



## **Piracy as a Violation of the Ethics of the Informatics Engineering Profession**

**Deni<sup>1</sup>, Misnen<sup>2</sup>**

<sup>1,2</sup> University of Muhammadiyah Cirebon, West Java,, Indonesia

**Corresponding Author** : deni@umc.ac.id

**Abstract.** The development of information technology is high-speed. The high price of original software makes people tend to use pirated products. Viewed from the ethical side of the information technology profession, piracy is inappropriate because it violates the inventor's intellectual property rights. This article is the result of thinking to analyze the extent of software piracy. Copyright problems in software, software piracy terms, causes of software piracy, the role of software, and solutions to overcome software piracy cases. Be able to know about software copyright. As a result of this research, we can find out where the crucial points violate software piracy, the motives that exist in the case of software piracy, and the role that exists in terms of software.

**Keywords:** piracy, software, copyright, violation, ethics

---

### **INTRODUCTION**

Software, VCD/DVD songs, movies, MP3s, books, etc., are readily available, and the sellers often operate with impunity. In this context, I will address the issue of software piracy, which has unfortunately become a common practice in our country, often without any sense of guilt. This is primarily due to the lack of public awareness about the value of rights and intellectual property inherent in every software. Additionally, the high prices of proprietary software are often beyond the reach of most users in Indonesia. It's not uncommon to find software or collections being sold at prices ranging from five to several tens of thousands of rupiah in computer stores or accessories.

The issue of pirated software is not just a problem for the general public, but it also affects corporations, governments, and even law enforcers, who are not entirely free from the use of pirated software. The process of eradicating this issue is not a simple task and is likely to encounter numerous obstacles, further underscoring the complexity of the problem.

## **METHOD**

The method used in writing this idea is a *Systematic literature review*, usually abbreviated as *SLR*, which aims to systematically collect and then critically analyze by presenting data and findings from various other types of research. Making a literature review using the *systematic literature review* method is usually done sequentially or systematically. In other words, literature reviews start with the most basic things and then work on complex things. The stages that need to be passed by this method can be said to be quite long. However, the resulting literature review will be more detailed, accurate, and complex. Therefore, the author can obtain a sharper and higher-quality theoretical foundation when conducting a literature review using this method. It also uses methods to create literature reviews by researchers. The results of the traditional review method commonly used for literature reviews are often found in survey papers. Therefore, the literature reviews produced through this method focus on only one topic. In addition, the selected paper is known to the creator in advance. With this method, the paper used as a reference is still in the same topic of discussion as the research being conducted. This method can make literature review more memorable, but the papers that can be used as a reference are limited. It is possible that data or sources that can be used can be obtained from different discussion topics. Not only limited in data and sources but traditional review methods are also limited in terms of insight and level of understanding by researchers. In other words, the broader the researcher's insight, the more written works or literature the researcher has read, researched, or analyzed.

## **DISCUSSION**

### **Copyright Software**

Software copyright is the ownership or protection of an intellectual property (a product produced from someone's creativity that has a selling value. Usually, that protection is not only legal protection. Why is it said so? Because the copyright is regulated by laws or government regulations. The protection of intellectual property is to protect the results of a person's creativity. For example, if we buy a novel, we buy only the physical book but not the idea of the story, the presentation, or the work of the work. We can sell the book or give the book to someone else. But it is not possible to double and sell.

Copyright is the right granted to the owner of the original work that is protected by

law after the work has been created or created. In Indonesia, copyright is described as the right granted to the creator of a work to control the use of his or her creation. Copyright gives the owner the right to make copies of his creations, disseminate his creations, display his creations in public, and sell his creations so that they can be consumed by others.

The law on copyright regulation is contained in Law Number 19 of 2002 concerning copyright. Works that are biased to get copyright, according to the law, also have various types and forms. Computer programs, lectures, pamphlets, dances, songs, translations, and maps are just a few examples of the types of creations that a person is protected from. All copyrighted works may not be reproduced without the permission of the owner who has the copyright authority of the work.

The problems that arise in connection with the existence of copy rights are very rampant lately. This is due to the increasing number of internet networks and computer networks. The ability of computers to duplicate and print, coupled with the ability of the internet to provide information, makes the duplication process easier. The factors that cause the rise of duplication are formats such as MP3 can be reproduced and stored in a small size; changing the format from non-digital to digital is very easy, and with the existence of scanners, the price of information storage devices in digital form is relatively low. There is an ease in retrieving material from the internet.

For example, in the software and hardware industry, the method is carried out in the following way: the software buyer must install a piece of hardware on the computer to run the software and ensure that the software he buys is run on only one machine, install copy protection on the diskette so that the software cannot be copied, Watermarking inserts a watermark on multimedia intellectual property. Illegal software piracy is widely carried out in Indonesia, both in small and large companies. In the new copyright law, the perpetrators of software piracy can be subject to a maximum penalty of 5 years in prison or a fine of Rp. 500 million. To avoid this piracy crime, public awareness of copyright law is needed.

### **Software piracy**

Software piracy, better known as software in Indonesia, is currently very concerning. With ease of use, software can be obtained today. We are starting from being sold openly in shopping centers (malls), computer sales centers, and the internet to street vendors on the side of the road. As an Indonesian nation, we are ashamed of the

predicate held by this nation, where our country is included as one of the countries with a bad predicate related to software piracy. To the point that sometimes new software has not been officially launched in its home country, but in our country, the pirated version (full version) has been circulated. It can be purchased at a relatively cheap price, which is between Rp. 20,000 to Rp. 25,000 per CD.

Of the 108 countries surveyed by International Data Corp (IDC), there are 67 countries whose piracy rate has decreased in the range of 1-7 percent. The sharpest decline was achieved by Russia, while 11 other countries saw their piracy rates rise. The rest were recorded as unchanged (the percentage remained unchanged). The average rate of piracy globally increased to 38% in 2007, while in 2006 it was only 35%. Likewise, the value of losses globally increased from US\$ 40 billion in 2006 to US\$ 48 billion in 2007. Armenia is sovereign as the country with the most considerable piracy rate, with a percentage of 93%, followed by Armenia, Bangladesh, and Azerbaijan, with a percentage of 92%. On the other hand, the superpower of the United States (US) is recorded as the country with the lowest piracy rate with a percentage of 20%. The five largest hijacker countries are Armenia (93%), Bangladesh (92%), Azerbaijan (92%), Moldova (92%), and Zimbabwe (91%). The lowest hijacker countries are the United States (20%), Luxemburg (21%), New Zealand (22%), Japan (23%), and Austria (25%). Indonesia is ranked 12th out of 108 countries in the results of an international study of company data on software piracy in the world. "This 12th position shows that software piracy in Indonesia has decreased by one percent," Previously, Indonesia occupied the eighth position, meaning that Indonesia is one of the world's top 10 software pirate countries. The decline in the rate of software piracy in Indonesia in 2007 has at least increased the confidence of foreign investors to reinvest their capital in Indonesia. "Previously, the losses due to piracy in Indonesia reached US\$ 411 million. Because in 2007, 84 percent of software in Indonesia was pirated," Meanwhile, Deputy U.S. Ambassador John A. Heffern, in his speech, stated that at the global level, losses due to piracy reached US\$ 500 billion. "In the software sector, losses due to piracy reach hundreds of millions of dollars." He also emphasized that the piracy of intellectual property rights in any field severely impacts the investment climate, economy, and industry.

## **Types of software piracy**

### **Hardisk Loading**

The type of software piracy classified as Hard Disk Loading is software piracy that is usually carried out by computer sellers who do not have a license for the computer they sell. Still, the software is installed on the computer purchased by the customer as a "bonus". This is often the case with computer devices sold separately from the software (especially for the operating system). This is generally done by assembled computer sellers or "clone computers."

### **Under Licensing**

The type of software piracy classified as Under Licensing is software piracy that is usually carried out by companies that register licenses for a certain amount. Still, in fact, the software is installed for a different number of licenses than the license it has (it can be installed for more than the number of licenses owned by the company). For example, an oil company named "PT. The "Petroleum Company" purchased the license for AutoCAD products from Autodesk. The company purchased AutoCAD product licenses for 25 computers that use AutoCAD software as an application used to handle work needs in the petroleum field. In fact, "PT. The "Petroleum Company" has more than 25 computer units that use AutoCAD software; for example, there are 40 computer units. "PT. The "Petroleum Company" has committed copyright infringement (software piracy) under the licensing category for 15 units of computers used, namely by using AutoCAD software without the original license from AutoDesk.

### **Counterfeiting**

Software piracy, classified as Counterfeiting, is usually carried out by companies that make pirated software by forging product packaging that is very similar to the original product, such as CD Installer, ManualBook, Box (Packaging), etc.

### **Mischanneling**

The type of software piracy classified as Mischanneling is software piracy that is usually carried out by an institution that sells its products to other institutions at a relatively lower price, hoping that the institution will get more profit (revenue) from the proceeds of selling the software. For example, for example, BSI Campus, in collaboration with Microsoft Indonesia purchased Microsoft product licenses (For example: Microsoft Windows Server 2003 = 10 Licenses, Microsoft Windows XP Professional = 100

Licenses, and Microsoft Office 2003 Enterprise Editions = 100 Licenses). Because the Bina Sarana Informatics Campus is one of the educational institutions (campuses), the Bina Sarana Informatics Campus gets a special price from Microsoft Indonesia for the purchase of a license (Academic License) or it can be called a Microsoft Volume License (MVL). Let's say that for the purchase of a license for Microsoft Windows XP Professional products, the Bina Sarana Informatics Campus only pays \$ 2 per license. Then to make a profit, through the student cooperative or its employee cooperative, the BSI Campus sells to a Professional WindowsXP software company along with the license to another company. Let's call the company "PT. Other companies". The BSI Campus sells the software for \$5 / License. Officially, if the "PT. Other Companies" to purchase one license of Microsoft Windows XP Professional software product must pay \$8/License

### **End user copying**

End-user copying is a type of software piracy classified as end-user copying. It is usually carried out by a person or institution that has 1 (one) license for a software product but installs the software on several computers.

### **Internet**

Many types of software piracy are carried out by using internet media to sell or disseminate unofficial products (pirated), such as software, songs (music), movies (videos), books, etc., to make a profit (business).

### **Causes of Software Piracy**

We cannot deny that living in the era of globalization with modern and all-digital life; we cannot be separated from modern technological tools, such as computers. Computers in this contemporary era have essential roles in helping our daily activities in completing tasks made using digital technology. In our country, Indonesia, there are a lot of computer users, such as students, office workers, and even housewives, who cannot be separated from computers. In carrying out their roles, computers need software devices (software) to be run by their users; what is software? Definition: Computer software is a set of electronic data that is stored and managed by a computer; electronic data stored by the computer can be in the form of a program or instruction that will execute a command. It is through this software that a computer can execute a command.

### **The role of software**

It is significant for computer users; software in our country varies, from the original to the fake, from the paid to the free; a variety of options are given to computer

users to choose which one they want freely, but we also cannot deny that what is real is usually identical to a high price. In contrast, the fake is undoubtedly the opposite of the original in terms of a lower price. There are free things why that have to be paid for, and those are the opinions that often appear in our society, of course we can know that the fake ones certainly have elements of plagiarism from the original or usually called piracy. What is piracy according to BSA (Business Software Alliance) Software piracy is the unauthorized copying or distribution of software that is protected by law. This can be done by copying, downloading, sharing, selling, or installing multiple copies to a computer. Piracy is no longer taboo for computer users in our country; because of the many requests for software, there is more and more piracy to meet the needs of computer users, although there are also computer users who use original software. The large number of computer users, dominated by people from all walks of life in our country, has caused computers to become a familiar item in our society.

Therefore, in order to meet the need to use computers, many people buy pirated software. Why? For comparison, a Windows 98 license costs 200 US dollars, while pirated software can be purchased for only Rp. 10,000. If an office has 20 computers using Windows 98, the cost must be 4000 US dollars or worth almost 40 million rupiahs. That's only for the operating system, not including other application programs, and that's why many of our people use pirated software. besides, the price is much cheaper and relatively cheap, and the results of pirated products will also function as they should. To meet the needs of life is difficult; if you are required to buy software that is so expensive, maybe people in our country will not advance in the field of technology, especially computers, which require very expensive costs to be able to buy. Perhaps if our government is well established, the economic level in the community is high, there is no poverty, and the use of original software can be required to meet the needs of using the computer, there will be no more piracy in our beloved country so that the life of our society will become more appreciative of people's creations by not plagiarizing them.

Indonesia's position is now in eighth place in the country with the highest piracy rate in the world. The computer market in Indonesia may be very exciting. This year alone, it is predicted that around 5 million units of computers will be absorbed by the market. The problem is that the higher computer penetration rate apparently also has an impact on the software piracy rate. Based on research by IDC and the Business Software

Alliance (BSA), in 2009, the number of software piracy in Indonesia increased again. Software piracy here is limited to software installation without a license on a personal computer. In 2008, the percentage of software piracy in Indonesia reached 85 percent. "This means that out of 100 computers, 85 computers were found to have software installed without a license," said Donny A. Sheyoputra, a representative of BSA, in Jakarta last week. In 2009, the figure increased again. The percentage reached 85 percent. Indonesia's position is now in eighth place in the country with the highest piracy rate in the world. The first place is occupied by Georgia, with a percentage of 95 percent. The number of piracy in Asia-Pacific has decreased. BSA and IDC found that piracy in 2009 fell to 59 percent from 61 percent in 2008. This piracy rate increase occurred in 19 out of 111 countries surveyed by IDC and BSA. Indonesia is among them. Although the number is small, the increase in 19 countries has boosted piracy percentage globally. While in 2008, the rate of piracy was 41 percent, in 2009, it rose to 43 percent. "This was triggered by high gains in four countries that are among the most prominent computer markets, namely Brazil, India, and China. According to Donn, the increase in piracy in Indonesia is a matter of concern. Especially when looking at the number of losses suffered by software developers is very large when compared to 2008. Shopping centers should remind their tenants not to sell pirated goods because it is the same as letting people open drug outlets that are indeed prohibited. Meanwhile, in 2008, the value of losses experienced was around US\$ 544 thousand. In 2009, The number jumped to US\$ 886 thousand, "this is natural because not only the number of computers is increasing, but also the number of software is increasing, so the value of losses is also increasing," Facing this problem, Jeffrey J. Haixlee, Vice President and Regional Director of IDC Asia-Pacific, advised the Indonesian government to increase public attention to piracy. "Consumers must be made aware of the importance of using original software," he said via an international telephone line from Singapore. Donny said that the increase in piracy cannot be separated from the number of computer penetrations in the market. In addition, he assessed that as long as there are still many pirated software sales centers, piracy cannot be eradicated. ”

### **Solutions Against Software Piracy**

The rampant piracy of software at this time not only makes software manufacturers suffer losses, but the Indonesian people feel the impact. Directly, software piracy harms

the company that makes it; at the same time, the country of origin of the software maker gives a stern warning to the Indonesian nation. They threatened that if the Indonesian people continued to pirate software, they would issue economic sanctions in the form of banning products from Indonesia. This will have a big impact on the Indonesian economy in the future because most Indonesian products will be exported there. The Indonesian government should give heavier and stricter punishments to anyone who commits piracy, both in software and hardware. Therefore, this act makes Indonesia's name very bad because it is a country that plagiarizes other countries and does not have its creations. What is wrong if Indonesians buy original or original software? It certainly helps Indonesia in terms of revenue costs and raises the good name of Indonesia itself. Hopefully, the government will act faster so this does not happen again. The easiest way to prevent it is for the owner of the original software to license the goods they sell. Even more updated software, for example, allows anyone who wants to hijack the software to be seen by the owner of the original software. For smart users, don't buy pirated software. It looks easy, but pirated software's long-term impact can harm us. Look for open-source software that is similar to the software you want. It is cheap, and we can even get the software for free.

## **CONCLUSION**

Software piracy is an unlawful act, especially under IT laws. It is also unethical because it causes significant losses to software entrepreneurs and acts in their interests. The code of ethics in using software devices is expected to be applied in daily life in utilizing and applying it so that no party feels disadvantaged. Suggestion The government should be more decisive in following up on IT copyright violators, especially piracy, which is increasingly rampant in Indonesia. It is recommended that after reading this paper, readers can appreciate the copyright of IT and no longer use pirated goods.

## **Acknowledgement:**

Thank you to Prof, Dr. drh., Rr. Retno Widyani, MS, MH sponsors who have supported this publication.

## **BIBLIOGRAPHY**

- Andrés, A. R. (2006). The relationship between copyright software protection and piracy: Evidence from Europe. *European Journal of Law and Economics*, 21, 29-51.
- Bently, L., Davis, J., & Ginsburg, J. C. (Eds.). (2010). *Copyright and Piracy: An interdisciplinary critique* (Vol. 13). Cambridge University Press.
- Danaher, B., Smith, M. D., & Telang, R. (2014). *Piracy and copyright enforcement*

- mechanisms. *Innovation policy and the economy*, 14(1), 25-61.
- Jain, S. (2008). Digital piracy: A competitive analysis. *Marketing science*, 27(4), 610-626.
- Meurer, M. J. (1997). Price discrimination, personal use and piracy: Copyright protection of digital works. *Buff. L. Rev.*, 45, 845.
- Pang, L. (2007). *Cultural control and globalization in Asia: Copyright, piracy and cinema*. Routledge.
- Siwek, S. E. (2007). *The true cost of copyright industry piracy to the US economy*. Lewisville, TX: Institute for Policy Innovation.
- Spoo, R. (2013). *Without copyrights: piracy, publishing, and the public domain*. Oxford University Press, USA.
- Yu, P. K. (2003). Four common misconceptions about copyright piracy. *Loy. LA Int'l & Comp. L. Rev.*, 26, 127.