

Legal model of virtual reality in the cyberspace as a factor of human rights protection in the modern world (on the example of multiplayer online games)

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Abstract. The authors, analyzing modern approaches to the definition of virtual reality and relations arising in connection with the circulation of virtual reality objects, conclude that there is an opportunity and need to regulate such relations, particularly in the sphere of online games. The desire to regulate all spheres of human life is excessive and does not entail the consequences it aims for. However, virtual gaming activities will be subject to fundamental law if the person entering into it knows that his actions will have consequences for the real world. The authors focus on the relationships that arise between participants in online multiplayer games. These relations are taken as examples of virtual reality, little studied by jurisprudence, and lack of adequate legal regulation. The authors, in particular, consider the problem of the legal qualification of relations between the players on the alienation of various game objects to each other in the online multiplayer game: whether such transactions are allowed, whether they have a legal nature, which institute and which branch of law is designed to regulate the actions of the players? The article concludes that there is an assignment of the right of claim between users-players: the right of claim to the game developer, which arose under the contract on the organization of the gameplay, is ceded. Today such qualification of relations is optimal; however, it has the nature of a temporary solution. According to the authors, neither proprietary nor liability law in its traditional form can become a fullfledged regulator of virtual reality; sooner or later, the courts, and following them the legislators, will be forced to recognize the reality of virtual property as a special kind of social relations.

Keywords: Virtual Reality - Virtual Property - Ownership - Virtual Reality Items - Online Multiplayer Games - Assignment of Rights

1 Introduction

Virtual reality or virtual property is simply computer code. Unlike computer code, which expresses simple ideas, the computer code of virtual property "is designed to act more like land or chattels" (Fairfield, 2005). The intangible nature of this sound, created in the image and likeness of the things of the natural world, poses to jurisprudence and other sciences the difficult task of qualifying relationships over virtual reality (one might say, in virtual reality).

We will not confine ourselves to a legal analysis of the problem, but we see the main task in describing virtual reality from the perspective of law. Are there more or less adequate legal models of virtual reality in place today? Is there a competition of ideas in jurisprudence about what virtual reality is, what are the objects (objects) of virtual reality, and how to regulate relations between actual people regarding virtual reality objects? However, the first question to be asked here is whether society needs legal regulation of relations regarding virtual reality objects?

Multiplayer online games are taken as an example of virtual reality. The choice of this remarkable object of study is due to its extreme prevalence. Also readily available for analysis are user agreements, which have legal value and judicial practice. The authors of this study and the readers' own experience of participation in games are also not unimportant. It should be noted that the term "virtual property," which is widespread in the literature, is mainly used to refer to the so-called "game property" - weapons, equipment, artifacts, in-game money, and other "property," including the "appearance" and additional abilities of the avatar (character) in an online multiplayer game. Currently, "virtual worlds" have hundreds of millions of users; for example, the online multiplayer game World of Tanks alone has about 90 million registered users.

In jurisprudence, there are three approaches to describing virtual reality, its objects and relationships.

The first option is expressed in the "objectification" of virtual world objects. Thus, these objects are proposed as property rights in their classical sense. Nevertheless, the main problem of assignment of ownership rights to the players lies in interpreting the thing. Lack of actual domination is one of the main features distinguishing a thing from information in general and virtual reality in particular. This idea is not clearly expressed in the Civil Code of the Russian Federation but determines the content of many institutions of civil law. The same regulation is contained in German civil law: things in the law are only physical objects. In contrast, in Czech civil law, a thing in the legal sense refers to anything that is separated from a person and serves the needs of people.

Some experts refuse to identify virtual reality objects and things. In this case, the purchase of virtual gaming property is not a purchase and sale in the usual sense of this transaction, with such a transaction is not associated with the transfer of ownership. Transactions between users-players are qualified as a service to change the parameters of the gameplay. It turns out that by transferring an object of virtual reality, one player of an online multiplayer game renders a service to another player, bringing to the game of the last helpful changes for him (Arkhipov & Rybalov, 2018). With this approach, purely legal problems can arise. For example, Blizzard's license agreement with the user prohibits game services, which can be understood as the service mentioned above.

In addition, the executor is obliged to provide the services personally, but most often, it is necessary to turn to a third party - the developer because the player himself manually will not be able to transfer the object from his account to the account of the assignee.

The relationship described above could be qualified as an assignment of the right of the claim (assignment of the right between the initial and subsequent users) under the contract to provide gaming services (i.e., under the contract between the initial user and the developer). Such qualification of relations between users can be deduced from the qualification of relations between the user and the developer proposed by the Federal Tax Service of Russia when the player gives away money. During the litigation in the dispute with Mail.Ru Games LLC in case No. A40-91072/14 in the Arbitration Court of Moscow, the Federal Tax Service of Russia stated that the actual will of the parties of the license agreements when concluding them was aimed at providing Mail.Ru Games LLC with services for organizing the gameplay.

The assignor transfers his right to a virtual object to the assignee. Does such a transaction violate the user agreement? Not if it is Blizzard. However, such a transaction may fall under the contractual prohibition on assignment in the licensing agreements of some other games (Arkhipov & Rybalov, 2018).

We suggest that we do not look for definitive answers in the realm of traditional institutions of law. Of course, at first, one cannot avoid applying existing norms by analogy: today, we tend to consider virtual reality relations as if they were binding legal relations. Perhaps the optimal variant of describing transactions between players on the alienation of game property would be the option of assignment of rights concerning the game company (game developer). Nevertheless, it is necessary to regulate such relations as fundamentally new for society and for the law in the long term. One should not look for the signs of a property right or obligation in them. Virtual property should be understood as sui generis, and the rules on property and things established in the property law should be applied by analogy.

2 Materials and Methods

This study has a pronounced complex interdisciplinary character. It uses the achievements of philosophy, anthropology, economic science, and, of course, jurisprudence.

It is interesting to consider virtual reality in terms of ontology. Such a study was carried out in Russia, mainly by A.M. Astashkin (Astashkin, 2018). He gave an overview of philosophical views on virtual reality. For example, Derrida holds the view that virtual entities depend on perception and the perceiver's ability to be aware of them. They arise from the synthesis of thinking and representation. Ghostliness and simulacrum are the main qualities of virtual objects. Another philosopher, Baudrillard, questions the very notion of virtual reality: using this phrase, we are no longer dealing with the good old philosophical virtual, which sought to turn into the actual and was in a dialectical relationship with it. Now the virtual is what is replacing the real.

Astashkin himself concludes that the virtual objects generated by digital technologies are not present in the technologies themselves but originate in human consciousness.

Anthropologist N. Yee studied the number of time people spent in Norrath's fictional world and their motivations for doing so. He found that subscribers to the "game" spend an average of 22.71 hours per week in this fictional world, with approximately 10% of users spending more than 40 hours per week in the game and 2% spending up to 60 hours per week (Yee, 2006). Another study found that 22% of participants considered Norrath their primary residence and stated that if possible, they would spend all their time there (Castranova, 2001).

In addition, everyday users of virtual worlds spend large amounts of money on virtual reality items. Examples abound, but the most expensive purchase is considered to be Planet Calypso, which cost the owner \$6,000,000 (Planet Calypso Sold, 2011).

B. Pollitzer explains why virtual objects acquire absolute value. "Economists will tell you that the value of a particular object is related to its scarcity. For players to assign value to a virtual object in the real world, there must be some scarce real-world commodity necessary to create it. That item is time..." (Pollitzer, 2007). What kind of time are we talking about? For example, the world is already created, but a "spell potion" is required to defeat the "red dragon." In order to do this, the player needs to reach level 10, which is about 1000 hours of game time. Because of this, users are willing to immediately purchase the benefits they need in the game from those who already have such items in stock. Users can buy the appropriate account.

Users think that virtual objects are their property. G. Lastowka & D. Hunter note that "researchers in behavioral economics have found that people tend to invest in objects personally they think they own. "The 'contribution effect' is a persistent cognitive bias in which people overvalue the assets they acquire compared to those owned by others. That is, people place a higher value on objects they perceive to be their own" (Lastowka & Hunter, 2004).

Other reasons for the popularity of virtual realities are also interesting. A.A. Trofimova notes that "awareness and fear of death organize and direct human

activity to form conditions of comfortable and safe existence. In this way, the striving for immortal existence in other more private spheres is formed, it is a game reality, a space of artistic meaning where the man works out different possible situations, and death in this respect is only a convention. The ontological principle of virtual reality consists of overcoming the limited nature of man within virtual reality. This explains the (sometimes pathological) human attraction to this space of interaction" (Trofimova, 2012).

We believe that in the conditions described above, the law cannot ignore virtual reality. Of course, the prevalence of any relationship is not yet a reason for intervention on the part of the legislator. For relations to fall within the scope of the law, they must perceive the impact of the law. It is a well-known fact that not all aspects of social life are accessible to regulation by law. Strong arguments are needed to support the conclusion that law can and should regulate virtual reality. This is not obvious.

The theoretical basis of the study consists of scientific publications of modern Russian and foreign authors. To some extent, the study has a comparative legal nature. Creators of virtual reality, for example, developers of multiplayer online games, operate in different jurisdictions, and their proposed user agreements are very diverse in content; it is impossible to fully understand them if we do not consider the specifics of the relevant national law.

Systemic interpretation of the rules of law is actively used: it is essential to recognize virtual reality as an object of legal regulation and find an institution corresponding to it. The fact is that along with general legal principles, there are principles of sectoral, principles of sub-branch nature, even at the level of individual institutes of law, there are essential ideas characteristic of a particular institute, which give extraordinary specificity to the norms of this institute. It cannot be excluded that the same sphere of social life may be subject to the influence of different branches and institutes of law, sometimes even opposite in their content. However, the choice of the regulator will affect the quality of regulation, the degree of protection of rights, and, ultimately, the quality of life of people involved in social relations if we do not take into account the specifics of the relevant national law.

3 Results

The current world order creates new mishaps for us. Today, people can communicate with people they never knew before, "get married and have a wedding" in the virtual world without leaving their room. A Japanese woman was arrested for "killing" her virtual husband after divorcing her (Japanese woman arrested, 2008). In South Korea, more than 22,000 cybercrimes involving virtual property were reported to police in 2003, and 1,0187 teenagers were arrested for stealing virtual property (Fairfield, 2005). In 2005, Qui Chengwei, a user of the online game Legends of Mir III, lent his friend a unique sword, which he did not return but resold on eBay for the equivalent of €820. The police refused to intervene. Finding no help from law enforcement, Qui Chengwei took justice into his own hands and killed his former friend (Li, 2005).

At the same time, the practice is known of cases where virtual objects were stolen, or servers were blocked (Arkhipov, 2014).

According to Professor A. Lakhani, virtual worlds have three main characteristics. First, virtual worlds are interactive, which means that although a virtual world may exist on one computer or one server, it can be accessed remotely by many people. Second, virtual worlds provide a level of "physicality" that mimics the real world. The third is permanence, the ability of a virtual program to continue to operate regardless of whether or not anyone is at the location of the people and the owner of the objects and the actions of the avatars (Lakhani, 2014).

V.V. Arkhipov identifies three attributes of virtual reality: to contain a simulated world (environment), to allow the participation of multiple users who can be identified, and to enable interaction between users (Arkhipov, 2013).

Most often, virtual worlds are represented by massively multiplayer online games. These are sophisticated pieces of software that create a three-dimensional world and allow users to create an identity (or "avatar") that can navigate and interact with that world through the eyes of that identity. Moreover, these worlds are multiplayer. The distinguishing feature of virtual worlds that provides them with appeal is the complexity of behavior possible in games.

Virtual objects (virtual property) usually include those intangible objects with economic value but are helpful or can be used exclusively in virtual space. The list of virtual property is quite broad, but, more importantly, it is open - the modern development of technology allows us to expect new virtual objects with property value.

Relations regarding avatars, accounts, and other virtual property need legal regulation, taking into account their specificity, for effective implementation and protection of rights to virtual property.

Even though national legislation may not have special norms regulating virtual reality, this sphere of social life is known to jurisprudence thanks to international law. Here it is advisable to refer to the concept of property developed by the European Court of Human Rights (from now on - ECHR), often incorrectly referred to in Russian publications as the concept of "property" (Rozhkova, 2007).

This concept, which is reflected in many ECHR rulings, suggests a comprehensive interpretation of the concept of "property" as used in Article 1 of Protocol No. 1 to the Convention for the Protection of Human Rights and Fundamental Freedoms. This approach allows the ECtHR judges to extend the provisions of this article, which guarantees the protection of property, not only to property in its classical sense (things, securities, intellectual property) but also to objects that are not directly mentioned as property in the legislation of most developed countries but have a specific economic value. Concerning the second group of objects, the ECHR acts often use a rather multidimensional term "assets" (economic assets), which means not only proprietary rights but often economic interests that have not been formalized in the law: "the concept of property" reflected in the first paragraph of Article 1 of Protocol No. 1 to the Convention has an autonomous meaning that is not limited to the right of ownership in respect of tangible things and does not depend on a formal classification under national law: certain other rights and interests constituting assets may also be regarded as

"property rights" and thus as "property" within the meaning of this provision. Following this concept has given ECtHR judges the possibility, when resolving cases, to consider as property (an economic asset), for example, future income, licenses and permits, business connections and established clientele, domain names.

The concept of "virtual property" covers many objects, the rights to which are undoubtedly related to the number of property rights, despite the "unreality" of the objects themselves. None of these objects are not directly mentioned in the civil legislation in the list of objects of civil rights does not affect the recognition of their "status" as objects of civil rights. This is explained by the fact that Article 128 of the Civil Code of the Russian Federation does not define what falls under the concept of "property," and the list of objects of civil rights contained therein is open. In this connection, the following conclusion can be made: the concept of "property" covers all that has economic value (has objective value) for participants of civil turnover and allows the transfer (transition) from one person to another.

In the analysis of scientific publications on the given topic, we had doubts about the fundamental need to distinguish virtual objects and regulate them with the rules of law, designed primarily for the real world. In order to regulate relations between players, it will be reasonable to refer to the theory of "magic circle", which often appears in the works of lawyers on controversial topics. The idea of the "magic circle" is that any game comprises a separate ethical space, detached from the real world, within which different rules apply than in the real world. For example, the practice of killing other players is not perceived as negative (Knorre, 2014).

According to this concept, players' behavior will not be subject to law rules as long as there is no clear violation of the game's rules and no adverse consequences in reality.

Of course, the conclusion that virtual reality is, in principle, subject to legal regulation and the conclusion that rights to virtual reality objects can be protected as rights to property does not allow a choice of specific rules of law applicable to virtual reality.

To consider relations about virtual reality objects solely from the position of the law of obligations would mean a significant reduction in the legal protection of the interests of virtual reality participants. Suppose the international and constitutional basis of these relations gives no reason for great concern, then in the transition to special legislation, such as civil law. In that case, the binding-legal characteristic of relations regarding virtual reality objects significantly weakens the legal position of ordinary participants of relations, that is, players. This circumstance forces us to look towards property law in general and towards the right of ownership in particular. However, in its traditional form, property law is hardly ready to open its arms to such a new and mysterious sphere of social life.

On the contrary, it seeks to escape from virtual reality by focusing its attention on ordinary things that can be touched, has weight, and occupy some space in the real world. Proof of this is the endless attempts to reform Russian property law when it would be explicitly written in the Civil Code: the right of ownership is only the right to things. Moreover, things in modern Russian jurisprudence are commonly understood as objects of the real world.

That is why it seems pretty appropriate to pose the question of virtual property as property of a particular kind, which does not belong to the right in rem, copyright, or the law of obligations. After all, if virtual reality is proven to be a special kind, then why the legal regulation of this relationship should fit within the framework of traditional institutions of law?

For example, Fairfield suggests three characteristics to determine whether something is virtual property or not: rivalry, permanence, and interconnectedness (Fairfield, 2005).

To help identify these protected virtual property interests, Fairfield draws a legal analogy between traditional and virtual property interests. Of course, there will be similarities to the traditional property, but there are also significant differences. A player cannot control, use, or own any virtual property without relying on the developer to provide a mechanism to ensure that its virtual property is preserved. In other words, speaking in the context of virtual worlds, the player has access to her virtual property as a result of the developer's initial and ongoing investment in creating and providing both the virtual world and the way to access the virtual world. It follows that without the developer's cooperation, the player would have no property-any virtual property, however abstract, would cease to exist.

4 Discussion

The dominant position of the developers is that virtual reality objects are the creation of the developer, which is an object of intellectual property. In turn, the user gets access to such an object by concluding a non-exclusive license agreement. This practice applies to Wargaming, Mail.ru LLC. In this case, Electronic Arts do not define the nature of the object, indicating only the possibility of buying in-game content. Nevertheless, this view of virtual property is problematic because there is uncertainty about the applicability of copyright to virtual property. Intellectual property law, in general, does not provide clear guidance as to whether it applies to virtual property. R.A. Bartle argues that virtual property does not fall into a clear category like software or databases. He states that virtual property is not treated as software but is the result of software execution. Virtual property is not a database but records in databases (Bartle, 2004). We tend to agree with him.

There is a point of view that actions with virtual reality items performed by players in exchange or other alienation are services to organize the gameplay parameters (Arkhipov & Rybalov, 2018). However, we can notice that even supporters of this interpretation tend to call it "legal crutches" and recognize it as possible without a better legislative solution.

If we look at the practice of the courts, we can notice that the Russian courts introduce double standards concerning multiplayer online games.

When it comes to the responsibility of developers for non-payment of taxes, the relationship between the developer of a multiplayer online game and players is characterized as a relationship from a mixed contract, which includes elements of a licensing agreement and a contract for the provision of compensated services.

However, when the dispute concerns the relationship between the player and the developer of the game, the court may reject the player's claims caused by the violation of the rules of the game. The presence or absence of violations of the rules of the game in the actions of the user refers to the organization of the game process, in connection with which the plaintiff's claims related to participation in the game, under paragraph 1 of article 1062 of the Civil Code of the Russian Federation are not subject to judicial protection. When it comes to the relationship between the developer of the game and the player, the characteristic of the contract as a mixed contract, which includes elements of the contract for the provision of services, is forgotten, and the concept of "game" is brought to the fore.

Nowadays, any legal qualification of virtual reality is situational. It is terrible that the current Civil Code of the Russian Federation does not have any clear solution to the problem, but also in the draft amendments, which the legislator plans to introduce in the section on the right of ownership, there is no such solution. Moreover, the planned qualification of ownership rights in the draft amendments only as rights to things, i.e., tangible objects of the natural world, leaves no chance for virtual reality to find a basis in the form of norms of ownership rights in its usual sense.

5 Conclusion

The regulation of the circulation of virtual reality objects is necessary for economic, social, and ontological reasons. Without particular necessity, one should not give virtual objects the status of objects of civil rights and subordinate relations within the game to the norms of the law of the natural world, since the game is a simulation of human life, allowing to "escape" from the existing legal field. However, as soon as the behavior of a third person or player violates the commonly accepted rules of the game and at the same time entails real property consequences, protection must be given to the affected player.

Ideas based on the qualification of relations between virtual reality participants as service contracts are inherent "crutches," as they cannot fully reflect the specifics of the relationship.

It still seems strange now, but over time and various virtual images may well turn out to be part of the thing (Ivanov, 2017). In the future, many more exotic objects like virtual things may be added.

We agree with those experts who predict that sooner or later, the courts, followed by legislators, will be forced to recognize the reality of virtual property (Duranske, 2008).

There is no special regulation of relations arising on online gaming platforms in Russia, and the conventional approach to such relations in judicial practice can be called detached.

Virtual reality objects appear either as services, or additional computer hardware software, or as a gambling game in law enforcement practice. The vagueness of approaches simultaneously reduces the level of protection of gamers' rights and carries risks for game operators. Under the standard provisions of game agreements,

the user is in a weaker position than the game operators: the account can be blocked without explanation, the loss of all artifacts, and the lack of any compensation from the game administration. However, the game services have their risks, for example, the recognition of the game as gambling and subsequent blocking, attacks by bots, and cheaters. Perhaps with the adoption of special rules, these negative aspects will be leveled.

References

- Arkhipov, V.V. (2013). Virtual law: the main problems of the new direction of legal research. *Jurisprudence*, 2, 93-114.
- Arkhipov, V.V. (2014). Virtual property: systemic legal problems in the context of the development of the computer game industry. *Law*, *9*, 69-90.
- Arkhipov V.V. & Rybalov A.O. (2018) *Ownership of virtual objects*. Retrieved from https://lfacademy.ru/course/1496348/1496376?autoplay=t
- Astashkin A.M. (2018). Analysis of the ontological status of virtual objects: Modal logic and Modern French Philosophy. *Philosophical Thought*, 10, 75-85.
- Bartle, R.A. (2004). *Pitfalls of Virtual Property*. Retrieved from https://www.academia.edu/13016129/Pitfalls of Virtual Property
- Castronova, E. (2001). Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier. CESifo Working Paper Series, 618, 1-40.
- Duranske, B.T. (2008). Virtual Law: Navigating the Legal Landscape of Virtual Worlds. Chicago: ABA Publishing.
- Fairfield, J (2005). Virtual Property. Boston, Massachusetts: Boston University Law Review. Japanese woman arrested after 'murdering' virtual husband in online computer game. (2008). Retrieved from
 - https://www.telegraph.co.uk/news/worldnews/asia/japan/3248106/Japanese-woman-arrested-after-murdering-virtual-husband-in-online-computer-game.html
- Ivanov, A.A. (2017). Intellectual property and property rights: problems of correlation. *Law*, *1*, 84-90.
- Knorre, A.V. Strategic interaction in online games: a view from game theory. Sociology of Science and Technology, 4, 105-116.
- Lakhani, A. (2014). Commercial transaction in the virtual world. Retrieved from https://scholars.cityu.edu.hk/en/publications/publication(98f78047-0690-46d7-8769f038d6114b24).html
- Lastowka, G. & Hunter, D. (2004) The Laws of the Virtual Worlds. Retrieved from http://dx.doi.org/10.2139/ssrn.402860
- Li C. (2005). Death sentence for on-line gamer. Retrieved from http://www.chinadaily.com.cn/english/doc/2005-06/08/content 449494.htm.
- Planet Calypso Sold for \$6 Million USD. (2011). Retrieved from https://www.mmorpg.com/entropia-universe/news/planet-calypso-sold-for-6-million-usd-1000019414#0me41127qBmfQXZ5.99
- Pollitzer, B. (2007). Serious Business: When Virtual Items Gain Real World Value. Retrieved from https://ssrn.com/abstract=1090048 or http://dx.doi.org/10.2139/ssrn.1090048
- Rozhkova, M.A. (2007) The concept of "property" in the legal provisions of the European Court of Human Rights. In M. A. Rozhkova (Ed.), *Objects of civil turnover* (pp. 95-112). Moscow: Statute.
- State Duma of the Russian Federation. (1994). Civil Code of the Russian Federation. (November 30, 1994 No. 51-FZ). Moscow, Russia.

- Trofimova, A.A. (2012). Ontological specifics of virtual reality. Bulletin of Tomsk State
- University, 359, 47-49.
 Yee, N. (2006). The Demographics, Motivations and Derived Experiences of Users of Massively-Multiuser Online Graphical Environments. PRESENCE: Teleoperators and Virtual Environments, 15, 309-329.