

Software Copyright and the Electronic Security System: Specific Issues Implementing Software Checker for Legal Writing

Ni Ketut Supasti Dharmawan¹, I Nyoman Suyatna², I Gusti Ngurah Wairocana³

Faculty of Law, Udayana University, Bali,
INDONESIA.

¹arasswk@yahoo.com, ²nyoman_doblar@yahoo.com, ³wairocanangurah@yahoo.co.id

ABSTRACT

Under TRIPs Agreement, computer program or software is protected through copyright regime. Indonesia as a member of TRIPs also protects software through the Act No. 19 of 2002 concerning Copyright. Regarding the rapid development of software especially the growth of electronic security system and communication, in Indonesia, there are some laws such as the Act No. 11 of 2008 and the Government Regulation No. 82 of 2012 that related with advanced electronic communication and information technology also stipulate the software particularly related with the electronic security system. In relation to the advance development of security system software, currently, it is used to detect similarities on academic writing. Using such electronic security system to protect copyright is very useful for the copyright owner. However, implementing the software checker to detect level of the similarities on legal writing it is still challenging for authors because when writing legal issues somehow the authors need to write the full texts of some regulations or acts. Therefore determining the level of similarities as a copyright infringement by using software checker without considering originality test based on copyright concept seems not fair. It is because the concepts of plagiarism in the level amount of similarities and the copyright infringement both have similarities and differences.

Keywords: Copyright protection, electronic security system, software checker, legal writing

INTRODUCTION

The development of software and electronic system undoubtedly bring positive impact for the people entire the world. It seems can simplify all people (e.g. governments, corporations, consumers, academicians, etc) and they can take benefit from the advance software along with its information technology and communication. By using the rapid development of software many difficult job become easier such as we can employ it to support our academic work or business work. Simply speaking, it is very useful for all aspects of people need. As a fruit labour of intellectual creation, software or also known as computer program has been protected under Copyright Law regime. In the international for a, based on Article 10 TRIPs, computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention 1971 (F. Scott Kieff and Ralph Nack, 2008, p.54). Although software has already emerged with its utility supporting various areas of people job, it remains massive infringement of copyright because of the growth of global software related information technology. By using electronic network, it tends that software used and exploited for commercial purposes without permission of the author. Facing such

phenomena, of course we can consider that the law have important role to protect various areas of copyright works including Software from the infringement. Currently, the law needed not only to be debated whether software protected under Copyright regime or in its development regulated through Paten law regime. At the beginning of development Software in 1970s, America protected Software through the Copyright Law, such policy was initiated by the National Commission on New Technological Uses of Copyrighted Works (CONTU) to the US Congress on software protection, and then 1990s taking into account the strong protection of software inventions provided by *Apple Computer v. Franklin Computer*, in America started exist the new era of Software protection through Patent regime (<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.87.6776&rep=rep1&type=pdf>, p. 7-5-7.9). However, currently, more importantly taking into account the rapid growth of high technology communication it seems more comprehensive legal norms needed including law governing the security system of the software work. Therefore, the topic *Copyright Aspect of Software and the Security of Electronic System* becomes important to be discussed, particularly the readiness of Indonesia in its relationship among other states in the words both for public and trade or commerce affairs, especially in regulating the software with the development of its electronic security system.

Another important issue which is appropriate to be discussed in this paper is the emergence of phenomena in Indonesia concerning the use of such software tool to detect level plagiarism for academic writing. It is indeed that the security of electronic system as part of software creation mind becomes important and needed to protect copyright creation work, however, by using software tool with the result quantitatively to examine academic paper work to consider whether have occurred plagiarism or infringement of copyright, it looks not appropriate with the originality concept within copyright law that required qualitatively. Moreover, when the software tool is used to examine academic legal writing, more specifically the type of legal norms review, without doubt the software tool will report similarity XXXX % have occurred and will be considered as plagiarism. Therefore, this is a crucial issue and need to be discussed deeply.

As mentioned above, therefore this paper will first explore the development of legal protection of software related with its security and electronic system, and second, the appropriateness of software tool to examine plagiarism from perspective of copyright law regime.

LEGAL PROTECTION OF SOFTWARE AS A COPYRIGHT RELATED TO THE RAPID DEVELOPMENT OF ELECTRONIC SYSTEM

TRIPs Agreement clearly stipulates that the software is considered as a Copyright. Article 10.1 provides that computer programs whether in source or object code, shall be protected as literary works under the Berne Convention (1971). Computer Program is anything in, or converted into, digital form which is generated, stored (whether or not transiently), copied, modified, accessed or transmitted electronically. Computer software covers a vast range of works, materials, information, data and other matter. Therefore, the term can be applied to anything in a digital form, whether or not available in other formats (David Bainbridge, 2008, p.1). This provision confirms that computer programs must be protected under copyright and that those provisions of the Berne Convention that apply to literary works shall be applied

also to them (http://www.wto.org/english/tratop_e/trips_e/intel2_e.htm). With regard to the TRIPs Agreement and the obligations of Indonesia as a member of the WTO-TRIPS Agreement, Indonesia has protected software based on the Law No. 19 of 2002 concerning Copyright.

The protections of software or in the Indonesian Copyright Act known as Computer Programs are governed by Article 1 paragraph 8, Article 12 paragraph (1) a, Article 15 e, Article 15 g, Article 30 paragraph (1) a, Article 72 paragraph (3) of the Copyright Act. Those provisions in principle regulate concerning: definitions of Computer Program, term of protection for a period of 50 years from the making of the work, more exclusive protection upon Computer Program work compared than other copyright works, and the criminal sanction is imprisonment maximum 5 years and / or maximum fine of Rp. 500,000,000 (five hundred million rupiah). Pursuant to Article 1 Paragraph 8 of Law No. 19 of 2002, computer program is a set of instructions expressed in a language, code, schematics, or other form, which when combined with media that can be read by the computer will be able to make the computer work to perform specific functions or to achieve specific results, including the preparation in designing such instructions.

Related to the security of electronic system for software, actually Indonesian Copyright Law has already regulated about it although it is still very general and the term security system stipulated as "technology control facility". Pursuant to provision of Article 27 Act No. 19 of 2002, it stipulated that without the author permission, technology control facility is not allowed to be destroyed, removed, or made it unable to function. Article 27 also emphasizes that the technology control facility is the technology instrument in the form of, secret codes, passwords, bar code, serial number, decryption and encryption which is used to protect the works. Under the provisions of Article 27, it can be argued that the software which is created as a result of human intellectual work intended to protect and secure the works should not be destroyed or made it not function able by using any equipment specifically designed for it. Therefore it can be stated that Indonesia has already participated, harmonized, and provided legal norms for the development of information technology and security systems whether it so called technology control facility or other term in variety constructions of law.

The revolution of human thought based on their intellectual creativity or the fruits of the human mind which lead to the development of information technology and electronic transaction whether for the interest of business, government and academic has been protected through various legal instruments by the states in all over the world. At the beginning software was protected under Copyright Law, then the development of software such as in America also protected under Patent law. Moreover, to cover all aspect of rapid development of software many software company thought that contract law gave them the best protection through license agreements with their clients and customers (See David Bainbridge, p. 8). Some examples of various legal instruments by the states in all over the world are in Australia the electronic transaction governed by the Electronic Transactions Act 1999, the European Union govern it through the Electronic Signature Directive (1999/93/EC), America govern based on US Digital Signature And Electronic Authentication Law, U.S. Electronic Signatures in Global and National Commerce Act, U.S. Government paperwork Elimination Act (GPEA), U.S. the Uniform Commercial Code (UCC), and the U.S. Uniform Electronic Transactions Act, further more the UK govern under Electronic Communications

Act 2000, Singapore has enacted the Singapore Electronic Transactions Act, and Malaysia has Computer Crimes Act Malaysia, Malaysian Digital Signature Act, and of course in the international level the existence of UNCITRAL Model Law on Electronic Commerce play important role.

Software protection and the development of information technology as well as electronic transaction in Indonesia further regulated by Law No. 11 of 2008 concerning Information and Electronic Transactions. To consider software as a form of intellectual creative work covered by the Law No. 11 of 2008 can be observed through the provisions of Article 4 concerning Principles and Objectives. Article 4. d. determines that the use of Information Technology and Electronic Transaction carried out with the aim to open the widest possible opportunity to everyone to promote thinking and capability in the use of and utilization of information technology as optimally and responsibly. Furthermore, concerning the security system in this Act referred to Article 12 paragraph (1) in particular with regard to the information, document and electronic signature explicitly stipulates that any person who is involved in electronic signature shall provide security over electronic signature which is used. Article 12 Paragraph (2) confirms concerning the security of electronic signatures which must include at least:

- a. system cannot be accessed by others who are not entitled to
- b. signatory must apply the precautionary principle to avoid unauthorized use of the data related to the making of electronic signatures
- c. Signatory must, without delay, using the method recommended by the administrators of electronic signature or other means which appropriate and duly shall immediately notify the person that the signatory is considered trust electronic signatures or to the electronic signature service support party if the signatory determines that data creation of his electronic signature is hacked and pose negligible risk
- d. In the event that the Electronic Certificate is used to support the electronic signature, the signatory must ensure the correctness and integrity of all information related to such electronic certificate.

Article 12 Paragraph (3) stipulates that persons who committed a violation of the security system shall be responsible for any losses and legal consequences that arise. The formulation of the provisions of Article 12 Law No. 11 of 2008 implies that in order to secure electronic signature there must be a system that is not accessible, a system essentially is a result of creativity of human thought, a piece of software work, which in this context if destroyed or hacked, the perpetrator shall be responsible for and indemnify. It means it is clear that there is certainty about legal protection for those who produce software works in the form of security system of electronic signatures.

Further regulations can be observed in the provisions of Article 23 to Article 37 of Law No. 11 of 2008 which basically regulate the Domain Name, Intellectual Property Rights and Protection of Personal Rights relating to the protection of software and security of electronic system and electronic transaction systems.

The seriousness of Indonesia in protecting and regulating the development of software and information technology can be seen through the successful issuance of Government

Regulation No. 82 of 2012 concerning the Implementation of System and Electronic Transaction. This new legal norm (Government Regulation No. 82 of 2012) is a Government Regulation that further regulates the implementation of the Act No. 11 of 2008, which explicitly sets the software in the implementation of the electronic system through the provision of Article 4. The detail regulation concerning software in the implementation of the electronic system can be found in Article 7 to Article 9 of Government Regulation No. 82 of 2012. Meanwhile, specific issues for the security of electronic system are set up under Article 12 to Article 29 Government Regulation No. 82 of 2012. Those provisions basically require the administrator of the electronic system to ensure the availability of an electronic system security mechanism related to the information presented in electronic based information system. Presumably by examining those provisions, it seems Indonesia has been already in line and has not left behind the other states in protecting and regulating the development of high technology and its network information through the electronic system.

The security of electronic system related with the protection of copyright can be also studied through the Bill of Indonesian Copyright. The Government considers that the Copyright Act No. 19 of 2002 no longer in line with the growth of electronic system and other aspects of copyright works in global context, and more specifically it cannot cover new development of creation works including security system of software, therefore need to promote and formulate a new legal norms firstly in the form of Bill that intend to improve and harmonize the Copyright Law of 2002, then will becomes a new Indonesian Copyright Act after approved by the legislative. In the new Bill some additional provisions that specifically regulate security of electronic system can be observed through Article 7, 53, 54, and Article 112 Copyright Bill. The security system to protect the creation of intellectual works governed by the provision of Article 53 of the Copyright Bill which in detail stipulates that "Every person is prohibited to destroy, demolish, eliminate, or make it not function able the technology control facility that is used as a protector of the works or a Right product which related to the Copyright and Copyright security, except for the interest of national defense and security, other reasons in accordance with the law provisions, or otherwise agreed". Based on these provisions we can clearly see that there is certainty for copyright protection related to software, even in order to ensure its certainty, such copyright work is protected by high-tech security system, and the bill regulates that it is strictly prohibited to anyone who also has the high-tech ability to damage or hack such security software. For those who destroy electronic information of Copyright intentionally and without right according to Article 112 shall be liable to a sanction which is criminal sanction of imprisonment with a maximal period of 1 year or a maximum fine of five million rupiah. Actually, it seems still lower sanction compare than the damage for copyright owner caused by unlawful action.

The bill of Copyright also constructs new substance so called "Copyright Content and Related Right in the term of information technology and communication". Briefly, under Article 55 until 57 of the Copyright bill stipulated that government authorized to supervise the distribution of copyright infringement by means of information technology. Further, to prevent the dissemination of content copyright infringement by using advanced technology, Government can cooperate with other parties both in home country and overseas. The bill also regulates that if it is proven there is infringement of copyright occurred by using an electronic system, consequently the Minister in charge of telecommunication and informatics has authority to shut down or to make the electronic system services not accessible for the

content of copyright violates. For this action taken, the Minister cannot be sued either in administrative, civil nor criminal sanction. It seems that there is expectation to give a deterrent effect for offenders through this regulation, so then the offender will no more use the electronic facility, to make, to duplicate and to distribute a content which comes from Copyright infringement, because the government through the relevant minister will shut down the system and make such electronic services system inaccessible. Indeed, various legal norms have regulated in Indonesia to protect copyright work including software in the form of security electronic system avoiding unlawful activities of offender, it looks promising and protecting the copyright owner. However, by exploiting software tool as security system to detect plagiarism it remains specific issue to be discussed whether plagiarism similar with copyright infringement and whether the tool harmonizes in regard to the originality test of copyright.

SPECIFIC ISSUE ON COPYRIGHT RELATED TO SOFTWARE AS A CHECKER TESTING SIMILARITIES AND PLAGIARISM FOR LEGAL WRITING

Taking someone else original work without mentioning the source of the work in the sense of academic writing can be considered as plagiarism. Plagiarism is unethical attitude where plagiarists present another original creation works as belonging to their. Therefore, it looks realistic if many academic forums condemn and campaign to prevent further plagiarism by using various strong efforts including software tool to detect plagiarism or to prevent copyright infringement. Actually plagiarism and copyright infringement are two different concepts. However, they have similarities that somehow both of them have a great deal of overlap. Many plagiarisms are copyright infringements. Copying an encyclopedia article without attribution for a book report is an example of both plagiarism and copyright infringement. In this sense, many plagiarisms are actually addressed through the legal framework provided by copyright law (<http://www.plagiarismtoday.com/2013/10/07/difference-copyright-infringement-plagiarism/>)¹.

Plagiarism is worth to be fought because of unethical behavior. However, it seems unfair if detecting someone work especially upon the academic legal writing by using software tool that directly will account the amount similarity word by word quantitatively without consider the requirement originality test of copyright to determine whether such work can be protected as copyright work or not.

In regard to the requirement of originality test, in international scale, more specifically in the World Trade Organization Agreement on Trade-Related Aspect of Intellectual Property have made explicit that the standards set forth in the Berne Convention does not provide for a uniform originality test but refers to the laws as establishment by each country. The threshold of originality refers to skill and taught of the author it somehow reflects the personality of author rather than testing "never having occurred or existed before" would likely something new as in patent protection. In the U.S., there are two elements to be consider that the work is original so called the work independently created by the author (as opposed to copied from other work) and it possesses at least some minimal degree of creativity (<http://softwarefreedom.org/resources/2007/originality-requirements.pdf>). In regard to those requirements, it is also known that effort, skill and labour that the author has invested in the work is the test of originality. If the test is satisfied, there is likely to be a copyright in the

result. Therefore, the expenditure of independent effort, skill and labour by the author is often seen as the essential point of originality (Hector Mac Queen et.al., 2008).

In Indonesia, the term originality for copyright can be studied through Article 1 paragraph 3 that stipulates “work shall mean any result of works of an author, which shows originality in the field of science, arts and literary”. Originality refer to creation work which has distinctive form that is personal and shows authenticity as creatures based on the ability of a person’s creativity or skill (Rachmadi Usman, 2003). Further argument for originality is a work must be original work where the person concerned must acknowledge the work as his creation, he has established the knowledge, skill, and judgment in the process of creation, it was considered sufficient to meet the nature of originality in order to obtain copyright protection (Tim Lindsey et.al., 2011). Beside testing originality, the Indonesian Copyright Law also regulate some exceptions under Article 15, one of them is with regard to condition that the source must be mentioned is not considered copyright infringement use other creation works for educational purposes, research, writing academic paper, critical report without harming the interest of the creator. Based on that provision, it can be considered that someone who has cited the source is not infringed the copyright as long as the work created independently and with original creative skill and effort. In practice, it may the author refer to someone else work and she or he has already cited the source, or for academic legal review the author need to present the text of such provision exactly like as it in the provision to emphasize the precise meaning. For those examples, it seems to be covered by originality concept of copyright. Therefore, the independent and new copyright will exist. Nevertheless, for the same example the new era of software tool in global context will account word or such provisions quantitatively and it will be considered directly has occurred copyright infringement or plagiarism when the level of similarity up to XX %. It is likely not in line with the notion of originality within the copyright protection.

CONCLUSION

The protection of software or computer program under TRIPs Agreement is protected through copyright regime. As a member of WTO- TRIPs Agreement, Indonesia also comply protects Computer Program based on the Act No. 19 of 2002 concerning Copyright. In regard the rapid development of software especially the growth of electronic security system and communication, there are needed more comprehensive legal norm to protect software not only covered by copyright law but also by patent law and other form of sui generis law. As in Indonesia currently some laws related with advanced electronic communication and information technology namely: the Act No. 11 of 2008, the Government Regulation No. 82 of 2012, the Indonesian Copyright Bill, etc.

Currently, the appropriate protection for software as a fruits of human mind especially in regard to the rapid development of security of electronic system, it seems promising and protecting the copyright owner. However, the use of software tool as security of electronic system to detect level of plagiarism quantitatively someone work by ignoring originality test based on copyright concept, it looks unfair for the them who already cited the sources more importantly the text of legal instruments but they considered as plagiarist because of similarity. It challenges how to harmonize between plagiarism and copyright infringement since the two concepts have differences and also similarity.

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