

NAVIGATING THE LEGAL LANDSCAPE: AN ANALYSIS OF NFTs UNDER ARMENIAN LAW

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"Nothing comes from nothing"- quoting the Greek philosopher Parmenides' famous thought in an article at WIPO Magazine, Andy Ramos aptly notices that in this digital age, new and unprecedented phenomena seem to come from "nothing" every two or three years¹. Those new developments can potentially revolutionize the world and transform society, with significant implications for the law and legal doctrines established in different jurisdictions worldwide. One such phenomenon is Non-Fungible Tokens ("NFTs") although were first introduced more than a decade ago, their popularity has grown exponentially in 2021² with sales figures increasing from \$94 million in 2020 to \$25 billion in 2021 and to 24,7 billion in 2022. Among others, celebrities, creators, and athletes alike have invested in NFTs and are exploring how the technology can be utilized to further commercialize their brand or work³. NFTs' use cases continue to increase and expand from digital art and games to fashion, music, academia, tokenization of real-world objects, patents, membership sales, loyalty programs, domain name ownership, decentralized finance (DeFi), and metaverse items. Despite NFTs growing popularity, most jurisdictions, e.g., the United States⁴ and the EU⁵, are still in the proc-

¹ See **Andy Ramos**, "The metaverse, NFTs and IP rights: to regulate or not to regulate?", WIPO Magazine, June 2022, [https://www.wipo.int/wipo_magazine/en/2022/02/article_0002.html].

² See, e.g., **D. Chalmers, C. Fisch, R. Matthews, W. Quinn, and J. Recker**, "Beyond the bubble: Will NFTs and digital proof of ownership empower creative industry entrepreneurs?" Journal of Business Venturing Insights 17 (2022), [https://doi.org/10.1016/j.jbvi.2022.e00309]; **K. Houser, and J. T. Holden**, "Navigating the Non-Fungible Token" (2022), [https://papers.ssrn.com/abstract=4055535]; **Q. Wang, R. Li, Q. Wang, and S. Chen**, "Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges," (2021), [http://arxiv.org/abs/2105.07447].

³ For various applications of NFTs and how they are reshaping the future of digital assets see, e.g., **Rehman, W.; e Zainab, H.; Imran, J.; Bawany, N.Z.** *NFTs: Applications and challenges*. In Proceedings of the 2021 22nd International Arab Conference on Information Technology (ACIT), Muscat, Oman, 2021; **Shilina, Sasha**. "A comprehensive study on Non-Fungible Tokens (NFTs): Use cases, ecosystem, benefits & challenges." (2022), 10.13140/RG.2.2.15324.67206; **White Paper. Report from INTA Non-Fungible Tokens (NFTs)**, April 2023.

⁴ The legal status of NFTs under U.S. law is still up for determination, however, the U.S. government is taking steps to address cryptocurrency-related crime. The National Cryptocurrency Enforcement Team was established to tackle the misuse of cryptocurrency and digital assets. Due to the Infrastructure Investment and Jobs Act (IIJA) of 2021, the U.S. Internal Revenue and Treasury Department were granted the power to establish tax reporting rules for cryptocurrency transactions. The IIJA also includes NFTs in its definition of digital assets and subjects them to cost basis reporting regulations, but there are still areas that require clarification, such as the impact of different organizational structures of NFT marketplaces on information reporting rules. The Treasury Department would also begin directing existing anti-money-laundering controls toward virtual currency.

⁵ The Markets in Crypto-Assets Regulation (MiCA) is expected to enter into force in 2024. It aims to provide a consistent international approach to assets that are a digital representation of value or rights which may be transferred and stored electronically using a distributed ledger or similar technology. Under the current draft of the MiCA, NFT issuers will fall out of the scope of the licensing obligation and will most likely be exempt from the requirement to draft, notify and publish a crypto asset white paper in an Initial Coin Offering, as this will not apply to NFTs. However, they will still need to comply with standard business conduct and governance requirements and be legal entity established within or outside the EU.

ess of developing regulatory frameworks for NFTs.

Key words: *Non-Fungible Tokens, NFTs, Digital assets, Blockchain, Smart contracts, Tokenization, Ownership, Intellectual Property*

Introduction

There are no specific laws or regulations governing the use, ownership, and circulation of NFTs in Armenia. There have been attempts to regulate some aspects of digital assets. In 2018, a draft law titled "Law on Development of Digital Technologies"⁶ was developed to regulate relations related to cryptocurrency mining in Armenia. The draft has not entered into law. In 2019, another draft law titled "Law on Digital Financial Assets"⁷ was developed to regulate the mining, circulation, and storage of crypto assets. The draft law provided definitions for mining, cryptocurrency, and blockchain. Additionally, any digital financial asset or cryptocurrency created as a result of mining was defined as "property." The draft outlined the scope of persons who are authorized to engage in transactions of digital financial assets and the conditions under which persons may be required to bear tax obligations. It also proposed conditions for identifying relevant persons under the "Law on Combating Money Laundering and Terrorist Financing". The draft law has not entered into law.

Currently, Armenia does not have a developed NFT market, nor are there any major companies operating in the NFT space. However, given the global impact of NFTs on various industries and individuals, this article seeks to contribute to the ongoing global conversation about this technology. The free nature of NFT marketplaces increases the risk of bad actors using NFTs for illegal purposes such as money laundering or financing terrorism. Effective regulation of NFTs is therefore necessary for Armenia and other jurisdictions. Finally, Armenia has a rich cultural heritage, including ancient art and artifacts that have been preserved for centuries. The use of NFTs could provide new opportunities for preserving and sharing this cultural heritage in digital form. The legal regulation of NFT issuance and circulation is a complex issue that involves various branches of law, including financial and **banking** law, investment and information law, and civil law. The aim of this article is not to delve into the intricacies of all these laws but to demonstrate the feasibility of utilizing NFTs in Armenia despite the lack of specific legal regulations based on the existing legal frameworks, particularly in the realm of private law. This includes laws governing the sale of goods and transfer of property, contract law, and intellectual property law. As Professor Danielle D'Onfro has observed in her work on bailments and cloud storage: "The law of technology without background principles of private law is the law of suckers"⁸.

In this article, we provide an analysis of the concept of tokenization as it relates to NFTs and its implications for ownership and property rights (I). We

⁶ See Draft law on "Development of Digital Technologies", Պ-253-05.02.2018-ՖԿ-011/0, [http://www.parliament.am/drafts.php?sel=showdraft&DraftID=9504&Reading=0&fbclid=IwAR07Ok_a0yB1ENjT41jf2tZfXSKCs5BcrHUq2OwHTtarK3sPvTPA9sbQQ].

⁷ See Draft law on "Digital Financial Assets", Պ-224-12.07.2019-ՖԿ-011/0, [<http://www.parliament.am/drafts.php?sel=showdraft&DraftID=10671&Reading=0>].

⁸ See Danielle D'Onfro, *The New Bailments*, 97 Wash. L. Rev. 97 (2022) [<https://digitalcommons.law.uw.edu/wlr/vol97/iss1/6>].

further examine the legal nature of NFTs to ascertain their position among the objects of civil rights under the Civil Code of Armenia (II). We also explore intellectual property law to determine if owning an NFT representing an object of the intellectual property confers any intellectual property rights to the NFT owner. Additionally, we discuss the transfer of IP rights concerning NFTs and how smart contracts can be utilized (III) and we provide a conclusion (IV).

I. Concept of Tokenization, Ownership and Property Rights

To understand NFTs, it's important to first grasp the legal concept of tokenization and tokens⁹ as well as the distinction between fungible and non-fungible assets. Fungible assets are interchangeable and can be replaced by another identical item, like a 1 Euro coin that cannot be distinguished from any other coin. Commodities like silver, gold, oil, grain, and money are usually fungible and can be easily divided into smaller fractions. Non-fungible assets, on the other hand, are unique and cannot be replaced by any other item, such as a custom-made silver necklace, a golden statuette, or a painting. They are indivisible and cannot be divided into fractions in the physical world. As an example, the Mona Lisa painting has many copies, but only one original and authentic version. The original has unique properties that make it one-of-a-kind. Similarly, fiat money has an exchangeable value, where one can exchange a Euro for a Dollar, but a banknote with a unique sequence of digits or a palindrome serial number becomes rare and valuable. "Nonfungible" in NFT means that each token is not exchangeable with another token, making each token a unique entity that represents a single specific object¹⁰. Different token standards - the "ERC20" for fungible and "ERC-721" for non-fungible assets - are used for tokenization in the Ethereum infrastructure.

In the legal context, the tokenization of real-world assets is not a new concept and has a long history. Various documents such as negotiable instruments, bills of lading, deeds of title, and security certificates have functioned as tokens that represent specific assets and the rights and interests associated with them. Historically, the emergence of tokenization has brought about increased safety, security, and convenience in transferring asset ownership. In each instance above, the token serves as proof of ownership for the underlying asset, and the transfer of the token results in the transfer of ownership, along with all its accompanying rights and obligations. Hence, the idea behind tokenization in the legal context is that a single thing can be configured to actually represent rights, such as property rights, in something else. As a result, historically the law has evolved to respond to these new asset forms, providing a conceptual framework for determining the parties' rights and obligations while also incorporating long-established customs of the trade. Therefore,

⁹ See **Moringiello, Juliet M.** and **Odinot, Christopher K.**, *The Property Law of Tokens* (November 1, 2021), 74 Florida Law Review 607 (2022), U Iowa Legal Studies Research Paper No. 2021-44, Widener Law Commonwealth Research Paper, SSRN: [<https://ssrn.com/abstract=3928901>]; **Heines, R., C. Dick, C. Pohle** and **R. Jung** (2021): *"The Tokenization of Everything: Towards a Framework for Understanding the Potentials of Tokenized Assets"* (2021), PACIS 2021 Proceedings, 40. [<https://aisel.aisnet.org/pacis2021/40>].

¹⁰ See **B. Baker, A. Pizzo,** and **Y. Su**, "Non-Fungible Tokens: A Research Primer and Implications for Sport Management," *Sports Innovation Journal* 3, 1–15 (2022), [https://www.researchgate.net/publication/357900561_NFTs_Applications_and_Challenges].

tokenization has been successful because was supported by a well-established legal framework. For example, the bill of lading represents the title to the goods because it is recognized by the law¹¹.

With the advent of blockchain technology, the “contemporary” tokenization of assets has gained widespread recognition as one of the most significant applications of this technology. Tokenization has been defined as the process of transforming a physical or virtual asset into a digital representation (a token) that can be traded¹². The enthusiasts proclaim that NFTs are the future of digital property, and tokenization of assets has the potential to disrupt how digital (and in the future, the real world) assets are acquired, owned, and transferred¹³. Tokenization represents a form of digitalization of value and, just like the Internet-enabled free and fast circulation of digitized information, the blockchain is allowing the “almost free” and borderless flow of digitized value¹⁴. Tokens are defined as programmable digital units of value that get registered on a digital ledger¹⁵. Tokens are a type of computer code that serves as a digital representation (of something) on the blockchain¹⁶. Different types of tokens can represent a broad range of assets, from commodities and loyalty points to shares, coins, and other things.

NFTs can take on various forms, but the most common type is defined as a metadata file that contains encoded information about the digital version of the work being tokenized. The less common form involves uploading the entire work onto the blockchain, which can be costly. The most widely used NFT type is a piece of code that's recorded on the blockchain. This code comprises various pieces of information – mandatory or optional - as specified in the ERC-721 standard for NFTs. The token ID is the first essential element of an NFT, which is a unique number that's generated when the token is created. The second element is the contract address, a blockchain address that's accessible worldwide using a blockchain scanner. The combination of these two elements makes the token one-of-a-kind, and there's only one token globally with that specific token ID and contract address. Essentially, an NFT consists of these two numbers. However, the contract may also include other crucial elements, such as the creator's wallet address, which helps identify the NFT's originator. Most NFTs also include a link to the original work's location since the NFT isn't the work itself, but a distinct digital signature that's connected in some way to the original work. Thus, almost anything can be tokenized with NFT, since it is only a record in a distributed register. The foregoing is illustrated in the image below.

¹¹ See **Moringiello, Juliet M.** and **Odinot, Christopher K.**, supra note 9, at 624.

¹² See, e.g., **B. Baker, A. Pizzo,** and **Y. Su**, supra note 11, at 3.

¹³ See **Moringiello, Juliet M.** and **Odinot, Christopher K.**, supra note 9, at 612.

¹⁴ See **Ahmad, Xiaodi,** and **Jayaraman**, “*Understanding Non-Fungible Tokens (NFTs): Overview, Opportunities, and Challenges*”, The 49th Annual Northeast Business & Economics Association Conference, New Hampshire, 2022; at 1.

¹⁵ See **Andres Guadamuz**, “*Non-fungible tokens (NFTs) and copyright*” WIPO Magazine, December 2021, [https://www.wipo.int/wipo_magazine/en/2021/04/article_0007.html].

¹⁶ See **Ahmad, Xiaodi,** and **Jayaraman**, *Id.* at 1.

NFT Metadata

Item Metadata	
Contract Address	Token Metadata
0x8c5aCF6dBD24c66e6FD44d4A4C3d7a2D955AA ad2	{
Token ID	"symbol": "Mintable Gasless store", "image":
86193240282618763854367501	"https://d1czm3wxxz9zd.cloudfront.net/ 613b908d0000000000000000/8619324028261876385436750160835360531676033165
608353605316760331651808345700	"animation_url": "",
084608326762837402898	"royalty_amount": true,
Token Name	"address":
The Clearest Light is the Most Blinding	"0x8c5aCF6dBD24c66e6FD44d4A4C37a2D955AAad2",
Original Image	"tokened"
https://d1czm3wxxz9zd.cloudfront.net/613b908d-19ad-41b1-8bfa0e0016820739c/0000000000000000/86193240282618763854367501608353605316760331651808345700084608326762837402898/ITEM_PREVIEW1.jpg	"86193240282618763854367501608353605316760331" "resellable": true, "original_creator":
Original Creator	"0xBe8Fa52a0A28AFE9507186A817813eDC1
0xBe8Fa52a0A28AFE9507186A817813eD C1454E004	"edition_number": 1,
	"description": "
	A beautiful bovine in the summer sun "auctionLength":
	43200, "title": "The Clearest Light is the Most Blinding",
	"url":
	"https://metadata.mintable.app/mintable_gasless/86193240
	"file_key": "",
	"apiURL": "mintable_gasless/",
	"name": "The Clearest Light is the Most Blinding",
	"auctionType": "Auction",
	"category": "Art",
	"edition_total": 1, "gasless": true
	}

Image: Moringiello, Juliet M. and Odinet, Christopher K., *The Property Law of Tokens* (November 1, 2021). U Iowa Legal Studies Research Paper No. 2021-44. Used with permission.

NFTs can be created as a digital copy of (i) an object of the material world (e.g., pictures, buildings, etc.) and (ii) an intangible object (musical, audiovisual, literary works, etc.). The creation of such an NFT leads to a bifurcation of the object: both the “original” and its digital counterpart are in circulation. NFT can also be created as an independent intangible object. Such NFTs do not duplicate another intangible object but contain it within themselves (e.g., fine art). Thus, the main object is already inside the token, and they are a single entity¹⁷. There are two methods for storing digital assets associated with NFTs: on-chain and off-chain storage. On-chain storage involves hashing and embedding the digital asset within the token. Off-chain storage involves storing the digital asset on a server and linking the token to it through a URL. In this scenario, the token only serves as a record of the purchase terms and the URL for the digital asset¹⁸.

NFTs derive their value from their unique characteristics, which include immutability, exclusivity, and traceability. These attributes are made possible by blockchain technology, which is a decentralized database that is not controlled by any single entity and allows anyone to add a new entry to the ledger. Based on its protocol, anyone can make a transactional entry on it. Each new transaction is added to a block, which is then created through the process of mining or minting. Once a transaction is completed, the block is closed and added to the chain of previous blocks. This linking process ensures the security

¹⁷ See **Sitnik A. A.** “NFT as an object of legal regulation” // Actual problems of Russian law. - 2022. - V. 17. - No. 12. P. 84–93. - DOI: 10.17803/1994–1471.2022.145.12.084–093. [**Ситник А. А.** NFT как объект правового регулирования // Актуальные проблемы российского права. 2022. Т. 17. № 12. С. 84–93. DOI: 10.17803/1994-1471.2022.145.12.084-093], at 88-89.

¹⁸ See **Ziwei Wang, Jiashi Gao, Xuetao Wei**, “Do NFTs’ Owners Really Possess their Assets? A First Look at the NFT-to-Asset Connection Fragility”, December 2022, DOI: 10.48550/arXiv.2212.11181.

and integrity of the blockchain by creating an unalterable and permanent record of all transactions on the network.

NFTs are essentially entries in a distributed ledger (blockchain), with each entry containing unique data that cannot be faked or copied. This record can be transferred to another user on the same blockchain, with the former owner losing the token after its transfer. This feature of NFTs gives them a physical object-like quality, as transferring them is like passing on a physical object. Furthermore, unlike regular electronic files, original files in NFT form are always distinguishable from their copies, as the blockchain stores records of the creation, ownership, and transfer of the token. Blockchain technology also guarantees that a particular token belongs to only one owner. This feature makes NFTs more valuable and appealing to artists, who can now sell their digital works instead of distributing them for free¹⁹. Hence, NFTs have gained popularity as a means of buying and selling digital assets, particularly digital art. NFT-enabled marketplaces for digital art have opened new opportunities for artists, allowing them to tokenize their digital artwork and sell it to collectors who can sell it to other buyers as the value appreciates. However, NFTs are not limited to digital assets and can be used for physical assets as well²⁰.

As the “NFTs” phenomenon is still in its early stages, there has been limited research conducted on how users perceive and derive value from NFTs, which is especially important given the legal complexities surrounding the property rights and ownership structures of NFTs and the underlying assets they represent. Although NFT enthusiasts declare that NFTs are the future of digital property, and tokenization of assets has the potential to disrupt how digital assets are acquired, owned, and transferred²¹, there is currently a lack of support for this idea within property law principles. Therefore, it is valuable to explore the tokenization phenomenon and the legal perspective provided by professors Moringiello J. and Odinet K. regarding its implications on property rights²². This involves understanding what it means to tokenize something under the law, including how tokens are linked to their underlying assets (if at all), and determining whether an NFT qualifies as a “token”.

As mentioned, the concept of NFT tokenization involves creating a digital representation of a tangible or intangible asset as an entry in a blockchain ledger. This process is known as minting, and the resulting digital entry is referred to as a token. The token is then typically sold to interested buyers, often through an online auction facilitated by the same platform that performed the minting service²³.²⁴ Payment for the token is typically made using a cryptocur-

¹⁹ See **Brisov, Yu. V., Pobedkin, A. A.** (2022). “*Legal regime of NFT (non-fungible token) in Russia: how to work in the absence of special legislative regulation?*” *Digital Law*, 3(1), 44–66, at 51 [<https://doi.org/10.38044/2686-9136-2022-3-1-44-66>]. [**Брисов, Ю. В., Победкин, А. А.** (2022). Правовой режим NFT (non-fungible token) в России: как работать в отсутствие специального законодательного регулирования? *Цифровое право*, 3(1), 44–66.

²⁰ See **Shilina, Sasha**, supra note 3.

²¹ See **Amar Gupta**, “*NFT as Property: A Legal Analysis*”, *Legal Era*, November 2022, [<https://www.lexology.com/library/detail.aspx?g=5e0bb5ae-31c4-4624-881a-42fd8804cf92>].

²² See **Moringiello, Juliet M. and Odinet, Christopher K.**, supra note 9, at 614.

²³ See, e.g., **Clive Thompson**, “*The Untold Story of the NFT Boom*”, *N.Y. TIMES MAG.* (Aug. 12, 2021), [<https://www.nytimes.com/2021/05/12/magazine/nft-art-crypto.html>].

²⁴ See **Patrick Laurent et al.**, “*The Tokenization of Assets Is Disrupting the Financial Industry. Are You Ready?*”, *DELOITTE: INSIDE MAG.*, Oct. 2018, at 62, [Perma | www2.deloitte.com]

rency such as Ethereum's ether. It may be assumed that by purchasing the token, the buyer “acquires” ownership rights to the underlying asset, or the buyer acquires the token with authentic title to the referenced asset. However, while a blockchain acts as a recording system that provides a record of ownership, in the case of NFTs, it only records who owns the NFT, and not who owns the underlying asset that it represents. One of the key findings of professors Moringiello J. and Odinet K. indicate the theoretical weaknesses of giving NFTs tethering qualities²⁵. NFTs do not embody property rights in a reference thing, and they are not tethering. Especially in cases where the underlying asset is stored off-chain, the purchaser lacks control over the storage. As most of the corresponding assets of NFTs are stored off-blockchain and NFTs bind on-chain identifiers with off-chain assets by multi-stage URLs, the weak binding easily leads to the disconnection between NFTs and their assets, resulting in the loss of the NFT value²⁶. Unlike traditional tokens, creating an NFT of another tangible or intangible thing does not, *per se*, create a legal link to the underlying thing. In its current form, ownership of an NFT does not convey ownership of the underlying asset. Purchasing an NFT without additional actions does not convey any actual rights in the underlying asset²³. There is no reason to confer upon NFTs, at least as they are currently designed, the legal status of a token²⁷.

Professors Moringiello J. and Odinet K. also examined the terms of service of eight NFT platforms and found that despite these platforms advertising that a purchaser acquires both the NFT and ownership of the underlying asset, their terms of service actually allow the website to block access to the created token and remove digital assets under certain circumstances. Moreover, the terms of service do not establish a direct connection between the token and the underlying asset and may impose restrictions on commercial use in the case of digital artwork. Consequently, while NFT platforms promote unrestricted transferability of ownership of underlying assets, the rights obtained by the purchaser may not amount to legal ownership due to the level of control exercised by these platforms over the NFT because of the nature of the technology.

Property is viewed as an object that is rightfully owned, possessed, controlled, and utilized by an individual. The private property further emphasizes that property rights are exclusive to an individual²⁸. NFT tokens usually do not give their owner special rights (except for the usual rights of possession, use, and disposal of the token)²⁹. Based on a survey among NFT traders, an author analyzed NFTs from the perspectives of use-value and exchange-value and concluded that NFTs were deemed useless unless they had real-life applications to solve problems. NFTs were not useful except for the purpose of displaying art-

²⁵ See **Moringiello, Juliet M. and Odinet, Christopher K.**, *supra* note 9, at 641-642. The authors point out that various academics and industry experts claim to be working on developing technologies that would enhance the current mechanics of NFT operation. See, e.g., **Diana Stern et al.**, “*NFT Legal and Licensing Integration*”, MIT COMPUTATIONAL L. REP. (July 30, 2021), (describing an approach aimed at integrating legal and technical licensing terms for intellectual property into an NFT’s metadata).

²⁶ See **Ziwei Wang, Jiashi Gao, Xuetao Wei**, *supra* note 22, at 22.

²⁷ See **Moringiello, Juliet M. and Odinet, Christopher K.**, *supra* note 9, at 643.

²⁸ See Merrill, T., 2012. The Property Strategy. University of Pennsylvania Law Review, Volume 160, at 2061.

²⁹ In limited cases, NFTs give their holders additional rights.

works on the web. Traders were reported to have almost no power or control over their commodities. It was noted that NFTs lacked any context of ownership structures since they were merely a tag of credentials over which users had hardly any control. Consequently, NFT holdings were deemed useless by the traders since they had no use value for them and were primarily seeking potential buyers in the market to sell them for a profit³⁰.

Thus, the idea of tokenization in the legal context is that a single thing can be configured to actually represent rights, such as property rights, in something else. A token traditionally has been serving as proof of ownership for the underlying asset, and the transfer of the token resulted in the transfer of ownership, along with all its accompanying rights and obligations. Furthermore, tokenization has worked because of the existence of a comprehensive legal framework to support it. It is through the law to establish a clear link between the token and the underlying asset. NFTs, however, in their current form, lack a strong linkage to the underlying asset, and there is no such legal framework to establish one. While the contractual framework used on NFT marketplaces attempts to bridge this gap, it may only lead to more uncertainty. NFTs are more akin to a bundle of contractual rights in relation to the underlying assets, rather their representation in the form of a token. This conclusion provides an answer to a crucial question regarding NFT ownership: does the buyer of an NFT own both the token and the title to the underlying asset, free from any encumbrances, and can they sell it to any willing buyer for a negotiated or market-determined value, without any control by the original seller over further sales? The answer is that absent terms stating otherwise, ownership of an NFT does not entitle an acquirer ownership of the digital asset, the underlying artwork, or any other object. Moreover, ownership of an NFT does not, by default, grant an acquirer any rights to the intellectual property of the underlying asset³¹. Due to the recognition of NFT as personal property by courts of some jurisdictions as discussed in the subsequent sections of this article, it can be stated that the acquirer of an NFT holds the right to claim ownership of the NFT itself and the right to exclude others from claiming ownership of the NFT. Beyond that, it will depend on whatever terms govern the NFT.

Thus, an NFT is not the thing that is tokenized, which can be a wide variety of assets (e.g., a work of art, an image, a physical good, an entry right to an event, or a tweet), nor the digital fingerprint that is associated with it. NFT is a certificate of authenticity of a digital asset registered chronologically in a blockchain system³². An NFT incorporates a reference to a digital file, indelibly associating it with that file. The purchaser of the NFT acquires neither the work nor its medium, but instead becomes the owner of the token referring to the work. NFTs thus constitute a “new type of asset”, raising many questions from a legal perspective.

³⁰ See **Subham Swastek Dalai** “*A study of NFTs (Non-Fungible Tokens). Diagnosis through the lenses of classical Economics.*”, Master’s Thesis (2022), Uppsala Universitet [<https://uu.diva-portal.org/smash/get/diva2:1678476/FULLTEXT01.pdf>], at 54.

³¹ See **Jeremy Goldman**, “*A Primer on NFTs and Intellectual Property*”, (2021), Frankfurt Kurnit Klein & Selz PC, [<https://www.lexology.com/library/detail.aspx?g=d96ed012-8789-4e87-bc1d-70ba76569c0f>].

³² See **Eric Schahl; Salomé Delhome**, “*How does French IP law apply to NFTs?*”, (2022), [<https://www.lexology.com/commentary/intellectual-property/france/inlex-ip-expertise/how-does-french-ip-law-apply-to-nfts>].

II. Legal Nature of NFTs

Some definitions of NFTs describe them as “fledgling, unique, and blockchain-enabled cryptographic digital assets that represent objects such as artworks, music, collectibles, and in-game items” which enable innovative mechanisms to consolidate, manage, transfer, code, and store digital assets³³. NFTs are coded, or ‘minted’, on a blockchain, which offers a digital certificate of ownership for a specific digital asset³⁴, and can readily be viewed by anyone³⁵. As such, when someone “mints” their digital asset, they essentially create a certificate (i.e., a smart contract) that exists on the blockchain, which prevents its reproduction or deletion³⁶, and allows them to easily prove the existence and ownership of digital assets³⁷. An NFT is “a unit of data stored on a blockchain that certifies a digital asset to be unique and therefore not interchangeable, while offering a unique digital certificate of ownership for the NFT”³⁸. NFTs are an example of how a technological invention is altering the concept of property ownership, as they provide options for new sorts of ownership while restricting possession and control³⁹. NFTs are emerging digital phenomena that combine innovative ways of tying content creation to blockchain applications to offer a new way of verifying, for example, artworks, footage, or videos of sporting events⁴⁰.

It is worth mentioning that NFTs are not cryptocurrencies. While NFTs are part of the Ethereum blockchain, they differ from Ethereum coins, which are fungible and exchangeable with similar types of assets. The primary function of an NFT is legal confirmation, while digital currency has a payment function. NFT tokens are individually defined, while digital currency tokens are generic and interchangeable, and more in line with the characteristics of a means of payment. Digital currency tokens do not have a unique value by themselves. For the owner, it does not matter what type of digital currency token is in their digital wallet, only the number of tokens is important. In contrast, the nature and unique attributes of an NFT token are critical.

In the legal context, some authors characterize NFTs as intangible or incorporeal personal property - that is, an item that cannot be touched or held but has some level of value assigned to it. Like other personal property, it can, at least in theory, be bought, sold, gifted, bequeathed, mortgaged, used as collateral, and levied⁴¹. NFTs have been recognized as personal property by the courts of the United Kingdom and Singapore.

³³ See **Ahmad, Xiaodi, and Jayaraman**, supra note 15, at at 1.

³⁴ See **D. Chalmers, C. Fisch, R. Matthews, W. Quinn, and J. Recker**, supra note 2.

³⁵ See “*New Thematic Report: Demystifying NFTs*,” EU Blockchain.

[<https://www.eublockchainforum.eu/news/new-thematic-report-demystifying-nfts> (2021)].

³⁶ See **K. Houser, and J. T. Holden**, supra note 2, [<https://papers.ssrn.com/abstract=4055535>]

³⁷ See **Q. Wang, R. Li, Q. Wang, and S. Chen**, supra note 2.

³⁸ See **M. Nadini, L. Alessandretti, F. Di Giacinto, M. Martino, L. M. Aiello, and A. Baronchelli**, “*Mapping the NFT revolution: Market trends, trade networks, and visual features*,” *Scientific Reports* 11, 1-11 (2021)

³⁹ See **J. Truby, R. D. Brown, A. Dahdal, and I. Ibrahim**, “*Blockchain, climate damage, and death: Policy interventions to reduce the carbon emissions, mortality, and net-zero implications of non-fungible tokens and Bitcoin*,” *Energy Research & Social Science* 88, 102499 (2022).

⁴⁰ See **K. B. Wilson, A. Karg, and H. Ghaderi**, “*Prospecting non-fungible tokens in the digital economy: Stakeholders and ecosystem, risk and opportunity*,” *Business Horizons* (2021).

⁴¹ See **Jeremy Goldman**, supra note 36.

NFTs as Personal Property

The UK's High Court has recently recognized NFTs as property indicating that NFTs “are property in and of themselves, distinct from the digital artwork they represent”. The case involved plaintiff Lavinia Osbourne, founder of Women in Blockchain Talks, who filed a lawsuit against NFT marketplace OpenSea, claiming that two NFTs she purchased from Boss Beauties had been stolen from her digital wallet. Although the plaintiff did not specify how the NFTs were stolen, they were found in two anonymous accounts on the OpenSea platform. The plaintiff sought injunctive relief from the High Court to recover her stolen NFTs. The court ruled that NFTs were “property” and issued an order for the freezing of the relevant anonymous accounts. OpenSea complied with the decision and froze the two related anonymous accounts. The ruling is also relevant for protecting crypto-asset holders from theft, with the UK courts leading the way in protecting holders of NFTs⁴².

In *Rajkumar v Unknown Person* (“CHEFPIERRE”), the High Court of Singapore has recognized NFTs as “a form of personal property”. To determine whether an NFT can be legally recognized as property, the court used the traditional Ainsworth test. The court found that NFTs meet the criteria of being “definable,” with the metadata of the NFT serving as its definition. NFTs also meet the requirement of being capable of being assumed by third parties, as blockchain technology gives the owner exclusive ability to transfer the NFT to another party⁴³.

In a consultation paper titled “Digital Assets: Consultation paper,” published by the public body for reform of the law in the U.K., the Law Commission of England and Wales, digital assets are recognized as a new form of personal property similar to tangible, real-world property but with “control” replacing the concept of “possession”⁴⁴. The paper rejects analogies with intangible assets such as legal rights, recognizing that digital assets have more in common with physical objects (e.g., Bitcoin works more like an electronic coin than an electronic bank account); however, the paper is not assimilating digital assets wholesale into the category of things that can be possessed (except for certain digital assets used in electronic trade finance). According to this approach, digital assets are sufficiently different to be given their own space to develop alongside existing forms of property. Based on the proposal, only digital tokens such as NFTs and similar native crypto assets, including cryptocurrencies such as Bitcoin, fall within their definition of “property”. It is important to note that it only affects the NFT itself, not any objects in the real world or legal rights linked to it. Recognizing property interests in an NFT, the Law Commission stresses, does not directly improve the owner’s rights to any linked object. Owning an NFT of a picture, for instance, does not necessarily give the NFT

⁴² See [<https://www.theartnewspaper.com/2022/04/29/nfts-recognised-as-legal-property-in-landmark-case>].

⁴³ See [<https://www.lawyersweekly.com.au/biglaw/35929-should-nfts-be-legally-regarded-as-personal-property>].

⁴⁴ See **Adam Sanitt**, “Law Commission proposes revolutionary rules for ownership of crypto tokens and NFTs. Legal reform body for England and Wales says digital assets are personal property”, Norton Rose Fulbright, (2022) [<https://www.nortonrosefulbright.com/en/knowledge/publications/6f953528/law-commission-proposes-revolutionary-rules-for-ownership-of-crypto-tokens-and-nfts>].

owner the copyright to the picture or ownership of any hard copy of the picture, or even rights in the digital copy linked to the NFT. While giving comfort to owners of digital assets, the Law Commission consultation also highlights the fragility and uncertainty of rights in assets linked to NFTs.

NFTs as a type of property under Armenian Law

NFTs are characterized by their non-fungibility, which means that each token is unique and cannot be replaced or exchanged for another token. This quality is ensured through the use of metadata, which describes the distinct features of each NFT and provides an immutable record of its authenticity⁴⁵. In Armenian civil law, the concepts of uniqueness and irreplaceability are associated with the notion of “things”⁴⁶. **Property**⁴⁷ is among the objects of civil rights under the Civil Code of the Republic of Armenia (1998) (the “**Civil Code**”). Things can be classified into two categories: individually defined and defined by generic characteristics. According to Article 139 of the Civil Code, “Individually defined [things] are things that distinguish from other [things] by their own inherent characteristics. Individually defined [things] are non-substitutable (paragraph 1). [Things] determined by generic characteristics are [things] having characteristics belonging to all [things] of the same type and determined by number, weight, and measure. [Things] determined by generic characteristics is substitutable (paragraph 2).” The classification of things as individually defined or determined by generic characteristics is also present in the Model Civil Code for the member countries of the Commonwealth of Independent States (the “**Model Code**”). Here the correct term “thing” is used.

As mentioned, the qualities of NFTs are similar to those of individually defined things, such as the fact that a specific NFT cannot be replaced by another without a fundamental change in its quality, and that NFTs are not reproducible; upon alienation, the former owner irretrievably loses the NFT after its transfer. While the Civil Code does not define “things”, in theory, things refer to objects of material reality, such as physical objects, cash, and documentary securities. Obviously, NFTs do not fit within the theoretical definition of “things”. Nonetheless, due to their potential to be used and circulated in the market, it is worth determining NFTs position among other objects of civil law (rights).

Article 132 of the Civil Code of Armenia, provides, among others, for following types of objects of civil rights [...(1) **property, including money, securities, and property rights...**]. Similarly, Article 23 of the Model Code, specifies the objects of civil rights encompassing [...(1) things such as money and securities, as well as **other property, including property rights...**].

Obviously, the Civil Code **which** does not differentiate between the terms “property” and “things”, in Article 132 specifically enumerates certain types of property under the umbrella term “property”, such as “money, securities, and

⁴⁵ NFTs are also indivisible, meaning they cannot be divided into smaller tokens. However, fractional ownership mechanisms allow for shared ownership of NFTs, representing a stake in the underlying real-world assets.

⁴⁶ The Civil Code of Armenia unjustifiably does not employ the term “things” but instead solely relies on the term “property” which is a comprehensive concept encompassing not only individual “things” but also various combinations of tangible and intangible assets, property rights, obligations, and exclusive rights.

⁴⁷ In this context we will use “thing” while the Civil Code incorrectly uses the term “property”.

property rights”, while disregarding "other property" which is specifically included in the Model Code's Article 23. The Civil Code only recognizes a particular type of “other property,” namely "property rights," compared to the Model Code’s Article 23. It is worth to note that the Civil Code of the Russian Federation, which shares a similar legal tradition, provides a more comprehensive and specific types of property as objects of civil rights (Article 128). As such come, [... (1) things (such as cash and securities), (2) **other property, including property rights (including non-cash money and digital rights) ...**]. As a type of "other property", the Russian Civil Code includes "property rights," and within this category, "digital rights" are specified.

At a minimum, Article 132 and other relevant provisions of the Civil Code need to be amended and modified to properly differentiate the terms “thing” and “property”. Additionally, to address legal challenges related to digital assets, including crypto-assets and NFTs, the Civil Code needs to define their status under the objects of civil rights. "Digital rights" could be considered a type of "property rights," while "property rights" themselves could be classified as a type of "other property."⁴⁸

NFTs as other property. While NFTs share similarities with individually defined things, they cannot be considered as property in the traditional sense, as they do not generally confer any special rights beyond the standard right to own, use, and dispose of the token. Due to the technology and design of NFTs, their owners have limited control and/or use of them, and no possession if the NFT is stored off-chain. NFTs lack a tethering effect in relation to underlying assets. NFTs can be transferred between users on the same blockchain, and once transferred, the previous owner loses ownership. This transferability gives NFTs a physical object-like quality, similar to passing on a tangible item. NFTs are distinguishable from their copies, as the blockchain maintains a record of their creation, ownership, and transfer. NFTs without utilitarian properties do not confer the right to demand active actions. Rather, they serve as a means of confirming the owner's right to a virtual asset, representing a "right of enjoyment." This suggests that everyone else has a passive obligation to refrain from violating the right confirmed by the NFT. Given these unique features of NFTs, it is probable that they will be classified as "other property." It seems reasonable to apply rules governing movable assets to NFTs without utilitarian properties by analogy of the law.

In limited cases, however, NFTs give their holders additional rights (for example, tokens of tickets for football and basketball matches⁴⁹ or tokens that provide the right to receive a physical copy of virtually created sneakers⁵⁰). Moreover, some NFTs allow the purchaser of the token to participate in the

⁴⁸ This paper does not aim to provide recommendations for the specific regulation of digital assets, as this would require a comprehensive study beyond the scope of private law. Financial and banking law, investment law, and information law would need to be considered to develop a comprehensive regulatory framework for digital assets.

⁴⁹ See **Brandt, J., & Hurtado, F.** (2021, July 14). “*The future of your NBA tickets is virtual - and non-fungible*”. NBC Sports Washington, <https://www.nbcsports.com/washington/wizards/future-your-ba-tickets-virtual-and-non-fungible>].

⁵⁰ See **Bilyk, K.** (2021, June 30). “*Russian Artists Will Create NFT Sneakers, Print them on a 3D Printer and Sell them at Auction*”. RB.RU [Бильк, К. (2021, июнь 30). Российские художники создадут NFT-кроссовки, распечатают их на 3D-принтере и продадут на аукционе. RB.RU.] [<https://rb.ru/news/nft-sneakers-ru>].

creation or modification of the digital object contained within the NFT. These are utility NFTs, and they confer specific rights to their owner that require active actions to be claimed, such as demanding the transfer of assets, the transfer of exclusive intellectual property rights, and the performance of work or services. Therefore, utility NFTs can be considered a form of "property rights," particularly "digital rights" yet to be defined by legislation. However, the concept of digital rights is generic because, for the owner, it is more important to have a certain amount of fungible assets within the information system than to possess a specific asset. For example, it is more important for a person to have a certain amount of Bitcoin cryptocurrency tokens, and not a specific token denoting the presence of these currencies in a crypto wallet. Therefore, in defining utility NFTs as "digital rights", the legislator should consider such qualities of NFTs as uniqueness and non-fungibility⁵¹.

To sum up, the legal status of NFTs in Armenia remains uncertain, as there is no specific legislation or case law addressing this issue. If NFTs have no utility value, they may be classified as "other property," and concepts of movable property rights and contract law may apply. If an NFT confers additional rights to its owner, it may be defined as "individually defined digital rights" to be defined by legislation. Given the potential legal implications, it is necessary to establish legal framework for NFTs in Armenia.

III. NFTs and Intellectual Property Rights

The relationship between NFTs and intellectual property rights in Armenia is subject to the general principles of intellectual property and contract law. NFTs that represent **objects** of intellectual property does not necessarily confer IP rights to the purchaser of the NFTs. The rights obtained by the NFT owner depend on the specific terms outlined in the underlying contract that facilitated the transfer of the NFT. This is because NFTs are conceptually separate from the underlying asset they represent. NFTs are only a unique digital representation of the asset, rather than the underlying asset itself and purchasing an NFT does not automatically grant the buyer ownership of all rights associated with the asset, including intellectual property rights. This position can be changed by contractual arrangements, including through smart contracts, as well as traditional legal instruments - written contracts, website terms of use, or assignment deeds. Intellectual property can be licensed to third parties.

NFTs and copyright. Armenia has ratified the Berne Convention for the Protection of Literary and Artistic Works that establishes that authors must be granted exclusive rights over their works irrespective of the type or form of their expression. The Berne Convention has since been supplemented by other international agreements, including the WIPO Copyright Treaty, adopted in 1996, which adapts the Berne Convention to the digital environment. This

⁵¹ Utilitarian purpose tokens are noticed under the EU regulation on MiCA that has made it clear in Article 2(2)(a) that it does not apply to NFTs such as digital art and collectibles, which are unique and not interchangeable. However, the recitals of the regulation state that MiCA will apply to crypto assets that may appear to be unique and not interchangeable, but whose characteristics and uses make them either fungible or not unique. MiCA also specifies that fractionalized NFTs should not be considered unique and not fungible. Additionally, issuing NFTs in a large series or collection is seen as an indication of fungibility.

agreement (Agreed Statement concerning Article 1(4) of the WIPO Copyright Treaty) makes it clear that the storage of a protected work in digital form in an electronic medium (such as an NFT or a file, the content of which is displayed in the metaverse) constitutes a reproduction which needs the prior approval of the copyright holder. Authors, producers, publishers, and proprietors of trademarks have exclusive rights over their intangible assets. These rights, however, are not absolute, as the Berne Convention contemplates certain scenarios in which they may not exercise such rights⁵². Pursuant to Article 14 of the “Law on Copyright and Related Rights” of the Republic of Armenia (2006), reproduction is the direct or indirect, temporary or permanent fixation of a work on any medium, by any means and in any form, in whole or in part. Without the author's consent it is illegal (Article 13). The author of a work would be able to oppose its tokenization because tokenization seems to fall under the “fixation of a work on any medium, by any means and in any form”. The author would, therefore, be able to oppose the association of their work with metadata based on their reproduction right.

NFTs and resale rights. Resale right is the right to receive remuneration from resale of work of art. Article 27 “Law on Copyright and Related Rights” sets forth that the author of a work of art holds an inalienable right to be notified of the sale of the original work of art that was alienated by them or through an intermediary such as an auction house, gallery, or art shop, and to receive a percentage of the price from each resale made by the seller, commonly referred to as “resale rights” or “droit de suite”. This percentage is typically around five percent of the sale price. The resale of a work of art associated with an NFT should be subject to resale rights. NFTs and blockchain technology can be useful tools for authors to track the resale of their works and receive royalties for each sale. By registering an NFT on the blockchain, any transfer of the NFT will be recorded, and the author can track the transfers of ownership. In this way, NFTs and blockchain technology can enable authors to enforce their resale rights and ensure they receive fair compensation for their work.

As NFTs represent a new and independent form of economic exploitation that may lead to remuneration, it is essential to (i) establish the right to tokenize, allowing for the transformation of creations into NFTs and (ii) formalize this right in a contract. Thus, if a buyer of an NFT wishes to commercially exploit the associated IP rights and generate income from such exploitation, they would need to enter into an agreement for the assignment of exclusive rights or a license agreement.

Agreement on the alienation of the exclusive right. Pursuant to paragraph 1 of Art. 1105 of the Civil Code of Armenia, the holder of exclusive rights to an object of intellectual property may fully or partially transfer the property rights belonging to him to another person by contract. This is most desirable for an NFT acquirer since when the exclusive right is alienated, the acquirer of the NFT receives all the rights to use the IP rights in full. Also, the NFT acquirer independently protects its exclusive right and is completely independent of the

⁵² See **Andy Ramos**, “*The metaverse, NFTs and IP rights: to regulate or not to regulate?*”, WIPO Magazine, June 2022, [https://www.wipo.int/wipo_magazine/en/2022/02/article_0002.html], See also, [<https://www.wipo.int/wipolex/en/text/295166>].

right holder, which is especially important when NFT is resold several times.

License agreement. Pursuant to paragraph 1 of Art. 1106 of the Civil Code, under a license agreement, the party with the exclusive right to the result of intellectual activity (the licensor) allows the other party (the licensee) to use the corresponding object of intellectual property. The license agreement must define the rights granted, the limits and terms of their use. The exclusive model of a license agreement is the only suitable option for parties seeking to grant the right to use NFT works. This is primarily because the sale of objects in the form of an NFT precludes simultaneous use of the same object by multiple parties, owing to the individually defined nature of the token. The sale of NFTs in a decentralized blockchain system through smart contracts makes it challenging to comply with the traditional “written form” requirement of certain agreements, as there is no physical presence of the parties involved.

Smart Contracts. The legal validity and enforceability of the terms of smart contracts for NFTs between parties are currently uncertain in Armenia due to the absence of a statutory or judicial definition of a “smart contract”. Additionally, there is no universally accepted definition in the industry either. Some commentators describe smart contracts on the blockchain as self-executing ledger-modification instructions⁵³, while others view them as computer protocols intended to digitally facilitate, verify, or enforce the negotiation or performance of a contract without any third-party involvement⁵⁴. Another definition considers them to be payment instructions that are only executed if certain preconditions are met⁵⁵. These definitions fall within several major concepts, including smart contracts as contracts, computer programs, software codes, algorithms for fulfilling obligations, or tools for ensuring obligation fulfillment which are widely discussed in academia. So, smart contracts can be regarded as a multifaceted phenomenon.

The legal regulation of smart contracts is still in its early stages on a global scale. There are no international laws that comprehensively describe the specific features and execution of smart contracts or directly address issues related to them. However, there is a tendency at the international level, e.g., in UN-CITRAL acts, to recognize the principle of non-discrimination of electronic forms of recording. This means that an electronic transferable record cannot be denied legal effect, validity, or enforceability solely because it is in electronic form.⁵⁶ An analysis of the UNIDROIT Principles of International Commercial Contracts (rev. 2016) also suggests that parties can agree to automate contract formation and fulfillment, allowing for the conclusion of a contract without direct participation. This indicates recognition of the legal validity of smart contracts as contracts⁵⁷. Thus, consolidating smart contract features may be the

⁵³ See **Mik, Eliza**, “*The Legal Problems Surrounding Blockchains*” (October 31, 2018). [2018] SAL Prac 13, at 13, SSRN: [https://ssrn.com/abstract=3367639].

⁵⁴ See **Teo Li-Ying**, “*Coming to Terms with Smart Contracts, Part 1 – Fintech Security Challenges and Considerations*”, [2020], Sal Prac 23, at 5.

⁵⁵ See **Stella Cramer and Yadav Dharmendra**, “*Fintech Developments*” in *Dora Neo et. al*, “*Financial Services Law and Regulation*” (Singapore: Academy Publishing, 2019) at 16.

⁵⁶ See UN-CITRAL Model Law on Electronic Transferable Records. United Nations Commission on International Trade Law. New York, 2017. at. 5, 7, 8.

⁵⁷ See UNIDROIT Principles of International Commercial Contracts 2016. UNIDROIT International Institute for the Unification of Private Law, Rome, 2016. Pat 34. 43.

next step in developing international laws that regulate commercial transactions.

While it would be advantageous, and we advocate **including** specific regulations on smart contracts in the Armenian Civil Code to recognize them and their legal consequences, the lack of such regulations does not seem to hinder their enforceability.

According to Paragraph 1 of Article 436 of the Civil Code, a contract is an agreement between two or more parties aimed at establishing, modifying, or terminating civil rights and obligations. Hence, a valid agreement requires (i) the mutual consent of the parties, aimed at establishing, changing, or terminating their rights and obligations; (ii) an intention by the parties to achieve a legal result - the legal relationship itself, which arises as a result of the conclusion of the contract; and (iii) a manifestation of parties' will through external signs such as words, writing, or action. The latter refers to the material carrier, whether paper or electronic, of the linguistic signs that form the text of the parties' agreement. The self-executing nature of smart contracts, which presumably excludes any direct human involvement, does not necessarily preclude their enforceability if all the necessary elements of a contract formation are established. It seems **relatively** easy to establish all the necessary elements with an **exception** of the "formality" requirement when it comes to smart contracts.

Article 297 of the Civil Code of Armenia states that certain contracts must be made in writing and signed. Failure to comply with this requirement will render the contract legally unenforceable. In cases and procedures provided by law, other legal acts, or the agreement of the parties, the law does allow the use of facsimile reproductions of signatures by mechanical and other means of copying, electronic digital signatures, or other similar copies of one's signature electronic means in concluding contracts (Par. 3, Article 296). So, the law, *inter alia*, recognizes the use of electronic digital signatures or other similar copies of one's signature electronic means in concluding contracts. Additionally, the Armenian law specifies when the "written form" of a contract is considered observed or how a contract should be concluded to satisfy the "written form" requirement. Article 450 (3) of the Civil Code states that the contract can be concluded in written form by drawing up a single document signed by the parties, as well as by exchanging information or message (document) by mail, telegraph, teletype, telephone, electronic communication or other means of communication, which enable to confirm its authenticity and to accurately determine it, that it derives from the parties of a contract. When concluding a contract through a means of communication enabling electronic communication, if no other requirement regarding the form of such a contract is established by law, an electronic document not protected by an electronic digital signature has the same legal significance as a document signed by hand by a person. Par. 4 of Article 450 of the Code further specifies that the written form of the contract is considered preserved, if the written offer to conclude a contract is accepted in accordance with the procedure established by Par. 3 of Article 454 of the Code. There may be some ambiguity as to whether smart contracts satisfy the writing requirement since they are written in programme codes rather than in natural language. This, however, should not be an impediment in light of the relevant provisions of the "Law on Electronic Document and Electronic Digital Signature" (2004) ("E-SIGN Act").

Article 4 of the E-SIGN Act, states that an electronic document protected by an electronic digital signature has the same legal significance as a document fixed by a person's handwritten signature, if the authenticity of the electronic digital signature has been confirmed and there is no sufficient evidence that the document has been altered or forged since it was communicated and/or issued. of storage, except for the transformative changes that are necessary and unavoidable for the transmission and (or) storage of that electronic document". In Article 2, the E-SIGN Act defines an "electronic document" as information recorded on a physical medium electronically, authenticated by an electronic digital signature. The electronic document is created, processed and saved using technical means of information systems and information technologies". It also defines an "electronic digital signature" as "a unique sequence of symbols obtained through cryptographic transformations of the electronic digital signature creation data and the information of the given electronic document and represented in electronic form, which is attached or logically connected to the electronic document and is used to identify the signatory, as well as to protect the electronic document from forgeries and distortions". Article 3 (2) of the E-SIGN Act states "The original of an electronic document exists only on an electronic medium. All copies of electronic documents registered on an electronic medium and identical are considered originals and have equal legal significance. If it is required to submit the original of the electronic document, this requirement is considered fulfilled if: a) it is possible to prove that the electronic document has not been changed since it was transmitted and (or) given for preservation, except for the transformative changes that are necessary and unavoidable for the transmission and (or) preservation of this electronic document; b) it is possible to present the electronic document without content changes in an external form in a way that is accessible and understandable for the perception of a person who does not have special technical knowledge.

Under the broad phrasing of the E-SIGN Act, a written agreement need not necessarily be in natural language as long as there is an electronic record that allows users to retrieve the information contained therein. A smart contract appears to fit squarely within the above definitions, as the blockchain on which the smart contract is stored stores records by electronic means, and such records are accessible for subsequent reference. In addition, the use of public-private key cryptography in smart contracts transactions on a blockchain provides an additional layer of authentication for each party involved. The cryptographic system utilizes a pair of keys: a public key, which may be known to others, and a private key, which is only known to the owner. The digital signature produced by this public-private key pairing is unique to each transaction and can only be generated by someone with knowledge of the private key. This method of authentication is likely to satisfy the E-SIGN Act's definition of "electronic digital signature," as it produces a unique and reliable identifier of a party, and the means of doing so are under the party's sole control.

Thus, the written form requirement is satisfied because the NFT acquisition transaction is conducted on the blockchain using electronic or other technical means, which meets the criteria outlined in paragraph 3 of Article 450 of the Civil Code. The signature requirement is fulfilled when the NFT purchaser

transfers payment in digital currency to the alienator's electronic wallet, which enables reliable identification of the person expressing their intention to purchase the NFT and conclude a license agreement. Therefore, the written form of the license agreement is satisfied at the moment when the NFT purchaser's identity is reliably established, which occurs when they transfer payment to the alienator's electronic wallet.

IV. CONCLUSION

The concept of tokenization in the legal context refers to using a single item to represent rights in something else. In traditional contexts, a token served as proof of ownership for the underlying asset, and the transfer of the token resulted in the transfer of ownership, along with all its accompanying rights and obligations. However, NFTs currently lack a strong linkage to the underlying asset, and there is no established legal framework to establish one. NFTs do not embody property rights in a reference thing. Instead, they serve as a proof of authenticity for a digital asset recorded on a blockchain in a sequential manner. When someone purchases an NFT, they do not acquire the work or the medium it is stored in, but instead become the owner of the token representing the work. Therefore, NFTs are "new assets" and raise many legal questions.

The legal status of NFTs in Armenia is currently uncertain since there is no specific legislation or case law governing them. NFTs without utilitarian properties may be classified as "other property," and the principles of movable property rights and contract law may apply. However, if an NFT grants additional rights to its owner, i.e., NFTs with utilitarian properties, it may be considered as "individually defined digital rights" yet to be defined by the law. Owning an NFT that represents an underlying IP asset does not necessarily grant the new owner IP rights unless IP rights are assigned or transferred to the NFT purchaser through smart contracts or traditional legal instruments. Based on the contract law principles and various legal provisions, it is concluded that smart contracts are likely to be considered validly formed contracts in Armenia.

ՏԱԹԵՎԻԿ ԴԱՎԹՅԱՆ – Կողմնորոշվելով իրավական դաշտում. NFT-ի (անփոխարինելի նշանների) վերլուծությունը ըստ ՀՀ օրենսդրության – Հոդվածում քննարկվում են անփոխարինելի նշանների (NFT) իրավական բնույթն ու առանձնահատկությունները: ՀՀ օրենսդրությունը չի կարգավորում NFT-ների հետ կապված հարաբերությունները: Հոդվածագիրը ներկայացնում է NFT-ների իրավական կարգավիճակը և դրանց հնարավոր տեղը ՀՀ քաղաքացիական օրենսգրքի 132-րդ հոդվածով սահմանված՝ քաղաքացիական իրավունքների օբյեկտների շարքում: Քննարկվում են նշանավորման գործընթացը (tokenization) և դրա հարաբերակցությունը սեփականության իրավունքի հետ: Վերլուծվում են մտավոր սեփականության իրավունքի նորմերը, եզրահանգվում է, որ մտավոր սեփականության օբյեկտը ներկայացնող NFT-ների գնորդը ինքնըստիներքյան ձեռք չի բերում մտավոր սեփականության իրավունքներ օբյեկտի նկատմամբ. այդ իրավունքները կարող են փոխանցվել NFT-ների գնորդին խելացի պայմանագրերի կամ ավանդական իրավական գործիքների միջոցով: Ներկայացվում է խելացի պայմանագրերի կիրարկման հնարավոր-

ըութունը Հայաստանում՝ խելացի պայմանագրերի վերաբերյալ հատուկ կարգավորումների բացակայության պարագայում:

Բանալի բառեր – *սփոխարկվող նշաններ, թվային ակտիվներ, բլոկչեյն, խելացի պայմանագրեր, թոքենիզացիա, սեփականության իրավունք, մտավոր սեփականություն*

ТАТЕВИК ДАВТЯН – Ориентирясь в правовом поле: анализ NFT (невозмозаменяемых токенов) в соответствии с законодательством Армении. – В данной статье рассматриваются правовая природа и особенности невозмозаменяемых токенов (NFTs). Законодательство Республики Армения не регулирует отношения **между** незаменимыми знаками. В данной статье представлен правовой статус NFTs и их возможное место среди объектов гражданских прав, определенных статьей 132 Гражданского кодекса РА. Анализируется процесс токенизации и его связь с правом собственности. Проанализированы нормы законодательства об интеллектуальной собственности, сделан вывод о том, что покупатель NFTs, представляющих объект интеллектуальной собственности, автоматически не приобретает права интеллектуальной собственности на объект: эти права могут быть переданы покупателю NFTs через смарт-контракты или традиционные правовые инструменты. Анализируется возможность реализации смарт-контрактов в Армении при отсутствии специального регулирования смарт-контрактов.

Ключевые слова: *невозмозаменяемые токены, цифровые активы, блокчейн, смарт-контракты, токенизация, право собственности, интеллектуальная собственность*