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COPYRIGHT IN ARTIFICIAL INTELLIGENCE GENERATED RESULTS

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The paper discusses the possibility of protecting artificial intelligence results under copyright from the point of view of the author of the work, the conditions of protection and the rights granted as a result of protection. In modern world, artificial intelligence creates works that, if created by humans, would inevitably be considered copyrighted works and would be subject to legal protection. There is still no unified approach to the recognition of copyright to the results created by artificial intelligence, while the solution to this issue can be of theoretical and practical importance.

In the course of the research, general philosophical and traditional-legal methods were used. The research was based on both legal sources (RA Law on Copyright and Related Rights, Berne Convention, judgments of the RA Court of Cassation and foreign courts), as well as scientific works such as published books, scientific articles, etc.

The article raises the question of the possibility of legal protection of works created by artificial intelligence within the framework of other legal structures, including the legal regulations regarding the persons organizing the creation of the work.

Key words: *artificial intelligence, copyright, author, creativity, originality, moral rights, persons organizing the creation of the work*

Along with the rapid pace of technological development in the modern world, new challenges for the development of law are emerging. As a result of the creation and implementation of artificial intelligence, today it is possible to use various search engines (for example, Google Search), recommendation systems (used by YouTube, Amazon and Netflix), human speech understanding systems (for example, Siri, Alexa), self-driving cars (like Waymo), creative tools (ChatGPT and AI art), automated decision-making and strategic game systems (like chess and Go), and more. Artificial intelligence is used by large social networks to solve various problems. For example, the UK House of Commons Digital, Culture, Sport and Media Committee in its 2019 report raised the possibility of using artificial intelligence to combat hate speech on social media[1]. Today, Facebook uses artificial intelligence to identify and remove hate speech[2], misinformation[3], and other harmful posts from its content.

Artificial intelligence is also involved in the creation of intellectual property objects. For example, in 2016, a painting called "The Next Rembrandt" was presented at an exhibition in Amsterdam, which was obtained using deep learn-

[1] House of Commons Digital, Culture, Media and Sport Committee, Disinformation and 'fake news', Eighth Report of Session 2017–19, Published on 18 February 2019 by authority of the House of Commons, available at <Disinformation and 'fake news' (parliament.uk)>

[2] https://ai.facebook.com/blog/how-facebook-uses-super-efficient-ai-models-to-detect-hate-speech/

[3] https://ai.facebook.com/blog/heres-how-were-using-ai-to-help-detect-misinformation/

ing systems of artificial intelligence. Based on a study of 346 works by the Dutch artist Rembrandt, the system replicated the artist's brushstrokes, use of light and shadow, facial features, symmetry, and expressive style of the subjects and obtained the artist's portrait[4].

Another example an artificial intelligence machine system called DALLE-2. As a result of running it, it is possible to obtain images by entering certain words that describe them. In other words, this system converts text into images through an encoding-decoding chain[5].

Through artificial intelligence, it is also possible to receive various music, symphonies, articles, videos, portraits, video games, TV episodes, poems, stories, new words, simulations of this or that situation, characters, summaries, designs, etc.

In order to create such results of artificial intelligence activity, to promote innovations, technological progress, to receive economic benefits from them, to protect them from using, copying, and transforming in various ways, it is important to protect these results from a legal point of view. Therefore, the existence of such wide opportunities for creation of intellectual property objects by artificial intelligence gives rise to such legal questions as, for example, the possibility of protecting the results of artificial intelligence under copyright, the need to recognize artificial intelligence as a possible subject of copyright.

Although there is currently no unified definition of the concept of artificial intelligence, the existing approaches to its nature and concept generally conclude that it is a complex software system performing such problem-solving functions as are typical of human intelligence. Thus, for example, according to J. Fetzer so-called artificial intelligence refers to things that, as a result of some process, have a certain property—intelligence—because they were created, designed, or manufactured that way[6]. J. McCarthy notes that the creation and use of artificial intelligence is aimed at understanding human intelligence through the use of computers, however, AI is not limited to methods that are biologically observable[7]. H. According to Surden, artificial intelligence should be described as the use of technology for the purpose of automating the solution of problems that usually require human intelligence[8].

There are various subfields of artificial intelligence, one of which is machine learning. The logic of the latter's work is to identify essential patterns in the available data and use them to solve this or that problem. In other words, a machine learns by taking data from a knowledge or experience base and generating results that can be used later by other algorithms to solve a problem[9]. Such

[4] https://medium.com/@divya.dixit/the-next-rembrandt-3631f4e04b98; https://www.nextrembrandt.com/

[5] https://medium.com/geekculture/what-is-dalle-2-what-to-know-before-trying-the-groundbreaking-ai-e7a585f2edf0; https://openai.com/product/dall-e-2

[6] Fetzer, J.H. (1990). What is Artificial Intelligence?.In: Artificial Intelligence: Its Scope and Limits. Studies in Cognitive Systems, Kluwer Academic Publishers vol 4. Springer, pp 3-4; DoI:. https://doi.org/10.1007/978-94-009-1900-6_1

[7] McCarthy J. (2007), What is artificial intelligence? Computer Science Department Stanford University, Stanford, CA 94305; http://www-formal.stanford.edu/jmc/, Revised November 12, 2007, page 2;

[8] Surden H., Artificial Intelligence and Law: An Overview, 35 Ga. St. U. L. Rev. (2019). Available at: https://readingroom.law.gsu.edu/gsulr/vol35/iss4/8; page 1307;

[9] Lee JA, Hilty R., and Liu KC, "Artificial Intelligence and Intellectual Property", Oxford

systems play a major role in the creation of intellectual property objects.

Machine learning has its types. As such, supervised learning, unsupervised learning and reinforcement learning are mainly distinguished. In the case of supervised learning, the data serving as a basis for learning contains information that is missing in the test data unknown to the system, and the task of the AI is to predict with maximum accuracy which information is missing in the test data based on its learning. In the case of unsupervised learning, the AI must reveal the internal structure of the data given to it, the accuracy of which is not checked by any external source. It is believed that this kind of learning is more similar to the process of learning by a person, because, for example, when a person learns to see, no one explains to him how to do it[10]. In reinforcement learning, the AI learns as a result of interaction with the environment, which includes the AI's actions to change the environment and the punishments or rewards received in response, and the goal is to maximize the rewards[11].

Although there is currently no artificial intelligence operating completely independent of human intervention, there is a segment of artificial intelligence operations that cannot be explained by humans and is often referred to as the "black box" of artificial intelligence. Artificial intelligence deals with the reception, recognition, storage, analysis of large amounts of data, the discovery of connections between them, the reception and transmission of results, in which a certain part of its steps are unknown even to programmers. It is still not clear which features of the training data are used to achieve the goal set by the AI and to obtain the expected result, and it is due to the ability of the AI to perform, independently create and reason about tasks beyond human capabilities that it is considered "intelligent". However, such ability is limited by the learning problem posed and the data provided for training, since all three of the above-mentioned types of machine learning activities are highly dependent on human input, which in each case can be expressed in the formulation of the learning task, its design, and the development of an algorithm for its implementation, in the forms of providing initial data for training[12].

Referring to the possibility of protecting the results created by artificial intelligence under copyright (in particular, in the subfield of machine learning), it is necessary to consider it from the point of view of the subject of copyright, the conditions of protection and the rights granted as a result of protection.

One of the debatable issues surrounding not giving copyright protection to the results created by artificial intelligence is the traditional approach that copyright applies only to works created by a human author.

For example, in the Berne Convention on the Protection of Literary and Artistic Works[13], which was adopted in 1886 and later amended many times, the concept of authorship is not clearly defined. Nevertheless, some authors, referring to the provi-

University Press, United Kingdom, 2021, page 8; DOI: 10.1093/oso/9780198870944.001.0001

[10] Pam Frost Groder, 'Neural Networks Show New Promise for Machine Vision' (2006) 8(6) Computing in Science & Engineering 4.

[11] Supra note 9, pp. 12-25;

[12] Ibid, pp. 26-27;

[13] Berne Convention for the Protection of Literary and Artistic Works amended on September 28, 1979 available at <https://www.wipo.int/wipolex/en/text/283698>

sions of the convention, find that it refers only to the works of human authors[14].

Regarding this issue, there are similar approaches in the positions expressed by the courts within the framework of various judicial cases. Thus, for example, on the basis of the regulations defined in the EU Copyright Directive, the EU Court of Justice expressed the position that authorship is strictly related to the author's personality[15].

In another case, which involved a monkey's copyright in a photo of himself, the U.S. District Court for the Northern District of California denied recognition of the monkey's copyright, thereby upholding the view that the creation of the work is attributable only to humans and only human-made results can be protected by copyright[16]. Such an approach in itself excludes the recognition of copyright to the results created by artificial intelligence, unless a significant creative contribution has been made by a human being[17].

In Australia, too, only a natural person can be the author of a work[18], which excludes the recognition of copyright in the results created by AI. In Acohs Pty Ltd v Ucorp Pty Ltd case, the High Court of Australia held that the computer-generated HTML code underlying information sheets was not copyrightable because it was created by a computer program, not a human[19]. In this case, both the creator of the computer program and the person who enters information into it cannot be considered the author[20].

There are countries, such as Great Britain, South Africa, New Zealand, Ireland, where computer-generated work is considered work created in the absence of a human author[21]. These countries recognize the copyright of computer-generated results of the person who performed the actions necessary to create the result[22]. For example, in Nova Productions Ltd v Mazooma Games Ltd case, the High Court of England and Wales had to decide whether elements of a computer game created using bitmap images created by a developer were in fact the developer's work. The court took into account that the developer created these images, in which he implemented the rules and logic on the basis of which each element of the game was created. Therefore, he is the entity by whom the means necessary to create the work were taken, and he must be considered the

[14] Ginsburg, J.C. (2018). People Not Machines: Authorship and What It Means in the Berne Convention. IIC 49, 131–135, DOI: https://doi.org/10.1007/s40319-018-0670-x

[15] European Court of Justice (2011a) Painer v. Standard Verlags GmbH C-145/10; European Court of Justice (2012) Football Dataco Ltd v. Yahoo! UK Ltd C-604/10;

[16] Naruto v Slater, case no. 15-cv-04324-WHO (N.D. Calif. 2016);

[17] Abbott R. B. (2016) I Think, Therefore I invent: creative computers and the future of patent law. Boston College Law Review, Vol. 57, 1079–1126; Available at SSRN: https://ssrn.com/abstract=2727884 or http://dx.doi.org/10.2139/ssrn.2727884; Yanisky-Ravid S. (2017), Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era--The Human-like Authors are Already Here- A New Model, Mich. St. L. Rev. 659-726, Available at: https://ir.lawnet.fordham.edu/faculty_scholarship/956

[18] Copyright Act 1968, s. 32;

[19] Acohs Pty Ltd v Ucorp Pty Ltd [2010] FCA 577;

[20] Ihalainen, J. (2018). Computer creativity: artificial intelligence and copyright. Journal of Intellectual Property Law & Practice, 13, 724-728, page 3;

[21] Supra note 9, page 176; Miernicki M., Irene Ng (Huang Ying), (2021) "Artificial intelligence and moral rights", AI & Society 36(2), 321; DOI:10.1007/s00146-020-01027-6

[22] MacCutcheon J (2013) The vanishing author in computer-generated works: a critical analysis of recent Australian case law. Melbourne University law review 36:915–969;

author of the work[23]. However, what actions should be considered "necessary actions" is still the subject of various debates[24].

Referring to the issue of human-author of a work from the point of view of the Republic of Armenia's legislation, we should note that Article 6 of the RA Law "On Copyright and Related Rights" (Law) stipulates that the natural person who created the work is recognized as an author. And in accordance with Article 4, Part 1, Clause f of the same law, the results obtained without human creative activity with the help of technical means are not considered the object of copyright. Regarding the issue, the Court of Cassation expressed the position that "Creativity is an immaterial good, the result of the spiritual activity of people, the immaterial result of the intellectual activity of a person"[25]. In other words, under the current legal regulations, only a person can be recognized as the author of a work in RA, which in itself excludes the recognition of the copyright of artificial intelligence. Nevertheless, in the current era of rapid technological developments, the possibility of legal protection of the results of artificial intelligence should not be excluded, and the further possibility of copyright recognition should be considered from the standpoint of the legal personality of artificial intelligence.

Legal personality is the ability of a person to have rights, to bear responsibilities, to acquire and implement them through his actions. It is strictly related to the subject's autonomy, the ability to make independent decisions, implement them and bear responsibility for them. The autonomy of artificial intelligence implies that it should act completely independently of humans, without human control, independently posing problems and creating their solutions. It is in the presence of such autonomy that one can talk about the possibility of granting rights to artificial intelligence, setting responsibilities for it, and taking legal responsibility on its own. Meanwhile, currently, even the most advanced computer programs and robots are not capable of acting independently beyond human supervision: they are limited by the problem posed by the person, the continuously performed instructions, the predetermined framework of the processes, even if at a certain stage of the processes a person cannot explain as a result of which actions the program gets a certain result. Therefore, artificial intelligence cannot independently enter into legal relations, realize its rights, duties and be responsible for them. Finally, as noted by B. Smith, legal personality as a legal concept aims to regulate human behavior[26]. Therefore, at least the possibility of artificial intelligence being the holder of copyright is debatable.

Referring to the next key condition for providing protection under copyright to this or that object, that it is the result of creative activity, A. Bridy believes that if creativity is not defined as an absolutely human characteristic, but can be understood as a set of certain characteristics of behavior, then it can

[23] Supra note 10, p. 2;

[24] Davies CR (2011) An evolutionary step in intellectual property rights—artificial intelligence and intellectual property. Computer Law and Security Review, University of Glamorgan 27:601–619; Perry M, Margoni T (2010), Thomas, From Music Tracks to Google Maps: Who Owns Computer Generated Works?. Computer Law and Security Review, Vol. 26, pp. 621-629, Available at SSRN: https://ssrn.com/abstract=1647584; Lambert P (2017) Computer-generated works and copyright: selfies, traps, robots, AI and machine learning. EIPR 39:12–20; DOI:10.31228/osf.io/np2jd

[25] 3-19(ՎԴ), 2007 decision of the Cassation Court of the Republic of Armenia;

[26] Smith B. (1928) "Legal Personality." The Yale Law Journal, vol. 37, no. 3, pp. 283–99. JSTOR, https://doi.org/10.2307/789740.

be embedded in the codes of machines[27]. D. Schoenberger tried to reveal the possibility of creativity by artificial intelligence from the standpoint of cognitive psychology. Examining creativity and intelligence as psychological phenomena, the author notes that the first is typically characterized by the features of innovation and usefulness, the evaluation criteria of which are interconnected fluency, flexibility, originality, elaboration, uniqueness, and intelligence is the ability to acquire and apply knowledge and skills or psychological quality that includes the ability to learn from experience, adapt to new situations, understand and apply abstract concepts, and use knowledge to manage the environment. Therefore, a link between creativity and intelligence is hypothesized, and creativity requires a minimum level of intelligence[28].

In 1950, A. Turing developed a test, known as the "Turing Test", according to which a computer exhibits rational behavior if it is able to respond in a human-like manner when communicated in natural language, and the person communicating with it would assume that the communicator is human[29]. However, this approach was later replaced by the Lovelace test, according to which computers can be considered intelligent only when they have the ability to create independently. In other words, a computer can have intelligence if the person who created it cannot explain how the computer gets this or that result[30].

Essentially, all the mentioned approaches are based on the idea of intelligence being a characteristic of a person and the idea of mutual connection between creativity and intelligence. It implies that the ability of artificial intelligence to demonstrate creativity in the process of creating a result directly depends on the presence of a certain level of intelligence. Although the above-listed characteristics of creativity may be present in the work, in each case it is necessary to find out to what extent they are the result of intellectual activity, and not, for example, chance.

Various courts have also addressed the question of the possibility of creativity during the creation of a certain result by artificial intelligence. For example, the EU Court of Justice expressed the position that the works that are original, the result of the author's free and creative choice, and in which the author's creativity is expressed, can be the object of copyright protection[31]. That position was also found later in a number of other cases, where the EU courts adopted the concept of the result of the author's own intellectual activity[32]. Following this concept, many authors find that the results created by automatic AI systems do not meet the specified criteria and therefore cannot be considered

[27] Birdy, A. (2016). The Evolution of Authorship: Work Made by Code. The Columbia Journal of Law & The Arts, 39(3), 395–401, DOI: https://doi.org/10.7916/jla.v39i3.2078;

[28] Schönberger D. (2018), Deep Copyright: Up - And Downstream Questions Related to Artificial Intelligence (AI) and Machine Learning (ML) in Droit d'auteur, 4.0 / Copyright 4.0, DE WERRA Jacques (ed.), Geneva / Zurich (Schulthess Editions Romandes) pp. 145-173., Available at SSRN: https://ssrn.com/abstract=3098315, pp. 3-4.

[29] Turing A. M., (1950) Computing machinery and intelligence, Mind, Volume LIX, Issue 236, October, pp. 433–460, DOI: https://doi.org/10.1093/mind/LIX.236.433

[30] Bringsjord S, Bello P, Ferrucci D, (2011) 'Creativity, the Turing Test, and the (Better) Lovelace Test' Minds and Machines 11(1); DOI:10.1023/A:1011206622741

[31] Infopaq: C-5/08 Judgment of the Court (Fourth Chamber) of 16 July 2009;

[32] BSA: C-393/09, Judgment of the Court (Third Chamber) of 22 December 2010; Painer: C-145/10, Judgment of the Court (Third Chamber) of 1 December 2011; Dataco: Case 604/10, Judgment of the Court, (Third Chamber) of 1 March 2012;

original works and be the object of copyright protection[33].

The US Supreme Court also referred to the standards of originality and creativity of copyright. The court found that only those parts of a work that are the author's creation can be protected under copyright, and the mere selection, coordination, and arrangement of information were not considered factors that give the work originality. In this case, the court initiated the application of the "minimum plausibility" standard, which implies that works created by artificial intelligence are nothing more than mechanical work, and if a person does not invest originality in them, then they cannot be protected by copyright[34].

An approach similar to the above-mentioned positions is also adopted in the legal regulations of the Republic of Armenia. From the wording of Article 3, Part 1 of the Law, it follows that a work is the unique result of the author's creative work. In other words, our legislation also defines the conditions for copyright objects to be the result of their originality and creative activity. Therefore, in order to be protected under copyright, results created by artificial intelligence must also meet these standards.

There are some authors who believe that even in the case when the result of intellectual activity was created with the help of artificial intelligence, the originality of the work can be present if the human contribution in obtaining that result is significant[35]. Perhaps this was also the position expressed by the Internet Court of Beijing in China, where the court, although it confirmed that machines cannot create the subject matter of copyright, and the essential thing here is that they are created by humans, but found that the human contribution that had led to the creation and use of the object, deserved some protection under copyright[36].

In our opinion, such situations, when the work is created by a person with some technical support of artificial intelligence, are different from those situations when a person only voluntarily determines certain scopes of work creation, and the actual result is realized by artificial intelligence. In the first case, the question of the possibility of protection of the work under copyright is simpler, because the conditions regarding both the human author and creativity can be met, while in the second case, the question of the demonstration of creativity by artificial intelligence and the determination of the author of the created work is at least debatable.

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[33] Madeleine CB (2018), Artificial intelligence and the creative industry: new challenges for the EU paradigm for art and technology by autonomous creation, in Woodrow BARFIELD and Ugo PAGALLO (eds), Research handbook on the law of artificial intelligence, Northampton, MA : Edward Elgar Publishing, pp. 511-535, DOI: 10.4337/9781786439055.00032 Deltorn, Jean-Marc and Macrez, Franck (2018), Authorship in the Age of Machine learning and Artificial Intelligence. In: Sean M. O'Connor (ed.), The Oxford Handbook of Music Law and Policy, Oxford University Press, 2019 (Forthcoming), Centre for International Intellectual Property Studies (CEIPI) Research Paper No. 2018-10, Available at SSRN: https://ssrn.com/abstract=3261329 or http://dx.doi.org/10.2139/ssrn.3261329; Lauber-Ronsberg, Hetmark A. and S., 2019. The concept of authorship and inventorship under pressure. Does artificial intelligence shift paradigms? Journal Intellectual Property law and practice 14: 570-79; DOI:10.1093/jiplp/jpz061

[34] Supra note 9, pp. 164-168; Feist Publications, Inc. v Rural Telephone Service Co., 499 US 340 (1991);

[35] Bob L. T., Iglesias S. M, Ben-Tal O., Miron M. and Gómez E., 2019, Artificial Intelligence and Music: Open Questions of Copyright Law and Engineering Praxis, *Arts* 2019, *8*(3), 115; https://doi.org/10.3390/arts8030115, page 4.

[36] Beijing Feilin Law Firm v Beijing Baidu Netcom Science Technology Co., Ltd., No 239 Minchu (Beijing Internet Ct. 2018).

Perhaps the position of the Chinese District Court regarding the recognition of copyright to the results created by artificial intelligence has been unique and different. The court found that the article created by Tencent's Dreamwriter AI Writing Robot was copyrightable because it met the requirements of a written work, and its content showed the selection, analysis, and decision-making of relevant information and data. In addition, the scope of the article's form of expression was predetermined as a result of the activities of the petitioner's work team, therefore, in this respect, it also met the requirements of copyright[37]. Essentially, with this example, the court gave less weight to the claim of the human author and emphasized the existence of the condition of originality of the work. Until then, the accepted approach is that such works should be recognized as public property due to the lack of individuality and originality. But the court's position indicates that if the work meets the criterion of originality, it should receive legal protection[38].

Based on such diverse approaches to the possibility of showing creativity, in the theory, the person who created the artificial intelligence, the programmer, the person who invests input data in it, or the owner of the artificial intelligence are considered as possible subjects of copyright in relation to the results created by artificial intelligence. We believe that the recognition of copyright to the results created by artificial intelligence of all the mentioned entities cannot be unambiguous, and the contribution of each of them to the manifestation of creativity can be significantly different in various situations. For example, the programmer predetermines the frameworks in which the artificial intelligence should work, but in each case the latter gets the work with one or the other characteristics, often as a result of a "choice" unknown to him. Or, no matter how significant the contribution of the person providing input data to the artificial intelligence, the final result created may not be the result of his independent creative efforts and creative choice, but be mediated by the work of the algorithm of the software system. As for the owner of the artificial intelligence, the latter may be the holder of property rights to the mentioned works, but not the author of the work.

It should also be taken into account that recognition of copyright aims to protect the author's economic and moral rights to the results of intellectual activity. Therefore, when determining the subject of copyright for the results created by artificial intelligence, attention should also be paid to the fact of who will own the moral rights to that work. In this regard, M. T. Sundara Raya notes that in an environment where machine learning is becoming more commonplace and machine "creativity" is of increasing interest, moral rights of authors can help distinguish and protect the rights of human authors[39]. According to Rigamonti, the author is granted moral rights because the work expresses the author's personal characteristics[40]. M. Miernicki believes that the definition of moral rights pursues the goal of recognizing the author of the work and

[37] Shenzhen Tencent Computer System Co. Ltd. v Shanghai Yingxun Technology Co., Ltd., No 14010 Minchu (Shenzhen Nanshan District Ct. 2019).

[38] Supra note 9, pp. 172-173;

[39] Sundara Rajan M. T. (2019) “Moral rights: the future of copyright law?” Journal of Intellectual Property Law & Practice, 2019, Vol. 14, No. 4, p. 257-258; DOI: https://doi.org/10.1093/jiplp/jpz008

[40] Rigamonti CP (2006) Deconstructing moral rights. Harvard International Law Journal / Vol. 47:353–412;

prohibiting the making of changes to it, the protection of the author's interests, so to answer the question of granting such rights to artificial intelligence, it is necessary to find out whether the AI can have such interests and whether such interests should be protected by law within the author's moral rights[41].

The moral rights of the author have been enshrined in a number of domestic and international legal acts, including the Berne Convention, which states that regardless of the author's property rights and even after their transfer, he has the right to demand protection of the authorship of the work and to prohibit its distortion in any way, its alteration, or to carry out such humiliating actions that may endanger his honor and reputation[42]. With that norm, the convention defines the author's moral rights to the author's authority and the integrity of the work. The first includes the right to be recognized as the author of a work, which implies a certain social recognition and appreciation[43]. The second concerns not modifying the work and not using it in a way different from the author's intention[44].

In our country, part 1 of Article 12 of the Law provides that the moral rights of the author ensure his intellectual and personal ties to the work. The exhaustive list of personal non-property rights of the author includes the rights of authorship, author's name, author's reputation and dignity, publication, revocation. In our opinion, the definition of such rights originally aims to protect the personality of the author and the reflection of his personal characteristics in his work. Therefore, such rights can exist and have meaning only in the case when the legal protection is aimed at the protection of the work created by the human-author as a result of his own independent, creative activity and creative choice, and the author's personality in it.

Perhaps the current view in favor of the recognition of personal non-property rights to the results created by artificial intelligence boils down to the fact that these rights serve a higher public function, taking into account the need to protect the integrity of the work and the public status in general[45].

However, existing analyzes show that there is still no unified approach to copyright recognition of results created by artificial intelligence. It is difficult to document the simultaneous presence of all copyright conditions in these works. In some cases, they do not meet the requirement of human authorship, and more often, it is not clear whether artificial intelligence can demonstrate creativity and the work be original. Trying to abstract from the idea of creativity and following the approach adopted by Great Britain, the possibility of legal protection of the results created by artificial intelligence can be considered under the concept of "the person who organizes the creation of a work" applied by our legislation. Although the mentioned persons are not considered the authors of the work, their actions aimed at organizing the creation of the work

[41] Supra note 20, p. 322;

[42] Berne Convention for the Protection of Literary and Artistic Works amended on September 28, 1979 available at <https://www.wipo.int/wipolex/en/text/283698>

[43] Ciolino DS (1995) Moral Rights and real obligations: a property-law framework for the protection of authors' moral rights. Tulane L Rev 69:935–995

[44] Supra note 21, pp. 319–329;

[45] Rushton, M. The Moral Rights of Artists: Droit Moral ou Droit Pécuniaire?. Journal of Cultural Economics 22, 15–32 (1998). https://doi.org/10.1023/A:1007454719802

are subject to legal protection. Moreover, organizing the creation of a work also implies the performance of certain mechanical work, which is also present in the operations of artificial intelligence. The actions of both the programmer, the person providing the original data to the artificial intelligence, and the owner thereof are essentially aimed at taking the necessary measures to create the work. This or that result is born as a result of the combination of these means and the operation of the artificial intelligence algorithm, so the possibility of legal protection of the results created by artificial intelligence under that institution can be made a subject of discussion.

Summarizing, let's note that today artificial intelligence creates such works that, if created by humans, would inevitably be considered copyright works and would be subject to legal protection. They can have certain originality, and often a person himself cannot clarify the steps taken by artificial intelligence in the process of creating such works. Such works cannot fail to receive legal protection, because these results are ultimately created for the purpose of achieving a certain economic benefit, and it is necessary to prevent any illegal encroachment on them by providing legal measures. Under the currently existing regulations, the protection of such works under copyright has much vulnerabilities, so it is necessary to consider the possibility of legal protection of works created by artificial intelligence as objects of intellectual property within the framework of other legal regulations, including those referring to the persons organizing the creation of the work.

ԱՐՓԻՆԵ ՀՈՎՀԱՆՆԻՍՅԱՆ, ՆՈՒՆԵ ՊՈՂՈՍՅԱՆ – *Արհեստական բանականության ստեղծած արդյունքների նկատմամբ հեղինակային իրավունքը* – Աշխատանքում քննարկվում են արհեստական բանականության ստեղծած աշխատանքները հեղինակային իրավունքի ներքո պաշտպանելու հնարավորությունը աշխատանքի հեղինակի, պաշտպանունակության պայմանների և պաշտպանության արդյունքում տրամադրվող իրավունքների տեսանկյունից: Այսօր արհեստական բանականությունը ստեղծում է այնպիսի աշխատանքներ, որոնք մարդու կողմից ստեղծված լինելու պարագայում անխուսափելիորեն կհամարվեին հեղինակային ստեղծագործություններ և ենթակա կլինեին իրավական պաշտպանության: Արհեստական բանականության ստեղծած արդյունքների նկատմամբ հեղինակային իրավունքի ճանաչման շուրջ դեռևս միասնական մոտեցում չկա, մինչդեռ այդ հարցի լուծումը կարող է ունենալ տեսական և գործնական կարևոր նշանակություն:

Հետազոտության ընթացքում օգտագործվել են ընդհանուր փիլիսոփայական, ավանդական-իրավական մեթոդներ: Հետազոտության համար հիմք են ընդունվել ինչպես իրավական աղբյուրներ («Հեղինակային իրավունքի և հարակից իրավունքների մասին» օրենք, Բեռնի կոնվենցիա, ՀՀ վճռաբեկ դատարանի, օտարերկրյա դատարանների դիրքորոշումներ), այնպես էլ գիտական աշխատություններ՝ հրատարակված գրքեր, գիտական հոդվածներ և այլն:

Հոդվածում բարձրացվել է իրավական այլ կառուցակարգերի, այդ թվում՝ ստեղծագործության արարումը կազմակերպող անձանց վերաբերյալ իրավակարգավորումների շրջանակներում արհեստական բանականության ստեղծած աշխատանքների իրավական պաշտպանության հնարավորության հարցը:

Բանալի բառեր – *արհեստական բանականություն, հեղինակային իրավունք, հեղինակ, ստեղծագործականություն, ինքնատիպություն, անձնական ոչ գույքային իրավունքներ, ստեղծագործության ստեղծումը կազմակերպող անձինք*

АРПИНЕ ОГАНЕСЯН, НУНЕ ПОГОСЯН – *Авторские права на результаты, созданные искусственным интеллектом.* – В статье рассматривается возможность охраны произведений, созданных искусственным интеллектом, в рамках авторского права с точки зрения самого автора произведения, условия охраны и права, предоставляемые в результате охраны. Сегодня искусственный интеллект создает произведения, которые, в случае их создания людьми, неизбежно считались бы авторскими произведениями и подлежали бы правовой охране. На результаты признания авторских прав, созданные искусственным интеллектом, пока что нет единого подхода, по крайней мере решение этого вопроса может иметь теоретическое и практическое значение. В ходе исследования были использованы общефилософские, традиционно-правовые методы.

Исследование основано как на правовых источниках (Закон об авторском праве и смежных правах, Бернская конвенция, позиции Кассационного суда РА, иностранных судов), так и на научных работах, изданных книгах, научных статьях и т.д.

В статье рассматривается вопрос об иных правовых конструкций, в том числе вопрос о лицах, организующих создание произведения, в рамках возможности правовой охраны произведений, созданных искусственным интеллектом.

Ключевые слова: *искусственный интеллект, авторское право, автор, творчество, оригинальность, личные неимущественные права, лица, организующие создание произведения*