

Some Aspects of Copyright and Related Rights Protection in Digital Environment

Goncharov D.Yu.
Ural State University of Economics
Yekaterinburg, Russia
d.yu.goncharov@usue.ru

Rychkova N.Yu.
Siberian Federal University
Krasnoyarsk, Russia
nrychkova@sfu-kras.ru

Slukin S.V.
Ural State University of Economics
Yekaterinburg, Russia
slukinsv@yandex.ru

Abstract — In the contemporary world the issues of copyright and related rights protection have become indeed pressing. Copyright and related rights objects quite often cost a lot and it means their usage allows their owners to get a large profit. So an owner is highly motivated to establish a maximally full control over a legal fate of these immaterial benefits. Achievement of such control is exercised, on the one hand, by demands to observe the right of authorship regarding the object created, and on the other hand, due to the prohibition against its unauthorized use that valid for all third parties. Changing the cyberspace parameters that resulted in appearing of a new digital form of intellectual product, application of new digital ways of using copyright and related rights objects, domination of computer networks in the dissemination of intellectual products have considerably weakened and sometimes brought to nought an owner's control over the use of a creative result. In the opinion of a great number of researchers the discussed problems may be successfully solved by means of blockchain technology. The Russian Federation has already started to apply blockchain technology in the sphere of intellectual property. This article is intended for discussing the blockchain technology platforms being used for copyright and related rights protection.

Keywords — *copyright, related rights, plagiarism, blockchain technology.*

I. INTRODUCTION

In the contemporary world the issues of copyright and related rights protection have become indeed pressing. Copyright and related rights objects quite often cost a lot and it means their usage allows their owners to get a large profit. So an owner is highly motivated to establish a maximally full control over a legal fate of these immaterial benefits. Achievement of such control is exercised, on the one hand, by demands to observe the right of authorship regarding the object created, and on the other hand, due to the prohibition against its unauthorized use that exists for all third parties.

Plagiarism is one of the violations of copyright. This problem has existed for a long time and is of a multiaspect character. Nowadays with the information technologies development it has acquired new dimensions. Thus the risk of plagiarism has considerably grown in the 3D-printing sphere [1], especially, in the sphere of medical technologies application[1]. The industrial revolution has entered a new phase of its development and it resulted in a sharp price reduction of 3D printers for synthetic materials and caused cost

cutting for copying and it made a plagiarism risk higher [1]. Another widely spread breach of law is undoubtedly an illegal usage of copyright and related rights objects.

Changing the cyberspace parameters that resulted in appearance of a new digital form of an intellectual product, application of new digital ways of using copyright and related rights objects, domination of computer networks in the dissemination of intellectual products has considerably weakened and sometimes brought to nought an owner's control over the use of a creative result [2]. The researchers note that the technological advancements offered by blockchain promise wide ranges of use in a variety of sectors and legal areas, including intellectual property (IP) law [3]. In the opinion of a great number of scholars the discussed problems may be successfully solved by means of the blockchain technology[1][3][4][5].

Blockchain technology ensures data storage of copyright and related rights objects, information about their authors and owners of these objects and some other information in the decentralized ledger. The ledger is called decentralized as there is no single centre that controls the database. Because no central authority or master copy exists, no single individual or entity has the authority to amend the blockchain [4]. Once a block is accepted by a majority of the blockchain network, it is immutable and virtually impossible to hack due to the replication of the ledger [4]. So it is impossible for a person to introduce changes not agreed with ledger users, thus the data that are stored in the decentralized ledger are completely verified. And it allows the users to create the environment of trust. So one of the recognizable advantages of blockchain technology is its undoubted authenticity of the information kept in the database. The blockchain therefore offers tremendous benefits to all kinds of users by providing a secure, efficient, safe way to store and exchange goods and information without any need for an intermediary [4].

The Russian Federation has already started to apply blockchain technology in the sphere of intellectual property. So there are different platforms based on blockchain technology such as Soundchain, IPChain, n'RIS (National Register of Intellectual Property), IPUnivercity. This article is intended for discussing the blockchain technology platforms being used for copyright and related rights protection, paying attention to the benefits of their implementation.

II. METHODOLOGY

In the research the following methods have been used: systematic, formally-logic and complex analysis.

III. RESULTS

When speaking about the defence of copyright and related rights in the Russian Federation it should be stressed that blockchain technology is being widespread in this sphere now. Among the platforms which are based on blockchain technology we should mention, for example, Soundchain, IPUniversity, IPChain. One more platform called n'RIS has been recently created. n'RIS became a part of IPChain. Their creators consider that due to the appearance of such platforms many acute legal and economic questions can be solved in the near future. These questions, on the one hand, concern deposition of copyright and related rights objects as well as other intellectual property objects, creation necessary conditions for its transparent and safe turnover and, on the other hand, assuring the most efficient copyright and related rights protection stipulated by civil, administrative and criminal law.

IV. CONCLUSION

The advantages of blockchain technologies being applied in the intellectual property sphere are quite obvious. Blockchain technology which is being used nowadays in the different platforms changes the requirements to intellectual property objects turnover such as videos, software, literary, music or art works substantially. First of all, this technology makes the turnover of such objects much easier, simpler and more convenient. It creates safe, transparent, predictable communication environment for its owners and users. Besides it ensures more effective civil, administrative and criminal intellectual property rights defence owing to the tools used.

V. DISCUSSION

When speaking about the defence of copyright and related rights in the Russian Federation it should be stressed that blockchain technology is widespread in this sphere now. One of the examples is Soundchain platform which undertakes activities in the area of music industry [6][7]. For example, IPChain uses the blockchain technology in its work. L. Novoselova and E. Grin emphasize that IPChain is known to be one of the Russian Blockchain platforms created to facilitate communication among right holders and users and to increase transparency in intellectual rights management administration [6]. The part of IPChain is a platform called n'Ris. There exist some other platforms which are based on blockchain technology. One more example of such a chain is IPUniversity. It was created not long ago and it is also of great interest for us.

So one of the recently created platforms is n'RIS. Its creators consider that due to its appearance many pressing legal and economic problems can be solved in the near future. First of all this platform can be used for deposition of copyright and related rights objects as well as other intellectual property objects.

The deposition of copyright and related rights objects in the decentralized ledger allows us to solve several urgent tasks at once. The deposition proves the existence of copyright and related rights objects (as well as other intellectual property objects). It is necessary to point out that proving of existence is quite typical for similar platforms too. For example, as Martin

Zeilinger says, Monegraph allows creators, owners, and collectors to document and verify the authenticity and provenance of the digital artefacts [8]. It should be also noted that the deposition of a certain copyright or related rights object (for example, a literary work) means that it was put into the decentralized ledger in a digital form. So it is really valid and its characteristics, its unique features are verified.

Copyright or related rights objects deposition is not a new practice in the protection of the intellectual property rights. It has been used for a long time. Before n'Ris appearance authors or other owners asked notaries to help them, used other content platforms. But none of them was able to meet the requirements of safety, transparency, content immutability and ease that n'RIS satisfied. It seems that other platforms will be replaced by n'RIS soon. L. Novoselova and E. Grin point out that in the near future we'll face a creation of the unified global catalogue of intellectual activity results [6].

Another task being solved by n'RIS appearance is an ensured identification of the author or any other owner of deposited literary, scientific or art work. The fact of its deposition by certain person can be considered as a sufficient evidence that this person is a real copyright owner. Though this goal was also reached earlier by deposition of copyright objects in content platforms, or at a notary, but only blockchain technology is able to ensure the best verification of the data [5].

It should also be noted that it is much better to deposit intellectual property objects in n'RIS than in the other content platforms. As n'RIS is a part of IPChain, it means that IPChain participants depending on their status may have an access to the objects data. One of IPChain participants is the Court on intellectual property rights. Due to this fact the Court on intellectual property rights has the opportunity to rely on these data when trying a case on the defence of the copyright or related rights. So the exploitation of this platform guarantees a convenient, rapid and efficient defence of the copyright and related rights if they are infringed.

The platform n'RIS gives its users an opportunity to detect plagiarism if it took place during the creation of the intellectual property object. Thus this platform serves to protect the right of authorship and the exclusive right in full. Owing to this service the author can get the information about the facts of illegal borrowings from his literary, scientific and art work or another intellectual property object in full or partly. Similar search systems that examine every intellectual property object are widespread now and are not only n'RIS asset. But it is necessary to mention that n'RIS is able to do such an examination even during the deposition process. At this moment this object is being thoroughly examined and compared with other objects of the content of the database. It means that at this stage there exists some preliminary control of legality of a copyright and related rights object. If in future n'RIS becomes the most complete catalogue of the intellectual property objects, it will probably help us to get rid of plagiarism.

But the appearance of such a unified catalogue most likely will affect criteria of intellectual property objects protection. These criteria might be determined by a certain software, by its code. Though the protectability terms of intellectual property objects must be prescribed only by law, not by the programme code, but in fact this code can define technical requirements to the their protectability, i.e. certain limits of the rules application. There is an opinion that law is being replaced by the programme code [9]. On the one hand, determination of

specific requirements to the protectability of such objects provided by the platform allows the society to distinguish between creative and not creative, original and not original works, in other words it ensures much higher requirements to the quality of the works. The authors, while creating their work, have to be more careful towards other authors' rights. But, on the other hand, it may affect the author's liberty. So this problem is to be discussed more thoroughly. The proposal made by L. Novoselova and E. Grin deserves our attention. They consider it necessary to identify the common minimum requirements to those platforms which are used for recording and commercialization of intellectual activity results [6].

The deposition of the intellectual property object at n'RIS platform can lead to one more problem. The platform is universal, it is intended for deposition of the different types of the intellectual property objects, not just for literary, scientific and art works only. L. Novoselova and E. Grin attract our attention to the difficulties that can rise as a result of the deposition of such different objects in the single database. For instance, they note that, a form of the product can be protected as a copyright object, an industrial design or as a trademark [6]. At present, the correlation of rights to such "parallel objects" is complicated, and when activating of the process of disposition of them, may lead to serious legal risks [6]. So this question needs further discussing in the legal science.

Nevertheless the deposition of the intellectual property objects at n'RIS platform is not the main aim that should be achieved by n'RIS's tools. The main purpose to be achieved by means of this platform is assuring of intellectual property objects turnover.

Unlike n'RIS the commercialization of intellectual products is not the purpose of the participation in IPUniversity network. Here the efficient sharing of information that is necessary for the solution of scientific, manufacturing and other problems is made the cornerstone.

However irrespective of what purposes – commercial or noncommercial – are put into the corresponding platform, the main benefit of their application in the intellectual property sphere is changing the communication mode between owners and users. Implementation of such platforms is beginning to change the copyright and related rights management standards. Today there are used two main ways of intellectual rights management: either on one's own or by deputy. In the copyright and related rights sphere such a deputy is represented by agencies exercising rights management on the collective basis. Up to today the majority of owners have chosen this way of management. Meanwhile deposition of intellectual property objects on the blockchain platform allows the owners to start managing the intellectual property rights on their own. Blockchain could be used to track and manage copyright-related rights and licenses for music, videos, software, and publications in a highly visible and efficient manner [4]. Blockchain technology application allows the users to create the environment of trust for its participants, ensures a reliable exchange of commodities without intermediaries and it serves as the main quality of the similar systems. We can hardly doubt that in the nearest future the volume of services for managing rights on the collective basis will be considerably reduced.

Besides the facilities of n'RIS platform are efficient in the copyright and related rights protection. Violation of copyright and related rights is a basis for instituting civil, administrative or criminal proceedings against lawbreaker. The necessary

condition to institute proceedings irrespective of its kind is the establishment of the fact of a certain right infringement in particular the right of authorship, the exclusive right.

Ian J. Lloyd underlines that another aspect of digital technology is that it puts extensive copying facilities in the hands of private individuals [10]. As a consequence, it is easier and less expensive for individuals or pirates to make and distribute unauthorized copies [2]. Due to the searching facilities of the platform it is much easier to detect unauthorized borrowings. Besides the platform services can be in principle applied to assess the extent of the damage done to the owner. When concluding a deal the consensus of the parties is reached on the usage cost of the particular copyright or related rights object. These data may be taken into account at the assessment of the extent, character, gravity of the consequences of the offence committed.

The digital technologies are changing the intellectual rights sphere substantially. A new digital form of intellectual property objects has appeared. A new digital mode of using intellectual property objects has emerged. It made scholars think about revision of the scope of the free usage of the digital object [10]. The blockchain technology application has become a new step that motivates the owners for creation the unified digital cyberspace. In this new cyberspace the terms of intellectual property objects turnover have become more simple. Besides it ensures good protection of such objects. The advantages of the blockchain technology application for copyright and related rights objects protection are quite obvious.

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