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Информационная безопасность компьютерных игр и проблемы, связанные с защитой прав пользователей и компаний

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Аннотация. Одно из самых быстроразвивающихся направлений в интеллектуальной собственности связано с компьютерными играми. Игры в большей степени по своей сути относятся к сфере развлечения, но помимо этого могут влиять на развитие некоторых навыков у игроков. Развитие сферы интеллектуальной собственности в компьютерных играх влияет не только на саму индустрию, но и затрагивает смежные отрасли, позволяя обеспечивать качественное развитие компаний. Многие результаты интеллектуальной деятельности в компьютерных играх могут найти свое применение в архитектуре, искусстве, литературе и др. Также важно отметить широкий охват пользователей компьютерных игр во всех странах мира. Существует большое количество игр, которые могут реализовываться на абсолютно разных технических устройствах, это позволяет максимально расширить клиентскую базу. Кроме того, существует обширное разнообразие жанров и режимов игр. Все это позволяет обеспечить интерактивным развлечением как младшую аудиторию пользователей, так и взрослую. Во многих странах отличается правовой подход к объектам интеллектуальной деятельности в компьютерных играх, от чего возникает ряд трудностей в обеспечении охраны и защиты прав разработчиков. Индустрия на рынке новая и постоянно меняющаяся, законодательство в разных странах отличается. На фоне развития в Российской Федерации данного направления, создания все более качественных и дорогих новых игровых проектов, возникает необходимость в совершенствовании законодательной базы. В статье описаны проблемы с интеллектуальной собственностью в области компьютерных игр.

Ключевые слова: интеллектуальная собственность, компьютерные игры, программы ЭВМ, пользовательский контент, модификации, пиратство

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Research article

The Information security of computer games and problems associated with the protection of the rights of users and companies

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Abstract. *One of the fastest growing areas in intellectual property is related to computer games. Games are more inherently related to the field of entertainment, but in addition they can affect the development of certain skills in players. The development of intellectual property in computer games affects not only the industry itself, but also affects related industries, allowing for the qualitative development of companies. Many results of intellectual activity in computer games can find their application in architecture, art, literature, etc. It is also important to note the wide coverage of computer game users in all countries of the world. There are a large number of games that can be implemented on completely different technical devices, this allows you to maximize the customer base. In addition, there is an extensive variety of genres and game modes. All this makes it possible to provide interactive entertainment for both younger and adult users. In many countries, the legal approach to intellectual property in computer games differs, which causes a number of difficulties in ensuring the protection and protection of the rights of developers. The industry on the market is new and constantly changing, the legislation differs in different countries. Against the background of the development of this direction in the Russian Federation, the creation of increasingly high-quality and expensive new game projects, there is a need to improve the legislative framework. The article describes the problems with intellectual property in the field of computer games.*

Keywords: intellectual property, computer games, computer programs, user content, modifications, piracy

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Computer games are one of the most profitable industries in the world, as they combine a complex of factors that emotionally affect the consumer. Recently, the computer games industry has experienced very rapid growth in our country, despite some decline in the past. Intellectual property plays an important role in the modern digital economy, including in the computer games industry. The number of large games is increasing and their budget is increasing. The number of development studios is also growing and the state's interest in financing such projects is increasing. The popularization of games can be indicated by the annual growth of the consumer base, as well as the increase in the average age among players. The computer games industry not only develops the IT sector, but also provides jobs for a wide range of specialists from different industries. It is also important to note that intellectual property plays an important role in the modern digital economy, including in the computer games industry.

Materials and research methods. Innovations in the computer games industry are studied and applied by specialists from different fields. This allows us to predict the potential of the final product, analyze the consumer market, provide projects with high-quality and more organized management.

The basis of the research is made up of empirical methods - description, analysis, induction, general scientific methods of cognition - analysis and synthesis, dialectical and logical method, system approach method.

Research results and their discussion. The development of technology and the availability of the Internet have led to the growth of popularity of computer games, which in turn has created new problems in the field of protection and defense of intellectual property. Computer games are a complex object of intellectual property and provide for a number of rights to objects included in these games.

Intellectual rights of computer game developers:

1) Copyright - developers have the exclusive right to reproduce, distribute, publicly display and modify their games, including computer programs, scripts, plots, musical compositions, etc.

2) Patent rights - game developers own intellectual property in new technologies or technical solutions, for example, they obtain patents for the technical process of creating improved surfaces through procedural generation, etc., as well as industrial designs, for example, the appearance of software code expressed in the design of the game environment and its appearance.

Computer game development companies use means of individualization when selling their products (trademarks within games, commercial designation of the development studio, brand name of the publisher, etc.) [1].

When concluding contracts, so-called contractual or contractual rights arise, which determine the relationship of developers, game authors with game publishers or other parties. These contracts describe the terms of cooperation between developers, publishers, etc., and allow for civil-law protection. Exclusive rights allow copyright holders to publicly reproduce and sell the results of their intellectual work.

The development of technology and the availability of the Internet have led to the growth in popularity of computer games, which, in turn, has created new problems in the field of protection and defense of intellectual property.

Nowadays, computer games have ceased to be a way to spend your free time, and they have long been perceived as not just children's entertainment. In modern society, computer games have developed into multi-genre mass interactive entertainment that is available to any segment of the population, regardless of income. Games are divided by the number of players in it (single-player or multi-player) and by genre depending on the gameplay, plot, and presentation of this plot. One of the modes of computer games are single-player games. In them, the player interacts with the virtual world alone. The most popular genres in single-player games are: role-playing games "RPG" ("The Witcher", "Fallout", "Skyrim", "DragonAge", "MassEffect", etc.), interactive cinema, where the player basically does not interact with the virtual world at all, studying history through video clips ("Detroit Become Human", "Until Down", etc.), "Rogue Like" or a roguelike, where the player starts the gameplay every time from the beginning in case of defeat or failure, always receiving different ways to complete the game ("Hades", "Slay the Spire", etc.).

In multiplayer online games, several players are in one game session at the same time. Like single-player games, they are divided into genres: multiplayer online battle arena "MOBA" ("Dota2", "LoL", "HOTS"), shooters or shooters ("CS:GO" or "CoD"), royal battles in which the goal is to determine one winner among a large number of other players ("PUBG", "Apex", "Fortnite"), fighting games in which the gameplay is carried out by implementing hand-to-hand combat among a limited number of game characters between two players ("Tekken", "MortalKombat") and others. Moreover, games can have intricate plot chains in the form of detectives or represent interactive movies with minimal player participation in the gameplay or can generally be for short-term leisure, like the already cult simple and popular game "Three in a row".

Unlike previous years, projects with large budgets and quality that matches the size of the budget have started to appear now. Previously, domestic developers did not produce large computer games, the so-called AAA games. This designation indicates the size of the project budget. Class AAA is practically the largest budget that is necessary for the implementation of projects. The budget depends on the size of the development and the team of developers. Sometimes developers do only a separate part of the work for larger studios, or mainly concentrate on work for the mobile games market, since they are easier and cheaper to produce and implement. Perhaps this is due to the shortcomings of the legislative framework in this area, since there was no need for it before. But with the emergence of games such as "Atomic Heart", "Trouble" and other large projects, there was a need to improve the legislative framework and increase the protection of intellectual property of objects inside computer games for both users and studios - developers of these games.

One of the main problems in this area is the gaps in the legislative framework. Due to the complexity of the intellectual property object itself, as well as the lack of a clear definition of a computer game, litigation often arises between the user and the gaming company [2]. Games, for the most part, serve to entertain the player. However, some companies create conditions within their product where the player must either spend their time in a computer game for days, or, as an alternative to the time spent, are forced to buy in-game loot boxes, cases, card sets, and the like, with which there is a chance to get a rare virtual item that speeds up the gameplay or makes the game much more exciting. This tactic is used by EA in the game FIFA, where card sets are purchased for real money and there is a chance to "get a rare football player" to win the game [3]. A similar tactic is the user's acquisition of a "battle pass", the essence of which is to create sequential rewards that open as the game's plot develops. As a rule, the "battle pass" has both paid and free rewards. But, since this is one of the means of monetization, there are very few free rewards for users. The vast majority of users either buy an in-game item within the computer game, or buy the "privilege" of accelerating the receipt of these rewards. Applies such tactics And V such games such as "Overwatch", "League of Legend", "Call of Duty", "PUBG Mobile", "Fall Guys" [4]. The examples of games given show that such tactics are widespread in both very large and small companies, and are used for both computer games and games for mobile devices.

In our country's legislative framework, computer games are not considered gambling, while in a number of other countries, such as Belgium, there is a complete ban on the possibility of obtaining an in-game advantage with random drop of items, such as loot boxes, etc. In the USA and France, fines for such companies and compensation for affected players are already being introduced at the legislative level. To solve the problem, these means of monetization for the protection of material resources and the moral state of consumers must be classified as gambling [5].

The second significant problem is the need to protect user content created within the virtual world of the game. The user does not own the results of intellectual activity created during the game. In addition to the variety of gaming technical solutions, with certain skills, players can create something unique and different from the original product/game or supplement it. Manufacturers can use modifications in subsequent versions of computer games, and modified games will be in even greater demand among consumers. Most often, modifications are made by enthusiasts to improve the gaming process free of charge, they post their work on websites for public use, transfer it to creative clubs, etc. As authors, they do not secure their rights to the results of intellectual activity [6].

There are a number of companies that appropriate the results of players' intellectual activity in contracts concluded with them. In particular, the company "Blizzard", after popularizing one of the modifications, wrote in the contract in subsequent games that in-game modifications created by players would belong to the company.

The history of computer games began with arcade machines. They were the founders of this entertainment sphere. Arcade is a genre of computer games in which the player receives an intense gameplay for a limited and, as a rule, short time.

These devices were mechanical constructions in which it was necessary to pay for a game session to start the game process. To do this, the player placed money in a special compartment and then could play for a limited time until he paid again to continue the game. Basically, arcade machines did not have games with a complex plot. All types of games in them served only to get points and increase the player's level on the table of records, creating an incentive for the client to play longer and spend more and more money. As a rule, it was impossible to complete the game in the full sense of the word, since the gameplay in such machines was endless.

The experience of attracting players was later used when the first game consoles and personal computers appeared. Among the first entertainments were just the analogues of arcades with machines. The first and most popular game in Russia was "Tetris", released in 1984. Since then, this game has been implemented in different forms and for different gaming platforms. The

creator of "Tetris" sold the rights to use the results of his intellectual activity to the company "Nintendo" for their implementation in the "GameBoy" device.

Several decades ago, many games were developed and mass-produced only for certain game consoles and were not distributed to other devices. At the moment, some games are also only available on a specific platform.

However, there are now publishing companies, such as Sony and XBOX, that are increasingly releasing ports of their console games to personal computers. This is done for versatility, expansion of the customer base and the number of potential consumers, and, ultimately, increasing profits.

Games developed in several stages, and each stage depended on the degree of improvement of the so-called "game engine" - a program for developing a game, created either by the developers or purchased from another studio.

An important role in the development of the computer games industry was played by the technical equipment of devices - the generation of consoles, video cards, processors, etc. The development of the computer games industry is directly related to the technical development and improvement of devices for reproducing these games.

In addition to modifications, in the genre of computer games "sandboxes" game program codes allow to create a 3D landscape model from internal tools, thus visualizing game objects. Visualized landscape models (buildings, products, transport, etc.) can be patented as industrial designs. In a number of games, players can create a unique musical composition due to the internal tools of the computer game.

There is a practice of registering trademarks for internal game cases. This practice is used in foreign countries. In our country, the practice of registering trademarks for in-game cases, if used, is not described [7].

The biggest problem in our country in the field of computer games is piracy. In the early stages of computer games development in the 1990s, due to the difficult situation in our country, illegal sale of games was widespread. The problem was so great that separate versions of computer games were created, distinguished by poor translation, slight technical changes or various covers on boxes for computer disks, popular game consoles were copied, all this was positioned as something new. Due to the widespread practice of piracy in our society, views have been entrenched where most often people do not pay the full price for objects-results of intellectual activity of game authors, but freely download them from the network for free or purchase a product much cheaper, bypassing any restrictions. For example, they create an account in another country, buy third-party accounts, and so on.

Over the last few years, with the change in the external world political situation, the situation has only worsened. This is due to the fact that many game manufacturers are leaving the Russian market and it is becoming impossible to buy licensed computer games. In such conditions, it is more difficult for computer game manufacturers to sell their products and earn money, they suffer colossal losses. This problem requires the attention of the state, tightening the law on piracy, strengthening control over the violation of intellectual property rights in computer games.

In addition to the problems described above, a computer game manufacturer also has difficulties acquiring rights to certain intellectual property objects. A computer game is a complex object when assigning intellectual rights to it. In some cases, it is necessary to purchase rights to use music, landscape models, design, technical solutions, and program code, since a computer game is a symbiosis of the results of the authors' intellectual activity [8].

The study revealed a problem of intellectual property rights violation due to the complexity of the system for acquiring these rights. The company "Mundfish", when purchasing the rights to use a certain musical composition (the group "Mirage" with the track "Muzika nas svyazala"), made a mistake, since the rights belonged not only to the company from which they purchased it, but also to the founder of the group. A court case took place, which subsequently negatively affected the marketing promotion of the computer game, its advertising. The

composition was in the trailer of the computer game, announced and shown at a major gaming event, the annual exhibition of computer games E3, but by a court decision all these trailers had to be temporarily removed from the video hosting YouTube, which affected further sales and promotion of the game. To correct the situation with the registration of intellectual rights to certain types of results of intellectual activity of internal cases of the game, it is necessary to change the legislative framework when acquiring these rights.

To ensure information security for users in computer games, it is necessary to create methods of protection against the introduction of malicious software into the program code or against the use of fraud. These include technical protection systems in the program code, as well as legislative acts regarding articles of law, security documents [9].

Another important issue is the issue of keeping players' confidential data safe; leaks of information happen very often in this industry. Most often, large game publishers are subject to attacks. At the same time, user content related to the results of intellectual activity can also be stolen [9].

In addition to all of the above, there is another problem - the possibility of the user losing their copies of the games.

There is also a practice among publishers to remove copies of old games from game libraries. This is due to the impossibility of technical support for such projects, refusal to renew license rights to use musical compositions, an attempt to sell a new product by moving the audience from the so-called "old to the new". For example, the company "Electronic Arts" removed the ability to purchase, install and use its game "Need for Speed: Most Wanted" because it did not renew license agreements for the ability to use copyrighted compositions in the game. If this practice continues, a situation will arise in which all copies will in fact be counterfeit, since they will illegally use someone else's intellectual property.

Another example of such a situation is the removal of the cult trilogy "GTA". The company "Rockstar" removed old versions of the games from libraries, because it released an improved edition of these games. Based on the analysis of the opinions of consumers of computer games, the player should have his own copy of the game, regardless of whether it is physical or digital, and the publisher should be limited by law and the courts when seizing goods from the consumer that he acquired legally [10].

It is necessary to punish at the legislative level large companies engaged in piracy activities, owners of sites from which illegal downloading of programs and computer games is possible. It is also worth noting that often through these services not only pirated copies of games are sold, but also a number of malicious software are introduced [7].

Based on all of the above, computer games are a complex and symbiosis of the results of intellectual activity, after securing rights, they can represent several objects of intellectual property. There are several problems and some of them require some changes in legislation in this area, additions to articles of the Civil Code of the Russian Federation, Resolutions of the Government of the Russian Federation.

To protect the rights of consumers and computer game developers, it is proposed:

1. Amend Article 1261 Part 4 of the Civil Code of the Russian Federation. The article should define the concept of computer games, and a separate subparagraph should indicate that some computer games will be recognized as gambling due to their specific nature;

2. Amend Article 1255, Part 4 of the Civil Code of the Russian Federation. Add the concept of "user content in computer games". This concept may include modifications, landscape models, design, technical solutions, program code to prevent companies from exceeding their authority, to protect the rights of authors to the objects they have created, and the rights of consumers to the results of their intellectual activity;

- 3) To amend the Supreme Court Resolution on the application of punishment under all articles affecting computer game objects, which will minimize such a phenomenon as "piracy" and eliminate violations of the law in this area. As a result, all these measures will contribute to increasing the profitability of studios and further effective development;

Information security in computer games is an important aspect for protecting the intellectual rights of computer game authors and users. Stimulating innovations in this area will contribute to the growth of computer game sales. The problems of protecting rights in computer games, issues of information security of developers and users require effective organization of protection of the results of intellectual activity created by them. The situation in the Russian Federation on the computer games market has shown the need for changes in the legislative framework, closer cooperation between authors, copyright holders, gaming companies and users to assist in the development of protection of the results of intellectual activity in computer games and for joint protection of intellectual property.

ЛИТЕРАТУРА

1. Осипова М. В., Фролова В. Д., Мануриков Я. Н. Интеллектуальная собственность как средство индивидуализации // Научные школы. Молодежь в науке и культуре XXI века: Материалы Международного научно-творческого форума (научной конференции), Челябинск, 24–25 ноября 2022 года. Челябинск: Челябинский государственный институт культуры, 2023. С. 75–78.
2. Долаева А. Р., Чистова В. А. Актуальные вопросы правового регулирования авторских прав программ для ЭВМ // Молодой исследователь Дона. 2019. № 5 (20). С. 117–120.
3. ЕА заявила, что лутбоксы в FIFA делают игровой процесс реалистичнее [Электронный ресурс]. URL: <https://ixbt.games/news/2021/10/09/ea-zayavila-cto-lutboksy-v-fifa-delayut-igrovoi-process-realisticnee.html> (дата обращения: 21.05.2024).
4. Боевой пропуск [Электронный ресурс]. URL: <https://ru.uptodown.com/android/battle-pass> (дата обращения: 21.05.2024).
5. Милашова И. Б., Наумова Р. Л. Виртуальная собственность или инновационная интеллектуальная собственность: проблемы теории и практики в контексте развития индустрии компьютерных игр // Актуальные проблемы права и экономики: Сборник научных трудов / Под общей редакцией А. В. Трофименко и А. М. Петрова. Саратов: Саратовский социально-экономический институт (филиал) федерального государственного бюджетного образовательного учреждения высшего образования «Российский экономический университет им. Г. В. Плеханова», 2016. С. 31–39.
6. Трофимова Т. А. К вопросу об управлении интеллектуальной собственностью и защите авторских прав // Осуществление и защита гражданских прав и интересов полиции России: вопросы теории и практики: Материалы всероссийской научно-практической конференции, Санкт-Петербург, 28 октября 2020 года. Санкт-Петербург: Санкт-Петербургский университет Министерства внутренних дел Российской Федерации, 2020. С. 77–80.
7. Демкович Д. А. Виртуальный мир как объект права интеллектуальной собственности // Суверенное государство и его право: актуальные проблемы юридической науки и правоприменительной практики в современной России» (к 370-летию со времени принятия Соборного Уложения (1649 года): сборник трудов XVI Всероссийских декабрьских юридических чтений в Костроме. Всероссийская научно-практическая конференция, Кострома, 12–13 декабря 2019 года. Том 2. Кострома: Костромской государственный университет, 2020. С. 118–122.
8. Амирасланов А. Ю., Осипова М. В. Управление интеллектуальной собственностью как фактор повышения эффективности работы малого инновационного предприятия // Наука молодых: вызовы и перспективы: Сборник материалов Всероссийской с международным участием научно-практической конференции, Великий Новгород, 15–19 мая 2023 года. Великий Новгород: Новгородский филиал федерального государственного бюджетного образовательного учреждения высшего образования Российская академия народного хозяйства и государственной службы при Президенте Российской Федерации, 2023. С. 168–171. EDN CONJUX.

9. Осипова М. В., Сергеева В. А. Инновационные компьютерные системы и защита прав интеллектуальной собственности // Научные школы. Молодежь в науке и культуре XXI века: Материалы Международного научно-творческого форума (научной конференции), Челябинск, 24–25 ноября 2022 года. Челябинск: Челябинский государственный институт культуры, 2023. С. 120–123. EDN XFYKCK.
10. Хронология катастрофы: что пошло не так с GTA: The Trilogy - The Definitive Edition [Электронный ресурс]. URL: <https://www.cybersport.ru/tags/games/khronologiya-katastrofy-cto-poshlo-ne-tak-s-gta-the-trilogy-the-definitive-edition> (дата обращения: 21.05.2024).

REFERENCES

1. Osipova MV, Frolova VD, Manurikom YaN. Intellectual property as a means of individualization. In Scientific schools. Youth in science and culture of the 21st century: Proceedings of the International scientific and creative forum (scientific conference), Chelyabinsk, November 24–25, 2022. Chelyabinsk: Chelyabinsk State Institute of Culture; 2023;75-78. (In Russ.).
2. Dolaeva AR, Chistova VA. Topical issues of legal regulation of computer programs copyright. Young Researcher of Don. 2019;5(20):117-120. (In Russ.).
3. EA Says FIFA Loot Boxes Make Gameplay More Realistic [Electronic resource]. Available from: <https://ixbt.games/news/2021/10/09/ea-zayavila-cto-lutboksy-v-fifa-delayut-igrovoi-process-realisticnee.html> [Accessed 21 May 2024]. (In Russ.).
4. Battle Pass [Electronic resource]. Available from: <https://ru.uptodown.com/android/battle-pass> [Accessed 21 May 2024]. (In Russ.).
5. Milashova IB, Naumova RL. Virtual property or innovative intellectual property: problems of theory and practice in the context of the development of the computer games industry. In Actual problems of law and economics: Collection of scientific papers. Under the general editorship of AV Trofimenko and AM Petrov. Saratov: Saratov Socio-Economic Institute (branch) of the Federal State Budgetary Educational Institution of Higher Education "Plekhanov Russian University of Economics"; 2016;31-39. (In Russ.).
6. Trofimova TA. On the issue of intellectual property management and copyright protection. In Implementation and protection of civil rights and interests of the Russian police: issues of theory and practice: Proceedings of the All-Russian scientific and practical conference, St. Petersburg, October 28, 2020. St. Petersburg: St. Petersburg University of the Ministry of Internal Affairs of the Russian Federation; 2020;77-80. (In Russ.).
7. Demkovich DA. The virtual world as an object of intellectual property law. In Sovereign state and its law: current problems of legal science and law enforcement practice in modern Russia" (on the 370th anniversary of the adoption of the Cathedral Code (1649): collection of works of the XVI All-Russian December legal readings in Kostroma. All-Russian scientific and practical conference, Kostroma, December 12-13, 2019. Vol. 2. Kostroma: Kostroma State University; 2020;118-122. (In Russ.).
8. Amiraslanov AYU, Osipova MV. The virtual world as an object of intellectual property law. In Sovereign state and its law: current problems of legal science and law enforcement practice in modern Russia" (on the 370th anniversary of the adoption of the Cathedral Code (1649): collection of works of the XVI All-Russian December legal readings in Kostroma. All-Russian scientific and practical conference, Kostroma, December 12-13, 2019. Vol. 2. Kostroma: Kostroma State University; 2023;168-171. EDN COHJUX. (In Russ.).
9. Osipova MV, Sergeeva VA. Innovative computer systems and protection of intellectual property rights. In Scientific schools. Youth in science and culture of the 21st century: Proceedings of the International scientific and creative forum (scientific conference), Chelyabinsk, November 24–25, 2022. Chelyabinsk: Chelyabinsk State Institute of Culture; 2023;120-123. EDN XFYKCK. (In Russ.).

10. Disaster timeline: what went wrong with GTA [Electronic resource]. Available from: <https://www.cybersport.ru/tags/games/khronologiya-katastrofy-cto-poshlo-ne-tak-s-gta-the-trilogy-the-definitive-edition> [Accessed 21 May 2024]. (In Russ.).

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