

AI-CREATED INTELLECTUAL PROPERTY: OWNERSHIP AND RESPONSIBILITY FOR THE INFRINGEMENT

ІНТЕЛЕКТУАЛЬНА ВЛАСНІСТЬ, СТВОРЕНА ШТУЧНИМ ІНТЕЛЕКТОМ: ПРАВО ВЛАСНОСТІ ТА ВІДПОВІДАЛЬНІСТЬ ЗА ПОРУШЕННЯ

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The current century is marked by the development of artificial intelligence (AI), which is used not only for scientific purposes, but also for the creation of intellectual property – videos, games, paintings, poetry etc. It would seem that the result of AI should be identical to similar works created by humans. However, the current legislation of Ukraine and most countries lags far behind technological advances and does not regulate not only the phenomenon of artificial intelligence as such, but the protection of intellectual property rights to objects created by AI as well as the liability for damage caused by it and for it.

In this article, the author formulates different approaches to the very definition of AI, since there is no single and generally accepted one. Consistently, the author presents contrastive concepts to intellectual property rights to objects created by AI in different jurisdictions. In addition, the author raises the issue of liability for violation of the rights of third parties by AI and emphasizes the impossibility of imposing liability on it. In this case, the author considers it appropriate that liability should be assigned to manufacturer, operator, owner or user of AI depending on the circumstances of the case. At the same time, if AI violates the ownership of someone's work, the operator, the person who controlled the work of artificial intelligence, etc. may be held liable under various circumstances that may occur.

The article is devoted to the analysis of the problem of AI property rights and liability for violations caused by it and in relation to it. Also, the issue of bringing Ukrainian legislation in line with the European one in matters of harming AI to third parties is raised. In support of the positions and their better coverage the author provides examples from the judicial practice of different countries, foreign legislation, precedents etc. [...]

Key words: Artificial Intelligence (AI), intellectual property rights, damage caused by AI, liability, AI and copyright.

У сучасному світі законодавство повинно йти в ногу з часом та оперативно реагувати на нові виклики. В останні роки штучний інтелект став одним із таких. На жаль, чинне законодавство України та більшості країн світу значно відстає від технологічного прогресу і не регулює не тільки явище штучного інтелекту як такого, але й похідні проблеми, пов'язані з його використанням.

Дана стаття присвячена висвітленню та аналізу самого розуміння штучного інтелекту, проблем, пов'язаних з його правом на інтелектуальну власність та можливій відповідальності штучного інтелекту за шкоду, завдану ним або щодо нього.

У статті сформульовано декілька підходів до розуміння поняття штучного інтелекту, наведено різні концепції належності прав інтелектуальної власності на об'єкти, створені штучним інтелектом в різних юрисдикціях. Встановлено, що, з одного боку, авторські права можуть належати творцеві (розробнику) штучного інтелекту. За іншими підходами, авторські права можуть належати замовнику або власнику штучного інтелекту. Крім того, порушено питання відповідальності за завдання шкоди штучним інтелектом правам третіх осіб. Висловлена позиція неможливості покладення на нього відповідальності, а натомість притягнення до неї виробника, оператора, власника або користувача штучного інтелекту, в залежності від обставин справи.

Аналізуючи механізм роботи штучного інтелекту, автор піднімає питання, пов'язане з штучним інтелектом та можливим з його боку порушенням авторських прав. Автор доходить до висновку, що у такому випадку, фізична або юридична особа в кінцевому підсумку повинна нести юридичну відповідальність. Відповідальною особою, як правило, буде визнаватися той, хто контролював штучний інтелект під час порушення. [...]

Ключові слова: штучний інтелект, право інтелектуальної власності, відповідальність за завдання шкоди, порушення авторських прав.

Statement of the problem. It is impossible to deny the fact of the rapid development of artificial intelligence (AI) and its active use in our daily lives. Such technologies and systems are extremely cognizant and can create their own intellectual property objects as well as by their actions may be caused damage to third parties or infringement of other people's rights. In this regard, the issue of ownership for works created with the help of AI and liability for damage caused by AI becomes very relevant.

The purpose of the study is to analyze copyrights for works created with the help of AI and the possibility of imposing liability on the AI itself, its developer, owner, etc.

Outline of the material. The concept of "artificial intelligence" (AI) firstly appeared in 1955 when John McCarthy announced it during his conference speech. In 2007, he published the paper "What is Artificial Intelligence?" where he defined it as "the science and engineering of making intelligent machines". The "intelligence" itself is, in his opinion, "the computational part of the ability to achieve goals in the world" [1; p. 181].

However, the best known AI definition is so-called Turing test. In 1950, Allan Turing proposed a test which he named "imitation game". Based on this test, AI could be defined as any computer that passes the Turing test. "Turing test" means a game which is played with three participants: (1) a human, (2) a computer and (3) a human judge. The human judge is

separated from the other two participants. They can only communicate via text. The Turing test is counted as passed if the human judge cannot discriminate between the human and the computer.

Today, many AI researchers define AI as the study of intelligent agents. For example, Stuart Russell and Peter Norvig use the following definition in their standard textbook "Artificial Intelligence: A Modern Approach" [2; p. 349]: "Artificial intelligence" means an intelligent agent. "Agent" means a software system which perceives its environment through sensors and acts upon that environment through actuators. "Intelligence" means the ability to select an action that is expected to maximize a performance measure.

Also, some scientists assume that AI refers to an organized set of information technologies, with the use of which it is possible to perform complex tasks with the help of a system of scientific methods of research and algorithms for processing information obtained or independently created during work, as well as to create and use own knowledge bases, decision models, algorithms work with information and determine ways to achieve the tasks.

The ownership of the AI-created intellectual property. Today, there are many different approaches to intellectual property rights for objects created by AI.

Countries of the Anglo-Saxon legal system generally use the concept, according to which AI cannot be endowed with intellectual property rights, the latter can belong exclusively

to a person. For example, this approach has found its recognition in the United States. It became widely used after a court precedent. The court in San Francisco considered the dispute “Naruto v. David John Slater” regarding the copyright of the selfie taken by the monkey Naruto. At the same time, PETA (People For The Ethical Treatment of Animals) filed a lawsuit on behalf of the monkey. However, both the court of first instance and the Appellate Court came to the conclusion that despite the provisions of the legislation on the protection of animal rights, the latter do not have the right to apply for the protection of their violated intellectual property rights. Only human beings have such rights. By analogy, the existence of intellectual property rights does not extend to AI [3, p. 5].

The second option, that of giving authorship to the programmer, is evident in a few countries such as the Hong Kong (SAR), India, Ireland, New Zealand and the UK. This approach is best encapsulated in UK copyright law, section 9(3) of the Copyright, Designs and Patents Act (CDPA) [4; p. 10], which states:

“In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken.”

Furthermore, section 178 of the CDPA defines a computer-generated work as one that “is generated by computer in circumstances such that there is no human author of the work”. The idea behind such a provision is to create an exception to all human authorship requirements by recognizing the work that goes into creating a program capable of generating works, even if the creative spark is undertaken by the machine.

The countries of the European Union and Ukraine come to a similar opinion. Domestic legislation establishes that the author is a natural person who created a work through his creative work and, accordingly, the primary copyright belongs to such a natural person. The Supreme Court of the Netherlands expressed its vision of the authorship of AI: the object of copyright must be the result of the creative result of a person and can be considered in such a way that the result of the intellectual activity of AI will never be considered as authorship and protected by copyright.

At the legislative level, the question of which person should be considered the author of the work remains unsettled and open: the creator of the program, the person who assigned the task to such a program or its owner. However, usually when buying and selling a program containing AI technologies, a corresponding contract or user agreement is concluded, which regulates the issue of authorship resulting from the use of such a program. In other words, the principle of *pacta sunt servanda* (agreements must be fulfilled) applies.

Responsibility for the infringement. Resolution 2015/2103 (INL) of the European Parliament dated February 16, 2017 with recommendations of the European Commission on the civil law regulation of robotics (hereinafter – Resolution 2015/2103 (INL)) emphasized the impossibility of holding AI accountable for actions that caused damage to third parties. Thus, in accordance with paragraph “d” of Resolution 2015/2103 (INL), responsibility for causing damage can be assigned to one of the so-called agents, namely: the manufacturer, operator, owner or user of AI. At the same time, when establishing the scope of responsibility on the part of the “agent”, one of the main aspects is the fact of proving the possibility of predicting negative consequences and preventing them [5, p. 12].

As an example, when an accident occurred as a result of using the autopilot. In order to determine the responsible person, it is necessary to understand what caused the accident:

– shortcomings of the program itself, which will result in the responsibility of the creator of such a program;

– incorrect use of the autopilot by the driver, which will make the latter liable;

– the intervention of third parties who, for example, hacked and damaged the program or made certain changes to it and, accordingly, the fault of such persons.

Machine learning systems learn from the data available to them, including copyright works like books, music and photographs. For example, the Next Rembrandt Project trained AI to develop a new painting in Rembrandt’s style, and used data from 346 of Rembrandt’s works to do so.

Each work used by an AI may be protected by copyright. This means that the copyright owner’s permission is needed to use the work unless a copyright exception applies. This permission may be granted using a licence, which will set out who can use the work, how and why.

It is possible to avoid infringing copyright by using licensed or out-of-copyright works. For example, an AI could be trained using the works of Beethoven, which are no longer protected by copyright. But unless a work is licensed, out of copyright, or used under a specific exception, an AI will infringe by making copies of it.

Copyright is infringed when someone uses a substantial part of a copyright work without the copyright owner’s permission. Copies made inside a human brain do not infringe copyright. For example, a person may remember a song and sing it in their head, without infringing copyright in it, however they would infringe copyright if they wrote down the song or performed it in public without permission.

In contrast, copies made within an AI “brain” may infringe copyright. For example, an AI may store a copy of a song within its memory. Like a human, an AI may also infringe copyright by generating copies of the song externally, performing it, distributing it, or communicating it to the public [6; p. 458].

When copyright is infringed, the copyright owner has the right to take action against an infringer. This means that when an AI infringes copyright, a person or legal entity must ultimately be legally responsible. The person who is liable is normally whoever has control over the infringement, the ability to stop future infringement and can compensate the copyright owner.

Were copyright infringed by an AI, the responsible person would be the one who has control over the infringement. If the infringement occurs while the AI is being trained, then the person with control would be the person training the AI. If the AI generates a work that infringes copyright, then the person liable would be whoever has made the necessary arrangements that have led the AI to infringe copyright. This is likely to be the operator of the AI [7; p. 726].

At the same time, copyright law allows copying in certain cases to enable technology to work more effectively. For instance, it allows temporary copies to be made during processes such as web browsing and signal processing. As long as these copies do not have independent economic significance and enable a lawful end use, they do not infringe copyright.

Conclusion. AI is a matter that already requires its legal regulation, starting with an official definition, settlement of the issue of its inclusion in the circle of subjects or not, dealing with a question of bringing to legal liability the developer, operator of AI or its owner. Also, since AI can not have IP rights, the question of which person should be considered the author of the work remains open: the creator of the program, the person who assigned the task to such a program or its owner. A similar problem exists in the issue of liability for damage caused by AI. Such situations require urgent legislative regulation, because in practice they will occur more and more often.

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