

ARTIFICIAL INTELLIGENCE AS AN OBJECT OF LEGAL RELATIONS

ШТУЧНИЙ ІНТЕЛЕКТ ЯК ОБ'ЄКТ ПРАВОВІДНОСИН

Begova T.I., PhD in Law,
Associate Professor at the Department of Civil Law № 1
Yaroslav the Wise National University of Law

Today, very relevant is the question of commercialization of intellectual property. A necessary prerequisite is for profit is to use the property, putting it into circulation. All intellectual property rights can be divided into the following categories: industrial property; innovative intellectual property; objects of copyright and related rights.

Among the existing problems in the field of transfer of intellectual property rights, the imperfect level of regulation of the peculiarities of the legal forms of transfer of these rights occupies a significant place. Normative regulation is limited to the general provisions on classical contractual constructions.

Problems of legal regulation of contractual relations in the field of intellectual property are covered in the scientific works of V. Kryzhna, V. Milash, O. Yavorska, I. Yakubivsky and others. The issues of the place of such agreements among civil law or commercial agreements, the division of agreements in the field of intellectual law according to various criteria, the state registration of these agreements and other aspects are studied.

The purpose of this research is to identify and make proposals to current legislation in certain areas.

Analysis of civil law gives grounds to argue that all objects of intellectual property rights can be divided into the following types:

1. Objects of industrial property (inventions, utility models, industrial designs, trademarks or marks for goods and services, geographical indications, brand names);

2. Non-traditional objects of intellectual property (plant varieties, animal breeds, layout (topography) of integrated circuits, trade secrets, scientific discoveries, innovation proposals);

3. Objects of copyright and related rights (literary works, works of art, computer programs, data compilation, performance, phonograms and videograms, programs of broadcasting organizations).

Legislation provides for the main ways of using an invention, utility model or industrial design in the field of management. These include:

1) manufacture, offer for sale, introduction into commercial circulation, use, import or storage for the specified purpose of a product protected in accordance with the law;

2) application of a method protected in accordance with the law, or offering it for use in Ukraine under the conditions provided by the Central Committee of Ukraine;

3) offering for sale, introduction into economic (commercial) circulation, use, import or storage for the specified purpose of a product manufactured directly in a manner protected in accordance with the law.

The article is devoted to the main issues of legal support the use of intellectual property. The author analyzes the legislation on intellectual property rights, the legal nature of the concept of «use of intellectual property», and its shape. The proposals regarding the species forms of the use of intellectual property and formulated proposals for further improvement of legislation in this area.

In particular, the legal form of the use of intellectual property by the following attributes:

1) agreement on the introduction of the authorized capital property rights to intellectual property;

2) contracts for manufacturing application of intellectual property;

3) agreement on the distribution of property rights to intellectual property between the employee and the employer;

4) contracts for the disposal of property rights to intellectual property;

5) other contracts that do not contradict the laws of Ukraine.

This attention is focused on the fact that not solved the possibility of commercialization of intellectual property created by public research institutions financed from the State Budget of Ukraine

Key words: intellectual property, intellectual property, use of intellectual property, legal support.

Наукове дослідження висвітлює основні проблеми правового забезпечення охороноздатності об'єктів інтелектуальної власності. Авторкою проаналізовано законодавство у сфері інтелектуальної власності, правову природу поняття «використання об'єктів інтелектуальної власності», а також його форми. Надано пропозиції щодо видів форм використання об'єктів інтелектуальної власності та сформульовано пропозиції щодо подальшого вдосконалення законодавства в цій сфері. Також визначено основні проблеми правового забезпечення охороноздатності об'єктів інтелектуальної власності, створених саме штучним інтелектом. Визначено, що суб'єктом прав інтелектуальної власності на роботи, створені штучним інтелектом, має вважатися користувач штучного інтелекту. Саме користувачі відіграють вирішальну роль у створенні штучним інтелектом потенційного об'єкта права інтелектуальної власності, саме вони визначають межі та задають параметри його діяльності, вони визначають дані, на основі яких штучний інтелект буде досягати певного результату, нехай навіть не завжди очікуваного для самого користувача.

Акцентовано увагу на тому, що діяльність користувачів є тим творчим внеском, який врешті призводить до створення потенційно охороноздатного об'єкта. Тільки за допомогою користувача абстрактні можливості штучного інтелекту, закладені розробником, набувають матеріального вираження. Наголошується, що наділення правами інтелектуальної власності на об'єкт, створений штучним інтелектом, користувачів не порушує авторських прав його розробника, оскільки розробники штучного інтелекту реалізують свої авторські права щодо штучного інтелекту та отримують від них економічну вигоду в процесі передачі майнових прав на такий штучний інтелект користувачам.

Ключові слова: інтелектуальна власність, об'єкти інтелектуальної власності, використання об'єктів інтелектуальної власності, правове забезпечення.

Given that the recognition of the legal status of artificial intelligence as a subject of law today is impractical, it is necessary to determine its legal status as an object of legal relations. Also, given the purpose of our study (determining the authorship of works created by artificial intelligence), it is important to outline the range of subjects associated with the legal relationship with artificial intelligence.

Due to the technical complexity of the system, the focus of artificial intelligence on human needs, involvement in

the “activities” of artificial intelligence of a wide range of people and the difficulty in determining those responsible in case of violation of other people's rights by artificial intelligence, it is appropriate to define artificial intelligence systems as a special object of legal relations, in particular to prevent human abuse in the use of such systems. Therefore, steps to strengthen control over the development and operation of such systems (as currently proposed by leading countries), proposals for registration of such systems to define the range of stakeholders,

and insurance, which will serve as an additional guarantee of human rights protection in their violation.

Today, states have developed strategies for the development and dissemination of artificial intelligence, which include general principles, ethical rules that should guide developers, manufacturers, users in the creation and operation of artificial intelligence so that they do not harm humans. Given that artificial intelligence cannot be recognized as a subject of legal relations, such imposition of obligations on the above-mentioned subjects is quite natural, because for the development of such a special object of legal relations as artificial intelligence systems is important to prevent human rights violations; it is also important to identify the legal entity that can be held liable for breach of duty to prevent abuse.

The Royal Academy of Engineering in the United Kingdom, given the growing use of artificial intelligence, notes that such an increase shifts responsibility for safe operation from operator to developer, which may require a special legal status for artificial intelligence systems, which would provide for certain requirements for this area, in particular the development of artificial intelligence must meet a number of ethical standards, and therefore the study of such ethics may be a requirement for developers [1, p. 6]. Regarding the responsibility of producers, PM Morkhat notes that this is natural given their more favorable position compared to users, but with the spread of artificial intelligence, controlling a large number of users for the manufacturer will be a daunting task, and therefore users should be encouraged to understand the rules of such a system, and therefore may need to be trained and licensed for the operation of such systems [2, p. 259–260].

As to what legislation should be applied to deal with compensation, the Resolution we mentioned earlier states that EU Directive 85/374 / EEC applies to liability for breach of non-contractual obligations “Only in part of the damage caused by production defects and provided that the injured party proves the fact of the damage, the presence of the defect and the causal link between them” [3].

There are also a number of pieces of legislation that fragmentarily regulate the possibility of putting into operation certain systems of artificial intelligence. In particular, Directive 93/42 / EEC provides for a procedure for testing medical equipment before putting it into service: the manufacturer must pass an appropriate examination according to the product category, only after which the device must be put into operation [4]. California has a set of standards for testing autonomous vehicles, etc. [5]. But the analysis of a number of special regulations does not allow us to determine the general range of subjects related to the legal relationship with artificial intelligence, which, in particular, could potentially be recognized as authors of works created by artificial intelligence.

Proposes to do this by characterizing artificial intelligence as an object of intellectual property rights.

So, since we have defined artificial intelligence as a computer program, and a computer program is the object of intellectual property rights, which is enshrined in Part 1 of Art. 420 of the Civil Code of Ukraine, then artificial intelligence is the object of intellectual property law and has a similar legal protection to computer programs.

In order to understand the main characteristics of the legal status of the software part of artificial intelligence systems as an object of intellectual property law, we define the legal status of a computer program.

Today, there is a legislative trend in intellectual property law to equate the legal nature of computer programs with literary works and to protect them by copyright. In favor of this is the argument “that in accordance with the rules of copyright protects the form in which the author's ideas are embodied” [6, p. 133]. It is on the basis of the form of external expression that a computer program is equated to literary works [6, c. 133].

In particular, in Art. Article 4 of the 1996 WIPO Copyright Treaty states that computer programs are protected as literary

works within the meaning of Art. 2 of the Berne Convention, regardless of the method or form of their expression [7]. The Directive of the Council of the European Community on the legal protection of computer programs (91/250 / EEC) contains a rule according to which “computer program” includes programs in any form, including those built into hardware, as well as design work, leading to the development of a computer program, provided that the nature of the preparatory work is such that the computer program can follow from it at a later stage [8].

U.S. national law also provides for the protection of computer programs by copyright (17 U.S. Code § 101). A similar approach today is typical for the Ukrainian legal system (Article 18 of the Law “On Copyright and Related Rights”).

In the context of this issue, we will not delve into the interpretation of procedural aspects of computer program protection, as we are interested not so much in defining legal mechanisms for protection and protection of artificial intelligence as an object of intellectual property rights, but in defining the range of entities to its activities.

So, the first subject is the author of the software part of the artificial intelligence system. Let's determine who is the author. Part 1 of Article 435 of the Civil Code states that the primary subject of copyright is the author of the work. In the absence of evidence from another, the author of a work is considered to be a natural person indicated in the usual way as the author on the original or copy of the work (presumption of authorship). According to Art. 436 CC if the work is co-authored, the copyright to the work belongs to the authors jointly, also if certain parts of the computer program are created by one author and may have independent meaning, they can be assigned sole authorship.

In order for any work to be protected by copyright, the very fact of its creation, any other formalities, as stated in the Berne Convention is not required, but in the United States to file a lawsuit to protect violated registration rights is mandatory, except as provided by law (17 U.S. Code § 411). Directive 91/250 / EEC established a criterion of originality for computer programs (in the sense that it is the author's own intellectual creation) so that it could be protected by copyright [8]. Ukrainian legislation, although not directly, but taking into account the interpretation of norms, defines as a criterion of protection the creative contribution of the author (Article 1 of the Law of Ukraine “On Copyright and Related Rights”).

Copyright confers on the author of a computer program a number of personal non-property and property rights. The personal non-property rights of the author are the right: 1) to require the indication of his name in connection with the use of the work, if it is practically possible; 2) prohibit the indication of his name in connection with the use of the work; 3) choose a pseudonym in connection with the use of the work; 4) the inviolability of the work (Article 438 of the Civil Code of Ukraine).

Intellectual property rights to a work are: 1) the right to use the work; 2) the exclusive right to allow the use of the work; 3) the right to prevent the misuse of the work, including the prohibition of such use; 4) other property rights of intellectual property established by law (Article 440 of the Civil Code of Ukraine).

Property rights to a computer program may be transferred to another person by law or contract, while personal non-property rights are excluded.

Another important factor in this context is that computer programs are usually created by programmers under an employment contract, so the question arises as to who owns the rights to this program (both personal and non-personal). In this case, there will be the creation of a service work (a work created by the author in the performance of official duties in accordance with the official task or employment agreement (contract) between him and the employer (Article 1 of the Law “On Copyright and Related Rights”).

According to Ukrainian law, the personal non-property rights of the author to a computer program belong to the employee, as they are inalienable. However, it is provided

that some personal non-property intellectual property rights may belong to the customer [9].

With regard to exclusive property rights, according to the Agreement between Ukraine and the EU, if a computer program is created by an employee to perform their duties or in accordance with the instructions of the employer, the employer owns all exclusive property rights to the computer program thus created, unless otherwise provided by the contract [10]; in accordance with the Civil Code of Ukraine – the employee who created this object, and the legal or natural person where or in which he works, jointly, unless otherwise provided by contract (Part 1 of Article 429); according to the Law of Ukraine “On Copyright and Related Rights” – the employer, unless otherwise provided by the employment agreement (contract) and (or) civil contract between the author and the employer (Part 2 of Article 16). The Plenum of the Supreme Court of Ukraine in the Resolution “On the application by courts of legislation in matters of copyright and related rights” of June 2010 № 5 in paragraph 24 determined that the settlement of this issue should be under the Civil Code of Ukraine [11].

The Anglo-Saxon legal system, as we noted earlier, is characterized by the fact that the author of the official work is considered to be the employer, and therefore he owns personal property and non-property rights.

With regard to the transfer of property copyrights to a computer program by a person who rightfully owns them, it may be carried out under a civil contract, on the basis of: license; license agreement; agreement on the creation by order and use of the object of intellectual property rights; agreement on the transfer of exclusive property rights of intellectual property and others. Such an agreement must be in writing, otherwise it will be void.

Thus, the first three subjects that are the subjects of legal relations on artificial intelligence are the author as a holder of personal non-property rights, the employer as a possible holder of exclusive property rights, the user to whom certain property rights to the object.

In addition, it should be noted that some scholars note that the comparison of computer programs with literary works is inappropriate, because “unlike literary works, the text of a computer program (source or object code) do not have an independent values without the possibility of their application in the computer” [12, p. 72]. In addition, the vast majority of modern programs are not written “from scratch”, and programmers most often use ready-made templates when writing code, libraries without any vocations, while for literary works such a phenomenon is unacceptable [12, p. 72].

Tarasenko L.L. believes that a computer program is close to the objects of patent law, because it “starts a certain technical process, which must be completed by the result” Computer program “can solve a technical problem in any field of technology” [13, p. 254], which is characteristic of the invention (utility model).

Therefore, it can also be the object of the invention (utility model). The most important thing is that copyright does not protect ideas, theories, principles, methods, procedures, processes, systems, methods, concepts, discoveries that are part of a computer program and are expressed in its algorithm, logic, structure, system design – about this is noted in particular by the US Copyright Office in its explanation of the registration of copyright in computer programs [14, p. 1]. This leads to the fact that an attacker can steal the idea of the developer of a program and create a completely similar computer program, changing only the program code [15, p. 35–36].

In this regard, most intellectual property professionals advocate the need to protect computer software as well as patent law, which will protect the above-mentioned components, which are not protected by copyright. They argue that the patent can protect the technical implementation of the program as an invention (utility model), and thus protect the substantive component of the program [15, p. 36; 16, p. 369].

The main arguments against patenting computer programs are that it can monopolize the market, slow down the development of technology, high entry threshold, lack and high cost of professionals who can test a computer program for recognition of its invention [17, p. 64–66].

Practices regarding the possibility of implementing such an approach today differ in different countries. At present, national legislation does not provide for the direct possibility of patenting computer programs, but it is still possible today, although it should be noted that even before 2003, the law contained a direct ban on obtaining a computer program of legal protection as an invention (useful models) [18]. According to the Law of Ukraine “On Inventions and Utility Models” the invention meets the conditions of patentability, if it is new, has an inventive step and is industrially applicable (Article 7). It also does not prohibit the patenting of computer programs and the Agreement on Trade-Related Aspects of Intellectual Property Rights of the World Trade Organization.

However, the European Patent Convention (of which Ukraine is not a member) does not allow patenting of a computer program as such [19]. According to the decision of the Board of Appeal of the European Patent Office, the invention should offer a new and non-obvious technical solution [20]. In Case G 3/08, the Enlarged Board of Appeal of the European Patent Office concluded in response to a question from the President of the European Patent Office: the software is “technical” only if, the program has a “further technical effect” at startup, ie goes beyond the normal “physical interactions between the program (software) and the computer (hardware) on which it runs” [21]. Thus, it is implied that the software should be a solution of a particular hardware system, and not just an abstract algorithm – there should be an interaction of non-technical with technical. Therefore, with such an approach, artificial intelligence as software cannot be patented, it can only be patented as an artificial intelligence system that has physical expression.

In the European Patent Office's Guide to Examination, artificial intelligence is included in the Mathematical Methods section; The Guide states that artificial intelligence has an abstract mathematical character, regardless of the possibility of learning, as it is a mathematical model / algorithm [22]. Therefore, it is subject to similar security criteria as mathematical methods: the mathematical method is not excluded from patentability if it is aimed at a method that involves the use of technical means (eg, computer), or a device that indicates its technical nature; in addition, the mathematical method must meet other general criteria for the protection of inventions [23], which we mentioned earlier.

US law does not contain any direct permission or direct prohibition on software patenting. However, the solution to the problem can be found in case law. For a long time, the courts in their practice relied on the decision of the US Supreme Court in 1972 *Gottschalk v. Benson*, according to which computer programs could not be patented (a computer program was considered a mathematical algorithm that is abstract) [24], however, in the 1990s, the courts of the United States began to demonstrate a different practice and allow software patenting, [25; 26]. In addition, in 1996 the US Patent and Trademark Office issued “Final Recommendations on Computer Examination”, the provisions of which allow to consider software as patentable [27]. However, in the Decision of *Alice Corp. v. CLS Bank International* in 2014 imposed restrictions on the patenting of business models implemented as software due to the fact that the implementation of a business model through the development of software for use on a computer is a simple combination of two common things: well-known business model and computer, which does not represent any novelty and inventive step and has an abstract character [28].

The right to obtain a patent belongs to the inventor, who owns the copyright, to the official invention – the employer. A patent gives its owner the exclusive right to use the inven-

tion (utility model) at its discretion, provided that such use does not infringe the rights of other patent owners.

As in the case of the disposal of copyright, and in the case of the disposal of intellectual property rights to the invention, this is done by contract. But it should be noted that the object of patent law can not be created on the basis of the contract of creation, because "such a result becomes the object of legal protection from the moment of obtaining a patent, not from the moment of its creation under the contract" [121, p. 308], and therefore the transfer of property rights to the invention (utility model) is impossible before their registration in accordance with the procedure prescribed by law.

Thus, the next subjects that are the subjects of legal relations regarding artificial intelligence are the invention as the owner of the patent, or the person who transferred certain property rights (user or manufacturer). Protection of artificial intelligence is possible by copyright, patent and trademark.

There are possible options for determining the legal status of artificial intelligence as a subject, object or both subject and object of legal relations at the same time. Defining artificial intelligence as a subject of legal relations, in particular equalizing its legal status with individuals or legal entities is impossible due to differences in their nature, ability to exercise rights and responsibilities and be responsible for their violation, given the lack of freedom in artificial intelligence. It is also not advisable to endow artificial intelligence with a separate type of legal personality.

We offer legal regulation of artificial intelligence as an object of legal relations, in particular as an object of intellectual property law, which allows to establish the range of potential authors of works created by artificial intelligence. The author of the work created by artificial intelligence can potentially be recognized as the author / inventor of artificial intelligence / artificial intelligence system, the employer of such author, the manufacturer of artificial intelligence systems or the user.

REFERENCES

1. Robotics and artificial intelligence: A response to the House of Commons Science and Technology Committee inquiry into robotics and artificial intelligence. 2016. URL: <https://www.raeng.org.uk/publications/responses/robotics-and-artificialintelligence> (дата звернення: 15.12.2021).
2. Морхат П.М. Правосуб'єктність искусственного интеллекта в сфере права интеллектуальной собственности: гражданско-правовые проблемы : дисс. ... д-ра юрид. наук. Москва, 2018. 420 с.
3. European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics 2015/2103(INL). URL: https://www.europarl.europa.eu/doceo/document/TA-8-2017-0051_EN.html (дата звернення: 15.12.2021).
4. Directive 93/42/EEC of 14 June 1993. URL: <https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31993L0042>
5. California Code of Regulations. URL: [https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I2C7E6D928F844151A40CEAA8D7BC189E&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I2C7E6D928F844151A40CEAA8D7BC189E&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)) (дата звернення: 15.12.2021).
6. Філик Н., Омельченко Г. Комп'ютерна програма як об'єкт авторського права: проблеми правової охорони. *Юридичний вісник. Цивільне і трудове право*. 2016. № 2 (39). С. 130–137.
7. Договір Всевітньої організації інтелектуальної власності про авторське права від 20 грудня 1996 року. URL: https://zakon.rada.gov.ua/laws/show/995_770 (дата звернення: 15.12.2021).
8. Директива Ради Європейського співтовариства про правову охорону комп'ютерних програм (91/250/ЄЕС) від 14.05.1991 р. № 91/250/ЄЕС URL: https://zakon.rada.gov.ua/laws/show/994_065 (дата звернення: 15.12.2021).
9. Про авторське право і суміжні права : Закон України від 23.12.1993 р. № 3792-XII. Дата оновлення: 04.11.2018 р. URL: <https://zakon.rada.gov.ua/laws/show/3792-12> (дата звернення: 15.12.2021).
10. Угода про асоціацію між Україною, з однієї сторони, та Європейським Союзом, Європейським співтовариством з атомної енергії і їхніми державами-членами, з іншої сторони від 16.09.2014 р. Дата оновлення: 30.11.2015 р. URL: https://zakon.rada.gov.ua/laws/show/984_011 (дата звернення: 15.12.2021).
11. Постанова Пленуму ВСУ «Про застосування судами норм законодавства у справах про захист авторського права і суміжних прав» від 4 червня 2010 року № 5. URL: <https://ips.ligazakon.net/document/view/VSS00004?an=151> (дата звернення: 15.12.2021).
12. Водорезова С.Р. Особливості правової охорони комп'ютерної програми як об'єкта інформаційних відносин. *Право та інновації*. 2014. № 3. С. 69–76.
13. Тарасенко Л.Л. До Комп'ютерна програма як об'єкт інтелектуального права. *IT право: проблеми і перспективи розвитку в Україні* : збірник матеріалів науково-практичної конференції (Львів, 18 листопада 2016 р.). Львів : НУ «Львівська політехніка», 2016. С. 251–260.
14. Copyright Registration of Computer Programs. United States Copyright Office. URL: <https://www.copyright.gov/circs/circ61.pdf> (дата звернення: 15.12.2021).
15. Цибульська Л. Проблемні аспекти охорони програмного забезпечення в Україні. *Теорія і практика інтелектуальної власності*. 2010. № 1. С. 34–38.
16. Hellstadius A. Software Patents. *Scandinavian Studies in Law*. 2010. P. 361–396.
17. Talat K. A Comparative Analysis Of The Patentability Of Computer Software Under The Trips Agreement: The U.S., The E.U., And Turkey. *Ankara Law Review*. 2007. Vol. 4. № 1. P. 43–81.
18. Про охорону прав на винаходи і корисні моделі : Закон України від 15.12.1993 р. № 3687-XII. Дата оновлення: 11.06.2003 р. URL: <https://zakon.rada.gov.ua/laws/show/3687-12/ed20030611> (дата звернення: 15.12.2021).
19. Convention on the Grant of European Patents (European Patent Convention) of 5 October 1973. URL: https://www.epo.org/law-practice/legaltexts/html/epc/2016/e/EPC_conv_20180401_en_20181012.pdf (дата звернення: 15.12.2021).
20. European Patent Office Decision T 0641/00. URL: <https://www.epo.org/law-practice/case-law-appeals/recent/t00641ep1.html> (дата звернення: 15.12.2021).
21. European Patent Office Decision T G0003/08. URL: <https://www.epo.org/law-practice/case-law-appeals/recent/g080003ex1.html> (дата звернення: 15.12.2021).
22. Guidelines for Examination. URL: https://www.epo.org/lawpractice/legal-texts/html/guidelines2018/e/g_ii_3_3.htm (дата звернення: 15.12.2021).
23. *Gottschalk v. Benson*, 409 U.S. 63 (1972). URL: <https://supreme.justia.com/cases/federal/us/409/63/> (дата звернення: 15.12.2021).
24. *Diamond v. Diehr*, 450 U.S. 175 (1981). URL: <https://supreme.justia.com/cases/federal/us/450/175/> (дата звернення: 15.12.2021).
25. *At&t Corp., Plaintiff-appellant, v. Excel Communications, Inc., Excel Communications Marketing,inc., and Excel Telecommunications, Inc.,defendantsappellees*, 172 F.3d 1352 (Fed. Cir. 1999). URL: <https://law.justia.com/cases/federal/appellate-courts/F3/172/1352/599511/> (дата звернення: 15.12.2021).
26. Examination Guidelines for Computer-Related Inventions. U.S.P.T.O. 1996. URL: https://www.bitlaw.com/source/soft_pats/final.html (дата звернення: 15.12.2021).
27. *Alice Corp. v. CLS Bank International*. Supreme Court of US. 2014. URL: https://www.supremecourt.gov/opinions/13pdf/13-298_7lh8.pdf
28. Яворська О.С. Договори у сфері інтелектуального права: проблеми застосування чинного законодавства. *IT право: проблеми і перспективи розвитку в Україні* : збірник матеріалів науково-практичної конференції (18 листопада 2016 р.). Львів : НУ «Львівська політехніка», 2016. С. 306–316.