

**COPYRIGHT PROTECTION IN TELECOMMUNICATIONS NETWORKS: THE
EXAMPLE OF BLOCKCHAIN TECHNOLOGY**

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Annotation

The article deals with the issues of ensuring the protection of copyright objects when using them in telecommunication networks. In particular, the role of blocking means in this direction, methods and technical requirements for protection, as well as the processes of regulation of legal relations in this direction are described. In addition, the article describes the world experience in this direction, the role of the “Internet contracts” of the World Intellectual Property Organization, technical means of protecting copyright on the Internet, as well as the norms and practice of the legislation of Uzbekistan. It is substantiated that the use of blockchain technology in the protection of copyright objects is an effective tool, and issues related to its application are widely discussed. After all, it is important to ensure not only copyright in telecommunication networks and the Internet, but also the development of this area, the widespread use of these networks in the provision of public services, the security of the information they contain. At the same time, it was noted that the most important aspect of this system (blockchain) is characterized by the fact that digital information in it is integral and unshakable, that is, the reliability of the system plays an important role in increasing the efficiency of monetary transactions and information exchange between individuals and corporations.

Keywords: copyright, blockchain, telecommunication network, Internet, technical means, WIPO, international treaty, legal assistance, exclusive right, information exchange.

Introduction

The rapid development of Science and technology encourages creative people to take necessary measures to ensure adequate protection of exclusive rights to their works. It is known that in recent years, the need for a person to receive information and information has come to a higher level than ever before. Especially as a result of the wide development of all the internet and telecommunication networks, the processes related to this are becoming more important. After all, it is difficult to imagine such processes without the participation of copyright objects. Bunda it is important to regulate the legal aspect of the use of copyright objects. According to theory and practice, it is possible to introduce a technical method of managing and protecting works on a contractual basis as legal elements of control over the use of works and their

inclusion in the civil society in a different way. It is clear to all that as a result of the wide development of the Internet network, the situation of unauthorized use of copyright objects has sharply increased. If we consider the internet as a tool aimed at easing human life today, we can also recall a number of negative aspects of it, but it can be seen that the most “harm” from it is in relation to the creators of copyright (literature and publishing, music and theater, cinema, radio, television, photographic works, exposure and databases, visual and graphic works, advertising services). In general, it is a very difficult issue to regulate the relationship between technology and law.

In the last 4-5 years, among the representatives of the authorship sphere, issues related to the fact that blokcheyn is an effective tool of technology and its application are widely discussed. As you know, the protection of copyright objects is a global character profession. That is, the fact that the creator protected his work on the territory of one state can not be said enough for today. After all, the range of information carriers and information transfers is growing. In this regard, let's dwell on the content of blokcheyn technology. "Blokcheyn is a decentralized database, which allows you to store information about all participants' data (transfers) registered from it in a separate “chain” Form” [1].

According to the Bank of Great Britain, “blokcheyn is a technology that allows people who do not know each other to use it reliably and together” [2]. The first blockchain in the world was created in 2009 year with the purpose of technical support for bitcoin. Initially it was emphasized as an additional element of whether there is a kriptoalyutani for him, and he is not even fully described to him in the works of bitcoin founder Satoshi Nakamoto. It can be understood more precisely as an inventive combination of existing techniques. In fact, its technical components first appeared in the academic research of marotaba 1980-1990 years.

The most important aspect of this system is characterized by the fact that digital data in it is not compromised. The reliability of this system has played an important role in increasing the efficiency of monetary transactions and information exchange between individuals, corporations. If in the last decade of the XX century, as a result of the digitization of copyright objects, the processes of re-materialization began, then by the beginning of the XXI century this process (datafication) reached its highest level. This level of acceleration of digitization processes has previously dealt a serious blow to the legal framework of copyright, which is based on material objects. It is known that there is an opportunity to easily copy from digital assets.

It is known that the main task of all types of telecommunication networks is expressed in the delivery of information, and the main place in this, of course, is the internet network. U.V. According to Zinina, the problem of protecting property rights and combating violations in the internet is complicated by the following reasons:

1. Violations occur not only on the internet, but also in other information and telecommunications networks, in particular, including mobile and radio telephone networks.
2. With the use of Internet networks, the following various violations occur:
 - Plagiarism;
 - Noqonuniy illegal sale of property rights objects;
 - Trade with counterfeit products through online stores.
3. As an object of offenses, intellektual can be considered different objects of property.

4. Offenses are considered to have a transnational character.

5. Violations under consideration often result in the following other dangerous acts:

- Spread of malicious (dangerous viral) programs;
- Violation of the rules of personal data processing;
- Spread of spam programs and files, etc. [3].

Technical means of protection – this is designed to control the use and access to electronic documents with the help of software devices. Often, technical means of protection are used to prevent or restrict copying. Technical means of protection can be carried out in different ways. This is an example of the fact that the DVD disc Duplicator does not work on discs produced in another region of the world where the region is not encoded, or the music downloaded from the licensed content is not recorded on a third device. Often, instead of the term “technical means of protection”, the concept of “Rights Management in relation to Electronic Documents” is used [4].

Protection of copyright objects through technical means is now more important than ever. After all, according to the analysis of experts, by 2022, the amount of damage caused by “piracy” in the digital environment is expected to reach 856 billion US dollars [5]. It should be noted that in 1996, the World Intellectual Property Organization and the member states of the organization adopted the “World Intellectual Property Organization's copyright agreement” and the “World Intellectual Property Organization's execution and Phonograms agreement” on December 20, 1996 in order to ensure the protection of the works of authors and rights holders in the digital environment [6]. It should be noted in the place of information that Uzbekistan joined the above two international agreements on February 16, 2019 [7]. According to Article 11 of the “BIMT's copyright agreement”, Contracting Parties shall provide appropriate legal protection and effective means aimed at circumventing the existing technical means used by the authors in connection with the exercise of their rights under this agreement or the Berne Convention and limiting the actions that do not allow their creativity [8]. It is precisely in this context that the norm is in place of Article 18 of the “World Intellectual Property Organization's contract on execution and Phonograms” on its application to performers and Phonograms preparers who are subjects of co-law [9].

Significant, in the new edition of the law of the Republic of Uzbekistan “on copyright and Related Rights”, Article 63 provides for technical means of protection of creative works. In particular, “any technical devices or their components that control the use of works or objects of associated rights, which prevent or restrict the implementation of actions that are not permitted by the author, the owner of associated rights, or the other owner of exclusive rights in relation to works or objects of related rights, are recognized as technical means that protect copyright. Exactly this norm can be seen in Article 481 of the Basic Law of the Russian Federation on copyright [11]. It should be noted that the provisions aimed at restricting the efforts to circumvent technical means have taken place from the national legislation of the states that signed the above “internet agreements” of the BIMT. The United States was the first to introduce this rule into its legislation, taking place in 1998 from the copyright law, and in 2001 from the European Union directive on copyright [12]. In the US, it is established that persons who violate this restriction are subject to civil and criminal liability. The main reason for the fact that the above two international documents refer to the “internet contract”, namely,

it is connected with the wide development of this network and its penetration into all spheres of social life. From this point of view, by the 90-ies of the XX century, the need for copyright protection arose not only in other telecommunications networks, but also on the internet. In this regard, it is worth noting which communication and information technologies are included in the list of telecommunication networks. The list of telecommunication networks includes:

- Computer networks;
- Telephone networks;
- Radio Networks;
- Television networks.

The adoption of the above international “internet agreements” has achieved the strengthening of their exclusive rights by providing authors and rights holders with the means of protection that are important. Using this rule, the authors began to use technical methods of protection at different levels in relation to their works. Intellectual property, in particular copyright, has two permanent opposing views, one of which is that actual property is a supporter of full-fledged use of exclusive right, while the second category of intellectual property advocates the idea that it should be open to use by society. Also, according to representatives of the second category, the technical means of protection were powerless for commercial copying, while on the contrary, for scientific research or for personal use, they imposed strict restrictions. Supporters of this opinion argue that for individuals with impaired vision, these limitations will bring about serious difficulties, through which they will not be able to take advantage of the achievements of science, culture and art. However, it should be noted that for the same purpose, on June 27, 2013 The United Nations adopted the “Moroccan agreement on the facilitation of the use of published works by persons who are blind, visually impaired and otherwise capable of perceiving printed information” [13].

In telecommunication networks, it is important not only to ensure copyright, but also to develop this sphere, to use these networks in the provision of public services, to ensure the security of information in it. In particular, in recent years, practical work has been carried out in Uzbekistan to ensure information security, to promote modern telecommunication networks in social life. For example, in order to increase the effectiveness of the implementation of a single state policy in the field of information, to further improve the control system in the field of Telecommunications, Information and cybersecurity, the president of the Republic of Uzbekistan on measures “on control of the introduction of Information Technologies and communications, improvement of their protection system” dated November 21, 2018

By the decision of PD-4024, the state administration on control in the field of informatization and Telecommunications of the Republic of Uzbekistan was established [14].

With this decision, among the main tasks of the Commission, the first time in marotaba Phonograms, audiovisual works, powers on compliance with copyright rights in the distribution of programs for exposure (study, monitoring, verification, preparation of conclusions) and measures to eliminate the illegal distribution of copyright objects (bringing to the attention of all) in the internet network were introduced. On September 14, 2019, in order to ensure information and cybersecurity of the president of the Republic of Uzbekistan

By the decision of PD-4452, the above-mentioned activity was reorganized. As an additional task for the development of Information Systems and resources, as well as the provision of

Secure Information Exchange, were determined. In this regard, it is worthwhile to understand the term security not only from the technical point of view, but also from the point of view of the direction of copyright law. It is necessary to give the authority to apply the measures of legal influence in the performance of the tasks assigned to it by the trade registry. After all, today there is much more unauthorized use of intellectual property, in particular copyright objects in the internet. If earlier there were relevant powers (license, study, monitoring) on the activities of duplication of audiovisual works, phonograms and exposure programs created by the agency of real estate and the company on the preparation of phonograms, the president of the Republic of Uzbekistan signed the decree № PD-6044 of August 24, 2020 “on measures for the radical improvement of Licensing and authorisation procedures”

Since 1 January, the licensing procedure has been canceled. This in itself can lead to an increase in the number of violations today in the direction of copyright law. For example, in the Russian Federation in 2019 year, 878 sites were suspended for violation of property rights by a court decision [15].

At present, the scope of the use of information transmission networks, especially in the conditions of the Covid-19 pandemic, is very limited. In this direction, of course, it is necessary to take appropriate measures from the point of view of restlessness and protection. Protection of law is one of the most important factors in its protection and provision. According to practice, it can be implemented only if it is strengthened by any mechanism of protection of rights [16].

Today, there are a number of systems in the world, such as “Proof of Existence”, “Emernotar”, “Deponent”, aimed at protecting copyright objects through the blockchain. It should be noted that there is no possibility of making any changes to the information included in the tool blokcheyn. After all this information or information is taken into memory with the appropriate entered time. Looking at the foreign and national experience in this direction, practical steps have already been taken in this direction in the Russian Federation. In particular, the Russian intellectual property Center has created a blockchain platfor-platform called IPCHain on its base. In turn, intellektual stressed that the competent state body in the field of property – Rospatent-should create its own platform in this direction and this platform should become the main blockchaineyn tool. According to the rights holders and authors, such blockchaineyn networks will continue to be inefficient if there is no liability for internet domains (platforms) [17]. It should be noted that intellekt it is desirable to introduce amendments and additions to the legislation in the field of real estate, taking into account the opinions of representatives of the sphere [18].

In general, the development of a clearly thought-out and robust public policy on the protection of copyright and related rights is required [19]. Bunda certainly requires not to overlook aspects related to technical processes either. After all, today, technical means have become an integral part of the object of copyright law. In particular, according to the law of the Republic of Uzbekistan “on copyright and related rights”, any technical devices or their components that control the use of works or related rights, which prevent or restrict the implementation of actions that are not allowed by the author, the owner of related rights or other owner of exclusive rights in relation to works or related In relation to works or objects of similar rights:

- To carry out actions aimed at removing the restrictions established by the copyright law and the application of technical means that protect the rights of origin, related to the use of works or objects of related rights, without the permission of the relevant persons;

- It is not allowed to prepare, distribute, rent any device or its components, temporarily give them for free use, import, advertise, use them for commercial purposes or to provide services, unless, as a result of such actions, the use of technical means that protect the copyright and related rights is impossible or if such technical means do not provide the necessary protection of the rights

In order to carry out work on further improvement of copyright protection in telecommunication networks on the basis of international standards, it is necessary to carry out reforms in the following directions:

- Improvement of legal regulation of contractual relations in the author's right;
- Improvement of the Institute of collective management of copyright and related rights;
- Introduction of new procedures for legal protection of new objects of copyright and related rights;
- To take responsibility for violation of copyright and related rights;
- Creation of a program of measures to fulfill obligations under international treaties.

It is also required to review the norms stipulated by our current criminal legislation in this direction and to coordinate it, proceeding from the world experience, that there is a wide range of experience in determining responsibility for violation of copyright, as well as cases of violation of copyright committed through the telecommunication network today. In particular, in the Criminal Code it is necessary to include separate articles for the appropriation of authorship, as well as for violation of copyright and related rights. At the same time, liability measures for violation of copyright and related rights should be increased [20]. According to experts, the Civil Code of the Republic of Uzbekistan should include special norms that establish responsibility for illegal use of technical means [21].

The correct and systematic implementation of the work on the above proposals, we think, will lead to the provision of copyright protection, through which the corresponding rights for the work of creators will be paid, as well as the development of culture and art in our country. At the same time, it is necessary to study the advanced foreign experience in providing copyright protection in the telecommunications network, as well as to accelerate research work in this direction in Uzbekistan, as well as work on improving legislation. It is natural that the implementation of technologies aimed at the protection of copyright objects has a serious impact on the management of intellectual property rights, but also changes the legislation in this direction.

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