



THE LEGAL NATURE AND PROTECTION OF THE AUTHOR'S MORAL RIGHTS IN NFT TECHNOLOGY

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Abstract

This article examines the legal nature of authors' moral rights and the pressing civil law issues related to their exercise and protection in the context of the rapid development of NFT technology. It provides a theoretical and legal assessment of the legal characteristics of non-fungible tokens (NFTs) and their relationship with copyright-protected works. The study analyzes legal conflicts arising from the exercise of authors' moral rights, including the right of authorship, the right to be identified by name, the right to the integrity of the work, the right of disclosure, and the right of withdrawal within the NFT ecosystem. Particular attention is paid to the immutability of blockchain technology, the cross-border nature of NFTs, issues of determining the applicable law and jurisdiction, and the legal relationship between the rights of NFT owners and the authors' moral rights. Based on the findings, the article proposes scientific conclusions and recommendations aimed at improving legal mechanisms for the effective protection of authors' moral rights in the digital environment.

Keywords

NFT, non-fungible token, blockchain, copyright, authors' moral rights, intellectual property, intellectual creations, digital asset, digital environment, integrity of the work, right of authorship, right of disclosure, right of withdrawal, legal conflicts, civil law.

The rapid development of NFT technology has necessitated a reconsideration of the traditional institutions of copyright law, particularly authors' moral rights. By introducing a new mechanism for the circulation of copyrighted works in the digital environment, NFT tokens give rise to a number of legal challenges concerning the





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

exercise of the right of authorship, the right to be identified by name, the right to the integrity of the work, the right of disclosure, and the right of withdrawal. In particular, the immutability of blockchain technology and the cross-border nature of NFTs call for a reassessment of the effectiveness of traditional mechanisms for the protection of these rights. Therefore, a comprehensive scientific examination of the legal nature of authors' moral rights, as well as the mechanisms for their exercise and protection within the framework of NFT technology, is of considerable theoretical and practical significance.

The emergence and growing circulation of NFT tokens in civil commerce have, by their very existence, prompted researchers to reconsider the need for new scholarly approaches to the protection of authors' moral rights. The distinctive characteristics of NFTs such as their cross-border nature, multifunctionality, intangible form, and technological adaptability do not fully conform to traditional legal concepts. These features justify treating NFTs as a unique legal phenomenon from the perspective of copyright law and highlight the need to reassess existing legal doctrines governing authors' moral rights in the digital environment¹.

Authors' moral rights have not remained unaffected by this transformation. Although these rights appear relatively straightforward in their traditional legal understanding, within the digital environment they embody far more complex and still insufficiently explored legal constructs. As a result, they create opportunities for the realization of legal outcomes that were previously considered unattainable, thereby necessitating a reassessment of conventional approaches to the exercise and protection of authors' moral rights in the era of NFT technology².

As derivative or secondary legal constructs, NFT tokens generally serve to integrate traditional copyright-protected works into modern civil commerce. At the same time, determining the legal nature of the relationship between an NFT token and the

¹ Savelyev, A. I. Cryptocurrencies in the System of Objects of Civil Rights // *Zakon*. 2017. No. 8. Pp. 136–153.

² Novoselova, L. A., & Polezhaev, O. A. On the Legal Regime of Civil Law Objects Represented by Digital Assets // *Zakon*. 2020. No. 11. Pp. 183–192.





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

author's moral rights remains a matter of considerable importance. Equally significant is the need to define the legal content and distinctive characteristics of the internal legal relationship that arises between the NFT owner and the author of the underlying work. Addressing these issues is essential for establishing a coherent legal framework governing the interaction between NFT ownership and authors' moral rights in the digital environment³.

It should be emphasized that none of the existing theoretical approaches to understanding authors' moral rights in the context of NFT technology has yet received sufficient legal substantiation or been formally incorporated into legislation. Legal systems across different jurisdictions are only beginning to take initial steps toward conceptualizing and regulating this emerging legal phenomenon. Consequently, it remains premature to endorse any particular legal construction or to formulate a universally applicable regulatory model for governing authors' moral rights within the NFT ecosystem⁴.

The introduction of NFT tokens into civil commerce has established an entirely new legal paradigm in the field of copyright, particularly with respect to authors' moral rights. Although these rights are traditionally characterized by their inalienable nature and their non-transferability to third parties, the application of NFT technology has generated novel legal challenges concerning both their exercise and protection.

The principal legal issue arises from the potential separation between the author's moral rights and the exclusive copyright in the intellectual creation embodied in an NFT token when the latter is owned by a person other than the author. Such a separation creates a range of legal conflicts, requiring comprehensive theoretical analysis as well as practical legal solutions to reconcile the interests of authors, NFT owners, and other

³ Rozhkova, M. A. Digital Assets and Virtual Property: The Relationship Between the Virtual and the Digital // *Zakon.ru*. 2020. Available at: https://zakon.ru/blog/2020/06/15/cifrovye_aktivyi_i_virtualnoe_imuschestvo_kak_sootnositsya_virtualnoe_s_cifr_ovym

⁴ Sannikova, L. V., & Kharitonova, Yu. S. The Legal Nature of New Digital Assets // *Zakon*. 2018. No. 9. Pp. 86-95.





JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026

participants in the digital marketplace. First and foremost, it should be emphasized that authors' moral rights including the right of authorship, the right to be identified by name, and the right to the integrity of the work remain vested in the author irrespective of who owns the NFT token. Nevertheless, the exercise and enforcement of these rights become considerably more complex within the digital environment.

For example, the author's right to the integrity of the work may be infringed by the NFT owner. From a technical perspective, the owner may have the ability to modify the token's metadata or create derivative versions of the underlying work. In such circumstances, because the author has no control over the blockchain infrastructure itself, the effective enforcement of moral rights may be significantly constrained.

The right to be identified as the author is likewise exposed to substantial risks. If the author's name is omitted from, or inaccurately recorded in, the NFT metadata, correcting such errors may prove exceptionally difficult, or in certain cases technically impossible, owing to the immutability of blockchain technology. Consequently, the permanence that enhances the reliability of blockchain records may simultaneously undermine the effective protection of the author's right of attribution.

The right of disclosure also acquires a new legal dimension in the NFT environment. A fundamental question arises as to whether the mere minting of an NFT should be regarded as constituting the disclosure of the underlying work. If this proposition is accepted, further legal issues emerge where an NFT is created by a third party without the author's consent, raising concerns as to whether such tokenization is compatible with the author's exclusive prerogative to determine the first public disclosure of the work.

One of the most complex issues concerns the exercise of the right of withdrawal. Under the traditional doctrine of copyright law, an author may, subject to certain statutory conditions, withdraw a work before or, in some jurisdictions, even after its publication. In the NFT ecosystem, however, the immutable nature of blockchain





technology makes the technical implementation of such withdrawal virtually impossible. Even where the author seeks to exercise this right, the permanent and decentralized recording of blockchain transactions substantially limits, if not eliminates, the practical possibility of removing or revoking the NFT.

The separation between the author's moral rights and the exclusive economic rights embodied in an NFT token therefore creates a distinctive legal situation. While the NFT owner may possess the authority to transfer, sell, or otherwise dispose of the token, such ownership does not confer any legal power to interfere with the author's moral rights. Conversely, although the author formally retains those inalienable rights, the technical architecture of blockchain may significantly restrict their practical exercise and enforcement. This divergence between legal entitlement and technological reality represents one of the central challenges of contemporary copyright law in the NFT era.

At present, the overwhelming majority of NFT tokens circulating in digital markets are created primarily to authenticate, record, and facilitate the transfer of certain intellectual creations. However, most of these tokens contain no legal mechanisms addressing the protection or implementation of authors' moral rights. Although NFTs specifically designed to preserve or reinforce moral rights do exist, they remain exceptional rather than representative of prevailing market practice. This imbalance further demonstrates the need for a more coherent legal framework capable of integrating the protection of authors' moral rights into the technological architecture of NFT-based transactions⁵.

As a general rule, neither the issuer of an NFT token nor its purchaser intends to become a participant in legal relationships concerning the author's moral rights. In practice, the legal purpose (*causa*) of transactions involving the acquisition of NFT tokens is ordinarily not directed toward the exercise, transfer, or regulation of the author's moral rights. Rather, such transactions are primarily aimed at acquiring or

⁵ Kharitonova, Yu. S. Art Tokenization and Intellectual Property Law // *Yurist*. 2021. No. 9. Pp. 65–73.





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

transferring the token itself, together with any proprietary or contractual interests associated with it. Consequently, the author's moral rights typically remain outside the immediate legal scope of NFT transactions, even though the exploitation of the token may, in practice, have a direct impact on the exercise and protection of those rights⁶.

NFT tokens that are widely circulated in modern civil commerce are designed primarily to verify and publicly demonstrate ownership of a unique digital asset rather than to safeguard or implement the author's moral rights. Accordingly, issues relating to the right of authorship, the right to the integrity of the work, and the right of withdrawal are, in most instances, regarded as secondary considerations or are overlooked altogether by the parties involved in NFT transactions⁷.

In particular, a substantial proportion of the NFT tokens issued during the 2020–2021 period possessed no independent legal significance and failed to establish any juridical connection between the digital asset and the author's moral rights.

For example, judicial practice in Singapore has developed the view that the creation of an ordinary NFT merely constitutes one method of expressing a work in an objective digital form. Under this approach, ownership of an NFT does not make the token holder a participant in legal relationships concerning the author's moral rights in the underlying work. The technical characteristics of early-generation NFTs further support this position. In most cases, NFT holders were unable to influence the author's moral rights beyond the limited rights expressly contemplated by the NFT issuer or the relevant smart contract. Consequently, within the early NFT ecosystem, the legal protection and implementation of authors' moral rights were not regarded as matters of practical importance for digital asset owners or other market participants. Instead, NFTs functioned primarily as instruments for authentication, provenance, and transfer of digital assets rather than as legal mechanisms governing the personal relationship

⁶ Entin, V. L. NFTs and Copyright: How the Technology Works and What It Brings to Intellectual Property Law // *Zakon*. 2021. No. 5. Pp. 176–185.

⁷ Ruzakova, O. A., & Grin, E. S. Application of Blockchain Technology to the Systematization of Intellectual Property Results // *Vestnik Permskogo universiteta. Yuridicheskie nauki*. 2021. No. 1. Pp. 53–65.





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

between the author and the work. As the functional capabilities of NFT technology continued to evolve, market participants increasingly began to use NFTs not only as instruments for recording digital assets but also as mechanisms for documenting, managing, and transferring the legal rights associated with those assets. Consequently, NFT tokens came to represent identical or substantially similar underlying works, particularly digital artworks. This development gradually diminished the perceived uniqueness and scarcity of such assets, thereby affecting one of the principal economic attributes upon which the NFT market had initially been built.

As a result, purchasers of NFTs became concerned not only with the technological security of the digital asset but also with the legal protection of their investments. The issuance of additional NFTs linked to the same or substantially similar underlying work could significantly reduce the market value, exclusivity, and commercial attractiveness of previously issued tokens. From an investment perspective, therefore, the legal certainty surrounding the relationship between the NFT and the underlying intellectual property became increasingly important. This shift transformed NFTs from mere technological certificates of authenticity into digital assets whose economic value depends not only on blockchain technology but also on the scope, exclusivity, and enforceability of the legal rights attached to the underlying work⁸.

Accordingly, NFT owners increasingly sought to establish a form of legal exclusivity not only over the digital token itself but also over the underlying asset to which it relates. This reflected a growing demand to confer genuine exclusivity upon the digital asset, extending beyond technical ownership to encompass legal interests associated with the underlying work, including issues relating to the author's moral rights. As the holder of those inalienable rights, the author retains the capacity to influence directly the commercial exploitation of both the NFT and the intellectual creation embodied therein.

⁸ Aaron, P., & Schultz, J. The End of Ownership: Personal Property in the Digital Economy. Moscow: Delo Publishing House, RANEPa, 2019. P. 112.





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

As the functions and commercial uses of NFT technology evolved, the legal interests of NFT holders gradually expanded to include aspects of the author's moral rights in the underlying work. This development rendered the original NFT model under which token holders had no legal or practical ability to affect such rights increasingly inadequate for contemporary digital markets.

Nevertheless, the legal significance of transferring an NFT token from one person to another, viewed from the perspective of the author's moral rights, remains insufficiently examined. In some circumstances, such a transfer may constitute a legally neutral act with respect to the author's personal rights, whereas in others it may produce significant legal consequences affecting the exercise or protection of those rights. The absence of a coherent doctrinal framework for distinguishing between these situations continues to create legal uncertainty.

Under the traditional approach to copyright law, once the author transfers a tangible copy of a work to a purchaser, the author inevitably relinquishes a certain degree of practical control over the exercise of his or her moral rights. The digital environment, however, presents a fundamentally different legal reality. An NFT token is not merely the digital equivalent of a physical copy of a work; rather, it functions as a unique cryptographic identifier providing authenticated access to the digital repository in which the underlying intellectual creation is stored or referenced. Consequently, the legal powers exercisable by the NFT holder are closely connected to the technical capabilities embedded within the token itself. Those capabilities are neither accidental nor autonomous they are predetermined by the person who creates or issues the NFT and defines its functional architecture and legal attributes.

The legal rationale underlying this conclusion is straightforward. Where an NFT enables its holder to perform actions capable of affecting the author's moral rights, those capabilities have necessarily been incorporated into the token by its creator during the design and minting process. Conversely, if the NFT issuer intended to prevent such





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

interference, the relevant technical restrictions could have been embedded into the token or the associated smart contract from the outset. Accordingly, the extent to which an NFT holder may affect the author's moral rights is determined not solely by copyright law but also by the technological architecture governing the token.

The foregoing observations demonstrate that the direct application of traditional copyright doctrines to authors' moral rights in the NFT environment is not invariably appropriate or effective. Every legal phenomenon must be interpreted in light of the technological framework through which it is expressed and exercised. Accordingly, legal analysis of moral rights in blockchain ecosystems should take account not only of classical copyright principles but also of the technological characteristics that define the operation of digital assets.

The right to the integrity of the work provides a particularly illustrative example. Within certain NFT ecosystems, this right may become virtually self-enforcing where the technological architecture prevents any modification of the underlying work after minting. In such circumstances, even the NFT owner is technically incapable of altering the work, thereby preserving the author's original creative expression without the need for additional legal intervention. Conversely, where the relevant platform or smart contract permits the NFT holder to modify, replace, or create derivative versions of the underlying work, the author may find that the practical enforcement of the right of integrity is substantially weakened despite its continued legal existence. The effectiveness of moral rights therefore depends not only upon legal rules but also upon the technical design choices embedded within blockchain-based systems.

More broadly, the process of digitalization does not merely provide a new medium through which intellectual creations are perceived by human senses. Rather, it establishes an entirely new mode of existence for classical objects of civil law. This transformation fundamentally alters both the legal nature of such objects and the mechanisms through which they are governed, requiring copyright law to evolve in





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

parallel with technological innovation rather than relying exclusively on legal concepts developed for tangible works and traditional forms of exploitation⁹.

In light of the foregoing analysis, it becomes evident that the qualification and exercise of authors' moral rights in the context of NFT technology require substantially deeper doctrinal and legal examination. NFTs possess a unique capacity to alter their legal function and practical significance depending on the intentions and economic interests of their creators, holders, and other participants in civil commerce. In this respect, NFT tokens may appropriately be characterized as legal "chameleons," whose legal attributes evolve according to the technological architecture, contractual framework, and commercial objectives governing their use.

Accordingly, the regulation of authors' moral rights within NFT ecosystems cannot rely exclusively on traditional copyright doctrines developed for tangible works and conventional methods of exploitation. Instead, it requires the development of innovative legal approaches capable of reconciling the inalienable nature of authors' moral rights with the decentralized, immutable, and programmable characteristics of blockchain technology. Such approaches should seek to preserve the fundamental principles of copyright law while accommodating the technological realities of digital assets, thereby ensuring an appropriate balance between the legitimate interests of authors, NFT holders, platform operators, and other participants in the digital economy¹⁰.

Furthermore, particular attention should be paid to the legal characterization of the very act of minting an NFT from the perspective of the author's moral rights. An important doctrinal question arises as to whether the creation of an NFT may itself be regarded as constituting the disclosure of a work. If this proposition is accepted, a further issue concerns the precise moment at which disclosure occurs: whether at the time the NFT is minted, when it is first offered for sale, or only upon its initial transfer to a

⁹ Novoselova, L. A. Tokenization of Civil Law Objects // Khozyaistvo i Pravo. 2017. No. 12. Pp. 29–44.

¹⁰ Zeilinger, M. Digital art as 'monetised graphics': Enforcing intellectual property on the blockchain // Philosophy & Technology. 2018. Vol. 31(1). P. 15-41.





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

purchaser. These questions remain unresolved within contemporary copyright doctrine and require comprehensive legal analysis, as well as, potentially, explicit legislative clarification.

Another significant challenge stems from the inherently global and cross-border nature of blockchain technology and NFT transactions. This characteristic substantially complicates the determination of both the applicable law and the competent jurisdiction in disputes concerning authors' moral rights. Given the decentralized structure of blockchain networks, conventional conflict-of-laws principles may prove insufficient to address such disputes effectively. Accordingly, future legal development may necessitate either the adoption of specialized international instruments governing NFT-related copyright issues or the establishment of supranational mechanisms specifically designed to resolve cross-border disputes arising within blockchain ecosystems.

The relationship between the rights of an NFT holder and the moral rights retained by the author of the underlying work likewise requires careful doctrinal reconsideration. Resolving this issue demands not only a reassessment of traditional copyright concepts but also the development of new legal constructions capable of accommodating the distinctive characteristics of digital environments. Rather than applying conventional legal principles mechanically, copyright law should evolve to reflect the technological realities of programmable digital assets while preserving the fundamental principles underlying the protection of authors' moral rights. At the same time, NFT technology also offers significant opportunities for strengthening the protection of authors' moral rights. For example, the immutability of blockchain records can provide reliable evidence of authorship, the existence of a work, and the time of its creation. Such records may therefore serve as powerful evidentiary tools in disputes concerning copyright ownership and priority. However, the practical realization of these advantages depends upon legislative recognition of blockchain records as admissible and reliable evidence in judicial proceedings, together with the establishment of procedural standards





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

governing their evidentiary value. The potential impact of NFT technology on collective copyright management systems also warrants independent scholarly consideration. On the one hand, NFTs facilitate more direct legal and commercial relationships between authors and users, thereby reducing the need for traditional collective management organizations to administer licensing and royalty distribution. On the other hand, these organizations may assume new institutional functions within blockchain ecosystems, including the standardization of copyright-related NFT practices, verification of authorship and ownership, authentication of tokenized works, and certification of the legal validity of NFT transactions. Consequently, rather than rendering collective management organizations obsolete, NFT technology may fundamentally transform their institutional role within the digital copyright ecosystem.¹¹.

All of the foregoing issues warrant substantially deeper examination and broader discussion within the academic community, among legal practitioners, and by legislators. In undertaking this analysis, it is essential to recognize that NFTs should not be viewed merely as a novel technological instrument but rather as a fundamentally new form through which copyright-protected works exist, are exploited, and circulate within the digital environment. This conceptual shift has significant implications for both copyright theory and legal regulation. Accordingly, attempts to force NFTs into the framework of existing legal doctrines developed for tangible property and conventional copyright transactions are unlikely to provide satisfactory or sustainable solutions. Instead, the emergence of NFT technology calls for the development of a distinct regulatory approach that accommodates the technological characteristics of blockchain while preserving the fundamental principles of copyright law, particularly the protection of authors' moral rights. Such a framework should integrate technological innovation with established legal values, ensuring an appropriate balance between legal certainty, commercial efficiency, and the effective protection of authors in the evolving digital economy.

¹¹ De Filippi, P., & Wright, A. Blockchain and the law: The rule of code. Harvard University Press, 2018.





**JOURNAL OF
SCIENCE AND INNOVATIVE RESEARCH STUDIES
VOLUME-1, ISSUE-7, 2026**

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