transactions, rewards for fair behavior, which makes them interested in keeping the system functional and reliable. Bitcoin blockchain is used exclusively for money transactions without the mediation of third parties (banks, states). With this technological design, Nakamoto has managed to invent digital scarcity and even absolute scarcity of value. Until the discovery of Bitcoin, scarcity was always relative, never absolute (Amous, 2018). This concept is also called blockchain 1.0.

What has completely revolutionized the concept of decentralization and opened up the perspective for art, artists and works of art is the launch of the Ethereum blockchain, or blockchain 2.0. With this concept, the Ethereum blockchain has expanded the possibility of transactions to all types of value, not just money transactions. Ethereum is a general purpose blockchain that can have different types of applications running on it. Nakamoto's concept of absolute, i.e. controlled scarcity is fully applicable to works of art in digital and traditional formats. The contribution made by Ethereum blockchain is reflected in three things: first, the concept of smart contracts, second, a new stage in the evolution of the Internet, namely WEB3.0, and third, decentralized autonomous organizations (DAO).

Smart contracts are computer programs that are able to enforce the terms of an agreement between the parties without the need for human coordination or intervention. Smart contracts can define rules, like a regular contract, and enforce them automatically by code. Smart contracts are self-executing, cannot be deleted, and interactions with them are irreversible. For example, a contract between the author of a work of art and the platform for its distribution or the user-buyer of the work of art. The way at which transactions are verified and added to the blockchain guarantees its reliability.

WEB 3.0 or decentralized WEB. The first two versions of the WEB are characterized by the possibility of wide use, but also benefits, especially financial, for a very narrow circle of entities, all thanks to its immanent tendency to centralize decision-making, data collection and disposal. WEB2.0 is directly responsible for the enormous concentration of power of several internet platforms such as Facebook, Amazon, Google, YouTube, Twitter, Uber, RBNB and the like. These platforms did almost everything just for themselves and their owners, and almost nothing for their users. They gained not only media, economic, but also enormous political power, enabling a new era of supervisory capitalism and “an online world that is not subject to earthly laws” (Zubof, 2019, p.119). Through WEB3.0, which is on a blockchain, i.e. fully distributed to a huge number of computers (and not just one server, as is the case with, for example, Facebook, YouTube, Amazon, etc.) and self-executing smart contracts, the possibility of effective copyright protection rights to works of art (controlled scarcity or in the case of NFT and preserved complete uniqueness of the work of art in digital and physical form).

And finally, decentralized autonomous DAO organizations are organizations that operate through rules coded as computer programs, already described above, smart contracts. Based on these rules, it performs actions for the benefit of shareholders. DAO is a computer algorithm that applies token ownership rights, contractual obligations, and business logic rules. Token owners accumulate power and capital by founding organizations with their own money and thus have real decision-making power, which would finally end the separation of art ownership and control over its monetization. DAO as such, then they can be fully dedicated to managing the placement of works of art, rights to use, auctions and all for the benefit of the author of the work of art. Blockchain technology and the mechanism of smart contracts can solve problems related to the unauthorized use of intellectual property as well as unfavorable relations in the value chain of monetization of a work of art, which has always been to the detriment of artists, i.e. value creators. How?

1. By creating a global, transparent and decentralized blockchain database on the copyright of all artistic creations set up, updated and modified by the authors themselves, thus avoiding many national



databases that are often controversial, incomplete, out of date and uncoordinated globally.

2. By initiating self-executing smart contracts, the original creator of a work of art determines who, how, when and at what exact price can use or redeem his works. (Taghdiri, 2019, p.186). Execution of a smart contract through a blockchain network eliminates the need for intermediaries who appropriate a significant part of the profit and irregularly pay the authors the amounts defined by classic contracts. By the act of purchase, the smart contract automatically, immediately after the validation of the transaction on the blockchain by the node-miner (which lasts about 10 minutes) transfers the amount in cryptocurrency to the wallet of the author of the work.

3. Transparency and immediate access to information enable the author of the work to have insight not only into the sale of his work, but also into a multitude of other data that are important for his strategy of access to users and buyers of his works of art.

There are many platforms and projects that deal with copyright protection of works of art, such as Micelia Creative Passport, which was created and supported by the famous singer Imogen Heap. "Creative Passport Database is a unique copyright database within the music industry. All content creators and fans can access Creative Passport for free, but third parties who want to use the data for commercial and licensing purposes must pay a fee. After that, the basic blockchain technology according to the principles defined in the smart contract enables the direct distribution of these fees to creatives, passport holders (content creators) When it comes to the music industry, this platform is especially useful for less known authors who are not backed by major record labels" (Taghdiri, 2019, p.186).

While technology already allows these platforms to work in practice, current copyright laws make it difficult to use blockchain technology. Changing, globalizing and harmonizing copyright law on works of art would enable the blockchain to be more widely accepted. Also, due to the inertia of the actors, a comprehensive transition to a blockchain-based platform may seem too tedious and complicated effort for both, content creators and users. Intermediaries and financiers will probably try to stifle any form of blockchain-based revolution because it threatens their privileged position in the distribution of profits. Then, the technology will remain limited until the vast majority of the public gets closer to blockchain technology and cryptocurrencies that use blockchain DLT as a platform. NFT technology (Non Fungible Tokens) marked the year 2021, generating a market of NFT works of art on Ethereum blockchain, worth hundreds of billions of dollars.

NFT revolution

"One of the most useful advantages of Ethereum is its ability to create unique tokens as value carriers, with different functionalities" (Ali et al., p. 53, 2021). Ethereum Request for Comments (ERC) are standards for creating different types of tokens, which allow applications and smart contracts to communicate with them in predetermined or pre-planned ways (Ali, Bagui, 2021). Anyone can create their own token, for free and easily on the Ethereum blockchain. There are several ERC standards for creating tokens with different functionalities. ERC-20 is a standard for so-called exchangeable tokens, which can be exchanged with other tokens and cryptocurrencies within the Internet community. "This standard was used to re-invent the concept of crowdfunding, by introducing Initial Coin Offering (ICO)" (Ali et al., p. 54, 2021). This has opened up opportunities to launch innovative art projects that official institutions do not recognize as the internet community does.

ERC-721 (Ethereum Request for Comments 721), is a free open standard that allows the construction of irreplaceable or unique tokens on the Ethereum blockchain (Ali et al., 2021). These unique tokens are called NFT - Non Fungible Tokens. The main characteristic of NFT is uniqueness, which means that it cannot be exchanged with other tokens, and that makes it the most appropriate way to identify something that is unique and is the basis for creating artificial digital scarcity. Uniqueness is guaranteed by NFTs, because there is only one token that has a specific characteristic and is completely different from any other NFT that is present on the market. Moreover, there is only one official owner, and the ownership is provided by Ethereum blockchain, which guarantees that no one can change the ownership records or copy the same token (Ali et al., 2021). With NFTs, any digital work of art, even a real-world work, can be tokenized to create a digital certificate of ownership that can be bought and sold on blockchain-mounted platforms. NFTs are associated with a variety of digital works, including videos, text, animated gifs, 3D images, and audio.

"Every NFT has a creator who decides on the element to which he wants to apply the ERC-721 standard, in order to become a digital asset. Creator can:

- Easy to prove that he is the creator, the owner of a particular NFT.
- Determine the scarcity, determine how many replicas there will be. To make the tool unique, the



creator can create an NFT where only one is “forged” as a special, rare, collector’s item.

- Earn royalties each time it is sold. Some creators can program royalties into it, so that every time an item is sold from one owner to another, they earn a percentage as royalties.

- Sell it in any NFT market. The Creator will not be tied to any platform and will not need anyone to mediate in transactions” (Ali et. al., 2021).

This solution has given a huge boost to the digital art and digital collectibles market, which today is worth more than hundreds of billions of dollars. There are several NFT categories, the most common of which are art, collecting, games, metaverse, etc. Currently, popular artists are experimenting with NFTs, as digital art in this format has emerged as the best, perhaps the only option for proof of ownership, immutability, desired scarcity, and tracking the origins of irreplaceable tokens.

NFT markets

We can identify the most popular NFT markets using two metrics: the number of digital wallets used by the market and the total volume expressed in US dollars¹. We will list the first five ranked NFT markets.

OpenSea, which is available on Ethereum and Polygon Blockchain networks. In August 2021, OpenSea recorded a trade volume of \$ 3.4 billion through 2 million transactions. The market imposes a 2.5% fee on sellers and accepts three currencies. It supports two types of sales: on-time auctions and a fixed price. The maximum file size is limited to 100 MB, while the most dominant categories on the market are art, collecting, sports, metaverse and virtual worlds, as well as domain names. It was founded in 2018. and provides royalties according to the wishes of the artist.



Title: EGGTOMATON # 259
Collection: Eggtomatons²
Author: EGGTOMATONSDEPLOYER
Price: 261.03 USD

Rarible is the second most popular NFT market. It imposes a fee for both ends of the transaction (seller and buyer) which pay 2.5% each. Rarible is owned by a decentralized autonomous organization DAO. It supports slightly more currencies than OpenSea, while having its own platform currency, \$ RARI; Rarible allows for two types of sales: auctions and fixed prices. The maximum file size is limited to 30 MB, while the dominant categories that support it are: art, collectibles, music, photography, metaverses, sports, domains and memes. Rarible has been active since 2020.

¹ https://www.eublockchainforum.eu/sites/default/files/reports/DemystifyingNFTs_November%202021_2.pdf

² https://opensea.io/collection/eggtomatonscollection?fbclid=IwAR00iEtJrxDdz2YaOBrHNV_8tMd0opTEQeXGDzX5Wn0xgqD1v3N-5b2VViQ



Title: BEAST³

Author: MaxDbv / Owner: StellarMirage

Price: 2,550.00 USD

(The author has a 15% fee from the sale value for each subsequent sale)



SuperRare is third in terms of market rankings. Compared to the previous two, collaborating with artists, it also positions itself as a social platform for empowering and promoting crypto art. It imposes a 15% fee on sellers, while accepting only Ether as the payment currency. It supports three types of shares: timely auctions, fixed prices and open bids. It currently supports limited file formats, with a maximum size limited to 50 MB. The main supported category is fine digital art. SuperRare has been in business since 2018.

Title: TRICKERY CONTAGION⁴ - Author: botto

I respect and admire the work of Picasso, Mira and Kandinsky, and I felt the need to pay tribute to them because they were my inspiration. The title refers to the human desire for fun and the deception behind it, so that people remain blind and unaware of what is really happening around us. The clown and the hatter are the victims of this type of fraud.

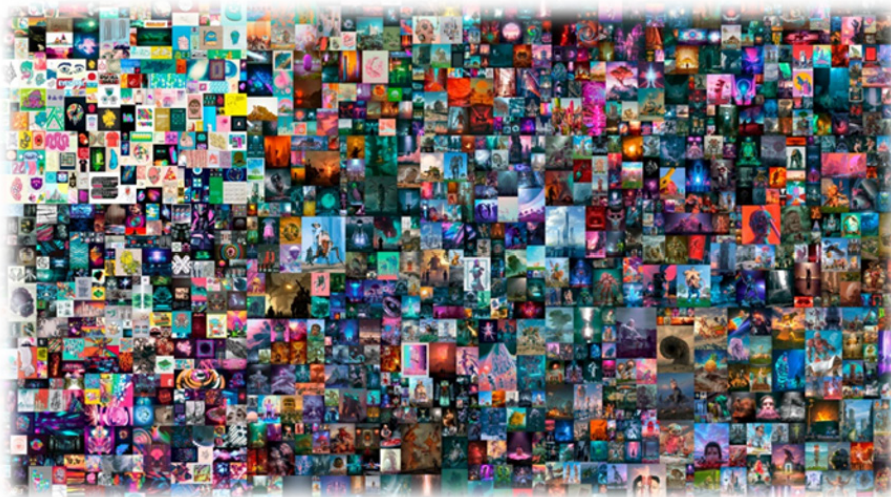
Price: 94,525.30 USD

The Foundation is fourth on the list of NFT markets. It has a 15% transaction fee for sellers and accepts Ether as its main currency. It has its own sales model, which requires the reserve price to be met, which then allows for a 24-hour auction. The number of supported files is relatively limited and up to 50MB in size. The market mainly serves the sale of fine digital art, with a specialization in crypto art. The market has been operating since 2020.

Hic et nunc on Tezos blockchain is the fifth ranked NFT market. It has a 2.5% fee imposed on vendors and accepts \$ KSTZ as the platform's currency. It only supports sales at fixed prices and limits the maximum size of files sold to 40 MB. The key categories on the market are fine digital art, collectibles, trade cards and photography. It was founded in 2021. All sales are subject to a 10% fee on secondary sales. Several of these NFT markets are managed by their community through the previously described decentralized autonomous organization DAO, while others belong to corporate entities.

³ <https://rarible.com/token/0x60f80121c31a0d46b5279700f9df786054aa5ee5:45933?tab=details>

⁴ <https://opensea.io/assets/0xb932a70a57673d89f4acffbe830e8ed7f75fb9e0/30114>



In 2021, the artist known as Beeple sold one of the most expensive NFT works of art on the market. The work of art is called “Everyday: the first 5000 days”⁵. The auction started with \$ 100, but soon began to grow more and more and was eventually sold at a price of \$ 69.3 million. This artwork is a compilation of the Beeple’s first 5,000 digital art photographs. Starting in May 2007, he did not miss a single day not to take a single photo. This work as a compilation has many different styles, content and media. Some of the former were definitely not up to par; yet value increases immensely as a whole. This is one of the most expensive NFTs ever sold so far.

Conclusion

Although blockchain technology is still in its infancy, it has already shown a number of advantages and huge potential in all spheres of life, including art. Here are just a few of the possibilities that blockchain and NFT technologies provide for artists, especially in copyright protection, communication and monetization of a work of art, but their potential impact does not end there.

Once upon a time, the collections adorned the walls of castles, private collections or national museums, today they are in the form of NFT in wallets (digital wallets) on the blockchain. What is the future for art, if one takes into account the technological and social environment in which the “new normality” of new generations of artists and their audiences grows up, is completely unpredictable, but one fact is indisputable; the relationship between the audience and the work of art will be increasingly mediated by technology. The COVID crisis has shown how sudden and strongly unforeseen circumstances can affect the status of art. Not only its perception and value, but also its purpose. It can move the audience from the status of an ordinary consumer of a work of art, to an active participant in creating newly added value to a work of art. The National Museum of Liverpool⁶ in Great Britain realized the Crypto Connections project, in which museum visitors could create NFTs about their experience of certain museum artifacts. The intention behind the project was to create a sense of collective ownership and joint custody of digital collections. It enables the viewers of the work to understand it better, because they can appreciate the impressions and opinions of other people about it. If the history of a work is recorded in NFT, and then generations of viewers and users add their experiences about that work, NFT becomes more interesting than the work itself. With the help of NFTs, a work of art from a subject of passive observation becomes a catalyst for social interactions, active aesthetic engagement of the audience as the creator of a new, unexpected added value to the work of art.

One thing is for sure, the time that is coming will not cease to surprise us, and art will, as always, adapt to new circumstances.

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⁵ <https://onlineonly.christies.com/s/beeple-first-5000-days/beeple-b-1981-1/112924>

⁶ <https://www.liverpoolmuseums.org.uk/collections/cryptoconnections>



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