

ARTICLES



# DIGITAL ART IN THE LIGHT OF NFT: MARKET ROLE AND LEGAL UNCERTAINTY

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## Abstract

Digital art is the result of creative activity practiced in the virtual space.

There is no unified concept of digital art in Russia, and there is no legislative consolidation of this term. In this regard, attempts to find an answer to what digital art is and what rights its acquirer has are topical issues of Russian legal science. At the same time, under the influence of technology, as a result of the development of the blockchain, new ways of handling digital art objects have appeared. The appearance of non-fungible tokens (NFT) causes a lot of legal problems. The study of these problems is the most important task for modern lawyers. The purpose of the study is to identify the legal qualification of digital art objects. In this regard, the author sets the task to study the structure of NFT as an object of civil law. The purpose of the article is also to identify potential risks for intellectual property rights holders when issuing NFT.

The methodology of this research is based on the use of a set of general scientific methods and specific methods of analysis used in legal science: system-structural method, system-functional, induction and deduction, analogy, method of formal logic and system approach. In particular, the dialectical method provides an opportunity to systematically explore the unity of social content and legal form of art objects in the digital space. The formal legal method makes it possible to form legal categories by highlighting the main features of phenomena related to research questions.

The author has made assumptions about the legal nature of digital art and NFT, as well as their place in the system of intellectual property law. The author has come to the conclusion that crypto art is one of the types of digital art. A specific feature of cryptographic art objects is that their emergence and existence is possible only in blockchain. As a result of the conducted research, it has been revealed that not all NFTs connected to art objects are crypto-art objects in digital commerce.

## Keywords

digital art, intellectual property law, copyright, NFT

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# ЦИФРОВОЕ ИСКУССТВО В КОНТЕКСТЕ NFT: РОЛЬ РЫНКА И ПРАВОВАЯ НЕОПРЕДЕЛЕННОСТЬ

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## Аннотация

Результаты творческого труда, доступные для публичного обозрения посредством их трансляции в информационной среде, получили название цифровое искусство (digital art, цифровое искусство).

На сегодня не сформировано унифицированного понятия цифрового искусства, не существует законодательного закрепления данного термина. Попытки найти ответ на то, что такое цифровое искусство и какие права имеет его приобретатель, сегодня являются актуальными вопросами юридической науки. В то же время технология блокчейн позволила создать новые способы обращения цифровых объектов искусства. Появление NFT, в свою очередь, также актуализировало множество спорных вопросов в современной юридической науке.

Целью исследования является правовая квалификация предметов искусства в условиях развития рынка NFT. В связи с этим автор ставит перед собой задачи: изучить структуру NFT как объекта гражданского права и рассмотреть потенциальные риски для правообладателей интеллектуальной собственности при приобретении NFT.

Методология данного исследования основана на использовании совокупности общенаучных методов и специальных методов познания: системно-структурный метод, системно-функциональный, индукция и дедукция, аналогия, формально-логический метод, системный подход. В частности, в работе широко использовался диалектический метод, который дал возможность исследовать проблемы в единстве их социального содержания и правовой формы, провести системный анализ правовых норм в сфере обращения предметов искусства в цифровом пространстве. Формально-правовой метод позволил определить правовые категории путем выделения основных особенностей явлений и процессов, связанных с вопросами исследования.

Автор данной работы сделал предположения о правовой природе цифрового искусства и NFT, их месте в системе права интеллектуальной собственности. Автор пришел к выводу, что крипто-арт является одним из видов цифрового искусства. Специфической чертой предметов криптографического искусства является то, что они создаются и существуют непосредственно в блокчейн. При этом автор пришел к выводу, что не все NFT, связанные с объектом искусства, выступают в качестве крипто-арта в гражданском обороте.

## Ключевые слова

цифровое искусство, право интеллектуальной собственности, интеллектуальные права, NFT

### Конфликт интересов

Автор сообщает об отсутствии конфликта интересов.

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## Introduction

The modernization of social relations is significantly influenced by digital transformation, expressed, among other things, by the changing channels of communication from interpersonal direct communication to the interaction of people in the information space. Digital transformation opens up new opportunities for users of the information environment.

The transfer of life processes into the virtual space has also led to the emergence of new mechanisms for the activities of public and private entities. In the business community, digitalization has become an effective channel for business development, allowing for a range of transactions to be made without serious resource costs.

Digitalization determines the creation of qualitatively new public goods, in relation to which the various subjects interact with each other. In this regard, these new relationships have led to the active formation of new negotiable objects which themselves require legal regulation. Information transformation has had an impact on the rapid growth of the digital intellectual property market, significantly increasing the financial assets of the owners of these objects.

The large-scale turnover of digital products created by intellectual labor requires optimal solutions to be found for a number of problems. So, today, a debatable issue is the definition of the ownership regime for objects created by artificial intelligence. Other important definitions include: recognition of the quality of the official work of publications in social networks; establishment of a pre-trial extra-jurisdictional procedure for protecting the rights of copyright holders of materials mixed in the information environment; the search for a legal regime for the latest types of creative work results; and much more.

The innovative development of society has determined the emergence of new material and non-material benefits, in relation to which the subjects of civil legal relations interact with each other. Technological progress, and in particular the improvement of the information environment has had an impact on all spheres of public life. Art as the most important component of human activity has also been qualitatively transformed in the conditions of continuous innovative development. Computer technology has allowed humanity to move towards a new stage of its development.

## Discussion

In the 21st century, an increasing number of material objects have found their expression in the information environment. At the same time, cyberspace is being replenished not only with digital copies of objects which possess physical form. Today, qualitatively new objects which do not have material analogues in the real world are accumulating in the information environment. This specialized sphere of human activity and creativity using technology has also received a new form of expression. The results of creative work, available for public viewing by means of broadcasting them in the information environment, are referred to as digital art.

To the present time, a unified concept of digital art has not yet been formed, and there is no legislative consolidation of this term. Some authors in this category understand the creative activity of the subject in the information environment, where objects of spiritual culture are created without a physical analogue. Thus, A.D. Grigoriev, T.Yu. Zakharchenko consider digital art as a modern area of human creative activity in the information space, in which, as a result of the use of special computer programs, objects with artistic value are created without any physical embodiment in the real world (Grigoriev & Zakharchenko, 2015). According to E.I. Kirichenko, this category should be understood as objects existing in cyberspace that have a cultural value, accessible to consumers by means of using technical devices (Glowka, 2021). At the same time, it is worth noting that in the literature, the term “digital art” means not only the process of creating an object with spiritual value, but this resultant object itself.

The term digital art can probably be considered from several sides.

Firstly, as a kind of creative human activity carried out through the use of various technological devices, as a result of which intangible cultural objects existing in cyberspace are created.

Secondly, digital art is intangible information products of intellectual activity. It finds its expression in cyberspace as a result of digitization of previously created physical objects of author's work. Digital art can also be created directly in the information space as a result of the subject's creativity. In this context, objects of art are understood as digital works created by intellectual labor and the legal nature of these objects is determined by the action of the provisions of property law, the law of obligations, as well as the provisions of individual institutions of intellectual property law (Rakhmatulina, 2018).

When seen from the viewpoint of jurisprudence, this category can more relevantly be seen as the result of a person's creative work. At the same time, the person recognizes that he/she has a set of rights to objects created by artificial intelligence and machine learning technologies, of which he/she is the developer.

At the present time, representatives of Russian legal science and practice overwhelmingly and unanimously hold the position that digital art includes digitized copies of a real physical object and intangible information products created in cyberspace.<sup>1</sup>

The need to modernize the system of intellectual property rights arises from a change in the views of modern people on art. The modern art market is a space in which the results of creative activity created by artists, photographers, designers and other authors, different from traditional objects previously recognized in this industry, are treated. The extensive possibilities of the information network, the availability of computer graphics technologies allow the creation of a completely new range of objects of contemporary art.

Crypto-art<sup>2</sup> is the name given to a new area art, manifested in the creation and distribution of paintings, photographs, gif animations, music, and other audio-visual works.

At the present time, the novelty of this information product can be put down to the lack of a unified understanding of its essence in legal science and practice. Thus, in this paper, we propose our own definition based on the main features of this digital object that have received attention by the legal community.

Tokenization is the process of transferring rights to tangible assets into tokens, that is, the creation of digital analogues of real things to increase the security of these objects when they are traded in the

<sup>1</sup> Art Law Conference. (2021, October 9). YouTube. <https://www.youtube.com/watch?v=Zi0aXSBpxMo>

<sup>2</sup> Angelova, A. (2021, March 16). NFT and crypto art are a new loud (and strange) trend, on which millions are earned and promoted. *Texterra*. <https://texterra.ru/blog/nft-i-kriptoiskusstvo-novyiy-gromkiy-i-strannyiy-trend-na-kotorom-zarabatyvayut-milliony-i-piaryatsya.html>

online market segment (Novoselova, 2017). As a result of this procedure, a unique numeric code is created for each specific asset. Tokenization allows you to transform a real thing into a set of tokens. Such a token can act as an independent subject of civil transactions (Brisov & Pobedkin, 2022).

Since it is reliable from the point of view of information security, tokenization has become available to users with the advent of blockchain. Blockchain is a distributed database platform consisting of linked blocks on which transactions in cryptocurrency are carried out. Each transaction which uses this technology acts as a new block in the transaction chain. The distributed registry allows the buyer to track the transaction history in relation to the object being purchased. This information about the digital asset is simultaneously stored on multiple computers around the world. This fact makes it impossible to change or delete the data entered. Thus, a reliable way of carrying out transactions with objects or their parts is created, thanks to the openness and reliability of information about them.

Non-fungible tokens can be used to give a digital art object (or an intangible copy of a real object) the status of an original copy. Block chains use two types of tokens: fungible and non-fungible. The first have been popular units of value for a long time, ever since assets have been traded on crypto markets, in particular, Bitcoin, Ripple or Ethereum. The second, NFT, are unique digital certificates. The main difference between fungible tokens and non-fungible ones is precisely in their uniqueness (Grigoriev, Nurislamova & Nurislamova, 2021). So, the first type of tokens certifies the rights to a digital asset. One Ethereum is equivalent to another, for example, in the same way in which a share of a particular company is equal to another of the same shares from this organization. The cost of fungible tokens is the same. For example, one Bitcoin will be exchanged for another at the same exchange rate.

In the case of NFT, a digital object consists of tokens that exist in a single form. This type of digital certificate, lines of numeric code, certifies the rights to items which cannot have a second copy recognized as an original copy (Naumov, 2021).

It is for this reason that it has become possible to apply rights to real estate, art objects, and other types of things that have no analog in the digital market.

Crypto art is an art object created and existing directly in the NFT structure. At the same time, from our point of view, crypto art is one of the types of digital art. In our opinion, the object of art nuanced by NFT can be of three forms. Another thing that needs to be considered is the classification of the NFT generated by the form of the art objects included therein. Thus, an art object participating in civil circulation by means of blockchain technologies can take the form of an exclusively real object which exists directly in the real world of things. In this case, the NFT contains information about this work: paintings, sculpture, other things that have value and exist in physical form.

Another group of generated NFT tokens are those that directly include a digital art object. In this case, the work is fully loaded into the blockchain. These are independent works on the blockchain, and they are often called works on the block chain (onchain works).<sup>3</sup> Perhaps these are the only truly unique objects of digital art (crypto art), in respect of which, at the time of writing this study, there had been no recorded case of fakes. They can be exchanged and transferred to other people only in the blockchain.<sup>4</sup> Such projects are not numerous, an example is the collection created in 2017, consisting of 10,000 elements — images of “CryptoPunks”.<sup>5</sup>

<sup>3</sup> On-Chain Artwork NFTs. (2021, October 9). [https://medium.com/treum\\_io/on-chain-artwork](https://medium.com/treum_io/on-chain-artwork)

<sup>4</sup> Penner, M., & Ellbogen, E. (2022, February 4). *NFTs, intellectual property and art: An overview in three parts (Part 1 of 3)*. The Angle. <https://ip.fasken.com/nfts-intellectual-property-and-art-an-overview-in-three-parts/>

<sup>5</sup> Media SIGEN.pro. (2021, March 11). *CryptoPunks: Rannie NFT na aukcione Christie's*. Media SIGEN.pro. <https://media.sigen.pro/materials/2444>

The next group and most disseminated group are non-fungible tokens which contain only links to an information resource that hosts digital art objects. At the same time, such a work can be created in the real world, while still remaining a digital copy, or be directly the result of intellectual activity carried out by the author in cyberspace. It should be emphasized that the actual art object is not an NFT, or part of it. In this case, a non-fungible token contains only a URL indicating the placement of digital art. In this regard, NFT is a line of code in the blockchain, or metadata that links it to the source file — the subject of art. Perhaps the greatest number of legal issues arise in relation to the last group of these tokens.

The first transaction regarding a digital art object protected by NFT was carried out as early as 2017.<sup>6</sup> The American IT company generated 10,000 unique pixel characters (CryptoPunks), the total amount of sales of these digital items amounted to \$348 million.

The reason for the popularity of these objects is explained by collectors' desire to possess a unique piece of contemporary art with high investment potential.<sup>7</sup> The intensive growth in the value of such art objects on the online market correlates with the increase in the positions of the Ethereum cryptocurrency (ETH) — a unit of value in the Ethereum blockchain. In 2021, 1 ETH is equivalent to \$3,217.92 or 236,006.39 ₽, whereas in 2020 this currency was traded at the rate of \$200–300. Today, the average cost of work that has received NFT certification is 1.5 ETH or \$4,826.88, or 354,000.585 ₽. Thus, crypto-art owners who purchased similar objects in 2020, increased their assets 10 times by 2021.

Art critics note that the digitalization of the art industry is leading to its democratization. This position is justified from the point of view of the accessibility of artists, musicians and other persons who create such products to the community.<sup>8</sup> If the creators of classical art objects sell their creative results by promoting themselves and their works through live exhibitions that require large resources and a long process of organizing such events, resorting to the services of gallery owners and other art market specialists, then for digital creators it is enough to publish the products of their work on social networks and upload them to special marketplace sites. In this way, the issue of popularizing the author and his work is greatly simplified, and consists in attracting the attention of a community of like-minded people and collectors on digital platforms. In this regard, the democratization of art allows the creators of art objects living in places physically remote from the primary art centers of this industry to enhance their fame and gain access to the sales market.

It should also be said that the cost of each original work of crypto-art depends on how much interest this object arouses among users of information platforms. The demand for a particular piece of art directly correlates with the frequency and speed of distribution of its digital copies on the Internet. The creator of such an art object has an interest in the result of creative activity being copied, since increases the value of this item. In this regard, the question arises, then what is the interest in acquiring digital art, spending considerable funds on it, if everyone can freely possess a non-original copy?

A study conducted by The Art Basel, an organization that unites outstanding authors around the world, and whose committee largely determines the trends of contemporary art, names several objective reasons for the popularity of digital art objects. According to the results obtained, to date,

<sup>6</sup> Larva Labs. (n.d.). *CryptoPunks*. Retrieved April 24, 2022, from <https://larvalabs.com/cryptopunks>

<sup>7</sup> Davis, B. (2022, April 24). *I visited the digital beeples art museum and all I got was an aggressive pitch for my money*. Artnet News. <https://news.artnet.com/opinion/beeples-b-20-museum-review-1954174>

<sup>8</sup> Skolkovo School of Management. (2022, August 13) *Kak postroit' novuyu kar'eru? Investicii v NFT-tokeny: Prognozy i riski* [How to build a new career? Investments in NFT-tokens: Forecasts and risks]. SKOLKOVO.Smysly [Video]. YouTube. <https://www.youtube.com/watch?v=CDlvKGPWF-A&list=PLAnwhruuiwrhlBqVW39z>

The next most disseminated group are non-fungible tokens containing only links to an information resource that hosts digital art objects (Okonkwo, 2021). At the same time, such a work can be

<sup>11</sup> Penner & Ellbogen, 2022.

created in the real world, while being a digital copy. It can also be related to directly to intellectual property created by the author in cyberspace. It should be emphasized that the actual art object is not an NFT, or part of it. In this case, a non-fungible token contains only a URL indicating the placement of digital art. In this regard, NFT is a line of code in the blockchain, metadata linking it to the source file which is the subject of art. Perhaps the greatest number of legal issues arise in relation to the last group of these tokens.

There are common problems traditionally related to each type of NFT. For example, what marketplaces are the participants selling and buying on; how to provide for the transfer of intellectual rights; and how to define their volume, and much more. In particular, with the development of the market of non-fungible tokens, there has been an increase in the number of violations of the interests of the rights holders of tokenized objects. The author will consider some problematic issues of digital art turnover through the prism of intellectual property in the context of the growth of the market of non-fungible tokens.

The purchase of NFT is considered to be the acquisition of a file with metadata, and not the primary object itself. M.A. Rozhkova rightly notes that the problem of domestic jurisprudence is the formalized consolidation of the system of absolute rights into two groups: ownership of objects of the material world; and intellectual rights to fungible objects defined by law (Rozhkova, 2020).

In the context of considering the issue of the legal status of digital art, it can be concluded that an unlimited number of NFTs can be created in relation to one object of intellectual property. This approach exists today in the specialized literature of the USA<sup>12</sup> and Great Britain (Guadamuz, 2021).

A comparison of an NFT with a signed copy of a digital art object cannot be considered absolutely accurate in every case. The reason for this, from the author's point of view, is the high risk of the spread of non-fungible tokens, the content of which does not include the objects of art themselves, but only information about them fixed through the prism of tools that guarantee the purity of transactions. This risk will be discussed in more detail in the next paragraph. At the moment, it is important to note that tokenization is a process accessible to any interested parties, within the framework of which information of a diverse nature can be included in the token. This neither violates the interests of other persons or is abuse of someone's material property or rights.

In current Russian legislation, NFT can be considered as other property, the existence of which is provided for by Article 128 of the Civil Code of the Russian Federation. According to the current system of objects of civil law, enshrined in Article 128 of the Civil Code of the Russian Federation, there is such a category as digital rights in our country. The work of M.A. Rozhkova, considers the essence of these legal phenomena in detail, which allows them to be correlated with NFT [14]. The wording of Article 128 of the Civil Code of the Russian Federation establishes a legal structure based on which digital rights are to be named in regulatory legal acts of Russia. In this regard, in Russia, there are only digital rights in the context of the Federal Law "On Digital Financial Assets, Digital Currency and on Amendments to Certain Legislative Acts of the Russian Federation" (hereinafter the Federal Law "On the CFA"); and the Federal Law "On Attracting Investments using Investment Platforms and on Amendments to Certain Legislative Acts Of the Russian Federation" (Hereinafter — the Federal Law "On Crowdfunding"). According to the first regulatory legal act, NFTs in Russia cannot be called digital rights in the sense of digital financial assets or digital currency.

At the same time, the systematic interpretation of Article 128 of the Civil Code of the Russian Federation and the Federal Law "On Crowdfunding" gives us an idea of the existence of a partially

<sup>12</sup> Barsky, D. J. (2021). Non-fungible tokens and intellectual property law: Key considerations. Lexis Nexis. <https://www.hklaw.com/-/media/files/insights/publications/2021/07/nonfungibletokensandintellectualpropertylaw.pdf?la=es>

similar category of rights that a person acquiring NFT can be granted. On the one hand, the utilitarian digital rights referred to in Article 8 of the Federal Law “On Crowdfunding” include such rights of the holder as the right to demand the transfer of things and/or exclusive rights to the results of intellectual activity, as well as the rights to use the results of intellectual activity. At the same time, it would be wrong to say that the utilitarian digital rights provided for by Russian legislation reflect the legal essence of NFT, and allow this object to be regulated as an independent category of law. This is due to the fact that the issuing of a non-fungible token is not always associated, or rather, almost always not associated with investment activity in the sense of the Federal Law “On Crowdfunding” (Brisov & Pobedkin, 2022). As a rule, the turnover of NFT is the result of private interests in the purchase and sale of various complex objects contained in this token. This is most typical for the crypto art market.

Internet marketplaces such as SuperRare, Foundation, OpenSea, Origin, Rare, Known, Nifty Gateway where the turnover of digital art certified by NFT is carried out, as a rule, work on the principle of auction houses. These marketplaces use smart contracts, i.e. agreements between the counterparties of a transaction regarding the establishment, modification or termination of legal obligations, the terms of which are recorded, executed and/or provided by a computer algorithm automatically through the implementation of program operations. This type of contract from a legal point of view is possible due to the legalization in certain jurisdictions of cryptocurrency as a digital right in the form of an fungible token, which allows us to talk about its value. However, NFT technologies which allow transactions in relation to crypto-art products as mentioned earlier are excellent objects. From the point of view of the art industry non-fungible tokens possess value, if there is a certain digital object with which it is associated. In this connection, neither Russian legislation nor the legal systems of the USA and European countries, at present, do not contain direct provisions which regulate the relationships of subjects regarding the circulation of digital objects certified according to NFT standards.

At the same time, this can be associated with a number of problems for the creators, other copy-right holders, as well as buyers. Since modern legislation does not directly regulate relations regarding this type of art object, the question of the reality of the transfer of rights from one entity to another during a transaction is controversial.

The system of intellectual property rights is pertinent when reasoning which set of rights can be transferred to an art object which has received digital certification according to the NFT standard. Pursuant to the provisions of Article 1226 of the Civil Code of the Russian Federation, the structure of intellectual rights includes both exclusive (property) and personal non-property, *inter alia*. In the case of civil transactions, the transfer of exclusive rights to the intellectual property is provided for in Russian legislation. Personal rights (non-property rights) are understood as: the right of authorship (Article 1265 of the Civil Code of the Russian Federation, Article 1315 of the Civil Code of the Russian Federation); the right to a name (Article 1265 of the Civil Code of the Russian Federation, sub-item 3 of Item 1 of Article 1315 of the Civil Code of the Russian Federation); the right to inviolability of the work (Article 1266 of the Civil Code of the Russian Federation, sub-item 4 of Item 1 of Article 1315 of the Civil Code of the Russian Federation); the right to publish the work (Article 1268 of the Civil Code of the Russian Federation); the right to recall the work (Article 1270 of the Civil Code of the Russian Federation); and the right to indicate the name on a copy of the work (sub-item 2 of item 1 of Article 1338 of the Civil Code of the Russian Federation). In their turn, the others include: the right to follow (Article 1293 of the Civil Code of the Russian Federation); the right to patent (Article 1357 of the Civil Code of the Russian Federation); the right of access (Article 1292 of the Civil Code of the Russian Federation); and the right of revocation (Article 1269 of the Civil Code of the Russian Federation).

In Russia, the creator of intellectual property cannot as a general rule transfer personal non-property rights. Other rights also cannot be transferred from one entity to another, although the legislation provides for some exceptions related to a specific type of object. It follows from this that the turnover of art objects on the market is associated with the transfer of the creator's property rights to the buyer. This is necessary from the point of view of the possibility of disposing of an art object, including the admissibility of making a profit.

Since the legislation does not contain an imperative regarding the transfer of exclusive rights to digital art, and NFT technologies are generally outside the field of rights, the entire regulatory mechanism is based on the provisions of contractual structures used by entities in this market. Analysis of established commercial practice shows that the issue of the transfer of intellectual property rights is not taken into account by the parties to crypto art transactions.

An analysis of the provisions of the contract for the digital painting “Everydays: the First 5000 Days” authored by Mike Winkelmann (Beeple), sold by Christie's auction house for \$ 69.3 million in March 2021, reveals that exclusive rights were not transferred to the buyers (<https://www.christies.com/en/>).

An NFT for a digital art object is created on a special platform that allows tokenization of such an object. In this regard, it can be assumed that there exists a user agreement between the creator of crypto art and the site. The provisions thereof may include the features of a license agreement for the alienation of the author of the work of his exclusive rights in favor of future buyers. In this regard, we can look at the example referred to above, “Everydays: the First 5000 Days”, tokenized on the MakersPlace platform. Analysis of the rules of use of this site shows that the service receives a license for the downloaded material, and the object may be sold by one user to another. However, the transfer of exclusive rights to a tokenized art object is not mentioned in this act.<sup>13</sup>

A study of the rules for using the OpenSea platform revealed that this resource grants a gratuitous non-exclusive license, with the right to enter into sublicense agreements for downloadable materials. At the same time, the rights of the creator are not limited by this agreement, and the platform does not receive the right to sell user assets. The rules of use of the OpenSea site are similar to other sites where, at present, crypto art is being converted (SuperRare, Foundation, Origin, Rare, Known, Nifty Gateway).<sup>14</sup>

In this regard, buyers of digital art today do not possess the legal right to use the art objects they have acquired. They are not entitled to make a profit, for example, by creating goods with their image for sale on the commercial market, or by exhibiting them in special galleries in return for a fee. In our opinion, this significantly violates the interests of the subjects, which requires the introduction ideas into the legal sphere about the legal status of NFT as a technology capable of certifying the rights to objects in the digital environment.

From our point of view, the potential of non-fungible tokens suggests a new vector, not only of the method of selling various kinds of assets, but also an effective means of protecting intellectual property rights. Certification according to NFT standards can be a reasonable tool which can replace the various registers of intellectual property rights, managed by authorized state bodies and international organizations. The creation of a database based on blockchains accumulating information about various kinds of intellectual property rights will help to stabilize this industry. It will also enhance the potential for interdepartmental interaction, thereby increasing the level of protection of the interests of copyright holders.

<sup>13</sup> Makersplace. (2022, April 24). *Terms of Service*. <https://makersplace.com/terms/>

<sup>14</sup> OpenSea. (2022, April 24). *Wallet*. <https://opensea.com/wallet/>

At the present time, crypto art transactions have not been granted legal regulation from the point of view of intellectual property rights. The sale of such objects on specially created sites takes place without the transfer of exclusive rights to them. Thus, the buyer acquires a digital copy of an art object, or to be more precise, its digital certificate (NFT). However, they do not receive the status of the copyright holder and a set of rights to this result of creative activity. In this regard, the digital art market is protected from the point of view of information security through the use of blockchain and non-fungible tokens, but the interests of copyright holders are not protected by law.

There is an urgent problem related to the means of securing and confirming the uniqueness of digital art.<sup>15</sup> An example of a legitimate transaction for the transfer of digital art objects is the auction held between August 31 to September 7, 2021, organized by the State Hermitage Museum on the marketplace of the Binance crypto exchange.<sup>16</sup> As part of this event, digital copies of paintings in the collection of this institution were sold for a total of 32 million rubles. This transaction was made possible thanks to the achievements in the field of tokenization. The State Hermitage Museum used NFT tokens to create unique copies of its objects. At the same time, prior to the sale, two digital copies of each art object were created, one of which was transferred to the buyer, the second was kept by the museum.

To give a digital art object (or an intangible copy of a real object) the status of an original copy, it is now possible to use non-fungible tokens. This type of digital certificate in lines of numeric code, certifies the rights to items, while technologies do not allow the creation of additional instances. It has thus become possible to apply rights to real estate, art objects, and other types of things that have no analog in the digital market. From our point of view, the appearance of NFT is a significant step towards the turnover of things in the information space. A detailed examination of the nature of these digital elements is the subject of further research.

Around the world several concepts are used, in order to legitimize the turnover of intellectual property rights related to NFT.

Firstly, the conditions for the transfer of intellectual rights can be included in a smart contract (Sinitsyn, Diakonova & Chursina, 2021). J. Goldman notes that not being a traditional contract from a legal point of view, a smart contract can also provide for the fate of intellectual property as related to a non-fungible token.<sup>17</sup> This technology can be considered as an independent way of entering into transactions with such objects.

Secondly, another way to legitimize the turnover of intellectual property rights to an art object when concluding transactions with NFT is to have the parties sign a license agreement or an exclusive rights alienation agreement. The creation of an independent document and the expression of will by the parties in the form of a separate act, on the one hand, reduces the attractive autonomy of transactions caused by the potential of blockchain technologies. However, on the other hand, they allow for the creation of clear legal conditions for understanding and implementation. At the same

<sup>15</sup> Nekrasov, D. (2018, March 16). *Problema opredeleniya podlinnika cifrovogo proizvedeniya iskusstva* [The problem of determining the authenticity of a digital work of art]. [https://medium.com/@slam\\_jack/проблема-определения-подлинника-цифрового-произведения-искусства-7fad1f53502e](https://medium.com/@slam_jack/проблема-определения-подлинника-цифрового-произведения-искусства-7fad1f53502e)

<sup>16</sup> Binance. (2021, August 31). Gosudarstvennyj Ermitazh obyavlyat o starte prodazh NFT tokenov na marketplejse Binance NFT [The State Hermitage Museum announces the start of NFT sales on the marketplace Binance]. *Binance Blog*. <https://www.binance.com/ru/blog/nft/государственный-эрмитаж-объявляет-о-старте-продаж-nft-токенов-на-маркетплейсе-binance-nft-421499824684902645>

<sup>17</sup> Goldman, J. (2021, March 11). A primer on NFTs and intellectual property. *Frankfurt Kurnit Klein + Selz*. <https://ipandmedialaw.fkks.com/post/102gt4b/a-primer-on-nfts-and-intellectual-property>

time, it is worth considering that a license agreement or a contract for the alienation of exclusive rights is associated with the search for the optimal jurisdiction for the participants of the transaction, and the adaptation of relations to specific legal norms.

A number of questions arise due to the lack of proper regulation or a model of a potential mechanism for the protection and protection of the rights of subjects involved in these relations. At the same time, all the problematic aspects related to the NFT appeal are common to various jurisdictions around the world.

One of these problems is the risk of NFT forgery. The Russian legal community actively defends the position that non-fungible tokens certify the rights to real or digital things or the information which it contains. Thus, M. A. Rozhkova notes that by registering information about the object, the primary and subsequent copyright holders, and its placement, the ownership of the art object is established.<sup>18</sup> This approach in real terms contributes to the autonomy of the relations of the participants in civil turnover. These participants can interact about any things, the rights to which can be transferred within the framework of NFT transactions.

However, the unconditional consideration of a non-fungible token as a means of certifying the rights to an object associated with it, entails risks of unfair behavior on the part of the creators of the NFT. So, the author of an art object which exists in digital or physical form may face the situation of a non-fungible token being issued by a third party, wherein only the URL address to a copy of this object posted on the information network will be indicated. At the same time, such actions may be aimed at the implementation of the NFT as such, rather than the rights to the intellectual property referred to therein. The imprudent behavior of the buyer of such a fungible token may result in him purchasing a product that does not have the desired value for him. Given that blockchain technologies do not imply the cancellation of transactions, and persons selling tokens do not always undergo the proper verification procedure, there are risks of unfair transactions. These can be manifested in the loss by the acquirer of the funds paid to them as part of the transaction, as well as in the misuse of the intellectual property as a way of obtaining illegal income, and violating the interests of the author. This behavior on the part of the creator of a non-fungible token can cause risks of both a civil and criminal nature. The latter, under certain circumstances, can fall under the qualification of fraudulent compositions. At the same time, the actual application of liability measures to those who violate the rights and interests of parties to the civil turnover through the implementation of NFT related to a specific object, including the subject of the art, is per se an ambiguous issue. The lack of proper regulation and understanding of the legal nature of non-fungible tokens limit the subjects of the application of law in protecting persons affected by encroachments of this nature.

The issues of the existence of risks arising from the turnover of NFT are discussed by the legal community in a significant number of countries, in particular by lawyers from the USA, Great Britain, Canada and India. For example, D. Sing, notes that in accordance with sections 51, 55, 63 of The Copyright Act 1957 in India, forgery of the author's intellectual property is a violation, entailing the imposition of liability measures on the subject who carried it out. However, the main disadvantage of modern Indian legislation is that remedies are effective when it comes to forgeries in the physical world of things in a particular jurisdiction. The sale of NFT carried out on crypto platforms is associated with a high degree of anonymity of the parties. Many buyers use pseudonyms in trade, which, therefore, create conditions of the absence of real information about the identity of the violator or creator. Another complexity is related to the protection of compliance with the interests of the

<sup>18</sup> Rozhkova, M. A. (2021, December 13). *NFT — Chto eto takoe?* [What is NFT (Non Fungible Tokens)?] [Online forum post]. Zakon.ru. [https://zakon.ru/blog/2021/12/13/nft\\_chto\\_eto\\_takoe\\_what\\_is\\_nft\\_non\\_fungible](https://zakon.ru/blog/2021/12/13/nft_chto_eto_takoe_what_is_nft_non_fungible)

authors and buyers of the original work. In this regard, E. Cole and T. Broderick, lawyers from the UK, state that NFT can confirm the authenticity of the work and the chain of ownership. However, the problem remains that if the original entry in the book is false or contains errors, the NFT will simply confirm and perpetuate it.<sup>19</sup>

In this regard, it seems that considering the NFT as a means of certifying the right of an object associated with it, should not be considered a legal axiom, due to the information insecurity of subjects of civil turnover.

## Results & Discussion

From the author's point of view, the potential of non-fungible tokens allows us to talk about a new vector not only in the method of selling various kinds of assets, but also an effective means of protecting the rights to art objects existing both in the physical world of things and in the digital space. Certification according to NFT standards can be a reasonable tool to replace the various registers of intellectual property rights. It can also act as a means of management and certification of intellectual rights. The creation of a database based on blockchains accumulating information about various objects of law, including art objects and related intellectual rights, will help to stabilize this industry, increase the potential for interdepartmental interaction, thereby increasing the level of protection of the interests of copyright holders.

At the present time, transactions in relation to NFT related to art objects have not received legal regulation. Matters of entering into agreements on the transfer of non-fungible tokens are regulated by the subjects themselves, or not regulated at all. In this regard, there are many legal problems, both for the copyright holders of art objects and buyers. In terms of the turnover of intellectual property rights to art, assigned to NFT, there are many risks both in the Russian jurisdiction and in other countries of the world. The sale of such objects on specially created sites often takes place without the transfer of exclusive rights to them. Thus, the buyer acquires a digital copy of the art object, or to be more precise, its digital certificate (NFT). However, they do not acquire the status of the copyright holder but a set of rights to this result of creative activity. In this regard, the digital art market is protected from the point of view of information security through the use of blockchain and non-fungible tokens, but the interests of copyright holders are not protected by law.

There is an urgent problem associated with the consolidation and confirmation of the uniqueness of digital art. In this regard, from the author's point of view, it is important to remember the following points when concluding transactions with NFT, which establish contractual conditions to regulate the relationship between the platform issuing the non-fungible token and the copyright holder of the art object whose works will be presented in the NFT. It is worth saying that the aspects mentioned below are not exhaustive.

When discussing the relationship of creators with marketplaces, it is important to determine which party will create a "smart contract" to regulate the initial sale of NFT and the sale of NFT in any secondary markets. In this case, the smart contract in accordance with pre-established automated commands will regulate: (1) storage of NFT; (2) if it is permissible to allow the purchase and sale of NFT; and (3) will allow NFT to connect to the "wallets" of those parties who will receive currency in connection with basic NFT transactions.

<sup>19</sup> Broderick, T., & Cole, A. (2021, March 23). NFTs and intellectual property – Can they be protected? *Murgitroyd Blog*. <https://www.murgitroyd.com/blog/non-fungible-tokens-nft-and-intellectual-property>

When using smart contracts, copyright holders must determine which blockchain to use to launch NFT and on which marketplace they will be put into turnover.

It is also important for the parties to agree on a set of rights granted to the NFT buyer. When taking into account the range of powers transferred within the framework of transactions with these objects, the following need to be specified: (1) permissible commercial purposes of the future copyright holder; (2) what set of intellectual rights to an art object is granted to each party according to the transaction entered into; (3) whether royalties (royalties) are paid to the author (primary copyright holder) in the subsequent resale of a non-fungible token.

When summing up the results of the conducted research, it can be said that at the present time the granting of the status of independent objects of law to tokenized intellectual property in cyberspace is a condition for the further development of the art market in Russia and the world. The digitalization of art brings many positive aspects to the lives of both individual authors and organizations. For example, in the case of museums, as entities actively involved in the process of creating NFT for items in their collections, the approval of the legal turnover of such objects will allow a number of issues to be resolved, including in the field of financing. Although the first transactions in relation to art objects are already being carried out, a significant number of problems in the field of law are only beginning to emerge for practitioners. For example, such questions may be: What amount of rights and their content to digital art originally exists for entities that produce NFT, including museums? What is the procedure for transferring such objects to buyers? How can the acquirer use them? In this regard, today, this is an urgent area for research by representatives in various fields of scientific knowledge and practical activity.

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