UHMT1012-45 ATRIBUT KEJAYAAN GRADUAN (GRADUATE SUCCESS ATTRIBUTES)

NAME: MUHAMMAD IMRAN HAKIMI BIN MOHD SHUKRI

SECTION: 45

TOPIC: SOFTWARE PIRACY AND COPYRIGHT INFRINGEMENT

SUBMITTED TO: DR. LEONG HONG YENG

In this modern world we are living in, the usage of software is now becoming much more essentials for us in solving problems and easing our burdens in daily life. Even this writing is pretty much written using the infamous Microsoft Word, a software that almost everyone is relying on whether it is for work, study or just for fun. But since there is so much demand for this kind of software, no matter what age the user is, this is where software piracy comes into place. Software piracy is the illegal use of a software without purchasing it from the developer but downloading it from another website without authorization. This is an illegal work of action and need to be given much attention, since it is a deed with lack of morality. According to Danny Medlycott through BBC UK, after a pair of 45 and 48 from Skegness, United Kingdom were arrested for pirating software and selling them via online platform, other than selling counterfeit or fake software, being a consumer, by buying the pirated software is also considered as violating the rights of software developers. Data from Business Software Alliance in 2016 says there is 53% of piracy rate in Malaysia. However, there are few problems faced by the users that can be the reason on software piracy.

One of the reasons why software piracy is becoming such a norm in today's world is due to the high need or demand of software for some users. This is happening because when a user needs to use tons of software for his workflow, they tend to avoid paying for it since by doing so that will cost much money. Usually, someone will need more software to use when he has more than one working department which means only certain software would work on completing a certain job or task. A study in 1996 by Sims, H.K. Cheng, and H. Teegen states that heavy users tend to pirate more. This is somehow true since heavy users are being more exposed to the high usage of software. Therefore, the higher the exposure to certain group of software, the higher the tendency of pirating software. In another research by Ram D. Gopal and G. Lawrence Sanders in 1997, they found that males pirate more while females pirate less. This also supports the work of Solomon and O' Brien in 1991 which states females engage less on piracy. As of today, there are two factors on why gender also plays its part in the difference of engagement towards software piracy. That is, males usually are more exposed to technologies such as computers, hardware and software as opposed to females. Also, Venkatesh and Morris in the year 2000 found that females have more tendency to use technology with less effort required as opposed to males and with that being said, females' effort expectancy tends to be stronger.

Next, the problem and the reason on why software piracy issues are happening in abundance is that the users' financial status especially for students. Study in 1991 by Solomon and O'Brien shows that younger students pirate more than people from another age group. This somehow makes so much sense especially considering younger students, who most of them do not have any source of income, are given assignments involving paid software such as Microsoft Office essentials such as Word, Excel, PowerPoint or even Adobe Photoshop by Adobe for some students. On top of that, like the rest, they also need an antivirus software to protect their computer and unfortunately all of those are not free. Even worse, to be able to use their computer or laptop, an operating system (OS) is needed. A copy of Windows 10 OS costs approximately $199 in the USA and RM919 in Malaysia which is quite impossible for a student to spend that much money on a system software. According to The PC Insider, Windows OS is the most pirated and cracked software as of 2020, followed by Microsoft Office. Technically, Microsoft Office is the most pirated application software while Windows OS is a system software. This is a no-brainer since we know that Microsoft Office is the most needed software in students' productivity and learning. In fact, productivity software is the most pirated title, making 57% of the total pirated title according to PC Mag. Recent study in 2019, by Afsana Hossain, Nishat Tasnim Mim, Jahidul Hoque, Rashedul Amin Tuhin and Amit Kumar Das in Bangladesh found that students with family income below 70,000 Bangladeshi Taka (~RM 3,390), involve more in using pirated software as compared to above the income. This by right strengthen the bullet point of that financial status plays such a major role in software piracy.

Users' awareness and attitude on software piracy issues is also one of the factors on why software piracy still takes place until now. The same study by Afsana Hossain et al. (2019), students do not know the law against piracy and its consequences even though they consider the piracy issue as important. Also, the study found out that most of the respondents were not aware of the punishment of committing software piracy. Besides, users do not understand the consequences of involving themselves in software piracy. Not only the software developers and copyright holders have to face their loss from spending on software development which makes it unfair to them, the users also have the potential of facing a legal action from their irresponsible deeds. Roland Chan, the senior director of Business Software Alliance (BSA), said laws like Copyright Act 1987 must be further enforced without favor, claims The Star. He also highlighted that the Act would cause the user of pirated software to pay a fine between RM2,000 to RM20,000 and could be jailed up to five years for each pirated copy of software. It is also worrying that attitude also leads to the intentional behavior of pirating a software.

Softlifting, or a behavior of making as much illegal copies of purchase software and distribute it to friends and families is also seen as acceptable amongst the user of pirated software nowadays. A research model from a study summarized that softlifting starts with no awareness of the law, leads to a favorable attitude towards softlifting and then results in the intention of softlifting. Study by Shah, Nazir; Hussain, Anwar; Shahzad, Sara; Hanif Ur Rehman; Islam Zada; et al. in 2018 claims that based on questions asked on respondents about their awareness on software piracy, there is a percentage of 17.6% of total respondents do not consider software piracy as an important issue.

As for the first two problems mentioned earlier, both the issue of overwhelming demands for software and the financial status of the user can be solved by software developers and the user's working company or institution. Software developers could do two things, that is, first is to sell bundled software that the user prefers. Instead of selling the software pre-bundled, they should sell only selected software bundle by the user itself. This would actually give the power to the user to customize their desired software, without spending extra money on software they will never need. Also, by doing this, software developers can make their software sells more because it will definitely attract users that in need of bunch of their software. Not only that, software developers should do more realistic student price, so that students or users with low income could afford it with the exception of educational use. Alternatively, software developers can develop a different version of the same software, with cheaper price, with the basic features that fulfills students' need. With that being said, software piracy can at least be minimized especially for students which tend to pirate more, based on study mentioned earlier. Next, users' working company or institution can play their part in enrolling the license of the basic software needed in users' workflow or schoolwork for free. This, in return could make the company or institution more reliable and reputable for ensuring every need is being fulfilled.

Additionally, software developers can work on enhancing their software's security to avoid hackers or crackers from pirating their software. Take Denuvo as an example. According to How-To Geek, Denuvo is an anti-piracy solution that serves as digital rights management (DRM). It is said that Denuvo is integrated into the code of the software to avoid software piracy, mainly. However, there is no perfect or complete anti-piracy. Thomas Goebl, Denuvo sales and marketing director explains that their aim is not to do an unbreakable anti-piracy protection. The main goal is to ensure that the software or title to not be pirated at early launch

to guarantee sales. By doing this, it could really strengthen the software security and can cause difficulties for crackers. Usually, a game that uses Denuvo protection could be pirated anyways, but usually within months, or even years as opposed to non-Denuvo protected game that could easily be cracked within days or weeks after launch.

Lastly, in order to create awareness on software piracy, early education should be given to individuals. Moores, Nill, and Rothenberger (2009) suggest that one must understand what software piracy actually is, and increase self-awareness towards the punishment of engaging in software piracy in order to change a person's attitude towards software piracy. Nowadays, there is still not enough exposure on software piracy, especially in school. As we strive towards Industrial Revolution 4.0, there will be more and more demand on technology including data, hardware and software which means the use of software would be more critical. This also will increase the risk of software piracy. In school, subjects such like Technology and Information System should become compulsory. With that subject being taught in school, the consequences of software piracy can be understood by students at early stages.

In my opinion, software piracy really affects many sides. Not only software developers, software development but also software consumer. Software developers can be affected by their loss considering they needed so much money during the development process. This is very unfair. Also, software development can be affected by which the developers feel like the software cannot give as much return or profit, and in the end, they will not develop more software that may be useful for individuals or consumers. As an ethical person, we should fight software piracy and hating on it. We should normalize thinking that software piracy is a crime, which would be our responsibility to stop it. Stealing other people's work and content is such an unethical behavior and disrespectful. If my friend is consuming pirated software, I would absolutely advise him to stop doing so. Also, I would my best to help him buying the software, either by sharing money to buy two-licensed software or simply donate to him. In my humble opinion, respect goes both ways and when we support others' hard work, it will simply motivate them to work on a better creation or development.

References:

Amirullah, A., & Ravindran, M. (2018). DIGITAL PIRACY IN MALAYSIA.

bbc.com, BBC UK. (2014, September 03). Software piracy suspects arrested in Skegness. Retrieved November 27, 2020, from https://www.bbc.com/news/technology-29049369

Cheng, H. K., Sims, R., & Teegen, H. (1996). Toward a profile of student software pirates. *Journal of Business Ethics*, *8*, 839-851.

Chellappa, R. K., & Shivendu, S. (2005). Managing piracy: Pricing and sampling strategies for digital experience goods in vertically segmented markets. *Information Systems Research*, *16*(4), 400-417.

Gopal, R. D., & Sanders, G. L. (1997). Preventive and deterrent controls for software piracy. *Journal of Management Information Systems*, *13*(4), 29-47.

Hoffman, C. (2018, December 30). What Is Denuvo, and Why Do Gamers Hate It? Retrieved November 27, 2020, from https://www.howtogeek.com/400126/what-is-denuvo-and-why-do-gamers-hate-it/

Hossain, A., Das, A. K., Mim, N. T., Hoque, J., & Tuhin, R. A. (2019, September). Software Piracy: Factors and Profiling. In *2019 2nd International Conference on Applied Information Technology and Innovation (ICAITI)* (pp. 213-219). IEEE.

Law of Malaysia. (1 July, 2012). Laws of Malaysia Act 332. *Copyright Act 1987*. Malaysia.

Limayem, M., Khalifa, M., & Chin, W. W. (2004). Factors motivating software piracy: a longitudinal study. *IEEE transactions on engineering management*, *51*(4), 414-425.

Moores, T. T., Nill, A., & Rothenberger, M. A. (2009). Knowledge of software piracy as an antecedent to reducing pirating behavior. *Journal of Computer Information Systems*, *50*(1), 82-89.

PCMag Staff, P. (2012, January 25). Stolen Software: Piracy Hits More than Movies and Music. Retrieved November 27, 2020, from https://www.pcmag.com/archive/stolen-software-piracy-hits-more-than-movies-and-music-293285

Sahay, M. (2020, September 10). Which are the 10 Most Pirated Windows Software? • The PC Insider. Retrieved November 27, 2020, from https://www.thepcinsider.com/most-pirated-windows-software/

Shah, N., Hussain, A., Shahzad, S., Rehman, H. U., Zada, I., Ahsan, M., ... & Khan, A. (2018). Determination of Awareness of Piracy Level on Educational Institutions-A Questionnaire Based Study. *EAI Endorsed Transactions on Energy Web*, *5*(17).

Solomon, S.L. and J.A. O'Brien. 1991. The effect of demographic factors on attitudes toward software piracy. In R. DeJoie, G. Fowler, and D. Paradice (eds.). *Ethical Issues Inform. Systems*. South-Western Publishing Company, 168-181.
Staff, M. (2019, May 15). Denuvo on fighting the war against piracy. Retrieved November 27, 2020, from https://www.mcvuk.com/business-news/media-pr/denuvo-on-fighting-the-war-against-piracy/

The Star Online, T. (2019, November 30). Software piracy in Malaysia worrisome, says expert. Retrieved November 27, 2020, from https://www.thestar.com.my/news/nation/2012/04/04/software-piracy-in-malaysia-worrisome-says-expert

Venkatesh, V. & Morris, MG (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *Management Information Systems Quarterly*, *241*, 115-139.