

THE INSTITUTE OF INTELLECTUAL PROPERTY IN THE CONTEXT OF DIGITALIZATION WHILE ENSURING INNOVATIVE SECURITY AND HUMAN RIGHTS

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The article deals with the problem of the functioning of the institute of intellectual property in the context of digitalization challenges, with regard to the necessity of ensuring innovation security and respect for human rights. In the context of digital reality, mechanisms for creating, using, and protecting intellectual property are becoming particularly relevant, and intellectual property itself is positioned as a source of economic and innovative development. The aim of the study is to analyze the functioning of the institute of intellectual property in the frame of digitalization, the need to ensure innovative security and human rights. Implementation of the research goal was achieved through the integrated use of methods of system and comparative analysis, systematization and formalization, historical and statistical methods. The transformation of the institute of intellectual property is considered in the context of the main objectives of the strategy of the Republic of Belarus in the field of intellectual property for 2012–2020. Risks and dominants of the development of the system of protection of intellectual property rights in the context of human rights and digitalization of society are identified.

Keywords: digitalization; human rights; intellectual property; innovative security; intellectual property rights; the protection of intellectual property.

ИНСТИТУТ ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ В КОНТЕКСТЕ ДИГИТАЛИЗАЦИИ ПРИ ОБЕСПЕЧЕНИИ ИННОВАЦИОННОЙ БЕЗОПАСНОСТИ И ПРАВ ЧЕЛОВЕКА

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Рассмотрена проблема функционирования института интеллектуальной собственности с учетом вызовов цифровизации, необходимости обеспечения инновационной безопасности и соблюдения прав человека. В условиях цифровой реальности механизмы создания, использования и защиты интеллектуальной собственности приобретают осо-

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бую актуальность, а сама она позиционируется в качестве источника экономического и инновационного развития. Целью исследования является анализ функционирования института интеллектуальной собственности в условиях дигитализации, необходимости обеспечения инновационной безопасности и соблюдения прав человека. Цель исследования была достигнута посредством комплексного использования методов системного и сравнительного анализа, систематизации и формализации, исторического и статистического метода. Трансформация института интеллектуальной собственности рассматривается в контексте основных задач Стратегии Республики Беларусь в сфере интеллектуальной собственности на 2012–2020 годы. Определены риски и доминанты развития системы охраны и защиты прав интеллектуальной собственности в контексте прав человека и цифровизации общества.

Ключевые слова: цифровизация; права человека; интеллектуальная собственность; инновационная безопасность; институт интеллектуальной собственности; защита интеллектуальной собственности.

Globalization of the economy and comprehensive digitalization are key characteristics of the current stage of the evolutionary development of the socio-economic and production model of society. The rapid pace of digital transformation is due to its possible positive consequences for the economy and society. The main advantages of digitalization involve the emergence of economic and social effects of digital technologies for business and society, raising the quality of life by improving the satisfaction of people's needs, productivity growth; the emergence of new business models and forms of business that increase the profitability and competitiveness of activities, ensuring the availability and promotion of goods and services, increasing the transparency of economic operations and ensuring their monitoring, the emergence of human-substituting management systems [1].

The widespread introduction of innovative technologies changes all spheres of the life of modern society, entails the emergence of new types and areas of social activity with unregulated legal relations, among which there are interrelated problems of creating and using digital intellectual property, human rights and ensuring security in the context of global digitalization and innovative development [2].

However, digitalization can bring negative consequences to human life. In relation to digitalization, the main external challenges for the state are issues of its national security and competitiveness in the world market, whereas, at the individual level, the most urgent problem is the preservation of the user's digital data. In addition, due to the expansion of the range and individualization of digital services, the effectiveness of the current control system in the field of digital services is reduced, which entails no less significant threats: cyber attacks, copyright infringement, online piracy, distribution of malicious content, and digital fraud [3]. Under these circumstances, ensuring the security of innovative development of the individual, society and the state becomes particularly relevant and entails the need to introduce the concept of "innovative security" as an integral part of national security, by which we mean the state of protection of national interests from external and internal threats arising in the context of innovative development [2].

The issue of the entire range of legal aspects in general, from changing legislation to ensuring human

rights in the digital world, which in the context of the globalization of the economy and comprehensive digitalization of industrial, political and social processes is an essential element of the system for ensuring the security of individuals, society and the state, is also debatable.

At the same time, intellectual property is now rightly considered the main civilizational driver of development. The institute of intellectual property is the foundation of the modern global economy. Becoming available, new results of intellectual and creative activity and their legal protection in domestic and foreign markets are followed by the material movement of goods and services. Intellectual property has long been recognized as a key and almost inexhaustible resource of the economy. But today it is also becoming a tool for the development of digital technologies, creating an independent global digital market, the growth of which exceeds the positive dynamics of many traditional "material" commodity markets. Thus, the protection of the intellectual property is a dual-task designed to ensure both human rights and national interests of the state.

The origin of the concept of intellectual property is based on the theory of natural law, according to which the right of the creator of any creative result, whether it is a literary work or invention, is its inherent, "natural" right, arises from the very nature of the creative activity and "exists independently regardless of the recognition of this right by the state authority". As a property right, the right to the result of creative activity provides the copyright holder with an exclusive opportunity to dispose of this result at his own discretion, with the elimination of all third parties from interfering in the exclusive sphere of the copyright holder. The Massachusetts law of 17 March 1789 stated that "there is no property owned by a person more than that which is the result of mental labor" [4].

Intellectual property rights are similar in nature to property rights, since the objects of these rights are involved in civil turnover and the relations related to them are regulated by the norms of civil law. To understand the essence of intellectual property rights, it is necessary to consider their similarities and differences with property rights.

The content of these two categories of rights has much in common. In both cases, the owner of the pro-

property, whether it is intellectual or physical, has the right to dispose of it at his discretion, that is, he has the rights to use, own and dispose of this property.

However, the objects of property ownership and intellectual property are different. If property ownership involves some tangible goods or values that have an embodied tangible form, i. e. property, it should be noted that the objects of intellectual property may not always have an embodied form, they may be intangible incorporeal things. For example, an invention has a material form and is an object of intellectual property, since in the process of its creation, not only physical but also intellectual labor was expended. Production secrets, in turn, are also objects of intellectual property. Intellectual labor was also expended their development, but they do not have a material form.

Whereas initially inventions and production secrets, which were protected by patent law, were considered an object of intellectual property, then later, with the development of the world community, scientific and technological progress and international trade relations, the range of intellectual property objects expanded significantly. For example, the Convention establishing the World Intellectual Property Organization (WIPO) of 14 July 1967, determines that intellectual property involves exclusive rights relating to:

- literary, artistic and scientific works;
- performing activities of artists, sound recording, radio and television broadcasts;
- inventions in all areas of human activity;
- scientific discovery;
- industrial design;
- trademarks, service marks, brand names and commercial designations;
- protection against unfair competition;
- all other rights related to intellectual activity in the industrial, scientific, literary and artistic fields¹.

Since the Republic of Belarus is a party to this convention and a member of WIPO, the above-mentioned provisions are reflected in the civil legislation of the Republic of Belarus. Art. 980 of the Civil Code of the Republic of Belarus defines three groups of intellectual property objects: results of intellectual activity; means of individualization of participants of civil turnover, goods, works or services; other results of intellectual activity and means of individualization of participants of civil turnover, goods, works or services².

Following the theory of natural law, which formed the basis of the legislation of many countries of the world in the field of intellectual property, all objects of intellectual property can be divided into two categories, referring to them in such terms as literary property and industrial property. These terms are also enshrined in international WIPO conventions: the Paris convention for the protection of industrial property of 20 March 1883, and the Berne convention for the protection of literary and artistic works of 24 July 1971³.

Literary and artistic works cover all works in the field of literature, science and art, no matter how and in whatever form they are expressed⁴. It should be noted that in the civil legislation of the Republic of Belarus, there is no such concept as literary property, but the objects listed above covered by this concept are protected by a separate branch of intellectual property law, called copyright and related rights⁵. As the name implies, that area of law covers two groups of rules: copyright and related rights. These two groups of rights are part of the same branch, since their object is literary property and no formalities are required over arising of these rights, but the object itself, regarding which the right arises, should be represented in some kind of objective form. However, copyright and related rights arise from different entities. So, if copyright arises from the author, creator of a work of science, literature and art which is the result of his creative activity, then related rights arise from the performers of such works⁶.

With regard to industrial property the objects of protection are patents for inventions, utility models, industrial designs, trademarks, service marks, trade names and indications of origin or appellations of origin, as well as the suppression of unfair competition [4]. The concept of industrial property includes inventions, utility models, industrial designs, selection achievements, production secrets (know-how), means of individualization of participants in civil turnover, goods, works, services.

It should be noted that the protection of exclusive rights to objects that make up this category has a different nature. For example, inventions, utility models, industrial designs and selection achievements are protected by a patent. It means that exclusive rights are granted to their creator only if the authorized state body establishes compliance of these objects with the

¹Berne convention for the protection of literary and artistic works of 9 Sept. 1889 as amended on 28 Sept. 1979 [Electronic resource]. URL: http://www.consultant.ru/document/cons_doc_law_5112/ (date of access: 04.01.2020).

²Civil Code of the Republic of Belarus of 7 Oct. 1998 No. 218-3 // Natl. register of legal acts of the Repub. of Belarus. 2001. No. 7-9. 2/744.

³Berne convention for the protection of literary and artistic works of 9 Sept. 1889 as amended on 28 Sept. 1979 [Electronic resource]. URL: http://www.consultant.ru/document/cons_doc_law_5112/ (date of access: 04.01.2020).

⁴Convention for the protection of industrial property of 2 Oct. 1979 [Electronic resource]. URL: http://www.consultant.ru/document/cons_doc_LAW_5111/ (date of access: 04.01.2020).

⁵On copyright and related rights : Law of the Repub. of Belarus of 17 May 2011 No. 262-3 // Natl. register of legal acts of the Repub. of Belarus. 2011. No. 60. 2/1813.

⁶Agreement on uniform principles of regulation in the field of protection and protection of intellectual property rights [Electronic resource]. URL: http://www.consultant.ru/document/cons_doc_LAW_113008/ (date of access: 22.01.2020).

requirements of novelty, usefulness and uniqueness. In the Republic of Belarus, such a body is the National Center for Intellectual Property (NCIP). A patent certifies the right of authorship, the exclusiveness of the rights to an invention for 20 years⁷.

In respect of production secrets, due to the fact that they are subject to secrecy, the exclusiveness of the rights of their owner is not certified by a patent. Information that constitutes the secret of production is protected in the trade secret regime.

Another institution of industrial property is the means of individualization of participants in civil turnover, goods, works, services, which include brand names, trademarks and service marks, and geographical indications. The intellectual property designations of merchandise or in other words means of individualization of participants in civil turnover are not by their nature intellectual works. However, they are equated to objects of intellectual property protection. This approach can be explained by the high level of trade development, including international trade. In the modern world, there is a need to saturate the market with goods and services to meet the needs of the population. As a result, consumer markets are represented by a wide range of different products from different manufacturers. Trademarks, brand names and other similar means serve the function of individualization of the manufacturer and its products, as well as carry information about the business reputation of the manufacturer of products, their quality. Thus, the means of individualization of participants in civil turnover contribute to the development of fair competition in the market of goods, works and services. In order to gain the customer's trust, manufacturers strive to improve the quality of their products and their competitiveness. In this regard, it is of great importance to prevent the use of means of individualization by persons who are not their owners. In fact, this is the main reason for classifying the means of individualization of participants in civil turnover as objects of intellectual property.

Appellations of origin are also equated to objects of intellectual property. They are designations containing the modern or historical, official or unofficial, full or abbreviated name of a country, geographical object or any locality, as well as a designation derived from such a name and made known as a result of its use in relation to a product whose special properties are exclusively or mainly determined by the natural conditions or human factors peculiar for a given geographical object [5].

Thus, based on the foregoing, we can give the following definition of the concept of intellectual prop-

erty as a set of exclusive rights to the result of intellectual activity and equated means of individualization.

Today, intellectual property, along with goods, services and finance, is one of the four baskets of world trade. Commercialization of intellectual property objects can provide GDP growth. According to experts, in the most developed countries, it can vary from 60 to 85 %, since the basis of most innovations in the scientific and technical sphere, which form the knowledge-intensive sector of the economy of industrialized countries, is made up of intellectual property objects [6]. In this context, a challenge for the state is to ensure the high-quality functioning of this institution, which is impossible without creating an adequate mechanism for the protection of intellectual property rights, corresponding to objective realities. Structurally it should align not only with legal regulations but should also comprise effective and competent state bodies. Among such bodies, a significant role is assigned to customs authorities, since they are the ones that guard the interests of copyright holders when importing goods into the territory of the state in violation of their rights.

With the development of digital technologies and the Internet, the products of creative industries (works of literature and art, audio-visual content, engineering solutions) become vulnerable to illegal use. According to Rambler group, the damage from piracy suffered by copyright holders in 2017 is about 70 bln rubles. Unfortunately, digital technologies of hackers are developing almost on a par with security technologies. Today, the challenges that affect the institute of intellectual property are the following:

1) poor working culture of business with intellectual property, which can lead to the following risks:

- loss of rights to the technologies used by organizations and being developed;
- loss of investment in research and development (R&D);
- lack of authority to suppress unfair actions of competitors;

2) the share of intangible assets of organizations is less than 1 %. Its growth is possible as a result of the active involvement in civil and economic turnover of technological solutions used by organizations that have legal protection, and their fair assessment by organizations, which is now hindered by the current tax regime⁸;

3) digitalization of the economy.

Indeed, intellectual property law has contributed to the development of technologies, which, in turn, today have a significant impact directly on the institute of

⁷Agreement on uniform principles of regulation in the field of protection and protection of intellectual property rights [Electronic resource]. URL: http://www.consultant.ru/document/cons_doc_LAW_113008/ (date of access: 22.01.2020).

⁸Idem.

intellectual property law. The main challenges here are the following:

- the laborious process of concluding a contract, requiring special knowledge and costs, equivalent to reproduction and production, carried out in fact with one-click;

- extremely complex chains of relationships between authors and co-authors, as well as consumers, associated with the use, processing and creation of new intellectual property items, resulting in difficulties in determining the novelty and creative contribution. This leads to an increase in the number of judicial disputes and the burden on the judicial system, the deformation of relations and the increase in social tension between the authors of open publications and patent holders;

- the emergence of new digital standards for the description of intellectual property, suitable directly for production, does not preclude obtaining legal protection with the help of formal textual descriptions [5].

Legal protection of intellectual property objects arises due to the fact of their creation, if these are objects of copyright and related rights, or as a result of the provision of legal protection by an authorized state body, if these are objects of industrial property.

The State Committee on Science and Technology of the Republic of Belarus (SCST) is in charge of the intellectual property management system. It is a republican government body of the Republic of Belarus, ensuring the implementation of state policy in the field of protection of rights of intellectual property. The SCST is subordinate to the NCIS, which directly ensures the protection of intellectual property rights and performs the functions of the patent body of the Republic of Belarus defined by the legislation. The body that considers disputes arising from the application of legislation regulating property and personal non-property relations emerging in connection with the creation, legal protection and use of intellectual property objects is the Judicial Board on intellectual property of the Supreme Court of the Republic of Belarus.

Another body subordinate to the SCST is the Republican scientific and technical library, which serves as the only publicly accessible state repository of patent documents in the republic.

Also, the intellectual property management system in the Republic of Belarus consists of such institutions as patent attorneys and appraisers of intellectual property objects. Patent attorneys are citizens of the Republic of Belarus who are entitled to represent individuals and legal entities before the patent authority of the Republic of Belarus. Appraisers are individuals certified in accordance with the established procedure who conduct an independent assessment of intellectual property objects personally as individual entrepreneurs or as employees of a legal entity or an individual entrepreneur who performs the assessment.

As you can see, NCIS is the key state institution in the Republic of Belarus that provides protection of intellectual property rights. However, its functions are limited to registering intellectual property objects, issuing licenses for their use, and others.

The process of commercialization of intellectual property leads to the fact that the latter turns into an object of sale, in other words, into a product. At the same time, being a product, it can have both an intangible form in the form of license agreements and agreements on the transfer of rights to use certain intellectual property objects, and a material form presented together with material values in which it creates added value as a result of the use of license contracts and agreements. Such material values can be produced both on the territory of the state, and come from outside its borders to the domestic market. The customs authorities, due to the nature of their activities, namely ensuring the legal procedure for moving any movable property across the customs border, as well as real estate equated to it, are precisely those state bodies that guard the interests of copyright holders when moving goods across the customs border of the Republic of Belarus and the Eurasian Economic Union (EAEU).

A properly functioning intellectual property institution encourages the development of scientific and technological progress and innovation, and is also a powerful tool for economic growth. According to analysts of the East Economic Forum, the institute of intellectual property is a factor capable of increasing the competitiveness of the economy of any state, depending on how well it functions. The quality of its functioning is evidenced by the level of protection of exclusive rights of copyright holders. When assessing the competitiveness of the world's economies in the Global competitiveness ranking for 2014–2015 on the indicator of intellectual property rights protection, Finland takes the leading place. Intellectual property accounts for 20 % of the country's 256.9 trln US dollars in GDP [6]. This is due to the fact that intellectual property creates added value that allows companies to capitalize on their assets and attract new investments. In other words, the more efficiently the rights of owners of intellectual property objects are implemented, the more favorable the conditions for foreign investment into innovative activities are, as well as in the commercialization of intellectual property objects.

In so far it is evidenced by the methodology for evaluating the GCI Index, the quality of functioning of the intellectual property institute is based on the following:

- adequate legal intellectual property framework, designed to meet international standards and generally recognized world practice;

- the efficiency of public institutions responsible for the enforcement of intellectual property rights;

- the activity of copyright holders in the use of procedures for protecting their exclusive rights.

The last point is to some extent a consequence of the first two.

Successful implementation of the tasks set by the Strategy of the Republic of Belarus in the field of intellectual property for 2012–2020, approved by the Decree of the Council of Ministers of the Republic of Belarus of 2 March 2012 No. 205 in the areas of development of the institution of intellectual property, will ensure the widespread use and commercialization of rights to results of intellectual activities in order to enhance the competitiveness of the Belarusian economy, as well as to ensure security and respect for human rights. On this account, the most important areas of transformation of the sphere of intellectual property of the Republic of Belarus in accordance with the national security strategy are the following:

- raising public and business awareness in the field of intellectual property;
- improving the legal framework for the creation, use and protection of intellectual property;

- encouraging the creation of intellectual property;
- development and implementation of new digital technologies for intellectual property management;
- accounting and protection of the rights of authors and other copyright holders in the digital environment.

At the same time, it is important for the state and civil society to encourage, rather than limit, the sphere of intellectual property. It seems promising to study, generalize and implement international experience and standards in the field of intellectual property rights into national legislation. In this context, we consider it appropriate to create an interdisciplinary group of experts consisting of practicing lawyers with sufficient experience in this field, IT specialists, etc. to make appropriate proposals and recommendations. This will allow the institute of intellectual property in modern Belarus to become a catalyst for innovative processes in economic and public life, and the implementation of human rights in this context will enable the implementation of the intellectual property rights protection for both creators of copyright objects and consumers of intellectual works.

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