TECHNICAL SECURITY IN ITE LAW AND COPYRIGHTS OF DEVICES AND SYSTEMS

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Abstract
Copyright is the creator's or recipient's exclusive right to publish or reproduce his work, or to grant permission to do so, without reducing the restrictions imposed by applicable laws and regulations. This research aims to determine how the legal protection of creators for the use of illegal software is based on the Copyrights Law No. 19 of 2002. The study employs normative law research methods, as well as secondary data obtained through library research. According to the findings, product piracy costs the creator both financially and morally, as well as having an economic impact on the country. Aside from that, using pirated software raises a fatal risk because malware/viruses can easily infiltrate software, opening the way for cyber-attacks. As a consequence, it is recommended that legal proprietary software be used for work, learning, or other software-related activities. If people are unable to obtain legal software due to a lack of resources, they should consider other options, such as open-source software that is available for free. Furthermore, proprietary software (closed) vendors must be able to offer reasonable prices. If a person or company infringes on another's copyright, they could face criminal charges or civil lawsuits.

Keywords: Intellectual Property Rights, Copyright, Illegal Software, Open-Source Software

1. INTRODUCTION
The era of globalization that has developed rapidly has been able to bring changes in various fields of human life. Including the development of information and communication technology which plays an important role in development. In other words, globalization has brought about major changes to human life.

It is undeniable that the rapid growth of information technology is one of the main causes of the era of globalization, where this phenomenon is faster than all parties believe. The implementation of the internet, electronic commerce (e-commerce), electronic data exchange, virtual offices, telemedicine, intranets, and other technologies has exceeded the reach of the country. The convergence of computer and telecommunications technology has resulted in a revolution in the field of information systems. Data or information that used to take days to process before being sent to other parts of the world can now be processed in seconds.

Because of the sophistication of computer technology in the twenty-first century, it is very useful for human life. The advantages of computers in terms of speed and accuracy in completing work can reduce the amount of labor, costs, and the possibility of errors, which in turn makes humans more dependent on computers as a result of these advantages.

Information and communication technology is currently leading to things that make it easier for humans to create, develop, and use technology. One of them is the extremely rapid
development of internet media, to the point where the internet's existence is now considered one of the necessities. Information technology is a physical manifestation of humans' desire to find ways to make work easier for them. A technique or method using electronic tools is produced as a result of an action with various studies and experiments to process the information obtained.

Information technology is a term used to describe items of equipment (hardware) and computer programs (software) that enable us to access, store, organize, manipulate, and present information by electronic means, where the current development of computers, both hardware and software, has experienced significant developments where these developments are the demands of the increasingly complex needs of computer users in order to create efficiency and effectiveness in using these technologies. Thus, the rapid advancement of information technology has created the globalization of Intellectual Property Rights. Intellectual Property Rights (IPR) are exclusive rights granted by a law or regulation to a person or group of people for their copyrighted works. The implementation of intellectual property rights itself aims to anticipate the possibility of violating intellectual property rights against other parties, increasing competition and market share in the commercialization of intellectual property (Praja, 2021).

However, along with the complexity and high competition in the business world, it will tend to have the potential to cause conflicts or disputes by certain parties (Mahfuz, 2020). Therefore, the need to protect goods or services from possible counterfeiting or unfair competition, requires IPR on the product in question (Brasil et al., 1999). Based on Law Number 19 of 2002 concerning Copyright, Article 1 paragraph (1) states that: "Copyright is an exclusive right for the creator or recipient of the right to publish or reproduce his creation or give permission for it without reducing the restrictions according to the current regulation".

Meanwhile, the Computer Program according to Law No. 19 of 2002 concerning Copyright Article 1 paragraph (8) is: "A set of instructions embodied in the form of language, code, scheme, or other form, which when combined with media that can be read by a computer will be able to make the computer work to perform functions or to achieve specific results, including preparation in designing these instructions".

Furthermore, information technology refers to the hardware and software that allow us to use electronic devices to access, store, organize, manipulate, and present data. Through the use of appropriate software, this computer can assist humans in their work. As a direct consequence, the sophistication of computer technology is determined by the software used. As a matter of fact, any information obtained by humans can be processed using information technology to add value, particularly in terms of human benefits (Sumarwiyah & Zamroni, 2017).

In Indonesia, the level of software piracy is very high. According to the Software Alliance or BSA (The Software Alliance) stated that data in 2017 showed that 83% of software in Indonesia was pirated. The report also shows that Indonesia is the highest user of pirated software in the Asia Pacific region (Omaryhara, 2019). The motives behind the use of pirated software are various, ranging from not knowing, expensive license prices, the possibility of a small penalty, getting money from these activities to joining friends or other people doing the same thing.
Taking into consideration to the high level of piracy, it is unquestionably a source of financial and moral loss for its creators. Furthermore, it is detrimental to the Indonesian economy because pirated goods are not subject to sales tax, which is a major source of revenue. The large number of pirated goods not only has a negative impact on the Indonesian economy, but it also results in significant losses for the creators of these goods. In addition to not receiving economic benefits, the creators will be unable to fully appreciate the results of their efforts. This will also have an impact on the creator's proclivity to create in accordance with his or her talents and abilities.

In Indonesia, piracy occurs not only for software products, but also for music (songs), movies (videos), books, electronic goods, branded clothing products (fashion), and others. In this particular instance, the author will only highlight the issue of software piracy. Based on the description contained in the background of the problem above, this study aims to find out how the legal protection for creators for the use of illegal software based on Law Number 19 of 2002 concerning Copyrights is.

2. RESEARCH METHOD

The research uses normative law research methods, which is research that uses secondary data in the form of library research. According to Soekanto (2007), “legal research is carried out by examining library materials or secondary data alone, it can be called normative law research or library research (in addition to sociological or empirical legal research which mainly examines primary data)”. Normative legal research which includes:

a) Research on legal principles.
b) Research on legal systematics.
c) Research on the level of synchronization and horizontal.
d) Comparative law.
e) Legal history (Soekanto, 2007).

Meanwhile, in this research, the researcher focuses on legal principles, and is supported by various legal materials such as:

a) Primary legal materials consist of materials that have binding legal force, namely:
   Law Number 19 of 2002 concerning Copyright.
b) Secondary legal materials, namely materials that are closely related to primary law, namely: opinions of scholars, and books related to the problem under study
c) Tertiary legal materials are materials that provide instructions for primary and secondary legal materials, such as dictionaries and encyclopedias (Sunggono, 2007).

3. RESULT AND DISCUSSION

3.1. Definition of Copyright and Copyright Regulations in Indonesia

Based on Article 12 of Law Number 19 of 2002 concerning Copyright, a creation is the result of every work of an author that shows authenticity in the fields of science, art, or literature. Some of the protected works can be books, computer programs, pamphlets, written works, speeches, and other similar works. Based on Article 1 of Law Number 19 of 2002, the Creator is a person or several people who jointly with their inspiration give birth to a
creation based on the ability of the mind, imagination, dexterity, skill or expertise as outlined in a distinctive and personal form.

Copyright was first proposed by St. Moh. Syah in 1951 in Bandung at the cultural congress (which was later accepted by the congress) as a substitute for the term Author Rights which was considered to be less broad in its meaning. The term Author Rights itself is a translation of the Dutch language *Auteursrecht* (Naning, 1997).

Meanwhile, Copyright according to Auteurswet 1912 and the Universal Copyright Convention. According to *Auteurswet* 1912 Article 1 states: "Copyright is the sole right of the creator, or the right of the person who gets the right, on his creations in the fields of literature, knowledge and art, to publish and reproduce them keeping in mind the restrictions determined by law" (Naning, 1997).

According to the Universal Copyright Convention, which is an important milestone in the field of copyright law, where this law does not create a new copyright law, but in the context of harmonizing the existing national system, on the basis of simplified reciprocal national treatment. In the Universal Copyright Convention these represent contracts, through copyright plans, between groups of countries until then radically opposed to one another (Dubin, 1954).

According to M. Hutauruk there are 2 (two) important elements contained in the definition of Copyright, namely: (Hutauruk, 1997)

1) Transferable rights, transferred to other parties.
2) Moral rights that under any circumstances and in any way cannot be left from him (announcing his work, setting the title, putting his real name under a pseudonym and maintaining the integrity or integrity of the story).

Hence, every creation of a person or legal entity is protected by law because the creation is attached to Copyright. Every creator or Copyright holder is free to use his Copyright, but the law also stipulates restrictions on the freedom to use Copyright, namely, because the limitations have been determined, the freedom to use Copyright may not violate the restrictions outlined by law (Rosidi, 1984).

3.2. Copyright Holder and Copyright Protection

What is meant by Copyright holder is the creator as the owner of the Copyright or another person who receives the right from the creator, or another person who further receives the rights from the person mentioned above, where this has been confirmed in Article 1 paragraph (4) of the Law. Copyright Law Number 19 of 2002 that the Copyright Holder is the creator as the owner of the Copyright or the party receiving the right from the Author, or another party receiving further rights from the party receiving the right.

However, if it is related to Copyright, then the subject is as referred to in Article 3 of the Copyright Law Copyright is the right holder, namely the creator or person or legal entity who legally obtains the right to it. Namely by way of inheritance, grants, wills, made state property or by agreement, while the object is the object which in this case is Copyright, as an immaterial object.

Furthermore, what is meant by the creator in this case, Articles 5 to 9 of the Copyright Law Number 19 of 2002 provide the following explanation:

a) *Article 5 (1)*
Unless there is evidence to the contrary, the person who is considered as the creator is the person whose name is registered as the creator according to the provisions of Article 29 or if the creation is registered, the person in or in the creation is called or declared as the creator, or the person who in the announcement something created is announced as the creator.

b) Article 5 (2)
If in an unwritten lecture there is no notification of who is the creator, then the person giving the lecture is considered as the creator.

c) Article 6
If a work consists of several separate parts created by two or more people, the person who is considered the creator is the person who leads and supervises the completion of the entire work, or if there is no such person, the person who collects it without prejudice to the respective Copyrights of part of his creation.

d) Article 7
If a creation that is designed by someone, is realized and carried out by another person under the leadership and supervision of the person who designed it, then the creator is the person who designed the creation.

e) Article 8 (1)
If a work is made in an official relationship with another party in the work environment, then the other party for and in his service the work is done is the copyright holder unless there is another agreement between the two parties, without reducing the rights of the creator as the creator if the use of the work is extended outside official relationship.

f) Article 8 (2)
If a work is made in a working relationship with another party in the work environment, then the party who created the copyrighted work as the creator is the copyright holder, unless otherwise agreed between the two parties.

g) Elucidation of Article 8
What is meant by official relationship is the relationship between civil servants and their agencies, while what is meant by working relationship is the relationship between employees and employers in private institutions.

h) Article 9
If a legal entity announces that a creation originates from it by not naming a person as the creator, then the legal entity is considered as the creator, unless proven otherwise.

Because the definition of copyright infringement is not explicitly explained in Law no. 19 of 2002 concerning Copyright, however, copyright infringement can be explained with the following meanings (Hozumi, 2006): “Copyright infringement refers to actions that violate copyright, such as using copyright, which is the creator's personal right, without permission, and registering copyright by people who are not copyright holders. Stealing other people's property earned through hard work, or taking and using it without permission, is a serious offense. Everyone understands that stealing another person's property is wrong. However, in the case of intangibles such as copyrights, where people do not even tend to feel guilty about stealing them”.

According to J.C.T. Simorangkir, that the term can be used as state property used by the Copyright Law, this means that the transfer of rights to the state is only a possibility
It is not a specialty and for that, several conditions must be met, namely:

a) In the interest of the state;
b) With the knowledge of the author;
c) By Presidential Decree;
d) On the basis of the consideration of the Copyright Council; and
e) Copyright holders are rewarded with awards determined by the President.

Furthermore, by making a copyright a work becomes the property of the state after fulfilling all these requirements (Simorangkir, 1997). Likewise, for the Copyright, if the word approval is used, the creator will complicate matters if it turns out that the author does not give consent. Therefore, the law has set certain conditions, for example on the basis of the consideration of the National Copyright Council as the creator's representative.

3.3. Registration System and Term of Copyright Ownership

One of the differences that are considered quite important between Auteurswet and Law Number 19 of 2002 is regarding Copyright Registration. Auteurswet 1912 does not provide any provisions regarding this Copyright registration. According to KolIewijn as quoted by Widya Pramono, there are 2 (two) types of registration or registration systems, namely constitutive systems and declarative systems. this Copyright registration (Pramono, 1992).

According to KolIewijn as quoted by Widya Pramono, there are 2 (two) types of registration or registration systems, namely constitutive stelsel and declarative stelsel. Constitutive stelsel is the right to a new creation published because of a registration that already has legal force. Stelsel declarative that registration does not issue rights, but only provides an assumption or prejudice that according to the law the person whose creation is registered is the one who has the right to his creation. In the constitutive system, the emphasis is on obtaining the right to a work in its registration, while in the declarative system the emphasis is placed on the notion of being the creator of the registered right, so that other people can prove otherwise.

3.4. Legal Consequences for Using Illegal Software

The legal basis for Intellectual Property Rights in Indonesia is regulated by Copyright Law Number 19 of 2003, this Copyright Law protects, among others, the copyright of computer programs or software, manuals on the use of computer programs or software and books (a type of computer software) or others. If a person or company commits an infringement of another person's copyright, that person or company may be subject to criminal charges or civil lawsuits. Thus, the perpetrator will be charged with Article 72 of Law Number 19 of 2002 concerning Copyright, namely in Paragraphs (1,2,3,4,5,6,7).

3.5. Factors that lead to the spread of illegal software

The following are ways or modes of using software that are often carried out illegally, including:

a. Hard disk loading
Is a type of software piracy classified as hard disk loading, which is software piracy that is usually carried out by computer sellers who do not have a license for the computers they sell, but the software is installed on computers purchased by customers as a "bonus".

b. Under Licensing
The type of software piracy that is classified as Under Licensing is software piracy which is usually carried out by companies that register licenses for a certain number of times, but in fact the software is installed for a different amount from the license it has (usually installed more than the number of licenses issued) owned by the company.

c. Counterfeiting
The type of software piracy that is classified as counterfeiting is the use of illegal software which is usually carried out by companies making illegal software by falsifying product packaging which is made in such a way that resembles the original product.

d. Mischanneling
The type of software use classified as mischanneling is the use of illegal software which is usually carried out by an institution/institution that sells its products to other institutions/institutions at a relatively cheaper price, with the hope that the institution will get more profit (revenue) from the sale of the software.

e. End User Copying
Types of illegal software use classified as End user copying are the use of software that is usually carried out by a person or institution that has 1 (one) license for a software product, but the software is installed on a number of computers.

f. Internet or BBs
In this type of software use is mostly done by using internet media or Bulletin Boards, a mailing list to sell or disseminate unofficial (pirated) products (Wahyudi, n.d.).

3.6. Strategies to minimize the use of illegal software
Reports from the Business Software Alliance show that there are still many people who use pirated software around the world, including Indonesia. The value of this software piracy even reaches trillions of rupiah. The report states that the circulation of pirated software in Indonesia has reached 1.1 billion United States (US) dollars or the equivalent of Rp. 14.4 trillion. The circulation of pirated software reaches 84 percent of the circulating software (Widiartanto, 2016).

Judging from this data, we can conclude that the level of illegal software piracy is still very high in Indonesia. In fact, the high use of illegal software will gradually kill the creativity of the Indonesian people, because they will only become instant users of proprietary (closed) software products without wanting to tamper with the process.

Utilizing pirated software carries a fatal risk. At least, the Business Software Alliance asserts, pirated software is highly susceptible to infiltration by malicious programs or malware/virus. This is important to realize, especially if the user of pirated software is a company. The reason for this is that infiltrating malware equates to the possibility of cyber-attacks occurring. The effect is unquestionably detrimental, both materially and in terms of company image.

In fact, we can avoid the use of illegal software by switching to the use of open-source software. As stated by Brazilian President Luiz Inacio Lula da Silva where he declared his country to use open-source software in order to save the use of state money (Kompasiana,
2015). Another advantage of using open-source software is that it trains us to become programmers, because it is open-source software, the source code is open and free to modify, and develop. Using Open Office 3 software creates a sense of security for the author, because we get it legally, because this software is free and open and can be used for free. As known, Proprietary (closed) software gets legal protection in Indonesia which according to Copyright Law No. 19 of 2002 Article 30 it is stated that: "Copyrights on Software creations (Computer Programs) get protection for 50 years from the time they were first announced" This means, if we use pirated software within the 50-year protection period, then we can be subject to a criminal act which according to Chapter XIII on Criminal Provisions Article 72: (3) says: "Anyone who intentionally and without rights reproduces the use for commercial purposes of a computer program is punished with imprisonment for a maximum of 5 (five) years and/or a maximum fine of Rp. 500,000,000.00 (five hundred million rupiah).

As a matter of fact, it is recommended that legal proprietary software be used for work, education, and other fields that require software. However, if several restrictions prevent obtaining legal software, it is recommended to use other alternatives, in this case, free open-source software. Additionally, vendors of proprietary (closed) software must be able to offer affordable prices, particularly in developing countries such as Indonesia, by providing subsidies and licenses for the use of multiple computers, allowing people to purchase legal proprietary software. Licensing the use of multiple computers will almost certainly result in an increase in the sales of proprietary software, particularly in the education, health, and social sectors. Because, as stated in Article 15 of Law No. 19 of 2002, point g, "the creation of backup copies of a computer program by the owner of the computer program (not the copyright holder) for his personal use is not considered a copyright infringement." Consequently, the law retains the right of the original software purchaser to back up the original software for backup purposes, as long as the backup is not for re-commercialization. Ipso facto, if the law allows for this flexibility, it is time for vendors of proprietary software to offer license sales for the use of more than one computer at an affordable price, increasing sales and allowing the general public to purchase it. This strategy is directed solidly at the sectors of education, health, and social services (Kompasiana, 2015).

4. CONCLUSION

Based on the findings, it can be concluded that piracy by a person or company commits an infringement of another person's copyright, so that person or company can be subject to criminal charges or civil lawsuits. As described in CHAPTER XIII Concerning Criminal Provisions Article 72: (3) states: “Whoever intentionally and without rights reproduces the use for commercial purposes of a computer program is sentenced to a maximum imprisonment of 5 (five) years and/or a maximum fine of Rp. 500,000,000.00 (five hundred million rupiah).

Product piracy definitely results in material and moral losses for its creators and has a negative effect on the economy of the country. Additionally, using pirated software has a fatal risk in which malware/viruses can easily infiltrate the software, allowing for cyber-attacks to occur. As a necessary consequence, it is recommended to use only legal proprietary software for work, education, and other fields that require software. However, if people encounter difficulties obtaining legal software, it is recommended to consider other options,
such as free open-source software. Meanwhile, vendors of proprietary software (closed) must be able to provide affordable prices.

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