Intellectual Property Rights: A Judicial Protection as part of Civil Law

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Abstract: The authors of the article explore the digital rights management in judicial protection of intellectual property rights through the lens of civil law principles. The principle of protection of civil rights and interests is defined as one of the basic principles of civil law regulation. The specifics of this principle, which are caused by the specificity of the objects of intellectual property rights, the peculiarities of obtaining legal protection, are determined. The provisions of the theory and the current legislation are analyzed in terms of defining ways of protecting intellectual property rights as one of the factors that determine the peculiarities of the implementation of the principle of protection of civil rights and protected interests in the field of intellectual property.

Keywords: Civil Law, Digital Rights Management, Intellectual Property Rights, Judicial Protection, Principle of Civil Law.

I. Introduction

Software and hardware were first developed in the USA, which complicates or limit various actions with data in electronic form (copying, modification, viewing, etc.), and also allow tracking such activities - the so-called DRM (Digital Rights Management).

Digital Rights Management) - software or hardware-software tools that deliberately limit or impede various actions with data in electronic form (copying, modification, viewing, etc.), or allow you to track such activities. DRM is a set of access control and management systems [1-3].

The complex of access control and management systems is designed to prevent the illegal copying of works that do not allow or restrict any copying, including the bonafide copying of free works (including those works whose exclusive rights expired after the introduction of DRM), since it is not automatically possible by technical means to distinguish between "legitimate" copying from "illegal" copying all this is DRM, i.e. "Digital Rights Management." Protected works (files, data CDs) are accompanied by DRM and restrict consumer access to various actions, such as copying or transferring data. It should be noted that shell software for viewing, digital pocket players, and DVD players are built into the software of playback and recording devices. It seems, in this case, the consumer is limited in choosing the hardware used with this device, and the period during which the user can view the content is also limited.

Modern DRM systems use cryptographic security algorithms; however, these methods cannot be used entirely, since they are based on the assumption that to access encrypted information, a unique key is required to decrypt it. The key can be tied to the obligatory Internet registration of the user and its constant authentication (identification), that is, entering personal data, the key can also be supplied separately with the product in the form of an access key recorded both on paper and on a separate drive.

Intellectual property, like any other type of property, is often the subject of unlawful actions by third parties and therefore needs legal protection [4-5].

Scientists distinguish the following objects of intellectual property (Fig. 1).

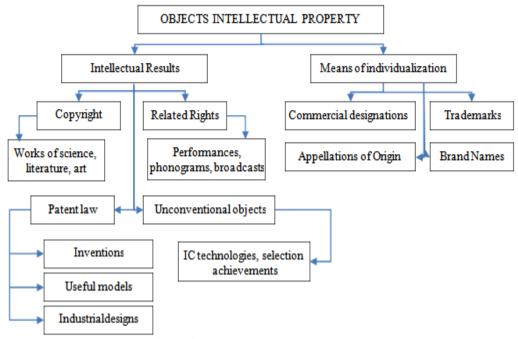


Figure 1 The objects intellectual property

Currently, almost no one questions the dual nature of copyright and artistic rights. On the one hand, the creator of a creative result has an exclusive right to use it, and this right is among the property rights and is similar to the property right in general and, in principle, can be freely transferred to third (other) persons to use the result [6-7].

On the other hand, the author has a set of personal non-property (moral) rights, such as copyright, the right to an author's name (for example, the Stradivarius violin, Kalashnikov assault rifle, etc.) that cannot be alienated from their owner by virtue of their nature[8].

Let us single out such components of intellectual rights (Fig. 2) [9-12].



Figure 2 Components of intellectual rights

II. General Characteristics Of Constitutional Provisions Governing Intellectual Propertylaw

If we evaluate the current constitutional regulation of intellectual property rights, taking into account the above, then the wording of the legal provisions reflect two approaches.

The first, which has developed historically, is that the constitutional provisions that are currently associated with the concept of "intellectual property" does not contain this term.

The second approach is to use the concept of "intellectual property" in the constitutional text. The first approach has a relatively large number of options, as the most common, it seems, we can distinguish the following. Firstly, the protection of intellectual property in some countries is based on general property provisions.

The constitutional regulation of property rights covers its various types and aspects. In principle, with broad legal formulations, it may include relations governed by intellectual property law, despite its specificity. So, Art. 14 of the Basic Law of the Federal Republic of Germany of 1949 contains the famous provision borrowed by many constitutions: "1. Property and inheritance rights are guaranteed. Their content and limits are determined by law. 2. The property is binding. Its use should serve the common good." This article does not explicitly refer to intellectual property. Still, in German constitutional law, a feature covered by the constitutional guarantees of property rights under this article includes copyright and patent rights. In this regard, when analyzing the legal regulation of intellectual property rights in Germany, German scientists emphasize the provisions of Art. 14 of the Basic Law. The German Federal Constitutional Court has repeatedly made decisions that extended the rules on the protection of property rights to intellectual propertyrights.

According to Art. 29 of the 1999 Swiss Constitution, "Property is guaranteed. Deprivation of property and restriction of property, equivalent to its deprivation, shall be fully compensated". The Swiss doctrine assumes that this article protects not only rights to movable and immovable property, but also intangible rights. Scientists especially emphasize the expansive interpretation of this constitutional provision in the decisions of the Federal Court. Section 20 of the 1947 Constitution of Japan stipulates that "property rights must not be violated. The power of ownership is determined by the law and must be consistent with the public welfare. According to the Japanese constitutional doctrine, the scope of this article covers not only property rights, rights to use natural resources, property rights to the most crucial production factors, but also copyright and patent rights. The extension of the operation of constitutional norms on general property to intellectual property gave rise to several interrelatedprocesses.

On the one hand, the theoretical basis for this was the proprietary theory of intellectual property that originated in France and had a significant influence on other countries. On the other hand, the improvement of constitutional formulations as the state resolves the problems of intellectual property regulation goes in the direction of the emergence of general provisions that allow covering a more comprehensive range of social relations. And finally, in the activities of the democratic control bodies, the tendency towards an expansive interpretation of the rules on the right of ownership is observed, which reduces the need for norms on specific types of property.

US copyright protection lasts 70 years after the death of the author. If the copyright object was created "for hire", then the copyright remains for 120 years after creation or 95 years after publication, whichever comes first. For works created before 1978, the rules for the duration of copyright are complicated. However, works created before 1923 are in the public domain (Fig. 3).

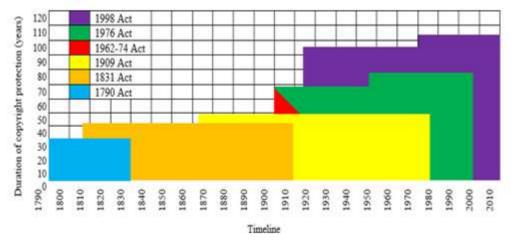


Figure 3 Graph showing US copyright development

The Digital Millennium copyright act, copyright law in 1988, provides for liability for circumventing the technical means of protecting an object or manufacturing, as well as disseminating technology for such circumvention. This is most reminiscent of a violation of ownership, as it may not cause economic damage. However, such a crime shall be punished by imprisonment of up to five years and/or a fine of up to 500 thousand dollars, and if the offence is committed a second time, up to 10 years and 1 million dollars (§ 1204 of Section 17 of the Code of Laws USA). Copyright violations are federal offences. If a person reproduces or

distributes oneormorecopiesofworkworthmorethan\$1,000,hefacesuptooneyearinprison.Ifthecostofobject186is more than 2500 dollars - up to five years. For the second violation, imprisonment of up to 10 years is possible. Other criminal prohibitions do not contain an indication of the value of the object. So, for distributing music without the consent of the copyright holder, he faces up to five years in prison and up to 10 years for a second violation (§ 2319 (b) (2), 2319 A (a) section 18 of the US Code).

The authors compare the penalties for these crimes with the sanctions for theft, vandalism and violation of possession. These crimes are prosecuted under the laws of individual states. The states of California, New York, and Texas were chosen as an example (Table 1-3).

Table 1 Punishment for theft

Theft	In the amount of \$ 1,001	In the amount of \$ 2,501		
California	One year, \$ 50,000	One year, \$ 50,000		
New York	Four years	Seven years		
Texas	One year, \$ 4,000	Two years, \$ 10,000		

Table 2 Punishment for vandalism

Vandalism	In the amount of \$ 1,001	In the amount of \$ 2,501				
California	Up to one year in prison, a fine of up to 5,000	\$Up to one year in prison, a fine of up to \$5,000				
New York	Up to four years in jail, a fine of up to 5,000 or double the value ofstolen property	SUp to four years in prison, a fine of up to \$ 5,000 or double the value of stolen property				
Texas	Up to one year in prison, a fine of up to 4,000	\$Up to two years in jail, a fine of up to \$10,000				

Table 3 Punishment for violation of possession

Trespass	Punishment
California	Fine \$ 100
New York	50 days in prison, a fine of \$ 250.
Texas	180 days in prison, a fine of \$ 2,000

These figures show that copyright infringement is punished significantly more severe than the above crimes. Moreover, they require substantially less effort and time than theft, vandalism and violation of possession, and do not involve the use of physical force. From guilt, the formation of intent for copyright infringement on the Internet and its implementation may take only a few seconds. Then the subject can realize the wrong act; however, returning the distributed files will not succeed.

High sanctions for copyright infringement, which are explained by lobbying by large copyright holders, give the prosecutor extensive opportunities to intimidate the subject and, as a result, to conclude a deal with the prosecution. The authors believe that more appropriate sanctions are needed for various types of crimes since, at present, they are disproportionate and unsystematic.

According to the legislation of Ukraine, intellectual property rights include personal non-property rights (the right to recognize a person as the creator of an intellectual property object, etc.) and property rights (the right to use the intellectual property object, the right to permit or impede unlawful use, etc.). The scope of rights to an intellectual property object is determined by regulatory legal acts, in particular, the Civil Code of Ukraine and relevantlaws.

Obviously, to protect intellectual property rights, first of all, it is necessary to possess these rights, as well as have documentary evidence of your rights (patent, certificate, license agreement, etc.). There are two forms of protection of intellectual property rights:

- jurisdictional
- non-jurisdictional.

In the case of a jurisdictional form of protection, a person whose rights are violated can apply for the protection of their rights to specially authorized state bodies, for example, a court, etc. That is, intellectual

property rights are protected with the involvement of state bodies.

In the case of a non-jurisdictional form of protection, the person whose rights are violated independently carries out actions to protect their rights without involving state authorities. Such activities may, for example, notify the offender of the offence committed by him with a proposal to resolve the dispute through negotiations.

A non-jurisdictional form of defence is cheaper but less effective than a jurisdictional one. As the long experience of our company shows, often, after notifying the violator of the offence, the copyright holder, whose rights are violated, is forced to file a lawsuit as a result of the offender ignoring the notification of violation of their rights.

III. Methodology

Intellectual Property as an Object of Evaluation

The assessment of intellectual property has some features due to the specifics of intellectual property:

- Intellectual-property objects (as applied to copyright objects) are intangible information objects (works), copies of which can be easily replicated and distributed. Moreover, the process of reproduction of copies from the point of view of finance is much less costly than the direct creation of the work. It is this feature that causes widespread piracy, that is, the use of the intellectual property without legal grounds;
- Unlike tangible objects, the product "intellectual property" has an author in addition to the owner, and it often happens that these two entities do not coincide, which is the reason for various legal contradictions and ultimately affects the valuation of intellectual propertyobjects;
- The owners of property rights to the same intellectual property can simultaneously be several legal entities and (or)individuals;

The listed features affect not only the assessment of intellectual property itself but also determine its technology. Thus, one and the same object of intellectual property may have several value values depending on the subject of the rights being evaluated (the license may be exclusive or non-exclusive), the method and territory of use, as well as the duration of the rights established by law or contract.

The main methods for calculating losses/compensation are given in Table. 4.

Table 4 The main methods for calculating losses/compensation

Losses/	Loss calculation	Possible information to prove the amount of				
Compensation	method	injury or compensation				
Losses: Real Damage	ses: Real Damage Definition and justification of the costs of restoring the violated right (the costs conducting varioustypes of examinations; legal and administrative expenses)	information fixing the period of the violation; information about the number of labels produced in the printinghouse; information on the number of purchased containers into which the Products were packaged; of copies of the violator's advertisements using the trademarks of the Copyright Holder and information on the number of acceptable (media, outdoor, TV, etc.); data on the volume of bulk purchases by the Violator of the Products of the Copyright Holder; data on sales of counterfeit good				
Losses: Lost Profit	Definition and justification of the income of the Violator or Definition and explanation of the non-received income of the Copyright Holder	(commodity and fiscal receipts on the purchase of counterfeitgoods, contracts,etc.); the average annual costs of the Copyright Holder for advertising and marketing of the Products; average monthly wholesale prices of theCopyright Holder for theProducts; the average monthly retail prices of the Copyright Holder for the Products (for a period of 2–3 years); average annual (average monthly) share of advertising and marketing (in%) in the sales volume of the Copyright Holder of similar Products;				
Compensation (for 10 thousand dollars to 1 million dollars)	Definition and justification of recovery costs violated right Definition and explanation of the income of the Violator or Definition and grounds of the non-received income of the Copyright Holder.					

Algorithm for Estimating Damages or Compensation in the Judicial Protection of Intellectual Property Rights as One of the Principles of Civil Law

Based on the analysis of situations of illegal use of trademarks, the authors proposed a generalized algorithm (Fig. 4) for decision-making in the process of collecting evidence, substantiating the number of losses or compensation.

IV. Result Anddiscussion

To defeat how relevant this algorithm is, let us consider the minimum amount of material damage as the limit of criminal prosecution for crimes committed in the field of intellectual property (Table5).

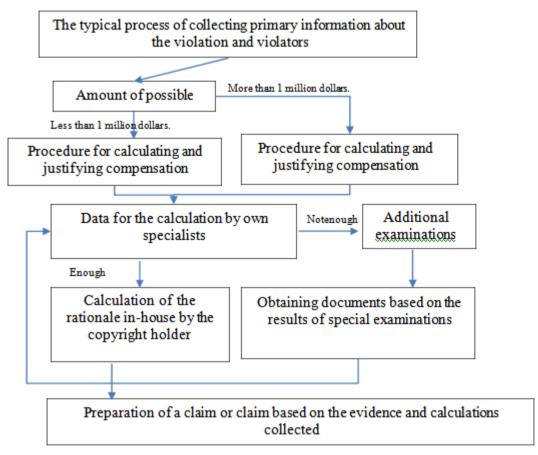


Figure 4 Generalized algorithm for estimating damages or compensation in the judicial protection of intellectual property rights as one of the principles of civillaw

Table 5 Minimum financial damage as a limit for criminal prosecution for crimes committed in the field of intellectual property

Year		The subsistence minimum for the non- disabled person, UAH	numb er of social benefi ts,	amount of tax social privileg e, UAH	minimum income of citizens,	The minimum amount of financial damage, which is punishable under the Criminal Code, UAH
2019	192 1	1853 (from 01 January); 1936 (from 01 July); 1779 (from 01 December)	50	960.5	17	960.5 × 20 = 19210
2018	176 2	1700 (from 01 January); 1777 (from 01 July); 1853 (from 01 December)	50	881	17	$881 \times 20 = 17620$

201′	7 160 0	1544 (from 01 January); 1624 (from 01 May); 1700 from 01 December)	800	17	$800 \times 20 = 16000$
2016	1378	1330 (from 01 January); 139950 (from 01 May); 1544 (from 01 December)	689	17	689 × 20 = 13780
2015	1218	1176 50	609	17	$609 \times 20 = 12180$
2014	1218	1176 50	609	17	$609 \times 20 = 12180$
2013	1147	1147 (Act of 06.12.2012 №50 5515-VI)	573,5 1	17	$573,5 \times 20 = 11470$
2012	1073	1073 (Act of 22.12.2011 №50 4282-VI)	536,5	17	$536,5 \times 20 = 10730$
2011	941	941 (Act of 23.12.2010 № 857-50 V)	470,5	17	$470,5 \times 20 = 9410$
2010	869	PC dated 02.12.2010 № 2755-50 VI, effective from 01.01.2011	434,5	17	434,5 × 20 = 8690

For clarity, we present the results of the study in the form of Fig. 5.

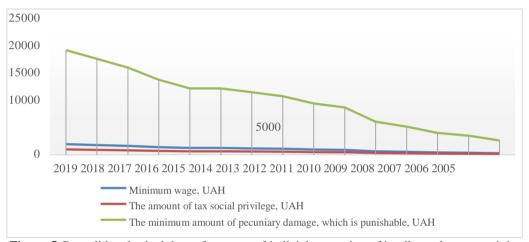


Figure 5 Consolidated schedule performance of judicial protection of intellectual propertyrights

Thus, when considering a criminal case, the court must proceed from the fact that criminal and civil liability for infringement of intellectual property rights arise in the presence of certain conditions, established by law, of: the fact of intentional unlawful behaviour of a person; damage caused to a large, large or particularly large entity; the causal link between the harm caused and the unlawful behaviour of the injured person; the fault of the offender.

V. Conclusion

The current constitutional regulation of intellectual property law is diverse. Objectively existing differences between states in the tasks of legal provision, the level of development of intellectual property relations and the degree of their settlement in current legislation, in following the traditions of constitutional regulation and the tendency of the constitutional legislator to incorporate modern short stories from the constitutions of other countries and (or) transplant international norms into the fabric of the law generate significant diversity in approaches to constitutional regulation of relations intellectual second property, as well as involve the emergence of "mixed" models. All this makes the issues of legal management of intellectual property law an exciting and promising object for scientific research.

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