DOI:
УДК 34:004:347.77 (045)

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EFFECTIVENESS OF LEGAL ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS IN CYBERSPACE

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Purpose: *this scientific research is devoted to the study and analysis of best practices which show the effectiveness of legal enforcement of intellectual property rights in cyberspace, their comparison and development on their basis of suggestions for reforming the legal regulation of the relevant area in Ukraine.* ***Research methods*** *of the study comprises general scientific, comparative, philosophical, and ideological, methods of analysis and special methods.* ***Results:*** *ensuring effective protection of intellectual property rights in cyberspace is a complex task and it must be developed and implemented taking into account the best practices of global leaders in the IT industry. The author made a comprehensive analysis of effective practices for the protection of intellectual property rights in China, the USA, Great Britain, Vietnam, India, Japan and EU countries, providing recommendations for the further implementation of the researched practices in the development of policies, strategies and legal instruments in the field of ensuring the effective protection of intellectual property rights in the digital environment.* ***Discussion:*** *trans-border nature, unlimited by geographical boundaries, negatively affects the protection of easily replicated content. It has also become easier for violators to commit illegal acts due to distinctions in the regulation of relevant issues in different countries. Governors and legislators need to develop and implement effective strategies and policies to mitigate these problems.*

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

Problem statement and its relevance. Globalization has changed our world permanently and continues to change it, affecting international commercial relations and the exchange of technology. Therefore, protecting intellectual property rights in the digital environment (or cyberspace) is very important for all states, since in our highly developed digital era, the planet's inhabitants are constantly creating and easily distributing intellectual property objects in digital form. Trans-border nature, unlimited by geographical boundaries, negatively affects the protection of easily replicated content. It has also become easier for violators to commit illegal acts due to distinctions in the regulation of relevant issues in different countries.

And it is the creators who suffer from this, first of all, and together with them - the copyright holders who own property rights to digital works. Rule makers are often not in time to respond to risks and challenges due to the rapid development of technology. All this gives us an understanding of the need to study high-quality and effective practices of countries to protect intellectual property in cyberspace in such a difficult digital era. This scientific paper is intended to help solve such an issue.

Analysis of research and publications. Scientists from all over the world are working to solve this issue. Consequently, P. Ziter studies it using the example of Vietnam, N.S. Sansare took the legislation and practice of India as a basis, C. Xin - of China, N. Bakharieva studies the experience of the

USA, and B. Hitchens, C. Heard and J. Vertes - the experience of the Great Britain. Furthermore, this problem became the basis for the research of M. Węgrzak, Y. Faulkner, T. Kono, M. Lucan and others.

Purpose of the article**.** This scientific research is devoted to the study and analysis of best practices which show the effectiveness of legal enforcement of intellectual property rights in cyberspace, their comparison and development on their basis of suggestions for reforming the legal regulation of the relevant area in Ukraine.

The presentation of the main material. Before we begin a detailed review of the most effective, in our opinion, practices of other countries in the field of legal enforcement of intellectual property rights in the digital environment, we will indicate the main priorities in the implementation of appropriate enforcement:

- failure of rule makers to keep up with trends in digital transformation, because the world is in a state of constant change and modification, many people spend most of their lives in the cyber environment, where new intellectual property objects are created every day;

- related problems, in particular online piracy, have received "support" and intensification due to the ease of reproduction of the said objects and the ease of their distribution through cyber ways;

- preliminary statement is inextricably linked with the insufficiency and inconsistency of established and effective cybersecurity measures to modern realities because the number and quality of cyber threats are constantly growing, and attackers are day-to-day inventing new options for bypassing technological and regulatory protection measures;

- Blockchain technologies also do not stand still, they are developing and have a decentralized architecture that radically changes the ways of managing rights to relevant objects;

- gaps and deficiencies in regulation in the field of data protection and privacy caused, in particular by too large volumes of data being processed;

- cross-border protection of intellectual property rights also constantly suffers, because there is no unified legal regulation on this issue.

The list of these obstacles is general and inexhaustible; in fact, there are many more problems. That is why the development, implementation, and active use of high-quality effective mechanisms and means are now necessary to overcome these troubles. Next, the author of the study will present the developments of scientists and practitioners, whose experience is positive and seems useful for Ukraine to borrow.

In Vietnam, the protection of intellectual property (hereinafter referred to as IP) is an integral element of the government's strategy in the context of the flourishing digital economy. It is based, firstly, on a thorough understanding of the essence and role of the digital era, which has radically changed the way IP is created, consumed, and distributed; accordingly, traditional methods of protection are no longer effective due to their frequent inconsistency with the peculiarities of the cyber environment. Therefore, local authorities recognized the importance of such protection. After all, creators, being protected, will try to create more, the country will receive new investments, and business entities will grow economically. Protection strategies are developed with the active involvement of legal experts who understand not only regulatory instruments but also proactive monitoring and application of judicial remedies. Local law enforcement agencies are also involved in this. As for direct protection, it is provided to copyrighted objects automatically upon creation; registration of copyrights through a national authority with the creation of an appropriate legal record is also actively promoted. Patent protection and trademark protection are carried out through the National Intellectual Property Office by filing a patent application or registration, respectively. As for trade secrets, their protection is based on a proactive approach using non-disclosure agreements, confidentiality measures, restricted access protocols, and the like [1].

Indian practice in the area under consideration is also effective, using the following strategies to protect intellectual property in the digital age:

- automatic (based on the fact of creation of a work) protection provided to a work is fine, but it is very desirable to supplement it with registration of copyright for the corresponding object, which will provide additional legal benefits in case of violation of the relevant rights;

- not only local means of protection should be applied, but also international ones, in particular, those provided for by generally recognized international legal acts (for example, the Berne Convention for the Protection of Literary and Artistic Works of 1886 - for copyright objects, the Paris Convention for the Protection of Industrial Property of 1883 - for industrial property objects, the Madrid Agreement Concerning the International Registration of Marks of 1891 and its Protocol - for the Registration of Trademarks, and the like);

- using Digital Rights Management (or DRM) technology helps control the distribution and use of digital content by limiting unauthorized copying, sharing, or change of objects. However, such use mustn't unduly restrict the freedom of users;

- when applying Terms of Use and licensing agreements, it is important to develop the relevant documents transparently and clearly so that everyone understands how they can interact with the content (particularly how to distribute and copy it) [2].

In the case of digital works, particularly computer programs, American lawyers also insist on the use of automatic copyright protection (occurring at the time the source code of an object is compiled or written) in combination with the registration of the work within the copyright office in the countries where the work is used. One can also get additional protection if he designates part of the code as a trade secret and places other elements in open-source databases. A non-disclosure and confidentiality agreement during program development will help protect such trade secrets indefinitely and much cheaper than the patent procedure. Experts from the USA also insist on following not only local legal practice but also international, in particular, European (as an example, Directive 2009/24/EC on the legal protection of computer programs is given) [3].

British scientists and practitioners also recommend using copyright to protect computer programs. The rights to such properties can also be commercialized through a licensing model, which in turn will bring more money to the creators, incentivizing them to create new items and improve existing ones. The UK, according to scientists, can boast of a high-quality level of IP protection in the digital space, and today most attention is focused on protecting artificial intelligence technologies [3, p. 393]. As for the latter, based on the Copyright, Designs, and Patents Act 1988, the author of a work created using a computer should be considered the person who took the measures necessary to create it [4].

As for the countries of the European Union, special attention has recently been paid to objects known as digital art. Such materials are created using technology, and the authors work on digital devices in the creative process (this, in particular, includes pixel art, and digital painting). Crypto art is also interesting, it is based on blockchain technology. And if digital art exists exclusively in the digital sphere, then cryptographic art exists thanks to non-fungible tokens, also known as NFTs.

To protect their work, the European Innovation Council and SMEs Executive Agency advise authors the following:

- register copyright through the intellectual property office. But it should be borne in mind that today there is no unified European copyright registration;

- wherever you can indicate your authorship, in particular by using the copyright symbol, do it;

- put digital watermarks on your works, acting like signatures on digital art objects. Such marks are quite difficult to remove if made by an unauthorized person;

- use encryption capabilities so that the work is inaccessible without the appropriate key;

- apply blockchain technologies with the entry of rights data into a decentralized and immutable register, assigning a unique digital token to each material;

- enter into licensing agreements with clear and understandable provisions regarding the use of content;

- use service of specialized online platforms for distributing and licensing digital works;

- use DRM, and the like [5].

Another country actively using information technology is China. The state is constantly working to improve the intellectual property system and strengthen its protection. In 2019, the Trademark Law of the People's Republic of China was adopted here, which regulates, in particular, the issues of

measures to limit malicious registrations of trademarks while simultaneously encouraging real innovation. The country also operates on the principle of maintaining a balance between the interests of intellectual property owners and the general interests of society. In this regard, a special benefit balancing mechanism has been introduced, which provides a basis for the distribution of profits in technological innovation activities. However, the country still has insufficient regulation of certain issues of IP protection, low efficiency of the judicial system, and weak law enforcement [6, p. 111].

Experts advise taking the following actions to strengthen IP protection in China:

- overcoming the shortcomings of assembling an IP system. To do this, it seems necessary to develop more specific rules as soon as possible that will eliminate the possibility of heterogeneous interpretation of the provisions and help avoid ambiguity in their practical application. Practitioners in this context advise the use of unified standards for the protection of IP rights;

- increasing the efficiency of legal proceedings. The complex and lengthy process of dealing with cases of intellectual property rights violations compared to ordinary civil cases makes it much more difficult for copyright holders to obtain adequate legal protection. Accordingly, judicial reform should be carried out as quickly as possible, within the framework of which specialized district courts or judicial groups should be created to deal with IP cases, and judges and prosecutors themselves should constantly improve their skills;

- establishing cooperation between different departments will help form an integrated law enforcement network for timely and tireless protection of relevant rights;

- strengthening government oversight and control of law enforcement agencies;

- continuation of comprehensive improvement of the IP protection system. This includes both reforming the legal framework and clarifying the rights and responsibilities concerning IP rights, as well as tightening sanctions for relevant violations;

- strengthening international cooperation. The corresponding will facilitate the exchange of practical experience, as well as the collective struggle against transnational violations in the area under study [6, p. 112].

As for Japan, which is also one of the leaders in the IT industry, the Japan Copyright Office is developing and improving legislation and systems for registering rights in the field of digitalization. Collective societies are also monitored and educational activities are introduced for experts and the general public. The Agency for Cultural Affairs also operates here as a body within the Ministry of Education. Protection of IP rights in the digital environment in Japan is carried out in court in an independent (parallel) mode, with violations of IPR divided into direct and indirect.

According to J. Faulkner, such a division can be explained using the example of an invention: if a violation affects all elements of the invention, then this is a direct violation. If only some elements experience violations, but the behavior of the violator will encourage other people to commit violations or will contribute to them in this, then it is an indirect violation [7].

Consequently, if a direct violation occurs, the main legal proceedings in the case will be initiated. A preliminary hearing will take place first. If the court decides that there is a violation, then a claim is filed to pay the bail - and only then the specified main trial begins. In the case of indirect infringement, only compensation for damage will take place; in this case, the right holders are not provided with the right to judicial protection. Also, under national law, injunctions for indirect infringement are not permitted. But the problem is that the development of information technology and digitalization have helped to instantly make copies of creative works [8, p. 34].

Today, the so-called Karaoke Doctrine is actively used in the state. It allows injunctions to be granted for certain types of indirect copyright infringement. Japan also uses the “special circumstances doctrine” when the court refuses jurisdiction if the declaration of jurisdiction is contrary to the principles of fairness between the parties. In such a case, the courts may apply certain grounds of jurisdiction to each case individually. But this often leads to legal uncertainty. Consequently, care should be taken to avoid a general provision establishing a “special circumstances doctrine” to

establish a balance between effective enforcement of IP rights and the rights of the defendant [9, p. 74].

To summarize the existing practice in Japan, we can talk about the predominant adoption of the following measures in the field of protection of IP rights:

- supervising the collective management of the copyright based on the Law on Management Business of Copyright and Related Rights;
- using a set of rules to collect fees for the use of performances;
- application of a strict interpretation of the current legislation, which significantly limited the range of user actions about their legality;
- application of the principle of presumption of tacit consent and exhaustion of rights;
- active development of means to counter violation of IP rigts in cyberspace using AI;
- declaring illegal the publication in cyberspace of shortened versions of movies with accompanying text describing the plot of such materials [8, p. 35-38].

And finally, the experience of Poland, which our compatriots most often choose as a country to move to. M. Lukan points out that the local system is less formalized, and the level of copyright protection here is similar to other legal systems and, in fact, similar to the level in EU countries. The Local Copyright Act 1994 states in Article 1 the principle of automatic protection. Article 8 also proclaims the principle of presumption of authorship, accordingly, the creator is the person whose name is indicated on the copy of the relevant material, until otherwise is proven. The state does not hold an official copyright registry, and registration of relevant rights is not provided through an official government body (although it is possible to do through specialized non-state institutions, but in this case the registration document will be assessed by the court as ordinary evidence) [10, p. 68-69].

Consequently, Ukraine has a lot to learn from other states, because the effectiveness of legal enforcement of intellectual property rights in cyberspace, in most cases, has been proven.

Conclusion. Summing up the experience of the analyzed countries, we can advise Ukrainian rule-makers on the following ways to introduce effective practices to ensure the protection of intellectual property rights in cyberspace:

- usage in the development of legal tools and mechanisms of generally accepted legal practices, in particular those adopted in the European Union;
- use of unified standards of protection (as is done in China) when developing legislation in the field of protection of IP rights to prevent heterogeneous interpretation of provisions and avoid ambiguity in their practical application;
- provision in legislation of a definition of digital art and cryptoart and regulation on the issue of protecting such objects, as is done in the EU;
- facilitatation and promotion in understanding of the need to register copyright for works, encouraging this procedure - as in the example of the EU and the USA;
- implementation of the experience of Great Britain and Japan to prevent abuse in the use of artificial intelligence, in particular, by requiring minimal human participation in the creation of the corresponding object;
- introduction of an effective mechanism for ensuring a balance of benefits when distributing profits in technological innovation activities (taking the experience of China as a basis);
- simplification of judicial procedures in IP disputes (as China has done) and ensuring the actual functioning of the IP court;
- full cooperation with technology experts in the development of legal standards to ensure their compliance with the technical realities of the use of IP in cyberspace;
- developement of international cooperation, as most of the analyzed countries do, to exchange practical experience and jointly combat transnational violations in the field of intellectual property.

Accordingly, solving problems in ensuring effective protection of intellectual property rights in cyberspace requires a multifaceted approach that includes legal, technological and social solutions, as well as active interaction. The analyzed practices of foreign countries can become an effective basis for the development of appropriate strategies and mechanisms in Ukraine. Separately, it should be noted the need to respect relevant rights in vari-

ous jurisdictions, which is now a big problem, given the global nature of cyberspace.

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Валерія Філінович

ЕФЕКТИВНІСТЬ ПРАВОВОГО ЗАБЕЗПЕЧЕННЯ ДОТРИМАННЯ ПРАВА ІНТЕЛЕКТУАЛЬНОЇ ВЛАСНОСТІ У КІБЕРПРОСТОРІ

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Мета: *дане наукове дослідження присвячено вивченню та аналізу кращих практик, які свідчать про ефективність правового забезпечення прав інтелектуальної власності в кіберпросторі, їх порівнянню та розробці на їх основі пропозицій щодо реформування правового регулювання відповідної сфери в Україні.* ***Методи дослідження*** *становлять загальнонауковий, порівняльний, філософсько-світоглядний методи, методи аналізу та спеціальні методи.* ***Результати:*** *забезпечення ефективного захисту прав інтелектуальної власності в кіберпросторі є складним завданням, яке потребує розробки та впровадження дієвих практик з урахуванням передового досвіду світових лідерів IT-індустрії. Автором проведено комплексний аналіз ефективних практик захисту прав інтелектуальної власності Китаю, США, Великої Британії, В'єтнаму, Індії, Японії та країн ЄС, надано рекомендації щодо подальшого впровадження досліджуваних практик у розробку політик, стратегії та правових інструментів у сфері забезпечення ефективного захисту прав інтелектуальної власності в цифровому середовищі.* ***Обговорення****: транскордонний характер, необмежений географічними кордонами, негативно впливає на захист контенту, який легко відтворюється. Також порушникам стало легше вчиняти протиправні дії через відмінності в регулюванні відповідних питань у різних країнах. Можновладці та законодавці повинні розробити та впровадити ефективні стратегії та політики для розвязання цих проблем.*

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

Стаття надійшла до редакції 25.05.2024