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PROBLEM ISSUES OF APPLYING CURRENT LEGAL REGULATIONS TO AI-CREATED OBJECTS

Abstract. Systems using artificial intelligence (AI), as well as AI itself, are now undergoing rapid development and enhancement. Each year, the IT industry offers society increased opportunities and a broader range of applicability for AI. Such development is particularly evident in AI language models, which allow for direct communication with AI, and systems that generate audio and/or visual objects upon human request. Considering AI's growing capabilities in assisting or directly engaging in the creation of objects by humans or by AI under human requests, legislators face the challenge of determining the legal status of such objects. Since copyright law establishes specific requirements for authors and works, categorizing AI-created objects as copyright-protected works is now impossible. However, the lack of legal regulation regarding the status of relevant objects may create legal uncertainty and leave parties in legal relations unprotected. To regulate this issue, the Law of Ukraine "On Copyright and Related Rights" was adopted in a new edition, introducing sui generis rights into legislation. ***Purpose.*** The present article aims to examine the current problems concerning the legal status of AI-created objects, particularly those arising with the adoption of the new edition of the Law of Ukraine "On Copyright and Related Rights" regarding the regulation of non-original objects under sui generis. ***Methods.*** When writing the article, the author has applied research and special methods of scientific cognition, including analysis, synthesis, and comparison. The scientific novelty of the research involves the examination of the issues related to the application of current legislation to AI-created objects, taking into account substantive studies on the nature and characteristics of AI-generated objects compared to works protected by copyright. Such studies call into question the applicability of the current approach to AI-generated objects, treating them as non-original works. ***Results.*** The author identified inconsistencies between the nature of objects created via computer programs employing artificial intelligence and the legal definition assigned to such objects. Furthermore, it highlights the failure to consider the degree of human involvement in the creation of these objects when determining the ownership of proprietary copyright in relation to such objects. ***Conclusion.*** The article concludes the need for further improvement of existing copyright legislation in the context of sui generis rights to take into account a varying degree of human involvement in the creation of AI objects and expand user experience in protecting their rights to AI-created objects and/or those created with the assistance of AI.

Key words: copyright; sui generis rights; artificial intelligence; AI-generated objects.

1. Introduction. Problem statement. In today's globalized world, the development of information technologies persists, and societies are getting more and more tools to simplify and advance ordinary processes. New tools are introduced into user familiar systems which expand the range of capabilities. It leads to the emergence of new sectors of business, the economy, and human competence. Along with new information technologies, humanity and specialists face new challenges that require assessment and possibly further changes in the already established spheres of human existence. In recent years, releasing systems with artificial intelligence (hereinafter referred to as "AI") to the general public has been a breakthrough. In particular, there are artificial intelligence systems intended and trained for a specific narrow purpose, be it research, driving, data collection, or analysis, and systems created for less specific purposes, i.e., language models and AI systems that generate images or create musical compositions, etc. (hereinafter referred to as "creative AI models").

We believe creative AI models are also designed to introduce new opportunities to society and further promote AI and human interaction.

As noted above, the elaboration of new tools, products, and systems pursues not only a research objective but also a commercial one – a motivational component which is an integral

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part of many areas of development and research. Therefore, the implementation of specific products and tools creates new opportunities for society and a new economic sphere, which should be equally and thoroughly protected for further development.

The legal community and some groups of authors paid particular attention to creative AI models as AI actually creates objects. This raises questions about the protection of such objects, incl. under copyright, and whether someone owns the rights to these objects, if such rights arise at all.

The relevance of the topic concerned is driven by the lack of a unified approach and concept that would be exhaustive to settle the issue of proper protection of AI-created objects, in particular, creative AI models and the user of the system using AI, and the lack of sufficient legal certainty and a fair balance of rights of all participants in legal relations regarding such objects.

Many scholars and students have dealt with the issue of defining AI-created objects as ones that are subject to copyright protection and (not) recognizing AI as an author: Pavlo Voitovych, Kateryna Bondarenko, Ruslan Ennan, Alina Havlovska, Vladyslav Shliienko in the article "Objects of Intellectual Property Rights Created by Artificial Intelligence: International Legal Regulation", Viktor Savchenko and Oleksandr Tsvar in the article "Issues of Copyright for Objects Created by Artificial Intelligence", T. I. Begova in the article "Problems of Legal Protection of Objects Created by Artificial Intelligence", K. Militsyna in the article "Objects Created Using Artificial Intelligence and Artificial Intelligence Directly, and US Copyright".

The scientific novelty of the present article involves covering the problem of applying the current legislation to AI-created objects, taking into account thematic studies of the essence and characteristics of AI-created objects in comparison with copyright works. Such studies call in question the appropriateness of applying the current approach to AI-created objects as non-original objects.

The present article aims to examine the current problems of the legal status of AI-created objects, in particular, the one caused by the adoption of the new version of the Law of Ukraine "On Copyright and Related Rights" regarding the regulation of non-original objects by sui generis.

The article's purpose is part of a more general research task, which is to study the legal regulation of AI-created objects, the problems faced by the legislator and law enforcement, and the formulation of proposals for an approach that would correspond to legal relations involving such objects and would allow for such legal regulation in the future. In turn, this will prevent inconsistency and legal uncertainty in the event of a complication of relations and the development of artificial intelligence in the future.

When writing the article, the author applied general scientific and special method of scientific knowledge, analysis, synthesis, and comparison.

The main text comprises two sections which deal with sui generis subjects, an overview of the AI-created object, and the conclusions which present research findings and proposals.

2. The role of an individual and their involvement in the creation of an object by artificial intelligence

Under civil law, legal relations consist of objects and subjects, respectively, those who exercise and pursue rights and in respect of what they own and exercise rights. Copyright is exercised by copyright proprietors – the author and/or holder of property copyrights, who fully or partially exercises the property copyrights provided by law to such an object. The object is a work that meets legal requirements and has been created by the author.

The legislation of Ukraine stipulates that, first of all, the copyright proprietor is the author – the individual who created the object. The law does not state that someone other than an individual may be the author. A similar position prevails in the United States of America, according to which the author is an individual; another interpretation of the author as an entity other than an individual is impossible.

At the same time, the term "author" can be understood as both individuals and legal entities under the national legislation of the participating countries, as provided for by the Berne Convention and the Universal Copyright Convention (Voitovych, Bondarenko, Ennan, Havlovska, Shliienko, 2021, p. 511).

In addition, when analyzing the ability of AI to be an author, attention should be paid to the fact that the work's originality is the "criterion that characterizes the work as an outcome of the author's intellectual and creative activity and renders the creative decisions made by the author while creating the work" (Law of Ukraine "On Copyright and Related Rights", 2023). The originality criterion contradicts the position of recognizing AI as the author of the work and cannot yet be applied to artificial intelligence, and the author's awareness of the work, which is absent in AI, is required by most copyright laws (Voitovych, Bondarenko, Ennan, Havlovska, Shliienko, 2021, p. 514).

Based on such an understanding, and without allowing AI to be an author in copyright

terms, all AI-created "works" do not have protection or a particular belonging that would meet the principles of justice and balance of interests, as in the case of users, AI developers, and society as a whole, given the economic impact of such developments.

Thus, Militsyna K. notes that "*the current situation deprives investors and developers of incentives for the development of artificial intelligence ... that will affect science, training, and research since there will be less data that they can use under the terms of the doctrine of "fair use*" (Militsyna, 2019, p. 344).

On the other hand, granting authorship could take place, for example, in favor of the user who prompted AI to provide (create) a specific object. It is also possible to make arguments in the discussion to advocate the above thesis.

Such arguments hold that AI would not have created a specific object without the user and their prompt. In the prompt, the user embodies their vision, idea, perception, and possibly other details that have a significant manifestation of creativity. The prompt itself must also meet specific requirements for AI to process correctly and most likely provide the desired result – the object the user expects. The prompt can independently be the outcome of the user's intellectual and creative activity, and AI can act solely as a means that creates a tangible reflection of built-in outcome of intellectual or creative activity, which has the form of the prompt. That is, AI can be considered not as a creator but as a means used.

The above approach is not universal for any object that can be created by AI, but it can be taken into account for adopting the regulation that would most cover the interests of all participants in legal relations. However, it cannot be ignored that, in this case, the issue of object originality and the user's role and contribution in creating its tangible form is not settled.

3. Compliance of objects created with the help of artificial intelligence with the requirements for works

Another important aspect of copyright regarding AI-created objects is their compliance with the requirements for the work established by law for its "protection".

Many authors reckon that AI-created objects are not original – as mentioned above, citing the article Objects of Intellectual Property Rights Created by Artificial Intelligence: International Legal Regulation – but are only reproduction, copying, compilation of what has already been created and what AI memorized through machine learning; when "creating", AI does not realize the process of creation and its significance: there is no creative solution to the object itself, and the object is not an outcome of the creative or intellectual activity of AI.

Thus, attention is paid not only to the object in its independent meaning but also to the process of its creation, and the lack of human effort or intellectual and creative activity fundamentally distinguishes between what is created by man and what is created by AI.

In T.I. Begova's opinion "*... robots are not able to generate fundamentally new creative solutions or works following the example of the human mind and intellect. Original deliverables in machine learning are obtained either by copying already known human works, or by generating a programmed deliverable embedded in the algorithms of the AI software and hardware complex – artificial intelligence or a new compilation of already known solutions and embedded works is compiled by a neural network in software code or mathematically. In other words, artificial intelligence cannot be creative" (Begova, 2021, p. 20) (author's note: "robots" mean AI).*

However, the above position is not peremptory. AI may not be able to draw its own conclusions from the information obtained if such conclusions were not embedded during "learning", but in some cases, AI demonstrates the ability to perform activities that repeat human capabilities and processes.

Viktor Savchenko and Oleksandr Tsvar in their article summarize "*... AI-created copyright objects can meet all*" requirements imposed on copyright objects under the law, *and "... copyright criteria are abstract and absent in the legislation of most countries, limited only to the requirements for work originality (novelty) and human authorship"* (Savchenko, Tsvar, 2023, p. 70). Viktor Savchenko and Oleksandr Tsvar also give convincing in their opinion examples and explanations regarding the compliance of AI-created objects with copyright requirements for works and the option of the AI user to acquire the legal status of the creator of such an object.

Therefore, the non-originality of AI-created objects is not an axiom: it should be considered in a broader context, and at least the regulation of different AI-created objects may differ and be optional depending on the content of such an object and the degree of human involvement.

Given the widespread and progressive use of AI, as well as the growth of systems which are AI or use AI elements in their work, it is necessary to settle existing issues. If something that has the characteristics of a copyright object differs from other existing objects is potentially original, then it is expedient to resolve the issue of the legal status of these objects.

The adoption of the Law of Ukraine "On Copyright and Related Rights" No. 2811-IX

dated December 1, 2022, which entered into force on January 1, 2023 (hereinafter referred to as the "Law"), was an attempt to resolve the above issue in Ukraine. According to Article 33 of the Law, the legislator introduced the regulation of objects created by AI (or with the help of AI) through sui generis right, which aims to establish the legal certainty of the legal status of AI-created objects and the subjective composition of legal relations around such objects, the rights that arise and the scope of such rights of subjects, while avoiding equating such objects to works.

The law proposes to use the concept of "non-original object" in relation to AI-created objects, and such an object is required to (1) be different from "*other existing similar objects*"; and (2) created "*as a result of the functioning of a computer program without the direct participation of an individual in the creation of the object*". It is suggested not to include works created by an individual using computer technologies as non-original objects (Law of Ukraine "On Copyright and Related Rights", 2023).

Subjects of a suis generis right *may* be the right holders (or persons with licensing authority) of the computer program that created the object, or a legitimate user of the computer program. The Agreement may determine the ownership of suis generis rights to non-original objects.

Given the above provisions of the Law, it is seen that there are shortcomings that make their application contradictory and non-compliant with the actual needs of the subjects and inconsistent with the balance of subjects' rights in legal relations concerning objects. We offer you to consider further in more detail.

The use of the expressions "without direct participation" and "with the help of" looks contradictory. This is due to the fact that the computer programs (AI) considered in the relevant context are precisely intended for users, and the outcome of such employment by the AI user implies user involvement in the creation of an object to some extent. The creation of an AI object is not carried out independently, given the lack of the ability to independently initiate the creation of something, without user involvement. In particular, there is a lack of AI awareness of the very process of creation and its significance, as we considered above. Currently, the user's interaction with AI happens through the provision of a prompt to AI to be processed, and in response, AI will provide an answer and/or an object.

It is also important to note that the user, intending to create a specific object with the use of AI and providing a prompt to AI, can also carry out and/or is carrying out intellectual and creative activities that have expression.

Therefore, in an attempt to distinguish between the creation of objects by AI and the use of AI in order to create an object, the legislator shaped conditions of low legal certainty regarding the legal consequences of using AI in the creation of objects. Thus, under specific circumstances, it is impossible or difficult to reliably establish whether the participation of an individual in the creation of an object is sufficient to consider it created "with the use", and certainly not with "without the direct involvement" of an individual. This is especially true when both options can be upon using the same AI.

The consequences of uncertainty may be the incorrect attribution of an object not to the work but to a non-original object with different subjective composition, ownership and scope of rights that arise upon such kind of the object's creation.

Another drawback is the lack of a reference to who acquires a sui generis right to a non-original object after its creation: the user or the AI copyright holder (hereinafter referred to as the "copyright holder"). Since AI is a system/computer program that is provided by the copyright holder to the user, the terms of use are determined by the usage license, which usually comes in the form of an adhesion agreement. As a result, despite the degree of AI use, the user accepts the conditions provided by the copyright holder, and only the copyright holder personally determines what rights the user will acquire for the object created by AI (or with its use). Thus, the legal provisions provide the right holder with all the opportunities to determine the scope of the rights that the user receives. In our understanding and observation, it is very unlikely to include conditions by the copyright holder on the transfer to the user of all rights to the object, regardless of the degree of user involvement in the object's creation. In particular, the retention of rights to the object by the right holder entitles the latter to exercise unlimited control over the use and distribution of objects.

It is worth highlighting that taking steps to settle the issue of rights to objects created by AI is important and is better than leaving it unregulated. The introduction of regulation, albeit imperfect, is an action and development: it allows for improving such regulation, eliminating shortcomings, and resolving disputes.

4. Conclusions

Creating, implementing, and advancing new information tools and technological solutions is an ongoing process that sometimes precedes the human and professional understanding

of these processes and their consequences. However, the protection of all participants in legal relations and further stimulation of development is also important to the legal definition of the status of objects created by AI. The contradiction of such objects with the requirements of the legislation and current approaches should not limit society and individuals in the full and proper protection of their rights, achievements, and fruits of intellectual and creative activity.

The adoption of the Law of Ukraine "On Copyright and Related Rights" No. 2811-IX dated December 1, 2022 is an essential step towards the proper regulation of relations regarding objects created by AI, and "sui generis" right is an appropriate means to settle such relations, while maintaining the current approaches to copyright and human-created works. New laws may have drawbacks, but they should not stand in the way of further development and improvement, especially along with an increasingly better understanding of the reality in which we find ourselves.

Summarizing the above, it should be marked that there is a discrepancy between the essence of objects created with the help of artificial intelligence and the definition applicable to such objects, and this discrepancy only proves the simplification of the legal status and assessment of such objects. This, in turn, entails regulation which upends a fair balance and ignores the properties of the objects that they may own. The current legal regulation also assigns an important role on the conditions of AI use, which are established by the developer. This can lead to the deprivation of the user, who was directly involved in the creation of an object by artificial intelligence, of property copyrights (ownership rights of the subject of suis generis).

Taking into account the above, in the author's opinion, the most appropriate proposal is to improve the current legal regulation and:

(i) establish clearer criteria for classifying objects as objects of copyright or objects of suis generis, given the degree of human involvement in creating objects using AI or directly by it;

(ii) revise the wording "non-original objects" in favor of one that would regard the operational capabilities of AI and the characteristics of the objects it created;

(iii) allow AI users to obtain rights to objects created by AI (or with its help) and move away from the position that the AI developer / owner independently establishes or acquires the user rights to objects.

In the future, more profound studies of the interaction between users and artificial intelligence and objects created by artificial intelligence will establish the conditions for acquiring property and non-property rights and legal regulation for such objects, which:

(1) correctly and properly describes objects created by artificial intelligence;

(2) describes the appropriate scope of user participation in the creation of such objects for unconditional recognition of copyright;

(3) eliminates legal uncertainty regarding the belonging of objects to works or suis generis objects, taking into account the current requirements of the legislation;

(4) allows expanding the range and method of using artificial intelligence in its economic component.

References:

Tsivilniy kodeks Ukrainy [Civil code of Ukraine]. (2003, January 16) Vidomosti Verkhovnoi Rady Ukrainy – Bulletin of Verkhovna Rada of Ukraine. Kyiv: Parlam. vyd-vo. 2003, №№ 40-44, p. 356 [in Ukrainian].

Zakon Ukrainy Pro avtorske pravo ta symizhni prava [Law of Ukraine On copyrignt and related rights] (2022, December 1) Vidomosti Verkhovnoi Rady Ukrainy – Bulletin of Verkhovna Rada of Ukraine. Kyiv: Parlam. vyd-vo. 2023, № 57, art.166 [in Ukrainian].

Begova, T.I. (2021). Problems of legal protection of objects created by artificial intelligence. Aktual'ni problemy vitchyznyanoyi yurysprudentsiyi, (№ 6. 2021), 18-22. Retrieved from http://apnl.dnu.in.ua/6_2021/3.pdf .

Militsyna, K. (2019). Ob'yekty, stvoreni za dopomohoyu shtuchnoho intelektu i shtuchnym intelektom bezposerednio, ta avtors'ke pravo SShA [Objects created by artificial intelligence and artificial intelligence directly and copyright US]. Entrepreneurship, economy and law, (5/2019), 343-346. Retrieved from http://pgp-journal.kiev.ua/archive/2019/5/65.pdf [in Ukrainian].

Savchenko, V., Tsvar, O. (2023). Issues of copyright for objects created by artificial intelligence; Baltic Journal of Legal and Social Sciences, No. 3, 69-77. Retrieved from http://baltijapublishing.lv/index.php/bjlss/article/view/2167/2169.

Voitovych, P., Bondarenko, K., Ennan, R., Havlovska, A., Shliienko, V. (2021). Objects of intellectual property rights created by artificial intelligence: international legal regulation; Cuestiones politicas (Vol. 39, Nº 68 (Enero - Junio) 2021), 505-519. Retrieved from https://dspace.onua.edu.ua/server/api/core/bitstreams/0dbff818-b6c1-47cd-b24a-9d4181e00b83/content .

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ПРОБЛЕМАТИКА ЗАСТОСУВАННЯ ЧИННОГО ПРАВОВОГО РЕГУЛЮВАННЯ ДО ОБ'ЄКТІВ, СТВОРЕНИХ ШТУЧНИМ ІНТЕЛЕКТОМ

Анотація. У нинішній час системи, що використовують штучний інтелект (ШІ), і штучний інтелект як такий, знаходяться на етапі стрімкого розвитку та вдосконалення. З кожним роком ІТ індустрія пропонує суспільству більше можливостей та все ширше поле для застосування ШІ. Зокрема цей розвиток ми можемо бачити у мовних моделях ШІ, які передбачають пряму комунікацію людини з ШІ, та системах, що створюють аудіо та/або візуальні твори на запит людини. З огляду на збільшення можливостей ШІ щодо залучення у процес творення об'єктів людиною, та/або ШІ, на запит людини, перед законодавцем постає питання правового регулювання статусу таких об'єктів. Оскільки за законодавством про авторське право встановлюються вимоги до автора та твору, то віднесення об'єктів створених ШІ до об'єктів авторського права є неможливим. Однак, відсутність правового регулювання статусу певних об'єктів створює правову невизначенність і незахищеність суб'єктів прововідносин. З метою врегулювати правовий статус таких об'єктів було прийнято Закон України «Про авторське право та суміжні права» у новій редакції, і включення до законодавства права особливого роду (sui generis). ***Мета.*** Метою цієї статті є розгляд чинної проблематики щодо правового статусу об'єктів створених ШІ, зокрема тієї, яка виникла разом з прийняттям нової редакції Закону України «Про авторське право та суміжні права» в частині регулювання неоригінальних об'єктів правом особливого роду. ***Методи дослідження.*** При написанні статті використані загально-науковий та спеціальний метод наукового пізнання, аналіз, синтез, порівняння. Наукова новизна цієї статті полягає у дослідженні питання проблематики застосування чинного законодавства до об'єктів створених ШІ з урахуванням предметних досліджень сутності та характеристик об'єктів створених ШІ у порівнянні з творами, які є об'єктами авторського права. Такі дослідження є такими що ставлять під сумнів належність застосування чинного підходу до об'єктів створених ШІ, як неоригінальних об'єктів. ***Результати.*** Результатом дослідження є виявлення неузгодженості між сутністю об'єктів створених за допомогою комп'ютерних програм, що використовують штучний інтелект, та наданим визначенням для таких об'єктів, а також, неврахування рівня залученості фізичної особи у творенні таких об'єктів при визначенні належності майнових авторських прав на такі об'єкти. ***Висновки.*** Висновком цієї статті є констатація необхідності подальшого удосконалення чинного законодавства про авторське право в контексті права особливого роду (sui generis) з метою врахування різного ступеню участі людини у творенні об'єктів ШІ та розширенню можливості захисту користувачем своїх прав щодо об'єктів створених ШІ та/або за допомогою ШІ.

Ключові слова: авторське право; право особливого роду (sui generis); штучний інтелект; об'єкти створені штучним інтелектом.

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