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INTELLECTUAL PROPERTY RIGHT TO OBJECTS CREATED BY ARTIFICIAL INTELLIGENCE

Formulation of the problem. Given the current presumption of authorship as well the objective impossibility of artificial intelligence to exercise copyright independently (for example, granting permission or prohibition to others to use the work) raises the question of which natural or legal person will own the copyright to the results of artificial intelligence. On the one hand, copyright may belong to the creator (developer) of artificial intelligence. Alternatively, the copyright may belong to the customer or another person who uses artificial intelligence as software to create new objects.

Analysis of recent research and publications. Theoretical basis the study is the work of the following scholars: Alan Turing, George Bull, Gottfried Leibniz, Charles Babbage, Ilona Mask, Charlotte Walker-Osborne and Christopher Chan, Hidemishi Fuji and Shunsuke Manage.

Formulation of the purpose of the article. The purpose of this article is to study the theoretical and practical problems associated with the use of intellectual property rights to objects created by artificial intelligence.

Presenting main material. The daily creation of new computer programs raises more and more questions about the copyright of works created with the help of artificial intelligence. Artificial intelligence is a unique product of technological progress that allows machines to learn using human and personal experience, to adapt to new conditions in their application, to perform a variety of tasks that have long been possible only to man, to predict events and optimize resources of various kinds.

The development of the use of artificial intelligence systems (hereinafter – AI) is a significant event of the XXI century. Artificial intelligence systems are used in automated journalism, financial reviews, market analysis, music, literature, art, movies, games, and in some cases generate texts, images, music, and other objects without the direct involvement of the individual.

According to WIPO, since the inception of the concept of "artificial intelligence" (1956) in the world filed patent applications for 340 thousand inventions in this field (an average of more than 5 thousand annually). Most applications are filed in the United States (more than 150 thousand) and in China (over 135 thousand), ie almost 85 % of all applications. At the same time, about 20 % (68 thousand) of patent applications in the field of AI were filed under the international procedure of WIPO (PCT system – Patent Cooperation Treaty). The leaders in AI applications are IBM, Microsoft, Tochiba, Samsung, and the Chinese Academy of Sciences (CAS).

According to the report Artificial Intelligence Industry in Eastern Europe 2018, compiled by Deep Knowledge Analytics, Ukraine is among the top three countries in Eastern Europe in the number of companies in the field of artificial intelligence (57 companies)[1]. Given these indicators, it is logical that the current Ukrainian legislation contains an open list of objects that can be protected by copyright and can potentially be created using artificial intelligence systems (for example, literary works or musical works).

At the same time, the analysis of the provisions of the domestic legislation of Ukraine shows the existence of certain problematic aspects regarding the regulation of copyright in works created with the help of artificial intelligence. Thus, first of all it is necessary to refer to the provisions of the Law of Ukraine "On Copyright and Related Rights"[2]. According to Article 1 of this law, the author is a natural person who has created a work through his creative work. However, artificial intelligence is not an individual, and therefore the recognition of its authorship seems questionable.

It should be noted that currently in no country at the legislative level is not properly regulated the issue of legal protection and copyright of works created by artificial intelligence. Only a few developed countries have normative

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legal documents that partially regulate the sphere of relations related to works created by artificial intelligence. The existing legal constructions in the United Kingdom and some other states of the British Commonwealth, which have tried to resolve these issues at the legislative level, do not correspond to the current level and prospects for the development of artificial intelligence technologies[3]. For example, in the United Kingdom, as in most other jurisdictions around the world, artificial intelligence systems are not yet endowed with legal personality and are not recognized as authors and rights holders of the results they generate, including potentially copyrighted works. According to section 9 (3) of the United Kingdom Copyright Act, the author of a computer-generated literary, dramatic, musical or artistic work is "considered to be the person who made the preparations necessary to create the work". In turn, according to section 178 of this law, which contains the basic terms and definitions, a computer-generated work is a "work generated by a computer in circumstances where there is no human author." Thus, section 9 (3) of the United Kingdom Copyright Act provides protection for works that do not have a human author, ie works that are not a direct result of human creativity.

In the United States, if a work is created by an individual using a machine, the rights to the work will be protected by copyright if other conditions are met, in particular regarding the demonstration of creativity by an individual during such use[4]. To acquire copyright protection, the work must reflect the creative expression of an individual[5]; the possibility of a copyright crisis is noted, as in some cases the results created with the help of AI may be more attractive to use than works created by individuals, as well as to enjoy greater commercial demand[6]. According to the USPTO consultations, there is no consensus on the possibility of terminating copyright infringement caused by a work created with the help of AI. Along with the existence of liability for copyright infringement in US copyright law (Title 17, United States Code), some experts believe that such liability may arise if the owner has the right and ability to control the activities of AI. Others believe that because the general legal doctrine of works created with artificial intelligence is unclear and courts should consider new issues regarding the control and predictability of the device. As AI becomes increasingly autonomous, changes in legislation may be needed. The possibility of copyright infringement as a result of AI's activity is also addressed in the GBIPO document. It is noted that like humans, AI can create and distribute copies of songs. If copyright is infringed, the person who controls the infringement should be responsible, according to the authors of the document. If the violation occurs during the "training" of AI, then the responsible person will be the person who "teaches" AI. If AI creates a work that infringes copyright, the person responsible will be the one who took the necessary action that caused AI to infringe copyright. This will most likely be an AI user[7]. In the United States, there is a situation where objects created using artificial intelligence and artificial intelligence directly cannot be protected by copyright, and objects created by humans using a computer as a means can. As early as 1965, the US Copyright Office foresaw such a problem in the future. However, it can hardly be said that this time has been used to advantage in order to prepare for technological change. This state of affairs deprives investors and developers of incentives to develop artificial intelligence. However, if it ceases to be profitable for these people to disclose their own objects, science, education and research will also suffer, as there will be less material that they can use under the doctrine of "fair use".

It should be noted that at present in the legislation of the United Kingdom and other countries there are no features of the definition of the subjects who should be responsible in this case; An important issue, from our point of view, is the need to amend the legislation in the GBIPO document to make it easier for data subjects to obtain copyright, sui generis data on databases, remuneration for the use of their works and data for "training" AI systems and creating AI related objects. Proposals include either limiting existing exceptions for use or introducing new rights regarding the use of input data and measures to facilitate licensing[8]. The vast majority of authors and respondents believe that the use of AI by an individual as a tool, if there is an individual's creative contribution to the result, should not lead to problems identifying the author or the party acquiring the property copyright.

Proposals for legal protection of objects created with the help of AI in scientific publications, documents of the European Commission, USPTO, GBIPO, AIPPI are summarized in the following versions. Since, in the opinion of Hartmann S. and others, there is no definition of non-property rights of natural persons-creators of phonograms, videograms, as well as the requirement of originality, the rights of phonogram producers can be used to protect audio signals (audio data); rights of producers of the first film recordings – for audiovisual objects; broadcasting rights – in relation to recordings of programs created using AI. According to the authors, the objects created by AI in alphanumeric form, ie texts, remain without legal protection[9]. A similar approach is given in the GBIPO document, stating (taking into account the specifics of British law) that for a number of objects (sound recordings, films, broadcasting) there are no requirements for originality. The rights to such objects belong to producers, producers, publishers, despite their creative contribution. This can be used to protect the rights to the tangible results obtained by AI. The 2019 AIPPI Resolution also defines the possibility of applying related rights as well as copyright outside the meaning of the Berne Convention.

There is also the question of the responsibilities of artificial intelligence. Resolution 2015/2103 (INL) of the European Parliament of 16 February 2017 with the recommendations of the European Commission on the civil law regulation of robotics emphasizes the impossibility of bringing artificial intelligence to justice for actions that have caused harm to third parties. In this case, it will be reimbursed by so-called "agents" – operators, manufacturers, owners or users[10].

In Ukraine, at the legislative level, artificial intelligence is recognized as an object of public relations and is the property of a natural or legal person. In this context, attention should be paid to Article 1187 of the Civil Code of Ukraine, where artificial intelligence is positioned as a source of increased danger. According to the provisions

of this article, damage caused by a source of increased danger is compensated by a person who, on the appropriate legal basis, owns the object, the use, storage or maintenance of which creates an increased danger[11].

Scientist J. Herfort identifies the following cases of illegal actions of the unit of artificial intelligence: 1) illegal public disclosure of personal or other private information of a person; 2) adoption by the artificial intelligence unit of decisions that discriminate against a person or a group of persons; 3) collection and use of information about people for illegal purposes and its transfer to persons who do not have access to it; 4) violation by the artificial intelligence unit of legal provisions in the field of intellectual property rights[12].

Provisions in domestic legislation make it possible to conclude that such disruptions in the work of artificial intelligence can occur only in the case of incorrect programming of its unit by man – intentionally or as a result of error. At the same time, world examples prove the fact that very soon humanity may lose the ability to understand and control the functioning of intelligent machines.

A feature of Ukraine and other countries that define information as an object of civil rights is the possibility of using the right to information to regulate relations with respect to objects created with the help of AI. Note that in other countries, given the above, the formation of sui generis may be more analogous to the right to information.

Thus, a state program is needed to stimulate the development of artificial intelligence and its environment, which must be careful and balanced, because scientists already warn that the uncontrolled development of these technologies poses a great threat to humanity, because such systems have long been used by armed forces autonomy raises issues to the level of international law, human rights and humanitarian law.

As for the opinions of domestic scientists, O. Yefimchuk, head of the practice of intellectual property law of Jurimex, notes: "The legislation of our state does not yet give grounds to recognize the authorship of intellectual property for intellectual property. However, it cannot be ruled out that this approach will change over time, as the legal status of robots is already being discussed in the international arena, including the possibility of recognizing them as "electronic persons". At the same time, the discussion is not limited to the possibility of recognizing authorship of artificial intelligence itself. Issues such as the recognition of the rights to artificially created works by the owner-developer of the respective computer program are also discussed.

While there is no clear regulation of this issue in Ukrainian legislation, it can be assumed that a certain vision can be formulated by the courts. When resolving disputes, they will have to assess whether the result of the work of artificial intelligence is a work as such, as well as what is the contribution to its creation of each of the persons involved. Depending on these circumstances, it is obvious that the right holder will be determined. As for the position on the classification of works created by artificial intelligence in general as unprotected, it seems that it has the least chance to be reflected in the legislation. After all, this can be a significant demotivator for market participants.

Conclusions. Although it is more appropriate today to consider artificial intelligence as an object of civil rights, the predictions of scientists and researchers suggest otherwise. The probability of creating an artificial intelligence that will correspond to or even exceed the human mind is a matter of several decades. In the case of consolidating the status of an independent subject of law in artificial intelligence in Ukraine, the issue of liability should be adjusted: the legislation should prescribe the definition of "electronic person"; introduce criteria of responsibility for the person-developer, manufacturer or user on the one hand and artificial intelligence – on the other; to create a code of ethics for the operation of artificial intelligence within the legal field or to borrow similar developed norms from developed European countries, and to find a compromise between natural human rights and the functioning of machine technologies that run the risk of getting out of control. Digital reality puts forward new requirements for the mechanisms of legal regulation of public relations. In the context of the recognition of a certain legal personality by artificial intelligence, the question of its responsibility arises. It is likely that in the near future there will be a blurring of boundaries between man and technology. After all, today artificial intelligence is becoming more autonomous and has the ability to self-learn, so it is increasingly difficult to attribute the effects of artificial intelligence to the person who created it.

The legal framework for copyright in works created with artificial intelligence is in its infancy. At present, no country has properly regulated the issue of legal protection and copyright in works created by artificial intelligence, but some developed countries have a number of regulations that partially regulate the scope of relations related to works created by artificial intelligence. And although the world jurisprudence knows cases of recognition of artificial intelligence as a subject of intellectual property rights to the work created by him, in our opinion, giving artificial intelligence the legal status of the author seems controversial and not entirely correct, because artificial intelligence is not able to use copyright and protect them, is not able to bear responsibility for the damage caused by the created object to the third parties. In our opinion, this issue should be regulated at the level of copyright laws. In order to regulate the issue of copyright protection in Ukraine for works created with the help of artificial intelligence, we propose to supplement Article 7 of the Law of Ukraine "On Copyright and Related Rights" Part 2 as follows: "The subject of copyright to a work created with artificial intelligence, is a person who uses artificial intelligence for this purpose within an official relationship or on the basis of a contract other than labor, and in the case of automatic generation of such work by artificial intelligence – the developer of artificial intelligence or in case of transfer of ownership by the developer of artificial intelligence – its owner".

Formulation of the problem. Given the current presumption of authorship as well the objective impossibility of artificial intelligence to exercise copyright independently (for example, granting permission or prohibition to others to use the work) raises the question of which natural or legal person will own the copyright to the results of artificial intelligence. On the one hand, copyright may belong to the creator (developer) of artificial intelligence. Alter-

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It should be noted that currently in no country at the legislative level is not properly regulated the issue of legal protection and copyright of works created by artificial intelligence. Only a few developed countries have normative legal documents that partially regulate the sphere of relations related to works created by artificial intelligence. The existing legal constructions in the United Kingdom and some other states of the British Commonwealth, which have tried to resolve these issues at the legislative level, do not correspond to the current level and prospects for the development of artificial intelligence technologies. For example, in the United Kingdom, as in most other jurisdictions around the world, artificial intelligence systems are not yet endowed with legal personality and are not recognized as authors and rights holders of the results they generate, including potentially copyrighted works. According to section 9 (3) of the United Kingdom Copyright Act, the author of a computer-generated literary, dramatic, musical or artistic work is "considered to be the person who made the preparations necessary to create the work". In turn, according to section 178 of this law, which contains the basic terms and definitions, a computer-generated work is a "work generated by a computer in circumstances where there is no human author." Thus, section 9 (3) of the United Kingdom Copyright Act provides protection for works that do not have a human author, ie works that are not a direct result of human creativity.

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It should be noted that at present in the legislation of the United Kingdom and other countries there are no features of the definition of the subjects who should be responsible in this case; An important issue, from our point of view, is the need to amend the legislation in the GBIPO document to make it easier for data subjects to obtain copyright, sui generis data on databases, remuneration for the use of their works and data for "training" AI systems and creating AI related objects. Proposals include either limiting existing exceptions for use or introducing new rights regarding the use of input data and measures to facilitate licensing. The vast majority of authors and respondents believe that the use of AI by an individual as a tool, if there is an individual's creative contribution to the result, should not lead to problems identifying the author or the party acquiring the property copyright.

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Provisions in domestic legislation make it possible to conclude that such disruptions in the work of artificial intelligence can occur only in the case of incorrect programming of its unit by man – intentionally or as a result of error. At the same time, world examples prove the fact that very soon humanity may lose the ability to understand and control the functioning of intelligent machines.

A feature of Ukraine and other countries that define information as an object of civil rights is the possibility of using the right to information to regulate relations with respect to objects created with the help of AI. Note that in other countries, given the above, the formation of sui generis may be more analogous to the right to information.

Thus, a state program is needed to stimulate the development of artificial intelligence and its environment, which must be careful and balanced, because scientists already warn that the uncontrolled development of these technologies poses a great threat to humanity, because such systems have long been used by armed forces autonomy raises issues to the level of international law, human rights and humanitarian law.

As for the opinions of domestic scientists, O. Yefimchuk, head of the practice of intellectual property law of Jurimex, notes: "The legislation of our state does not yet give grounds to recognize the authorship of intellectual property for intellectual property. However, it cannot be ruled out that this approach will change over time, as the legal status of robots is already being discussed in the international arena, including the possibility of recognizing them as "electronic persons". At the same time, the discussion is not limited to the possibility of recognizing authorship of artificial intelligence itself. Issues such as the recognition of the rights to artificially created works by the owner-developer of the respective computer program are also discussed.

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Conclusions. Although it is more appropriate today to consider artificial intelligence as an object of civil rights, the predictions of scientists and researchers suggest otherwise. The probability of creating an artificial intelligence that will correspond to or even exceed the human mind is a matter of several decades. In the case of consolidating the status of an independent subject of law in artificial intelligence in Ukraine, the issue of liability should be adjusted: the legislation should prescribe the definition of "electronic person"; introduce criteria of responsibility for the person-developer, manufacturer or user on the one hand and artificial intelligence – on the other; to create a code of ethics for the operation of artificial intelligence within the legal field or to borrow similar developed norms from developed European countries, and to find a compromise between natural human rights and the functioning of machine technologies that run the risk of getting out of control. Digital reality puts forward new requirements for the mechanisms of legal regulation of public relations. In the context of the recognition of a certain legal personality by artificial intelligence, the question of its responsibility arises. It is likely that in the near future there will be a blurring of boundaries between man and technology. After all, today artificial intelligence is becoming more autonomous and has the ability to self-learn, so it is increasingly difficult to attribute the effects of artificial intelligence to the person who created it.

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[1] Omorov R.O. Intellectual property and artificial intelligence. *E-Management.* 2020. No. 3 (1).

[2] On copyright and related rights: Law of Ukraine of 23.12.1993 № 3792-XII. URL: https://zakon.rada.gov.ua/laws/card/3792-12 (access date: 20.11.2021).

[3] Schwantner M., Sesitsky E. Legal protection of works generated by artificial intelligence systems: the experience of the EU, UK and USA. *Law Review of Kyiv University of Law.* 2018. № 4. P. 217.

[4] Dickenson J., Morgan A., Clark B. Creative machines: ownership of copyright in content created by artificial intelligence applications. *European Intellectual Property Review.* Sweet & Maxwell. London, 2017. Vol. 39, № 8

[5] Ihalainen J. Computer creativity: artificial intelligence and copyright. *Journal of Intellectual Property Law &amp*; Practice. Oxford University Press. Oxford, 2018. Vol.13, № 9.

[6] Militsina K. Objects created with the help of artificial intelligence and artificial intelligence directly, and US copyright. *Entrepreneurship, economy and law.* 2019. № 5.

[7] ZHOU Bo. Artificial Intelligence and Copyright Protection – Judicial Practice in Chinese Courts. P. 1. URL: https://www.wipo.int/export/sites/www/aboutip/en/artificial_intelligence/conversation_ip_ai/pdf/ms_china_1_en.pdf (appeal date: 29.10.2021).

[8] Public Views on Artificial Intelligence and Intellectual Property Policy. USPTO. 2020.

[9] Judgment of the Court (Third Chamber) of 1 December 2011. Eva-Maria Painer v Standard VerlagsGmbH and Others. Case C-145/10.

[10] De Cock M. Artificial intelligence and the creative industry: new challenges for the EU paradigm for art and technology, in Research Handbook on the Law of Artificial Intelligence, Edward Elgar Publishing, 2018.

[11] Great Britain. 2019 Study Question. Copyright in artificially generated works. AIPPI. 2019.

[12] Perry M., Margoni T. From music tracks to google maps: who owns computer-generated works? *Computer Law & Security Report.* Vol. 26. 2010.

Резюме

Опольська Н.М., Соломон А.І. **Права інтелектуальної власності на об'єкти, створені за допомогою штучного інтелекту.**

У статті проаналізовано прогалини законодавства України щодо регулювання авторських прав на твори, створені за допомогою штучного інтелекту. Досліджено законодавство та судову практику зарубіжних країн. Запропоновано шляхи подолання недоліків у законодавстві України. Адже, щоденне створення нових комп'ютерних програм зумовлює появу все більшої кількості питань щодо авторського права на твори, створені за допомогою штучного інтелекту. З врахуванням робіт з оновлення Цивільного кодексу України в рамках рекодифікації цивільного законодавства, а також наближення законодавства України до законодавства ЄС, актуальним є подальше дослідження правового режиму об'єктів, що створюються за допомогою або безпосередньо системами ШІ, з оцінкою можливостей охорони прав на такі об'єкти в рамках наявних правових інститутів або через введення спеціального режиму охорони.

Ключові слова: право інтелектуальної власності, штучний інтелект, винахідник, законодавче регулювання, авторське право, правовий статус.

Резюме

Опольский Н.М., Соломон А.И. **Права интеллектуальной собственности на объекты, созданные с помощью искусственного интеллекта.**

В статье проанализированы пробелы законодательства Украины относительно регулирования авторских прав на произведения, созданные с помощью искусственного интеллекта. Исследованы законодательство и судебная практика зарубежных стран. Предложены пути преодоления недостатков в законодательстве Украины. Ведь ежедневное создание новых компьютерных программ обуславливает появление все большего количества вопросов авторского права на произведения, созданные с помощью искусственного интеллекта. С учетом работ по обновлению Гражданского кодекса Украины в рамках рекодификации гражданского законодательства, а также приближения законодательства Украины к законодательству ЕС, актуально дальнейшее исследование правового режима объектов, создаваемых с помощью или непосредственно системами ИИ, с оценкой возможностей охраны прав в рамках имеющихся правовых институтов или через введение специального режима охраны

Ключевые слова: право интеллектуальной собственности, искусственный интеллект, изобретатель, законодательное регулирование, авторское право, правовой статус.

Summary

Natalia Opolska, Anna Solomon. **Intellectual property rights to objects created by artificial intelligence.**

The development of new computer programs has led to a growing number of copyright issues for works created with artificial intelligence. The article analyzes the gaps in the legislation of Ukraine regarding the regulation of copyright in works created with the help of artificial intelligence. The legislation and judicial practice of foreign countries are studied. Ways to overcome the shortcomings in the legislation of Ukraine are suggested.

Taking into account the work on updating the Civil Code of Ukraine in the framework of recoding of civil legislation, as well as the approximation of Ukrainian legislation to EU legislation, it is important to further study the legal regime of objects created with or directly AI systems, assessing the protection of such rights. within existing legal institutions or through the introduction of a special protection regime.

The scale of software development is the result of the proliferation of computer-generated work without significant human skill or effort. Nowadays, the contribution of the computer to the work becomes more and more significant, so the contribution of the user becomes less and less significant. The reality today is that the content comes mostly from the computer, not from the operator using experience. If at first the development of computer technology was focused on reaching the level of the human mind, now it is safe to say that it is far ahead of the human level. With the further development of artificial intelligence, the view of the computer as a tool of creation loses its persuasiveness. The rapid development of computer technology and programming systems has contributed to the emergence of technologies and systems of artificial intelligence that can operate offline. Such technologies and systems can create intellectual property. In this regard, the issue of copyright to works created with the help of artificial intelligence is becoming increasingly important.

Key words: intellectual property law, artificial intelligence, inventor, legislative regulation, copyright, legal status.

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ОСОБЛИВОСТІ ІНТЕЛЕКТУАЛЬНОЇ ВЛАСНОСТІ ТА ІННОВАЦІЙ АВТОРСЬКОГО ПРАВА В УКРАЇНІ

Постановка проблеми. Основу сучасного світового стану геополітичної та економічної ситуації визначає інтелектуалізація фундаментальних форм суспільних відносин, які є невід'ємним фактором розвитку будь-якої розвиненої держави, і тих держав, що розвиваються. Концептуальне питання успішного розвитку суспільної, політичної та економічної сфер діяльності лежить у площині використання результатів інтелектуальної діяльності, яка є найважливішим інноваційним ресурсом сучасної держави.

Слід зазначити, що інтелектуальна діяльність зародилася ще в стародавні часи, проте положення, що регулюють її створення, використання й відчуження, знайшли своє відображення у сучасному праві. Сьогодні відбувається активізація процесів, пов'язаних з обігом інтелектуальних прав у контексті протекції впровадження інновацій в економіку, оскільки розвинуті держави світу здійснюють перехід від індустріальної економічної моделі до інноваційної економіки.

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