Protecting Intellectual Property In The Digital Age With A Law

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Abstract

Life has changed with the development of science and technology. One technology that has a significant impact is the technology of the Internet world, the Internet introduces people to the digital world. Of course, this development also affects the law, especially copyright law. Copyrighted works that were still in a traditional form can now be converted to a digital form or digital copyrighted works can be created. In this case, copyright law, which previously protected traditional forms of copyrighted works, must evolve to include the protection of digital copyrighted works, one of which is through cooperation with technology. This research is a normative study with a focus on how copyright law, which previously protected traditional forms of copyright, must evolve to include protection of digital copyrights, one of which is through cooperation with technology. This research is a normative research with a qualitative approach that is descriptive. As technology allows the conversion of copyrighted works into digital forms, there are advantages such as the easy distribution/notification of copyrighted works, but also the ease of infringement. In view of these developments, the WIPO has issued two international treaties known as the WIPO Internet Treaties. These treaties have been adopted by several countries. Indonesia in its positive copyright law has implemented the protection of digital copyrighted works in its articles. Our copyright law needs to be further enriched to protect digital copyrighted works as suggested by the author in this study.

Keyword: Protection, Copyright, Digital

Introduction

The passage of time is accompanied by the development of human science. At the present time, the development of science and technology is very rapid. The development of science and technology also affects people's daily activities. One of the inventions that has had a great impact is the Internet network. With this Internet network, the digital world began to be recognized.

Human beings have the ability to create. By trying to use thought and creativity, man can create something. As John Lock stated in his theory, the Labor Theory, this creation, which is the result of thought and creativity, belongs entirely to the creator. John Lock proposed that everyone has the right to the results of his own work, the consideration is every process/phase of thought/creativity done to make/create something. 3 principles of John Locke's theory are 1). The creator/maker should be rewarded with property rights, the consideration is because of the effort/process to create something; 2). Work on/creation of assets already owned by others may create some rights for workers, but this depends on the "contract of labor" under which the labor is expended; 3). Collective property rights claims are subject to the same conditions as other claims, all of which are designed to reconcile the rights of individual creators with the claims of the broader society in general.

The evolution of time has led to the evolution of forms of creation. The influence of the Internet and digitalization has changed the form of creation from a conventional form to a digital form. In its digital form, it can be easily disseminated and distributed by using the Internet network.

As it has become a common thing that cannot be separated from life, the digital era and digital creations cannot be avoided. Digital products/creations are generally traded and have their own consumers/market. If you avoid it, it can actually hinder growth. Digital goods are seen as more efficient and practical than physical goods, which require special storage space, and digital goods are seen as more convenient than physical goods, which require special storage space.

The use of Internet technology allows changes to creations that previously existed only in physical/conventional form can now be converted to digital form. The subject has several types of mention such as the following: digital works, digital content, digital information, and digital copyrights. Some examples of digital products are Ebooks in PDF or Kindle format, Music in MP3 or MP4 format, Videos in MP4 or FLV format, Software, Pictures in JPEG or PNG format, Online Tickets, Android Apps or Iphone Apps, Fonts, and others.

There are risks that can occur behind this ease. The ease with which a work can be changed, modified, etc., is actually used by unauthorized parties to illegally disseminate/distribute by parties who do not have the rights. The widespread use of the Internet in society has led to more works being infringed, making it difficult to identify who is infringing, and making it difficult to protect a work in digital form. If left unchecked, these infringements can have a negative impact on the industry and the creator.

In Indonesia, such as the recent piracy of Angga Dwimas's film Story of Kale: When Someone's in Love. The movie is shown in digital form on a digital platform called Bioskoponline. Although it has been given a platform that makes it easy to watch movies, there are still people who pirate the movie and spread the piracy page2.

On the basis of these conditions, it is undeniable that the Internet has created a new phenomenon in the aspects of the life of human beings. From the point of view of law, the phenomenon of the Internet clearly has an impact on the legal
model of the Internet. The application of the current law in reality still has many weaknesses. Some of these weaknesses include being very limited by jurisdiction and relying heavily on formal matters.3

The existence of these developments then the development of copyright should also occur, which used to protect creation only on physical creation now need to be extended to protect digital creation. Jacques de Werra said that there are three approaches to copyright protection of digital works, namely4: First, the protection of copyright through conventional copyright provisions; Second, the protection of copyright through technological protection / security technology; Third, the protection of copyright through legal protection of technological protection / security technology. In Indonesian positive law, copyright protection can be done by using security technology

Method

Normative and comparative legal research is used as a form of research. The research is carried out on the written and unwritten positive law. This normative legal research is conducted by examining library materials or secondary data. Its purpose is the understanding of the relationship between legal sciences and positive law or written legal norms, such as laws and regulations. Comparative law is the activity of comparing one legal order with another legal order, the comparison performed is to find and signal the differences and similarities through the provision of a statement.

The collection of data takes place through the study of documents and related literature materials, through the collection of regulations concerning IP laws, and through the study of literature, articles, and books that provide information concerning IP laws. The types of legal materials used in this research include primary legal materials, secondary legal materials, and tertiary legal materials.

Based on its nature, this research is descriptive research, which aims to provide the most accurate data about individuals, circumstances, symptoms, or certain groups, or to determine the frequency of a symptom. Meanwhile, in terms of its purpose, this research aims to find mere facts (fact-finding), which is followed by research that aims to find problems (problem-finding), which then leads to problem identification (problem identification), which is followed by problem solving or problem resolution.

A qualitative approach is the data analysis method of this research. This qualitative approach is a research method that produces analytical descriptive data, i.e., what is said, written, orally, and actually behaved by the subjects concerned.

Results and Discussion

The copyright is born and arises from the results of the human thinking in the fields of science, art and literature. Copyright arises automatically as soon as a creation is born. Copyright is a civil right that belongs to the creator. Copyright is a private right. The justification is that a creation is born from the creator's creation. Creations born from the thought process and creativity of the creator. A copyright must be born of human creativity and not that has existed outside the activity or outside the results of human creativity.

In Article 1 paragraph 1 of Law No. 28 of 2014 on Copyright (UUHC), the definition of copyright is described as follows:

"copyright, an exclusive right of an author that arises automatically on a declaratory basis after a creation has been materialized, without reducing limitations according to legal provisions.

Copyright is a natural right, is absolute and protected rights as long as the creator lives and several years after the death of the creator, in the Copyright Act the term of protection after the death of the creator is 70 years. As an absolute right, the right can basically be defended against anyone, who has the right to sue any infringement committed by anyone.

For a creation in the field of art, literature and science to become copyrighted, several criteria need to be met, namely: originality and real/embodied. Originality criteria are intended to claim copyright ownership or the results of the creation / work. Indicates that a creation / work is really made and comes from the creator. Originality does not require novelty in a work, but requires that a work is truly the result of the creator's thought/creation. Does not give birth to copyright of a creation/work that imitates the creation/work of others or the work of the public domain.

Criteria Real / Embodied intended that copyright protects only ideas that have been expressed / realized. A work must be embodied in a form and medium capable of presentation, reproduction and communication that are more than temporary material manifestations. An idea that has not been expressed/realized cannot be protected by copyright. In foreign literature, this criterion is commonly referred to as fixation.

Copyright is an exclusive right consisting of moral rights and economic rights. It is called exclusive rights because these rights are reserved only for the creator, thus prohibiting / restricting other parties from using these rights without the creator's permission. Copyright holders who are not creators have only part of the exclusive rights in the form of economic rights. Moral rights are different from economic rights; economic rights contain economic value, while moral rights have no economic value at all.

Moral rights are rights that belong to the creator. Moral rights cannot be removed even after the term of copyright protection has expired. Moral rights cannot be transferred during the creator's lifetime, but may be transferred by will or otherwise after the creator's death in accordance with legal provisions. Moral rights also include related rights.

Economic rights are the rights of the author or copyright holder to obtain economic value for his creation. The activities which the holder of economic rights may engage in are: publishing the work, reproduction of the work in any form, translation of the work, adaptation, arrangement or translation of the work, distribution of the work or copies thereof, performance of the work, publicity of the work, communication of the work, and rental of the work.

These rights are not only for the benefit of individuals, but are also a source of hope for the growth of the creative industry; the rapid development of the creative industry must be strengthened by legal protection, as copyright is the most important foundation of the national creative industry.

Therefore, an innovation system must recognize exclusive rights of an intellectual creation in terms of rights that are limited in time and scope and balanced with economic appreciation of holders and owners. Creators need incentives to encourage them to devote time, energy and thought to creating new creations. Without such incentives, creators lose the spirit to create because there is no commensurate reward. The promotion of maximum welfare toward economic efficiency is the purpose of legislation influenced by the doctrine of utilitarianism.

The Labor Doctrine is a doctrine developed by John Locke. The Labor Doctrine states that it is reasonable to give credit for the results of one's work, the form of credit being manifested in the form of intellectual property rights.

It is based on the claim that private property rights are essential to the satisfaction of some basic human needs, so that policymakers should seek to create and allocate rights to resources in ways that best enable people to satisfy those needs. Its effect in legislation is to establish moral rights for creators.

Social control planning is a doctrine that emphasizes the role of intellectual property rights in society. That an intellectual property right should provide benefits to society. Social control planning doctrine is the latest development of copyright protection doctrine, this doctrine is relevant as a basis regarding copyright protection on the Internet.

Indonesia's positive copyright law Law No. 28 of 2014 adopts several doctrines in its regulations, which are reflected in its articles. Law No. 28 of 2014 adopts the copyright personality
DRM must enable secure distribution. Once the content is protected by DRM encryption, the right key is needed to decrypt the content and make it readable. Without that key, the file is useless. Anyone can have it without the description key.

3. DRM must ensure the authenticity of the content. Currently, the most widely used one-way hash function provides this function.

4. DRM must provide for non-repudiation transactions. In both physical and electronic forms, it is important for participants to be able to prove that a given transaction actually occurred. In the physical market, the violator receives a receipt that is insufficient as proof of payment.

5. DRM must support participant identification. Digital certificates are required to identify participants. The certificate proves the relationship between the individual and the personal information provided by the individual.

DRM generally falls into two categories: DRM systems that use technology protection measures (TPM) and DRM systems that do not use technology protection measures (TPM). Although DRM is a general term for methods that identify content and set licensing terms, it seems that the term DRM has recently become synonymous with TPM that uses TPM.

Technology Protection Measures (TPM) is a technology that can be used to protect material from digital copyrighted works. Technology protection measures (TPMs) are software or components used by copyright owners to protect copyrighted material, such as the use of software code encryption and passwords. TPMs are generally divided into two categories, with the first category of TPMs used to prevent unauthorized access to digital works and the second category of TPMs used to allow rights holders to control the underlying use of a work even after access is gained.

The following techniques are commonly used in DRM systems:

1) **Encryption**

   DRM uses cryptographic algorithms to encrypt the content, which requires a secret password/key. Later, the content can only be unlocked and read by the holder of this key. The algorithm scrambles the data to make it unreadable to anyone but the intended recipient. Decryption requires a secret key or password to decrypt the encrypted data into a secret format. But encrypting content without using a key to decrypt the content is only an important aspect of securing data. The management of the description key is another very important aspect. The key creator transferring the description key to the recipient with a time limit and preventing the theft or transfer of the key are parts of encryption that should always be considered.

2) **Public/Private Keys**

   This technique belongs to a family of cryptographic techniques that exploit the one-way nature of certain mathematical functions, leading to a system that uses two separate keys. These are usually referred to as "public" and "private" keys, and each key can be used to encrypt or decrypt data. If you use one key for encryption, you must use the other for decryption, and knowing one key helps you find the other. The key can allow messages sent by the sender to be received, or it can encrypt messages that only the sender can read; only the sender can create messages using the private key.

3) **Watermarking**

   Watermarking is the process of secretly embedding information in a data source to hide its existence. In the digital sense, it is a method of embedding a copyright stamp into an image, sound, or video. The watermark is embedded in such a way that the quality of the primary media is preserved and cannot be detected by the human eye (for images) or ear (for audio content). Only knowledge of the secret key allows the watermark to be extracted from the original image.

4) **Access Control**

   The development of the times makes many new techniques emerge to hide the creation. The creation of the former traditional form can be made in the digital form, or the creator can make the creation in the digital form. In general, copyrighted works in traditional form which are created in digital form will not lose their copyright protection, and a copyrighted work which is created in digital form of copyrighted works will be entitled to copyright protection as long as the copyrighted work meets the criteria of creation.

   Digital copyrighted works have some advantages over traditional copyrighted works, such as ease of distribution, notice, etc. However, the ease of infringing is often offset by the ease of infringing, resulting in increased infringement. There are several factors that make a digital work more likely to be infringed.

   Ease of copying of digital copyrighted works; copying of traditional copyrighted works is usually not similar to the original work; takes a lot of time, and requires other tools; copying of digital copyrighted works is usually not similar to the original work; takes a lot of time, and requires other tools. In contrast, digital copyrighted works are very easy to copy/applying the result, and the results are almost indistinguishable from the original, the process is fast and cheap because it can be done virtually with just a computer.

   Ease and speed of distribution of digital copyrighted works. Traditional copyrighted works are published in physical form and distributed by land, water, and air, while digital copyrighted works are distributed virtually, such as over the Internet. In the distribution of traditional copyrighted works, there is a time lag between creation, distribution and availability. For digital copyrighted works, there is almost no time gap; dissemination can occur as soon as possible. This greatly reduces the time required for a traditional copyrighted work. Digital copyrighted works are more efficient than traditional copyrighted works in terms of storing a copyrighted work.

   Ease of manipulation of a digital copyrighted work. A digital copyright work can be freely manipulated or modified without degradation of the original copyright work. The creator’s name can be changed, removed, or added.

   There are losses that can easily be made by parties who do not have the rights to digital copyrighted works. As a result, digital copyrighted works are more in need of protection than traditional copyrighted works. Traditional methods of protecting copyrighted works are not necessarily applicable to digital copyrighted works. Technology can also be used to protect digital copyrighted works by transforming traditional copyrighted works into digital works. Cooperation between technology and law is needed, such as including provisions for the use of security technology to protect digital works in positive copyright law.

   As mentioned above, Internet technology has both positive and negative effects on the scope of copyright protection. Specifically regarding copyright protection, copyright experts and Internet technology experts are trying to create various technologies to provide copyright protection on the Internet, this technology has been referred to as security technology.

   This technology has been referred to as "security technology" or "digital rights management" (DRM). Digital rights management (DRM) refers to a collection of systems that are used to protect copyrights in electronic media, including digital music, digital movies, and other digitally stored and transmitted data. DRM is a system of information technology components and services, together with appropriate laws, policies and business models, designed to distribute and control intellectual property and its rights.

   The purpose of using DRM is to:

   1. DRM should provide protection for digital content. This type of protection is usually provided by encryption techniques that allow authors and publishers to send digital content over insecure networks, such as the Internet, so that the content can only be read by the recipient.

   2. DRM must enable secure distribution. Once the content is protected by DRM encryption, the right key is needed to decrypt the content and make it readable. Without that key, the file is useless. Anyone can have it without the description key.

   3. DRM must ensure the authenticity of the content. Currently, the most widely used one-way hash function provides this function.

   4. DRM must provide for non-repudiation transactions. In both physical and electronic forms, it is important for participants to be able to prove that a given transaction actually occurred. In the physical market, the violator receives a receipt that is insufficient as proof of payment.

   5. DRM must support participant identification. Digital certificates are required to identify participants. The certificate proves the relationship between the individual and the personal information provided by the individual.
Copy protection attempts to find ways to restrict access to copyrighted content and/or inhibit the copying process itself. Examples of copy protection include encrypted digital television transmissions, access control for copyright-protected software through the use of a license server, and technical copy protection mechanisms in media. DRM systems should not only prevent copying, but also control access. For example, intellectual property is protected by encrypting data so that only authorized users can access it.

The history of copyright is very fast. New issues arise against copyright, such as the emergence of the Internet as a channel of the digital age. Merely the development of the World Intellectual Property Organization (WIPO) held a conference in Geneva in December 1996, to update the norms of intellectual property in the face of the digital environment. The WIPO conference invited as many as 160 countries, the scope of discussion in the conference is the creation, adoption, transmission and distribution of works through digital media.

The results of the conference were the WIPO Copyright Treaty (WCT) and the WIPO Performance and Phonogram Treaty (WPPT), which are two products of copyright regulation in response to the development of the digital environment. These two treaties are internationally known as the "WIPO Internet Treaties".

WCT and WPPT are based on two reasons, namely First, these Conventions are made to respond to the growing reality in the content with regard to copyright protection; and Second, as a form of implementation of the provisions of Article 20 of the Berne Convention.

Both Conventions contain provisions related to security technology. In the WCT, Article 11 states that "Parties shall provide for adequate legal protection and effective remedies for the provision of effective security technology used by creators in connection with the exercise of their rights under this Treaty or the Berne Convention, and shall provide for adequate legal protection and enforcement of the legal provisions of the Law concerning the protection of moral rights and economic rights of a creation.

In its development after the birth and signing of the WIPO Internet Treaties, several countries began to harmonize the copyright law of the country concerned adapted to the provisions of the international convention.

The Indonesian Copyright Act has included provisions related to security technology in its articles, which can be found in Law No. 28 of 2014 on Copyright. However, the provisions in the law have not been explicitly explained regarding the method and its use. The concept of security technology in Indonesian positive law has sufficiently covered the protection of the creator’s exclusive rights, moral rights, and economic rights.

The use of protection technology as copyright protection of moral rights is regulated in Articles 6 and 7 of the Copyright Law. Moreover, the use of security technology as copyright protection of economic rights is regulated by Art. 52 and 53 of the Copyright Law, Art. 52 of the Law No. 28/2014.

The use of technological control means is used to prevent or limit actions that are not authorized by the creator, the holder of the copyright, the holder of related rights, and/or are prohibited by laws and regulations in Article 53 of Law No. 28 of 2014.
copying of copyrighted works. There are several types of technology implemented in U.S. copyright law.

1. Anti-copying tools: prevent or make it difficult to make copies or works. Famous examples are SCMS (Serial Copy Management Systems), DVD Video Standard, which prevent copying in any form or allow only low quality copies.

2. Control access to digital works protected by encryption, password systems or set-top boxes. A popular example is a digital envelope or storage container that contains information about content identification and usage. How it works: A type of envelope encloses a digital object that has been encrypted and contains some type of abstraction of the content, identification of the copyright owner, or terms of use of the work.

3. Proprietary viewer: Software that maintains control over the digital object, including allowing use only with the permission of the copyright owner.

4. Watermark or Fingerprint: The technique of adding an invisible digital mark to the digital code of a copyrighted work to identify the copyrighted work and the copyright owner and to clarify the authenticity of the copyrighted work.

5. Measurement Systems: Systems that allow a record to be kept of all uses associated with a particular copyrighted work.

6. Electronic Copyright Management Systems (ECMS): A system that makes it possible to identify copyrighted material, monitor its use, and provide appropriate compensation to copyright holders. Software that integrates the features of the various techniques listed above, combined with an automated licensing system and an electronic system.

Section 1204 of the DMCA sets forth provisions against parties who tamper with security technology, which is a criminal offense. Persons who intentionally tamper with security technology and a fine of US$500.00 or imprisonment for 5 (five) years for the first offense, and a fine of US$1,000,000 or imprisonment for 10 years for subsequent offenses. Exceptions apply if the purpose is for non-profit libraries, archives, and educational institutions, which are exempt from all criminal and civil liability.

Conclusions and Recommendations

The development of science and technology has brought many changes. One is Internet technology that affects the digital realm. Digital developments began to change human behavior into a creation. The creation that was once in traditional form can now be converted into digital form. A digital copyrighted work can use the Internet for easy publication and distribution. But behind the convenience provided is a negative effect, which is to make it easier and more massive for digital copyrighted works to be infringed by those not entitled to do so. To overcome this, the law must work with technology. In this case security technology. In the course of its development, WIPO issued two international conventions, hereinafter referred to as the WIPO Internet Treaties, which contain provisions - the provisions of copyright protection in the digital realm. Indonesia has also incorporated security technology regulations into its intellectual property laws. Indonesia's copyright law, namely Law No. 28 of 2014 on Copyright, has some provisions on security technology, the protection of which includes the protection of moral rights and economic rights.

References


