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Research paper

Information Security and the Internet

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Abstract

The article analyzes problems of poor legal regulation of relationships in the Internet when the network is used as a mean of information dissemination. The article focuses on the analysis of judgements in cases involving organizations that distribute software designed for maintenance of the companies' paper flow, when such cases reveal evidences of non-licensed use of information. Gaps are identified in possibility to use civil methods of information protection traditional for the Russian system of justice. The authors found some inefficient information protection methods considering the level of processes and technology development, such as watermarks on the images, information depositing in Web-depository. The articles draw special attention to the requirements that an author and owner may put forward to information protection in the Internet.

Keywords: *information, the Internet, authors, owners, copyrighted items, protection methods.*

1. Introduction

The Internet becomes and integral part of modern social life, and the government participates in its development.

Authors and owners of the copyrighted items now suffer from a new type of piracy – digital piracy in the Internet. Unfortunately, it is difficult to trace products flow in the Internet; therefore, authors and owners do not know that their rights are infringed. We suppose that the methods of information protection in the Internet should be preventive. Moreover, methods of copyrighted items protection in the Internet somewhat differ from common traditional protection methods existing in the Russian law system. Unfortunately, today, the Russian legislators do not account for specific nature of legal relations in the Internet. The authors point out to the problems of inefficiency of a number of information protection methods and suggest recommendations on improvement of the effective legislation.

The problem of information protection generally and copyrights protection in particular in the Internet has been voiced by the scientists for quite a while. The authors of fundamental works analyze peculiarities of copyrights civil regulation in the Internet in the Russian Federation [1, 2]; much attention is paid to various methods of copyright protection in the Internet, and to proving of illegal access to information [3, 4, 5, 6, 7].

The authors found that imposition of sanctions (absence of fault) for copyright violations in the Internet is limited.

The authors revealed that if the violation of intellectual deliverables are recognized as unfair competition, then the owner might exercise his/her rights for protection both under the civil and antimonopoly legislation for unlawful use of information in the Internet.

The authors identified technical and legal methods of information protection in the Internet.

The authors detected inefficient methods of information protection in the Internet.

2. Methods

During the research, the authors followed generally accepted scientific and specific legal methods of obtaining knowledge including comparatively legal, formally legal, historically legal methods, etc. The authors mainly applied systemically structural method, which allowed identifying legal nature of corporate transactions.

The authors applied formally legal method to analyze legal norms regulating relationships in the Internet.

During the analysis and synthesis of the received data, the authors exercised historically legal method, which showed the development of information protection methods in the Internet, and predictive method, which described prospects of such protection methods development.

3. Results

We assume that violation of the authors and owners' rights in the Internet results from low level of legal consciousness and legal culture, as well as lack of efficient mechanisms of information protection in the Russian legislation.

We determined that it is necessary to introduce new technologies and means of data storage in the Internet, which would allow accounting for the authors and owners' rights when using information.

We identified the following requirements, which the owner may put forward for information protection in the Internet: recognition of a right; control of certain actions; indemnification; publication of a judgement on the committed violation; seizure of a tangible medium containing information.

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4. Discussion

The key tool for exercise of information protection in the Internet is the rules of law, which may be divided theoretically into permitting rules, which permit certain types of copyright-related activities, prohibiting rules, which prohibit certain activities, and constitutive rules, which establish mandatory terms for the subjects of this area of activity.

It should be noted that legal relationships forming in the Internet are peculiar in their unrestricted scope of subjects and free access to the information. Unfortunately, as Y.A. Karaulova notes, "…free access to the intellectual deliverables through copying of information in a certain form (particularly, in the form of a file) significantly differs from legal relationships forming outside the Internet in a real-time environment. Therefore, solutions of legal problems related to copyright protection in the Internet are not sufficiently efficient" [2].

Copyright civil protection is exercised through consideration of the violated right essence and consequences of this right violation. Pursuant to art. 1250 of the Civil Code of the Russian Federation, certain copyright protection methods are applied at the request of authors and other owners. If a copyright violator is not guilty, he/she/it is not released from obligations to abate infringement in relation to the copyrighted items. Actions aimed at protection of authors and other owners' rights may also apply to such law violator.

Art. 1251 of the Civil Code of the Russian Federation sets forth protection of personal non-proprietary rights. Pursuant to this article, if personal non-proprietary rights of authors and other owners are infringed, such rights are protected through right acknowledgement; restoration of status that existed prior to the author or other owner's right infringement; suppression of actions, which violate or threaten to violate rights; compensation of moral damages; publication of judgement on the committed violation.

It should be noted that the author or other owner also has right to protect honor, dignity and business reputation. Pursuant to art. 152 of the Civil Code of the Russian Federation, author's rights are protected by court through a demand to rebut statements discrediting honor, dignity and business reputation of authors and other owners, unless the disseminator of such information proves that the above statements are true. It is important to notice that in case the statements discrediting honor, dignity and business reputation of the author are disseminated through mass media, and particularly in the Internet, the author may demand that these statements are also rebutted in the same mass media. These rules also apply to protection of legal entities' business reputation [7].

Art. 1252 of the Civil Code of the Russian Federation regulates the procedure of exclusive rights protection.

In accordance with the above article, rights to intellectual deliverables protection are exercised through authors and another owners submission of a claim for:

1. right acknowledgement, which is imposed upon the person violating the interests of the owner by the denial or other refusal to recognize the right;
2. suppression of certain actions, which is imposed upon the person violating rights or threatening to violate rights;
3. damage reimbursement, which is imposed upon the person wrongfully using intellectual deliverables without the owner's permission and thus causing damage;
4. publication of judgement on the violation, which is imposed upon the person violating the exclusive right; when the judgement is published, true owner is also named;
5. seizure of tangible medium, which is imposed upon the trader, keeper, importer, manufacturer, mala fide purchaser, and other persons.

To secure a claim based on the above requirements, provisional measures may be taken, in particular arrest of tangible media, materials, equipment, and other measures stipulated by the procedural law.

It should be noted that in accordance with the civil legislation owner of certain types of intellectual deliverables may demand that compensation is paid instead of indemnity for losses. If the fact of the owners' rights infringement is proved, the latter may require the corresponding compensation. The owner appealing to a court is not obliged to prove the amount of losses inflicted by a violator as claimed by the owner. The court decides what amount should be paid accounting for the nature of violation and following such principles as rationality and fairness. When lodging a claim to a violator, the owner may demand that compensation is paid for each case of unlawful use of intellectual deliverables.

Special attention should be paid to the notion of counterfeit intellectual deliverables. Pursuant to cl. 4 art. 1254 of the Civil Code of the Russian Federation, dissemination, manufacture, import, storage, and transportation of tangible media containing intellectual deliverables is deemed counterfeit if such actions result in violation of exclusive right to intellectual deliverables and means of personalization. Based on the judgement, material assets deemed counterfeit have to be withdrawn from civil circulation and destroyed [8, 9], unless civil legislation requires otherwise. Equipment, various devices, and materials used for violation of rights to intellectual deliverables also have to be withdrawn from civil circulation and destroyed.

It should be noted that in practice in some case intellectual deliverables (and particularly brand names, trademarks and service marks) prove to be identical or their similarity is so high that it may mislead a company partner. In this situation the owner, whose right to the intellectual deliverables appeared earlier, shall have the priority. In such case, the legal owner may demand that legal protection of a trademark and other intellectual deliverables is deemed unlawful and may demand introduction of other prohibitions and restrictions established by the civil legislation.

It is also important to not that if infringement of rights to intellectual deliverables is deemed unfair competition, the owner may exercise his/her/its rights to protection both under the civil legislation and under antimonopoly legislation.

Art. 1299 of the Civil Code of the Russian Federation provides for technical means of copyright protection. The definition contained in the above article implies that technical means of copyright protection represent various technical, technological devices or their components, which control access to intellectual deliverables, and which are able to prevent or restrict certain actions involving the deliverables that are not allowed by the author or another owner, especially in relation to the works of science that are actively used in educational activity [10].

Practical application of certain articles of part 4 of the Civil Code of the Russian Federation in arbitration is rather scarce. For instance, art. 1299 of the Civil Code of the Russian Federation mainly relates to active position of ZAO "1C" in protection of its rights to software [11, 12]. It should be noted that as a rule arbitration courts do not interpret art. 1299 of the Civil Code of the Russian Federation as applicable to actual circumstances of the case. They only refer to it or cite its content. However, often the courts rather thoroughly examine the technical side of the case [6].

For instance, the First Arbitrazh Court of Appeal in its resolution did not qualify it under art. 1299 of the Civil Code of the Russian Federation. It only pointed out that the statement of the lodger of a petition for appeal arguing that the defendant has not performed actions listed in art. 1299 of the Civil Code of the Russian Federation, since the software has not been used after introduction into effect of part four of the RF Civil Code, and before such introduction no liability for such violation had been imposed, has to be dismissed. However, previously the court determined that the research performed by the Fund Supporting Criminal Law Experts of Law-Enforcement Agencies within the scope of administrative investigation in relation to OOO "Piknik u Napoleona" found that: "1C: Enterprise 7.7 for SQL packaged Supply" software is installed on the hard drive of the system unit submitted for examination, and it was supposedly installed in January 12, 2006; the memory of the hard drive of the submitted system unit contains

traces of "1C: Enterprise 7.7 for SQL Packaged Supply" software use (databases and the list of registered databases for work with "1C: Enterprise" software were found).

Based on the results of examination the conclusion was made that the above software was installed on the hard drive of the system unit recovered from the defendant, and the following attributes of counterfeit goods are found: the fact of "1C: Enterprise 7.7 for SQL Packaged Supply" software running without the HASP hardware-based protection key; neither HASP hardware-based protection key, without which the licensed software is impossible to run, nor documents confirming legibility of this software copy installation onto computer for civil turnover were submitted for examination.

It should be explained that HASP hardware-based protection key represents a technical device designed for copyright protection and used by the owner. Software running without a protection key is a direct violation of art. 1299 of the Civil Code of the Russian Federation. However, in this case, the court did not identify technical means of violation, therefore it was impossible to clearly qualify this civil offence under art. 1299 of the Civil Code of the Russian Federation [12].

Resolution of the Sixteenth Arbitrazh Court of Appeal contains legal qualification of the defendant's actions. The court pointed out that in accordance with part 2 art. 1299 of the Civil Code of the Russian Federation, no actions aimed at elimination of restrictions of the creative work use established through application of technical means of copyright protection are allowed in relation to the creative works without prior permission from the author or other owner. The court found the following actual circumstances of the case: pursuant to the opinion of an expert from expert criminalistics District Directorate of Internal Affairs "the program owned by the claimant is installed on the hard drive of the system unit – "1C: Enterprise 7.7 (online version)", installed components: ""Accounting, Administrative Accounting, Calculations", counterfeit attribute: the software runs without the HASP hardware-based protection key. This software's name in accordance with the method of naming of software belonging to "1C: Enterprise 7.7" family based on the platform and components corresponds to "1C: Enterprise 7.7 (online version). Accounting. Standard configuration + ITS USB" software. In accordance with pricelist for the licensed software published by the Chamber of Trade and Industry of the Russian Federation, price for this software is 78 000 rubles; "1C: Enterprise 7.7", installed components: "Accounting, Administrative Accounting, Calculations", counterfeit attribute: the software runs without the HASP hardware-based protection key".

Summary of court rulings in cases involving ZAO "1C" should be seen as positive since the courts thoroughly analyze technical issues of the cases. Examination of actual circumstances of the case allows identifying how the technical measures used by the owner have been bypassed [13].

Civil legislation sets forth legal framework for intellectual products use through the following restrictions: 1) execution of certain actions without the permission of the product's legal owner, which result in elimination of restrictions on products use established by the author or another owner using technical means of copyright protection; 2) execution of certain actions making it impossible to use technical means of copyright protection, or making such technical means unable to ensure the proper copyright protection. In particular, execution of such actions as dissemination, leasing, manufacture of various technical devices, technologies or their components for the purpose of profit generation may result in the above consequences [14].

In case of violation of the above restrictions related to copyright protection, the author or other owner of the creative work may demand at his/her/its discretion that the violator reimburse losses or pay compensation. In turn, it should be noted that the amount of compensation payable depends on the circumstances of the case and varies from ten thousand rubles to five million rubles.

In V.S. Illarionov's opinion, today we do not have enough methods of copyright protection [4]. Let us list the main methods of such rights protection.

As many authors say, there is special software allowing creating watermarks. This method of creative works protection used for various images including photographs seems to be an efficient protection method for information transfer through information services [3, 15, 16, 17].

It should be noted that watermarks are applied by special software products, which integrate a hidden code of a certain format into the files. When looking at an image, at first sight a user does not notice certain coded identification; however, when using the software later, a user can see that the files contain additional information identifying the person that recorded this information. Such software products include in particular Cryptolope by IBM and @ttribute by NetRights [5].

However, a rule of thumb states that this method of copyright protection is not efficient. We suppose that this is due to continuous changes in information medium creating new technologies, which provide illegal access to the protected creative works, including access through the Internet. In particular, screenshot technology created for various computers and smartphones allows making a picture of any part of a website content, and this bypass copyright protection devices [18].

In addition, nowadays there are other methods of copyright protection in the Internet. In particular, it is possible to protect creative works of authors and other owners through writing of certain information on a laser disk from the websites pages and then deposit it into a Web-depository. This method of works protection may be used for legal protection of professional and commercial secrets, for various intellectual deliverables, etc. Another advantage of this method is that it both protects information contained on the website and thus prevents potential claims related thereto. This system works as follows. Various deliverables are deposited to a certain depository, including a CD containing Webpages by means of the author or other owner's submission of a statement certifying that he/she/it is the owner of rights to a certain creative work; this statement also contains a summary of the creative work. Thereafter, the date of intellectual deliverables acceptance is registered, and a certificate is issued to confirm that the certain object is received. The object specified in the statement as a unit remains in the depository. It should also be noted that the "priority" concept, i.e. the fact of original publication dissemination in the Internet, is fundamental for the copyright law. Therefore, the depositing date is of evidentiary nature and certifies that at a certain time the applicant owned a copy of the object. However, this method is not efficient enough either and it does not fully protect from abuse. In particular, if another person's website in the Internet is copied and a CD containing it is deposited unfairly, then it will violate this method if copyright protection in the Internet [5].

O.P. Boiko highlights that today there are no legal mechanisms for regulation of legal relationships in the Internet [1]. Lack of sufficient mechanism of these legal relationships regulation results in risks for protection of proprietary rights and lawful interests of individuals and legal entities [19]. Unfortunately, this problem depends largely on dynamic development of technologies in the Internet.

5. Conclusion

Hence, it should be noted that the existing mechanisms of copyright protection in the Internet do not ensure proper security today. However, the problem of lack of efficient means of creative products protection is explained by fast and systematic changes of technology in the Internet environment. In fact, new methods of copyright protection in the Internet will eventually become inefficient mechanisms. The solution of the problem is suggested through retaining of possibility of free access to the intellectual

deliverables except for the cases when author prohibits using his/her creative work in the Internet environment. Therefore, the Internet may have incomplete information about the author's intellectual deliverables, particularly in the same format as works of science.

References

[1] O.P. Boiko, Osobennosti grazhdansko-pravovogo regulirovaniya avtorskogo prava v srede Internet [Peculiarities of Copyright Civil Regulation in the Russian Federation in the Internet], Moscow, 2007.

[2] Y.A. Karaulova, Pravovoe regulirovanie avtorskogo prava v globalnom informatsionnom prostranstve: sravnitelnyy analiz pravoprimenitelnoi praktiki [Copyright Legal Regulation in Global Information Environment: comparative analysis of law-enforcement practice], Moscow, 2009.

[3] O.V. Gridneva, R.R. Lenkovskaya, A.E. Zolotareva, M.S. Mayorova, D.A. Matantsev, The ways of the protection of author's personal non-property right in the Internet, Man in India 96(12) (2016) 5525-5533.

[4] V.S. Illarionov, Sposoby zashchity avtorskikh prav v grazhdanskom zakonodatelstve [Methods of copyright protection in civil legislation], Cheliovecheskiy Kapital 2(38) (2012).

[5] V. Naumov. Problemy realizatsii avtorskikh prav v seti internet [Problems of Copyright Exercise in the Internet]. Russian Law. http://www.russianlaw.net/law/ip/copyright/a09/. Revised March 23, 1999. Accessed July 4, 2018.

[6] V.P. Talimonchik, Tekhnicheskie sredstva zashchity avtorskikh prav. Kak dokazat nezakonnyy dostup [Technical Methods of Copyright Protection. How to Prove a Case of Illegal Access], Arbitrazhnaya Praktika 1 (2013).

[7] L.F. Tatarinova, Problemnye aspekty zashchity chesti I dostoinstva ot posyagatelstv v globalnykh kommunikatsionnykh setyakh [Problem Aspects of Honor and Dignity Protection from Offences in Global Communication Networks], Aktualnye problemy gumanitarnykh i estestvennykh nauk 3(50) (2013).

[8] Y.I. Skuratov, L.V. Glazkova, N.S. Grudinin, A.A. Neznamova, The development of organized crime in Russia: A system analysis, Criminology Journal of Baikal National University of Economics and Law 10(4) (2016) 638-648.

[9] A.Y. Svirin, A.A. Mokhov, V.A. Gureev, S.N. Shestov, A.L. Shilovskaya, Proof and evidence in cases involving compensation for damage caused to health or life of a citizen as a result of the use of drugs for medical use, Journal of Advanced Research in Law and Economics VIII Spring 1(23) (2017) 250-260. DOI: 10.14505/jarle.v8.1(23).28.

[10] M. Vinichenko, E. Frolova, A. Maloletko, V. Bondaletov, O. Rogach, Main directions of creating a favorable learning environment and labor protection in the interest of enhancing health of the personnel and students in education foundation, Mathematics Education 11(5) (2016) 1163-1174.

[11] Resolution of the Second Arbitrazh Court of Appeal dated June 15, 2009 in case No. A31-4968/2008-27, SPS "KonsultantPlus. Sudebnaya Praktika". ConsultantPlus. Summary of court rulings.

[12] Resolution of the First Arbitrazh Court of Appeal dated March 31, 2011 in case No. A79-9257/2010, SPS "KonsultantPlus. Sudebnaya Praktika". ConsultantPlus. Summary of court rulings.

[13] Resolution of the Sixteenth Arbitrazh Court of Appeal dated July 10, 2012 in case No. A63-13046/2011, SPS "KonsultantPlus. Sudebnaya Praktika". ConsultantPlus. Summary of court rulings.

[14] P.V. Zhesterov, A.A. Neznamova, S.J. Starodumova, M.A. Volkova, R.R. Lenkovskaya, The Legal Regime of the Deliverables under the Appraisal Contract, Man in India 97(25) (2017) 357-364.

[15] M.A. Volkova, L.B. Sitdikova, S.J. Starodumova, A.L. Shilovskaya, Legal problems of the information services implementation in Russian civil law, Review of European Studies 7(6) (2015) 273-281.

[16] Malcev V.A., Kuleshov G.N., Neznamova A.A., Lutovinova N.V. and Guryleva A.A. (2016). Civil liability insurance of vehicle owners in European Union countries and the Russian federation: Comparative legal analysis. Man in India, 96(12), 5565-5574.

[17] A.L. Shilovskaya, S.J. Starodumova, M.A. Volkova, A.A. Neznamova, The problem of holding tour operators accountable for not properly informing tourists, Man in India 96(12) (2016) 5627-5634.

[18] M. Vinogradova, O. Kulyamin, A. Larionova, A. Maloletko, O. Kaurova, Digital technology in the field of educational services, International Review of Management and Marketing 6(2) (2016) 281-287.

[19] A.L. Shilovskaya, S.J. Starodumova, M.A. Volkova, P.V. Zhesterov, The judicial practice of the European Court in the sphere of non-material reputational harm, Man in India 96(12) (2016) 5635-5645.