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Virtual Assets as an Object of Civil Rights

ABSTRACT: *This academic article argues that virtual property should be included in the civil rights catalogue as an intangible element. This study examines the metauniverse's evolution, virtual property markets, legal regulation in the metauniverse across countries, and the potential to improve national legal frameworks in this domain. The author compared virtual property to tangible property and proposed using blockchain-based smart contracts to resolve metaverse legal concerns. Legal and practical regulations for virtual property transfers are lacking in the legislative realm. The metaverse and other new business models have raised complex legal issues regarding virtual asset authentication and use. These complex legal issues require further study. Metaverse operators should prioritise a thorough protection mechanism for users' virtual property throughout virtual business scenario development. Property value in the metauniverse is non-constant, raising concerns about its stability. The transaction's result depends on the collective or involved parties' consensus. Value is determined similarly to how modern culture values collectibles and art. It would be foolish to treat all metaverse items as collections and art. Its impact on the tangible economic structure may be negative. Despite the resolution of metauniverse and medium of trade ownership issues, the challenge of actualizing ownership within the metauniverse will endure. The author examined numerous issues linked to Ukraine's virtual property legislation. The author also made legislative development recommendations for this domain. The placement of virtual entities inside the Civil Code shall be subject to restrictions with regard to intangible or non-physical entities. This phenomenon arises as a result of the dynamic nature of society, characterised by the presence of societal norms and regulations. The evolution of law has emerged as a viable alternative that aligns with the changing demands of society in different historical periods.*

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1.

Formulation of the problem

Russia's attack on Ukraine has prevented the world from recovering from the global crisis. Millions of people have lost their jobs, which has increased attention towards blockchain technology and the metaverse, in particular transactions with virtual property. Virtual online property is the technological and material basis for the development of the metaverse, which draws the attention of the legal community to study how the material basis for the development of virtual property should be placed in civil law. It is important to reflect changes in the material form of modern society in a timely manner, to include it in the regulatory system of civil law, so that civil legislation keeps pace with the development of time, accordingly, it is necessary to introduce legal norms regulating forms of virtual property on the Internet. Considering that virtual property has all the attributes of objects, particularly its value and utility, and therefore, has the property value of objects, it is necessary to include virtual property as an incorporeal object in the list of objects of civil rights.

2.

The state of problem solving

A significant contribution to this study, particularly, regarding the definition and legal regulation of virtual property, was made by talented domestic scientists, R.A. Maidanyk, O.I. Kharitonova, L.R. Maidanyk, K.G. Nekt., N.O. Gorobec, I.V. Maisun, as well as international scientists, G. Darville, Ch. Anderson-Lewis, M. Stellefson, Yu-Hao Lee, J. MacInnes, R. Morgan Pigg, Jr., J. Gilbert, S. Thomas, G. Freeman, S. Zamanifard, D. Maloney, A. Adkins, M. González-Franco, D. PérezMarcos, B. Spanlang, M. Slater, and Dongsik Jo.

This study comprehensively examines the need to include virtual property as an incorporeal object in the list of civil rights objects and an analysis of the directions of development and legal regulation of social relations in the field of virtual property in the metauniverse.

3.

Presenting primary material

'Metaverse' is the latest buzzword in technology. In general, the metaverse can be considered a form of cyberspace. Similar to the Internet, it is a world – or even a

reality – beyond our physical world on Earth. However, it differs in that the metaverse allows one to immerse oneself as avatars in one's environment, usually through augmented reality (AR) or virtual reality (VR), which people have and will be able to increasingly access using tools such as the VR glasses. The first usage of the term 'metauniverse' was in the 1992 novel 'Snow Crash'. It describes a virtual reality that people can explore using their avatars.¹

For example, Fortnite, an online game, practically hosted a live concert in 2020 that was attended by millions. Although free to visit, each virtual world usually also facilitates in-game purchases with its own virtual currency (which can be converted to real money). MANA, the currency used in Decentraland, has a market cap of over \$3 billion. One company stated, it spent more than \$2.5 million on land in Decentraland, a cryptocurrency-based metauniverse with its own currency where every piece of in-game content is completely autonomously owned by players. Another firm stated, it spent \$4.3 million to buy a plot of land in Atari's The Sandbox metaverse. It is argued that the metaverse is to these various virtual worlds what the Internet is to websites. The website is a combination of three aspects: audiovisual, informational and technical (software). It is defined as a set of interconnected informational online resources in audiovisual form, intended for viewing via a computer network using special programs – browsers, usually united by a common theme². Horizon Workrooms, software the provision, offered by Meta (formerly Facebook), will allow users to interact virtually in 3-D conference rooms using VR glasses. So, considering Mark Zuckerberg's vision of the metaverse, the time we spend in such virtual realities will only increase. For example, CNBC reports that since Facebook transformed to Meta, prices for digital stories have increased by as much as 500%.

According to R.A. Maidanyk, the question arises objectively and naturally about the expediency of applying the *numerus clausus* principle in real property law. Recently, opinions have been expressed regarding the possibility of modifying the *numerus clausus* principle in the form of a principle regarding a closed/open list of property rights.³ K. Nekit indicates the possibility of the existence of the right of ownership of virtual objects as incorporeal property.⁴

As noted by N.O. Gorobec and I.V. Maysun virtual property arises in relation to virtual objects (data) that have economic value, are objects of trade in the virtual space, do not have a material shell, are unique, stable, serviceable, and considered by the owners as their belongings. Properties such as uniqueness, stability, and serviceability allow these objects to be included in the institution of property rights. Virtual space allows the owner of virtual objects to own, use, and dispose them of.

1 Taylor Wessing. (31 January 2022).

2 Jefremova, K.V. 2017, 4

3 Maidanik, 2019. 13.

4 Nekit., 2019, 39.

They believe in electronic relations in the field of virtual space and judicial practice, it is noteworthy that the right of virtual property arises on virtual objects, which should be considered as a special type of property right, the object of which is incorporeal articles.⁵

R.A. Maidanyk believes that the current stage of the development of the institution of property law is characterised by the expansion of the list of subjective rights with features of property law, the convergence of the concepts of property rights and obligations, the emergence of new types of 'intangible' property that have the characteristics of goods (information, know-how, etc.). There is a tendency to reevaluate the social purpose of property rights, and property rights in general, which is determined considering the doctrine of liberal legal understanding, based on the ideas of social solidarity and cooperation, economic and sociological analysis of law.⁶

L.R. Maydanik notes that as the interaction with the virtual object on the part of the user may be limited by the developer or owner of the site, the exercise of the entire set of rights of ownership (possession, use, disposal) at its discretion with respect to such a virtual object is limited. Therefore, the realisation of the title of ownership of a virtual object depends to a certain extent on the will of other persons, and this does not give grounds for the unquestionable extension of the regime of an incorporeal object to a virtual object. In addition, domestic law-enforcement practice considers the list of 27 objects of property rights provided for in the Central Committee to be closed, and therefore, the concept of an incorporeal object, to which it is proposed to attribute a virtual object, requires a direct indication of the law.⁷

The metaverse, or Web 3.0, is developing; the first layer being the blockchain, an immutable database for storing information along with the spread of cryptocurrencies, the ability to transfer value similar to currency, however, later representing all assets. Asset tokenisation is a fundamental concept and means that anything physical, or more importantly digital in this case, can be proven and authorised by a code in an immutable ledger.

The latest manifestation of this authenticated representation of property is NFT (Non-Fungible Tokens), a unique digital asset which can be an image, piece of music, video, 3D objects or other type of creative work,⁸ and their popularity is the slippery slope of the metaverse. There is no specific regulation regarding NFTs yet, however, the carefree attitude of early adopters should not avoid the reality. NFTs are regulated similar to any other type of asset that can be bought online. People buy digital art; the houses, offices, land and even the designer clothes of this world – legally represented by deeds, contracts and leases – have been tokenised. This means one can buy digital

5 Horobets and Maisun, 2021, 54.

6 Maidanik, 2017, 227.

7 Maidanik, 2019, 62.

8 Pin Lean Lau. (1.02.2022).

land, houses, and other objects on a platform such as OpenSea to prove one owns them. This value creates a network effect that allows interaction within the ecosystem, and therefore a new metaverse (world) is born.⁹

By eliminating the physicality of the real world, the metaverse is poised to push our human society away from several ancient legal concepts, including the concept of property. Since 'possession' has a completely different meaning in the virtual world than it does in the real world, what one owns or can own in the metaverse differs. The solution to the problem of protecting their rights is to extend the legal regime of ownership to virtual objects. International law firm Reed Smith said that 'ownership' in the metaverse is the provision of a service (authentication of a work of art) or the granting of a license (a limited permission to use and enjoy digital art), however, it is not that actual ownership is transferred to the acquirer. In such cases, the true ownership remains with the owner. For example, this could imply that the buyer cannot sell the item without the rightful owner's permission. The key takeaway from this is that NFT buyers need to understand what they are 'buying'.¹⁰

This does not contradict the Ukrainian concept of property rights, which recognises the possibility of the existence of ownership rights to incorporeal property, that is, virtual objects. The right of virtual property should be distinguished from the right of intellectual property and can be defined as a specific type of property right, the object of which is virtual property. In addition to the specifics of the object of such a right (which will always be incorporeal objects, that is, virtual property), this right will be characterised by the specifics of the grounds for its origin, content, protection, etc. Indeed, OpenSea is simply one of the several marketplaces where people can purchase future ownership of assets in the metaverse. All ownership of assets, both digital and physical, can be transferred to NFTs on blockchains. All of these critical elements are then superimposed on the animation platform – the actual space inside the headset that has been with us for years. It is asset tokenisation that makes this paradigm shift the most important. Transactional attorneys should be wary, and litigants should feel empowered.

Emerging virtual spaces have cities where one can buy almost anything. Land one can build one's house on, then fill that house with artwork (via NFT) and wear a suit that is a proven Ralph Lauren suit with Nike shoes. The concert one attends requires a ticket (another NFT) and the subsequent music one wishes to purchase is also digitally stored with copyright in mind. Again, this is all bought from companies with an emphasis on NFT ownership.

⁹ Joseph Raczynski. (11.10.2021).

¹⁰ Sophie Goossens Nick Breen. (19.11.2021).

These digital worlds are likely to be our future in the next decade, and a significant portion of our time will be spent inside these worlds, as OpenSea processed over \$3.3 billion in transactions in August alone, and this is only the beginning.

In the metaverse, people will interact, transact, own assets, have relationships, create objects and companies, create intellectual property (IP), have copyright issues, and advertise. In addition, crimes may occur, insurance will probably be developed, and there are several other IRL (In Real Life) concepts that are currently being developed – and this will require the involvement of legal professionals.

Moreover, it will include the scaling of DeFi (decentralized finance), which has already begun and will continue to grow. Furthermore, DAOs (decentralised autonomous organisations) are created – these are human-created organisations that spread within the metaverse; \$25 billion is for one DeFi DAO. The implications of the creation of the metaverse for the legal and social community are enormous. During the next few years of the development of the metaverse, there will be a need for lawyers to solve legal problems, lawyers will be able to apply their legal intelligence and critical thinking.¹¹

Considering that when one buys a piece of virtual real estate, one receives an immutable token that represents, essentially, a digital space. Once an account is created on one of the metauniverse platforms, one can use cryptocurrency to buy land either by selling project land or directly from landowners. Land can be bought via auction or at a fixed price, and thereafter, one can build one's own piece of real estate in the metaverse – be it a digital house, a tower, a museum, and more. Or one can sell it on the secondary market¹² According to CNBC, virtual real estate prices have increased by 500% since Facebook switched to Meta. Plots in some virtual worlds are already as expensive as a real house¹³ Thus, if there is demand and supply in the metaverse, then there is virtual property that is the object of civil rights.

Today, there are four platforms for buying virtual property:

1. SAND: What began as an online video game in 2012 transformed into a meta universe platform in November 2021. In real estate, it is the largest platform in the metaverse, owning 62% of the available land of the metaverse, which is equivalent to 166,464 evenly divided plots. The metaverse real estate market can fluctuate in price similar to the real one. In January 2022, a plot of land was valued at \$14,099, up from \$12,700 only a month earlier. Land can be bought using the SAND currency available on Binance or purchased through auctions. According to Analytics India Mag, its currency is \$SAND, which is equivalent to \$2.80.

11 Nokit, 2019.42.

12 Carmela Chirinos. (2.02.2002).

13 Raisa Bruner. (20.01.2022).

2. Decentraland: It was founded in 2015 as an open-source 3D world. Its parcels sell for \$14,440 and its cryptocurrency is MANA, which as of January 11th was worth \$4.40 per piece. It is one of the oldest platforms in the metaverse, and as of January 2022 had 90,600 equally divided plots. However, land is limited and only the community can create more plots/land.
3. Cryptovoxels: The smallest of the virtual blockchain worlds, Cryptovoxels, originally comprised only 3,026 parcels. Prices per parcel are variable and traded through OpenSea, the leading NFT marketplace. They can be purchased in USD or ETH. While not currently the largest metaverse, it continues to expand, according to Metaverse Property, the world's first virtual real estate company.
4. Somnii: First released to the public in September 2018, Somnium had 5,000 unevenly distributed plots of land in January 2022. However, it frees up more land from time to time. The space is used for VR, PC and Internet. The currency is CUBE, equivalent to \$7.19 as of 11 January 2022.

For the legal settlement of legal issues in the metaverse, it is proposed to use smart contracts that use blockchain technology to fulfil the terms of the agreement, such as the fulfilment of payment terms for the purchase of property, asset pledge or return policy. Smart contracts are believed to be a natural, automated solution for buying, selling and fulfilling products in the metaverse – and while the legal status of smart contracts remains far from established, the growth of the metaverse could create opportunities for their wider use.¹⁴

Andrew Kiegel, CEO of Tokens.com, spent \$2.4 million on land in the fashion district of Downtown. Moreover, he stated that he would rent out some of the acquired space to clothing brands for window shopping. He considers the potential in the metaverse land to be most fruitful if it is used for commercial purposes, such as renting space and hosting events. Republic Realm's Janine Yorio shares a similar view and predicts that land value will be determined not by what owners build, but by its functionality. Therefore, the construction of a museum or popular attraction can increase prices in the area. Moreover, for example, Paris Hilton, created a virtual island on Roblox and played an electronic set for revellers last New Year. Other brands and celebrities supporting the metaverse include Tommy Hilfiger, Nike, and Reese Witherspoon.¹⁵

However, there is an argument that location does not matter. The entire point of the metaverse is that one can teleport anywhere, which makes some investors question the true value of the land. Some even believe that it may become pointless over time, arguing that unlike earth, where earth is limited, the metaverse is infinite,

¹⁴ Ken Crutchfield. (2022).

¹⁵ Carmela Chirinos. (2.02.2002).

making location less important. Buying virtual land is simple – either directly from the platform or through the developer. Investors build on their land and make it interactive. ‘You can decorate it, you can change it, you can renovate it’, Yorio says. ‘This is the code’.¹⁶

Whether virtual objects are property, continues to be debated. Considering international practice, it can be confidently stated that various countries such as South Korea, China, and Taiwan have already considered this issue and laid the legal foundation in this direction. This situation is connected with the fact that the mentioned countries are a couple of steps ahead in terms of virtualisation of society in general and the economy in particular. In 2001, the Ministry of Justice of Taiwan recognised by its resolution that virtual objects are property that can be alienated and/or transferred to anyone. Actions that are performed in relation to such objects should be considered as actions that are performed with ordinary property. There were several reasons for this decision. First, it was done to correctly classify crimes committed in the field of virtual property and provide punishment for illegal actions. Second, to unify the understanding of the legal nature of the origin of virtual objects. Third, to regulate the circulation of virtual objects at the state level.¹⁷

Regarding national legal regulation, in the draft law of Ukraine from 2019, a virtual asset is defined as a special type of property, which is a value in digital form that is created, accounted for and alienated electronically. Virtual assets include crypto, token and other virtual assets. Token asset – a type of virtual asset in the form of a token, which is created, accounted for and alienated in a distributed ledger, certifies the property and/or non-property rights of the owner of the token asset, which correspond to the obligations of the person who issued the token asset.

Transactions with the token asset are taxed according to the rules applicable to property and/or non-property rights evidenced by the token asset.

Moreover, it is proposed to amend Article 190 of the Civil Code of Ukraine, which defines the concept of property as a special object and includes a separate object, a set of objects, virtual assets, as well as property rights and obligations. Article 139 of the Civil Code property is recognised as a set of objects and other valuables (including virtual assets and other intangible assets), which have a value definition, are produced or used in the activities of business entities and are reflected in their balance sheet or are considered in other legally prescribed forms of accounting of the property of these entities’ objects.¹⁸

16 Chris DiLella. Andrea Day. (2022).

17 Jefremova, K. (2017). 9.

18 (2019), ‘On amendments to the Tax Code of Ukraine and some other laws of Ukraine regarding the taxation of operations with crypto-assets.’

Virtual Assets as an Object of Civil Rights

In the 'Law on Virtual Assets'¹⁹ a virtual asset is an intangible good that is the object of civil rights, has a value and is expressed by a set of data in electronic form. That is, the virtual asset has legally become property, therefore illegal actions against it can be the subject of protection in criminal proceedings (for example, an account can become the object of theft). If we analyse the concept of a virtual asset proposed by the specified Law, it is possible to single out the following features:

- intangible good;
 - is the object of civil rights;
 - has value;
 - a virtual asset is expressed (exists) in electronic form in the form of a set of data;
 - existence is ensured by the system of ensuring the turnover of virtual assets.
- Thus, the 'life' of a virtual asset is ensured by the appropriate software complex.

The existence and liquidity of a virtual asset is ensured by the system of ensuring the turnover of virtual assets. A virtual asset can testify to property rights, in particular, claims to other objects of civil rights.

The law also regulates the ownership of a virtual asset, in particular, that it is acquired:

- by the fact of creating a virtual asset,
- execution of a transaction regarding a virtual asset,
- based on the provisions of the law or a court decision and is evidenced by the possession of the key of such a virtual asset, except for specified cases.

The conditions of acquisition, transfer and the scope of rights to virtual assets can be expressed in the form of algorithms and functions of the system for ensuring the turnover of virtual assets, within which the turnover of virtual assets is conducted.

In general, the 'Law on Virtual Assets' is a framework and aims to gradually legalise the segment of the market, which is currently actively operating in the 'grey' zone.

Currently, the most anticipated continuation of legislative work in this area is the draft amendments to the Tax Code of Ukraine ('Tax Code'), which will determine the taxation regime of operations with virtual assets and will become a catalyst for the development of this legal field.

One of its chief problems is a small correction made between the first and second readings. This is Part 7, Article 4 of this law. It states that virtual assets are not a means of payment on the territory of Ukraine. Moreover, this is acceptable, as they are not recognised as an official means of payment almost anywhere in the world. However, they cannot be the subject of exchange for property, goods, works, and services. This

¹⁹ Law About Virtual Assets (2022)

is precisely the problem, because in no normal jurisdiction, where there is already a market for virtual assets, there are any such restrictions. Owing to this, the use of virtual assets is significantly reduced, and they become practically useless. The law makes p2p-operations (Peer-to-Peer – from person to person) illegal. Moreover, this is the easiest way to send money from one physical person to another. For example, a person decided to sell his computer through OLX and the buyer offers to pay for it in USDT. However, he will not succeed, because such transfers will be illegal in Ukraine.

4.

Conclusion

Structuring, governance, and ownership issues in virtual worlds should be encouraged through enhanced freedom in these areas, which is essential for the further development of the metaverse. The best manner to achieve this goal would be to recognise that participants should have ownership of the properties they create, develop, and buy.

The property systems in all of these worlds largely follow the norms of a modern private property system, with free alienation of property, transfers based on local currency, etc., which is not surprising, considering that the virtual worlds are largely created by 'property-owning' corporations. In general, virtual property in the metaverse primarily faces two problems: one is the scope of virtual property, that is, what standard should be used to judge whether a virtual object belongs to virtual property; the other is the relationship of ownership and possession of virtual objects, that is, how to determine the right of ownership in the metauniverse.

Although the property right in the current Civil Code divides property into movable and immovable property, with the development of blockchain and the virtual world, virtual IP is an intangible property right through intelligent algorithms, data storage, and creative design, which meets the production and living needs of people in virtual reality, and therefore, it is possible to investigate the scale of inclusion of such virtual properties in objects. In particular, it is necessary to amend Article 177 of the Civil Code of Ukraine: 'Objects of civil rights are things, including money and securities, other property, including virtual property, property rights, results of works, services, results of intellectual, creative activity, information, as well as other tangible and intangible goods'.

Adoption of the 'Law on Virtual Assets' provided virtual assets a certain legal status, and market participants – the opportunity to protect their interests and work in the legal field. However, an important step, in addition to the actual changes to the Civil Code of Ukraine, is the development and implementation of normative legal acts,

which, in accordance with the provisions of the Law, will regulate the details of the functioning of the virtual assets market, and ensure the protection of participants from the risks of fraud and investment losses.

By recognising ownership of virtual property between participants, the path to democratisation of the metaverse is likely to begin. This democratisation is necessary to live up to the expectation that virtual worlds will become a new vehicle for business and economic development, rather than remaining tightly regulated amusement parks.

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