

GENESIS OF THE LEGAL REGULATION OF THE FUNCTIONING OF INTELLECTUAL PROPERTY INSTITUTIONS IN CYBERSPACE

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Purpose: *this scientific research is devoted to the study and analysis of the genesis of the legal regulation of the functioning of intellectual property institutions in cyberspace and then use the results of it as the basis for removing the shortcomings in the previously adopted local normative legal acts. The methodological basis of the study comprises general scientific, historical-comparative, philosophical, and ideological, methods of analysis and special methods. Results:* *the protection of intellectual property rights in cyberspace is a complex task and should be carried out based on modern legislation, the development of which is important to be carried out based on an analysis of the shortcomings and advantages of previous legislation in this area. That is why the genesis of appropriate legal regulation of the functioning of intellectual property institutions in general and in the digital environment is extremely important. The author made a comprehensive analysis of such genesis and provided her recommendations for the further implementation of new norms regarding the regulation of intellectual property issues in cyberspace. Discussion:* *a consistent in-depth analysis of historical aspects of the creation and formation of intellectual property law institutions in general and directly in cyberspace, clarification of the essence of legal regulation of the relevant sphere, and research of regulatory and legal acts of Ukraine.*

Key words: *cyberspace; intellectual property; intellectual property law; violation of intellectual property rights; cyber environment; protection of intellectual property rights in cyberspace; intellectual property in cyberspace.*

Problem statement and its relevance. Today, the development of more exact and in-depth legislation that would take care of the functioning of intellectual property institutions in general and directly in cyberspace is almost impossible without a preliminary study of its genesis. According to the definition contained in the dictionary of the Ukrainian language, *genesis* (lat. *genesis*) is *origin, emergence, and formation* [1]. So, when we talk about the genesis of the legal regulation of the functioning of intellectual property institutions, we mean the peculiarities of its emergence and formation.

Over the past decades, our state has significantly intensified its efforts to enter the world system "on an equal basis", especially in the area of intellectual property rights, and is now a participant in most of

the generally recognized international conventions and treaties in this field. Ukrainian lawmakers are developing new legislation, taking into account the shortcomings of previous documents. That is why the topic of this study is important and the latter will be devoted to the in-depth analysis of the peculiarities of the emergence and formation of the legal regulation of the functioning of individual intellectual property institutions in the digital environment - the cybernetic domain.

Analysis of research and publications. The very issue of the genesis of legal regulation of intellectual property in cyberspace, unfortunately, is almost not revealed, regardless, there is a dissertation thesis by G.V. Dovgan on the genesis of the development of legal regulation of intellectual property

institutions in Ukraine in general, there is a relevant study of A. Zhukovsky, the issue of legal regulation of IPR in the digital environment is the subject of research by such scholars as M.V. Gura, O.I. Kharytonova, O.A. Pidoprygora, N.V. Trotsyuk, K.O. Zerov, and other scientists.

Purpose of the article. This scientific research is devoted to the study and analysis of the genesis of the legal regulation of the functioning of intellectual property institutions in cyberspace which should be used as the basis for removing the shortcomings of previous normative legal acts.

The presentation of the main material. Generally speaking, the legal regulation of intellectual property has its origins as far back as 1624, when the Statute of Monopolies was published, the corresponding trend continued in 1710 with the emergence of the British Statute of Anne, which is also known as the Copyright Act 1710. It was these 2 documents that initiated the regulation of relations in the field of patent and copyright law, and, which is most important - became the beginning of embedding the concept of intellectual property in the world.

These events were followed by others, including the presenting of royal grants by Elizabeth I for monopoly privileges, which took place in 1558–1603. In our opinion, in this aspect, 1883 and 1886 were the most significant years, because it was at this time that the so-called "bibles" of intellectual property law emerged - the Paris Convention for the Protection of Industrial Property and the Berne Convention for the Protection of Literary and Artistic Works, respectively. They established minimum standards in the field of legal regulation of intellectual property protection issues, and all signatory states were obliged to approve the corresponding standards (or higher in terms of the level of provision of the corresponding protection) in their national legislation.

Intellectual property as a social and legal category really blossomed in 1967 - with the emergence of the Convention Establishing the World Intellectual Property Organization, which was signed in Stockholm on July 14, 1967. Changes to this international legal act were made on October 2, 1979. It came into force three months after 10 member states of the Paris Union and 7 - of the Berne Union

took the corresponding foreseen actions [2]. Since then, intellectual property has acquired a common understanding and begun its transition into a global regime.

As for the emergence of digital (cybernetic) space, we do not consider it possible to specify the relevant time limits precisely. Nonetheless, there are specific considerations to the emergence of the main embodiment, an inseparable element of cyberspace - the World Wide Web. Accordingly, in the 50s of the 20th century local networks already existed, and with them - the first concepts of a global-level network were born. And such global networks with a very complex structure, with the basement on several local networks, would see the light of day already in the 60s of the same century. In the year of adopting the WIPO Convention (1967), D. Davis showed the world an innovative packet-switching model. It would later become the basis of the ARPANET project, which, in turn, would become the prototype of what we now call the Internet [3].

Other packet-switching networks, such as NPL and Telenet, Cyclades, Tymnet, and the like appeared in the 70s. At the same time, the "father of the Internet" Vinton Gray "Vint" Cerf together with Robert Elliot Kahn created a stack of TCP/IP protocols based on ARPANET and Cyclades. In the next decade, on the initiative of the NSF, the first computer centers were implemented in American institutions of higher education, and already in 1986, they were combined into a large-scale NSFNET network. After this, the first Internet providers began to appear. That is, during this period, the global network that we understand appeared, which was based on the development and acquisitions of T. Bernes-Lee, who combined a large number of hypertext documents into a single system. It was possible to connect to the latter from any computer if it was connected to a public network. In the last decade of the XX century, namely in 1990, the ARPANET project was closed. Nevertheless, this event became a catalyst for the emergence of individual private companies providing Internet connections in the United States. 5 years later, NSFNET was also closed, but this was the beginning of the development of the Internet as an exclusively commercial phenomenon. Why is it

important? The fact is that it allowed ordinary people to become Internet users [3]. Since then, the World Wide Web is in constant development and growth.

Taking into account the said events of 90 years, it becomes clear to us why the Diplomatic Conference was assembled in December 1996, within the framework of which the so-called "WIPO Internet Treaties" were adopted. WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty (both adopted in Geneva on December 20, 1996) are united under this name. They, of course, did not properly regulate the relations in the field of intellectual property law that take place in the digital space, but they became the starting point in the formation of normative and legal regulation in this area.

According to L. Gao, the WIPO Internet Treaties contained four fundamental principles, namely:

- authors, performers and producers of phono/video recordings are granted the right to make and store their works in digital form, in approximately the same way as they reproduce traditional creations;

- said subjects may distribute such digital objects to the public in such a way that these works are easily accessible on the Internet;

- the ease of copying a digitized object requires the provision of an effective tool for legal protection against the circumvention of existing technical measures;

- it is also essential to protect management information in electronic form [4, p. 590-591].

The specified principles and general rules of WIPO Internet Treaties became for their signatories the foundation for the development of a national regulatory framework in the field of intellectual property protection in the cyber domain. This is how the Digital Millennium Copyright Act (also known as DMCA) appeared, the US Senate adopted it on May 14, 1998. Its role from the point of view of the genesis of legal regulation of intellectual property in the digital space is extraordinary. Consequently, it takes into account in its provisions the peculiarities of modern technologies regarding the copying and distribution of digital information, including Internet content, and this document provides for severe punishment for violators of rele-

vant copyrights on the World Wide Web. DMCA distinguished itself with the following novellas:

- providers of online services in some cases will be provided with protection if their users violate copyright, including through the creation of a notice-and-takedown system, through which owners of relevant rights can inform online service providers about illegal content;

- copyright holders are encouraged to provide wider access to their content in digital formats to provide them with legal protection against unauthorized access to such objects;

- it is prohibited to provide inaccurate information about copyright management [5].

Three of the above principles have been incorporated into the Copyright Law of China. Regarding the fourth fundamental on the right of copyright holders to digitize objects of copyright, it, although it was not embodied directly, received its de facto application because of the interpretation of the Supreme People's Court of China regarding copyright on the WWW (2001) [4, p. 591-592].

Individually, we should pay some attention to the genesis of the legal regulation of the functioning of IP institutes in the European Union. Yes, according to the works of R. Ye. Ennan, the development of intellectual property law in the European Union was protracted and difficult due to its territorial affiliation. The member countries in their way regulated the relevant relations, which were attributed to their exclusive competence. But in the end, the problem of correlation between the exercise of IP rights and following the principles of free movement of goods and competition policy in the Union became the subject of cases of The Court of Justice of the European Union (CJEU). The next phase of the development of legal regulation in the specified field is the gradual harmonization and unification of the lawmaking of the member countries on certain IP matters [6, p. 8].

And although the countries actively applied the provisions to fulfill the requirements of the Agreement on Trade-Related Aspects of Intellectual Property Rights (abbreviated as TRIPS), it still had different means of protecting IP rights, which significantly harmed the normal functioning of the internal market and the provision of equal protection to the related rights at the supranational level. That

is why Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights appeared in 2004, which prompted the development of horizontal tools to combat piracy [6, p. 9-10]. The activities of European unification bodies were mostly related to the introduction of uniform regulations for the implementation of property copyrights, including the right to copy, notice, distribute, track, process, and the like.

In the context of the genesis of the regulation of the functioning of individual intellectual property institutes in cyberspace at the international level, it is also worth pointing out the 2007 WIPO Development Agenda, which contained 45 suggestions for adapting the body's activity to the specific existing needs of developing countries. Among other things, these recommendations related to the improvement of the situation regarding the access of Internet users to information, IT specialists - to source codes, and those who study - relevant scientific materials. Nevertheless, specific international legal reforms on this issue have never been adopted and put into effect.

Also, in the context of the research topics, we will mention the Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (no longer in force), Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property, Council Regulation (EC) No 207/2009 of 26 February 2009 on the Community trade mark (no longer in force), Regulation (EU) No. 608/2013 concerning customs enforcement of intellectual property rights (IPR) and the like.

As for the field of the digital space itself, we should note that in addition to the adoption of the Berne Convention and WIPO Internet Treaties, the emergence of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society became very essential for this issue. But in none of the specified documents, the World Wide Web indicated the environment for the use of relevant creative

and innovative objects, instead, the term "digital environment" is used.

Also, for this scientific paper, it is necessary to study the genesis of the legal regulation of the functioning of IP institutions in the digital domain in the national legislation of our country, especially taking into account the fact that in 2020 Ukraine was included in the list of countries that violate IP rights and "cause damage to economic interests of the European Union" [7].

In modern understanding, IPR on Ukrainian lands developed back in the 19th century, when our territories were part of the Austrian and Russian empires and absorbed pan-European trends. The first norms regarding the legal protection of copyright were included in the Civil Code of the Austrian Monarchy (1811). In 1846, several industry acts were adopted, on December 26, 1895, the law on copyright for works of literature, art, and photography was also adopted. As for industrial property law, the first nationwide normative legal act in the field of patent law was the Law on Privileges of August 15, 1852 [8, p. 47-50].

In the times of the USSR, legal regulation in the related field was based on standards and all-Union legislation. For that period, it was uncharacteristic to provide comprehensive legal protection of the results of creative and innovative activity, the standard division of the law was made into copyright and invention law. Soviet legal regulation in the relevant field was too dependent on internal factors, namely on the peculiarities of the administrative and command management system. Yes, freedom of creativity was proclaimed, but de facto it was very much limited.

Though in 1991, Ukraine gained independence - and everything changed. Then the development and implementation of our own national regulatory and legal framework began in the country, including in the field of IPR. Thus, in 1996, the Ukrainian Constitution was adopted, which contains Articles 41 and 54 regarding the right of everyone to own, use and dispose of the results of their intellectual and creative activity and guarantees the freedom of literary, artistic, scientific, and technical creativity, as well as the protection of IP and the like [9].

The following Codes were also put into effect:

- The Code of Labor Laws of Ukraine (of 10.12.1971), which contains Article 126 regarding the guarantees provided to employees - authors of inventions, utility models, industrial designs, innovative proposals, and some others regarding IP;

- The Code of Ukraine on Administrative Offenses (of 07.12.1984), which contains Article 51-2 regarding violations of rights to IPR objects, by which the document was supplemented under LU No. 4042-12 (of 02.25.94);

- The Commercial Procedure Code of Ukraine (of 06.11.1991), which includes, in particular, norms regarding the High Court on intellectual property matters (Articles 3, 20, 22, and the like);

- The Criminal Code of Ukraine (of 05.04.2001), which contains Articles 176 and 177 regarding violations of copyright and related rights and rights to inventions, utility models, industrial designs, plant varieties, topographies of integrated microcircuits, and rationalization proposals, respectively;

- The Civil Code of Ukraine (of 16.01.2003), which includes Book Four, which comprehensively regulates the issue of IP, establishing the traditional two-level system of IP legislation;

- The Customs Code of Ukraine (of 13.03.2012), among other things, contains provisions on the register of objects of intellectual property rights (Article 398), the definition of counterfeit goods, including those that are objects of infringement of intellectual property rights on trade trademark or geographical indication (Article 4), and so on.

The periodization of the adoption and amendment of the main Laws of Ukraine (LU) in the relevant field is as follows:

- LU No. 3687-XII On protection of rights to inventions and utility models (of 12.15.1993);

- LU No. 3688-XII On protection of rights to industrial designs (of 15.12.1993);

- LU No. 3689-XII On protection of rights to signs for goods and services (of 12.15.1993);

- LU No. 3793-XII On copyright and related rights (of 12.23.93) - now invalid based on LU No. 2811-IX (of 12.01.2022);

- LU No. 621/97-VR On protection of rights to the layout of semiconductor products (of 05.11.1997);

- LU No. 752-XIV On Legal Protection of Geographical Indications (of 16.06.1999);

- LU No. 2415-VIII On the effective management of the property rights of rights holders in the field of copyright and (or) related rights (of 15.05.2018).

Conclusion. Thus, the genesis of the legal regulation of the functioning of various intellectual property institutions in the digital domain in the world in general and directly in Ukraine is characterized by both general patterns and specific features. The introduction of appropriate changes to international agreements on IPR, the implementation of WIPO Internet Treaties and the development of national legislation of different countries based on them, the appropriate implementation of EU Directives and Regulations, as well as the development and advancement of the Ukrainian national legal array - all this is today the basis of operating on objects and IP rights in the digital space.

And although this legal route is still quite new for Ukraine, local legal regulation is being improved by the rule-makers taking into account modern cybernetic trends. The legislator tries to specify the relevant aspects and features of IP objects, thereby reducing the number of gaps in the legislation, which is especially important when resolving disputes. Now we can observe positive trends regarding the processes of acquisition and protection of intellectual property rights in the World Wide Web. But it is important not to cease because the constant improvement of the legislation and the mechanisms of its implementation regarding the protection of intellectual property rights in general and directly in cyberspace is an urgent assignment. It requires making balanced and adequate decisions in the context of making changes to the relevant regulatory framework taking into account the European integration processes of our country.

That is why knowledge of the peculiarities of the genesis of the legal regulation of the functioning of IP institutions in general and in the digital environment is extremely important, they are the background for the new legal regulation development and implementation, taking into account the missteps and shortcomings of the regulation of past years and even centuries. Such knowledge, together with the scientific developments of scholars will

help in the future to create and implement a more effective regulation of the relevant relations.

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ГЕНЕЗА ПРАВОВОГО РЕГУЛЮВАННЯ ФУНКЦІОНУВАННЯ ІНСТИТУТІВ ІНТЕЛЕКТУАЛЬНОЇ ВЛАСНОСТІ У КІБЕРПРОСТОРИ

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Сьогодні розроблення більш точного та якісного законодавства, яке б опікувалося функціонуванням інститутів інтелектуальної власності загалом і безпосередньо у кіберпросторі, майже неможливе без попереднього вивчення його генезису. Говорячи про такий генезис правового регулювання функціонування інститутів інтелектуальної власності, маємо на увазі особливості його виникнення та становлення.

Протягом останніх десятиліть наша держава значно активізувала свої зусилля щодо входження у світову систему «на рівних», особливо у сфері прав інтелектуальної власності, і нині є учасником більшості загальновизнаних міжнародних конвенцій і договорів у цьому полі. Українські нормотворці розробляють нове законодавство, враховуючи недоліки попередніх документів.

Тому знання особливостей генезису правового регулювання функціонування інституцій інтелектуальної власності загалом та в цифровому середовищі є надзвичайно важливим, воно є основою для розробки та впровадження нового правового регулювання, враховуючи помилки та недоліки регулювання минулих років і навіть століть. Такі знання разом із науковими розробками вчених допоможуть у майбутньому створити та запровадити більш ефективне регулювання відповідних відносин. Тож тема даного дослідження є важливою, а саме воно буде присвячене дослідженню особливостей виникнення та становлення правового регулювання функціонування окремих інституцій інтелектуальної власності в цифровому середовищі – кібернетичному просторі.

Мета дослідження. Наукове дослідження присвячене вивченню та аналізу генезису правового регулювання функціонування інститутів інтелектуальної власності у кіберпросторі та використанню його результатів як основи для усунення недоліків у раніше прийнятих локальних нормативно-правових актах. **Методологічну основу дослідження** становлять загальнонауковий, історико-порівняльний, філософсько-світоглядний, методи аналізу та спеціальні методи. **Результати:** захист прав інтелектуальної власності в кіберпросторі є складним завданням і має здійснюватися на основі сучасного законодавства, розвиток якого важливо реалізувати на основі аналізу недоліків та переваг попереднього законодавства у цій сфері. Саме тому генезис відповідного правового регулювання функціонування інститутів інтелектуальної власності загалом та в цифровому середовищі є надзвичайно важливим. Автором проведений комплексний аналіз такого генезису та надані рекомендації щодо подальшого впровадження нових норм щодо регулювання питань інтелектуальної власності у кіберпросторі. **Обговорення:** послідовний поглиблений аналіз історичних аспектів формування та становлення інститутів права інтелектуальної власності загалом та безпосередньо у кіберпросторі, з'ясування сутності правового регулювання відповідної сфери та дослідження нормативно-правових актів України.

Ключові слова: кіберпростір; інтелектуальна власність; право інтелектуальної власності; порушення прав інтелектуальної власності; кібернетичне середовище; захист прав інтелектуальної власності у кіберпросторі; інтелектуальна власність у кіберпросторі.

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