

“Software Piracy and Online Data Protection in a Digital World”

Tripti Bhushan¹

Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana, India.

Deepayan Malaviya²

Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana, India.

Aparna Venkatachalam³

Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana, India.

Akshata A. Ahire⁴

Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana, India

Shambhu Nath Mishra⁵

Dr. Ram Manohar Lohiya National Law University, Lucknow

Abstract

Data protection against breaches and violation by third parties has become a sensitive and important issue to deal with. The digital developments in the fourth artificial revolution urged countries and the transnational institutions to give the result on this issue and set out a legal frame about data processing. The internet is a vast space for us to explore, produce, and make. It's a virtual world that's different from the real world, yet veritably analogous to it. As the real world involves people imitating each other, the digital world also includes people making appropriated clones of online digital content. That said, digital pirating has come a wide miracle so much so that legal laws have surfaced in light of it. This paper clearly mentions the concept of software piracy and its various types of piracy

Keywords: Data Privacy, Protection, Software, Piracy, Copyright Act .

Introduction

Software piracy is the unlawful copying, installation, use, distribution, or sale of software in any manner other than this is expressed inside the license settlement. The software enterprise is facing huge financial losses because of the piracy of software. Piracy of software program is done with the aid of end-users as well as by means of the dealers. It reasons severe issues that preclude the fulfilment of the software program enterprise nationwide and globally. The pirates gain handy advantages from the sale of pirated software program and this in the end influences the commercial enterprise of the software program enterprise. Piracy of software is the felony consequences of breaking the regulation. Digital age can be defined as a collection of different technological answers as digital environments, digital offerings, wise applications, gadget learning, information-based structures, and so forth., figuring out the specific traits of present-day world globalization, e-communications, data sharing, virtualization, and many others. However, there's an possibility the technologies of the virtual age to violate some simple principles of the statistics protection and privateness by using unregulated get right of entry to to data and private statistics, stored in exceptional nodes of the worldwide network. The world over the years has visible rapid growth in Information era, advancement in diverse technology and digitalization.⁶ These development and safety have precipitated speedy growth and increase of software program organizations around the world. This boom has also resulted inside the growth of crook activities and illegal cyber activities including hacking and software piracy. Software groups were deeply inflamed via the piracy which is not most effective dangerous to the software developers however additionally harming the users of this software program. Technology development has made smooth for everybody to copy the programs, duplicate it and sale it to the marketplace.

¹ Author is currently working as Teaching & Research for Intellectual Pursuit (TRIP) Fellow & Academic Tutor at Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana.

² Author is currently working as Teaching & Research for Intellectual Pursuit (TRIP) Fellow & Academic Tutor at Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana.

³ Author is currently working as Teaching & Research for Intellectual Pursuit (TRIP) Fellow & Academic Tutor at Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana.

⁴ Author is currently working as Teaching & Research for Intellectual Pursuit (TRIP) Fellow & Academic Tutor at Jindal Global Law School, O.P Jindal Global University, Sonipat, Haryana

⁵ Author is currently serving as Ph.D Scholar at Dr. Ram Manohar Lohiya National Law University, Lucknow.

⁶ Zitian Liao et al., *Software Piracy Awareness, Policy, and User Perspective in Educational Institutions*, 2020 SCIENTIFIC PROGRAMMING 6–20.

Software Piracy

Software piracy has become a worldwide issue with China, the United States, and India being the top three offenders. The commercial value of pirated software is \$19 billion in North America and Western Europe and has reached \$27.3 billion in the rest of the world. According to the 2018 Global Software Survey, 37% of software installed on personal computers is unlicensed software. Software piracy doesn't require a hacker or skilled coder. Any normal person with a computer can become a software pirate if they don't know about the software laws. With such a widespread impact, it's important to understand what software piracy is and the dangers it presents.

Software piracy is the act of stealing software that is legally protected. This stealing includes copying, distributing, modifying, or selling the software. Copyright laws were originally put into place so that the people who develop software (programmers, writers, graphic artists, etc.) would get the proper credit and compensation for their work. When software piracy occurs, compensation is stolen from these copyright holders.

The piracy of software causes serious problems that hinder the success of the software industry in the national and international markets. The comparison of original licensed software with pirated software shows what benefits the user gets. The original software offers a number of high valued benefits to the customers, including assurance of software quality, availability of upgrades, technical and manual documentation, and less bandwidth consumption. On the other hand, pirated software fails to do so. There might be a risk of failure of the system if an organization was using pirated software, and pirated software might put the organization at the risk of huge financial loss. Some software is available in the form of open-source. But this open-source software is mostly licensed and needs a proper license agreement. Pirates are doing piracy of such software, which ultimately gives loss to the owners.⁷

Types of Software Piracy in the Digital World

1. **Counterfeiting-** Counterfeiting, or illegally copying and dispensing or promoting copyrighted material, is the first aspect most human beings could say in the event that they had been requested what's software program piracy? While there are numerous people who might now not knowingly purchase counterfeit products, one of the challenges software program builders face is that counterfeiters are skilled at producing merchandise that carefully resemble the authentic (real) products. These encompass license agreements manuals, registration cards and safety functions alongside the reproduction of the software program software.
2. **End-User Piracy-** Another not unusual software program piracy instance occurs whilst humans make copies of a bit of software program or use software licensed for a unmarried person on multiple computers. This form of software piracy is referred to as end-user piracy. It also takes place when humans control to take gain of software upgrade offers, even though they don't have a legal copy of the software program to improve or once they use non-retail or confined software program without the proper license.
3. **Internet Piracy-** With an increasing number of humans downloading the software without delay from a publisher's website, they need to make certain the web site they're downloading from is bureaucratic as opposed to a pirated lookalike. That would possibly sound obvious; however, it is able to be easier stated than executed and putting in place close to-identical web sites is just one of the common software program piracy examples which can trick stop-customers into the use of pirated software program unintentionally. To decrease the possibilities of being caught out by using such software program piracy examples, users ought to additionally keep away from other sites where they chance downloading pirated software program which include websites offering loose software downloads to users in exchange for other software, public sale sites that sell previous or counterfeit software program and peer-to-peer networks.
4. **Hard Disk Loading-** Another software program piracy instance is referred to as hard disk loading. This is the call given to one of the sorts of software program piracy that happens whilst a enterprise installs unauthorized copies of software program onto the tough disks of any computers it sells. But they're no longer being beneficant. Far from it. They're trying to inspire customers or end-users to return lower back to them to buy software program or upgrade their existing software program.
5. **Client-Server Overuse-** Similar to quit-user piracy, client-server overuse is another of the types of software program piracy that occurs when the variety of customers who're the usage of a selected software exceeds the variety of licenses a enterprise has for it. This can occur, for instance, while a application is set up on a nearby location community instead of an person laptop. That manner as opposed to being confined to a single person, multiple humans can use the software program at the equal time.
6. **Renting-**Renting involves someone renting out a copy of licensed software for temporary purposes. In such type of piracy, software is rented to individual computers and returned the original software to the renter. This method of piracy is not as common as other forms of piracy due to its distribution nature, but it still does exist. It has always been illegal to rent unauthorized copies of software. The "Computer Software Rental Amendments Act" formed in the US in 1990 strictly prohibits the rental, lease or lending of a computer program for direct or indirect commercial gain unless authorized by the owner of the copyright in the program.⁸

Suggested Preventive Measures for Piracy

⁷ Panda Security, *What is Software Piracy?*, <https://www.pandasecurity.com/en/mediacenter/panda-security/software-piracy/> (last visited Feb 5, 2022).

⁸ UNITED STATES COPYRIGHT OFFICE, *Report on Computer Software Rental Act* (2003), https://www.copyright.gov/reports/software_ren.html (last visited Feb 6, 2022).

This section specializes in numerous efforts which have been made to lessen worldwide software program piracy. Many authorities and non-authorities firms are running at their quality degree to reduce piracy. The Business Software Alliance and Software and Information Industry Association have undertaken two strategies, enforcement, and enactment of laws, and educating people and corporations as to the legal use of valid software program. Criminal enforcement in opposition to commercial users and resellers of illegal software program has expanded the prison software program distribution in most nations. Many researchers have counselled that specific pricing software program techniques on the basis of a rustic's financial system could be one method to lessen piracy. A examine by means of Peace, Galletta and Thong (2003) shows that after there is high price of software program, an individual can be more likely to gain the software illegally. Further, the examiner indicated that reducing the price of software in international locations with a low in step with capita GNP will be an critical effort to reduce software program piracy. In addition, awareness and training applications in opposition to illegal use of software program may be performed from government in addition to man or woman level to help in decreasing piracy. Some of the capability measures based on some preceding research which can reduce software piracy are stated beneath.

1. Increasing public awareness and education
2. Understanding proper use of software and the law
3. Copyright protection of computer software
4. Software licensing

Software licensing is the procedure that specifies the general terms and conditions and allows an individual or group to use any software with the agreement specified by software publishers. There are different types of licenses that software publishers or manufacturers use to distribute their software.

The general terms and conditions are typically described in the end-user license agreement (EULA) that specifies what users can do and cannot do with the software and also the copyright notices. Different types of software like proprietary software and open-source software have their own terms and conditions for using them. Open-source software is free software, most licensed under GNU General Public License (GPL) which gives legal permission to copy, distribute and modify the software.⁹

Evolution of Piracy through the Medium of Internet-

Piracy and the introduction of computers go hand in hand and internet has only accelerated the process. Before the advent of internet, piracy was conducted in the form of bootlegging of records, Compact disks, cassettes etc. The evolution of piracy can also be attributed to development in the storage capacities also, for instance, the introduction of compact disks led to widespread copying and distribution of computer software. With the advent of the digital age and the internet piracy has grown intricate. Almost all digital content is available for free through services like BitTorrent. The most peculiar aspect of online piracy is that it cannot be prevented. In other words, if one site is taken down mirror sites come up in absolutely no time.¹⁰ To summarize, internet has contributed a lot to evolution of piracy and has only worsened the problem of piracy. This has necessitated the protection of computer software both in India and abroad.

Protection of Computer Software in India

A computer program is a set of instructions which tells the machine how to perform a particular task. Programming is a job that demands creativity, skill and intellect and because piracy is a growing concern it hinders creativity and productivity. Therefore, protection of computer software is necessary. In India protection of computer software can be discussed with respect to the copyright act and judicial pronouncements.

Copyright Act

The Copyright Act provide the intellectual property right over the creativity in artistic, musical, literary, dramatic and cinematographic works. It provides the right to produce, reproduce, distribute, etc. in all forms of the medium. With the digital space taking over any other medium, the benefits and risks associated with it forcing each stake holder to have a check on the issue involved. The plus point while discussing the copyright law is that it is already up to some extent equipped with dealing of such cases of privacy.

Piracy in Copyright basically occurs when a person copies, distributes or even sells a material, without the express permission of the creator of that product in digital mode. Such distribution and sales online can lead to a huge loss of revenue and is a hard thing for the original creators to go through. The problem is all the more enhanced because several people are either unwilling or unable to pay the right sum of money for it. Piracy is a form of online copyright infringement, wherein games, movies, software, etc are sold and distributed without the knowledge or permission of the original creator.

Internet Piracy has taken over the world in big way and is growing considerable at a very high rate. In fact, Piracy in digital mode is very easy and has a lot of impacts. It facilitates easy and wide distribution to unlimited number of people, leading to difficulty in distinguishing between original and fake copies.

The Copyright Act 1957 along with Information Technology Act, 2000 deal with piracy. Although it is true that we need more and more concrete legislation to deal with piracy in digital mode whether by way of new legislation or by amendment in aforesaid acts.

⁹ Ishwor Khadka, *Software piracy: A study of causes, effects and preventive measures*, January 14, 2015, https://www.theseus.fi/bitstream/handle/10024/87274/Khadka_Ishwor.pdf?sequence=1 (last visited Feb 7, 2022).

¹⁰ GUSTAV GULDBERG & JOHANNES SUNDEN, *Pirates & merchants – An ongoing struggle on the hightech seas* 80 (2004), <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.104.5547&rep=rep1&type=pdf> (last visited Feb 7, 2022).

The expectation and far sightedness of the legislation during that time is falling short of the technological advancements taking place at the present moment.

Seeing, the above issue, the Copyright Act was amended widely in 2012 bringing a major change in its orientation. Section 65A of the new Copyright (Amendment) Act, 2012 protects the owners of the copyrighted material in case of a breach. It reads as

“Any person who circumvents an effective technological measure applied to protect any of the rights conferred by this Act, to infringe such rights, shall be punishable with imprisonment which may extend to two years and shall also be liable to fine”

This has deterred many cyber criminals from tampering with copyrighted material. Granting further protection, Section 65B protects the unauthorized access and misuse of sensitive information. It reads as follows:

“**Protection of Rights Management Information:** The section states that “any person, who knowingly- (1) removes or alters any rights management information without authority, or (2) distributes, imports for distribution broadcasts or communicates to the public, without authority, copies of any work, or performance knowing that electronic rights management information has been removed or altered without authority shall be punishable with imprisonment which may extend to two years and shall also be liable to fine.”

Another piece of legislation that deals with digital piracy is the Information Technology Act, 2000. Section 66 of the Information Technology Act provides for punishment with up to 3 years of imprisonment and fines up to Rs 2 lakhs for illegal online distribution of copyrighted content. In enforcement of these, ‘john doe’ orders are extremely helpful.¹¹

Judicial Approach

Indian courts have played an instrumental part within the advancement of a compelling IP jurisprudence in India. The proper to communicate the work to the open is without a doubt one of the foremost pivotal rights that any IP proprietor has, and the same has been perceived beneath the Copyright Act, 1957 as well.¹²

In India, the jurisprudence of John Doe orders originated from *Taj Television Limited v Rajan Mandal* wherein the Delhi High Court issued a John Doe order against cable operators, restraining the unauthorised broadcasting of the World Cup football tournament. Subsequent to this order, seeking a John Doe injunction became a practice before the launch of any major film or sporting event.¹³

UTV Software Communication Ltd. v 1337X.TO and Others is a landmark case that has shaped Indian jurisprudence on online piracy. In this case, the Delhi High Court introduced a significant development in the form of a "dynamic injunction," which allows plaintiffs to approach the Joint Registrar of the Delhi High Court (an administrative position) to extend an injunction order already granted against one website to another similar "mirror/copycat" website. To combat the potential of piracy, the court stated that the plaintiff may use mirror/redirect/alphanumeric websites and sue it.¹⁴

Challenges of the digital age for privacy and data protection

The first and foremost challenge is the absence of a definitive international law which regulates the issues of digital piracy, in fact the international law only determines physical piracy i.e., actual loot and plunder of goods at high sea.¹⁵ Thus the first and foremost challenge is to determine as to what constitutes data piracy and how can the data be protected. There has been much debate regarding this and it has been agreed upon that in the digital space piracy comes under the definition of data theft and data stealing but seeing the explosive growth of data loss there is much to be done in the sphere of data protection. The biggest challenge is that the digital age rests on the premise of data sharing and this is where our personal data becomes vulnerable to cyber criminals. This makes data protection important because data protection regulations put safeguards in place as to how our personal identifiable information is used by businesses and intermediaries. Owing to the fact that businesses store huge amounts of data they are always under the eyes of cyber criminals and whenever these businesses make mistake cyber criminals take advantage and steal the data making individuals vulnerable. This being said, India is an emerging economy with booming business and digital economy. This makes data protection and data privacy impervious topics in the Indian context and domain which need due attention for they create various challenges.

The Co-relation between Piracy & Malware

There is an adage that “There ain't no such thing as a free lunch” which means that there is impossible to get something for nothing. Same is true with respect to software. When someone downloads pirated software, or downloads a pirated movie or music for that matter, that person becomes vulnerable. This is because of the fact that the pirated content does not come directly from the creator instead it comes from a third party and it might occur that the third party may include some additions of his own and this addition

¹¹ Deepika Gupta, *Copyright And Cyberspace: Software And Digital Piracy* (2019), <https://www.mondaq.com/india/copyright/799368/copyright-and-cyberspace-software-and-digital-piracy>. (last visited Feb 10, 2022AD).

¹² Manisha Singh, Aprajita Nigam & Smrita Sinha, *Combating Copyright Online Piracy In India: Government's Initiatives And Judicial Enforcement* (2020), <https://www.mondaq.com/india/copyright/901978/combating-copyright-online-piracy-in-india-government39s-initiatives-and-judicial-enforcement>. (last visited Feb 10, 2022).

¹³ Dalveer Bhandari, *Taj Television Ltd. & Anr. vs. Rajan Mandal & Ors*, 22 FSR (2002).

¹⁴ Manmohan, *Utv Software Communication Ltd. and Ors vs 1337X.To And Ors*, 375 PTC 78 (2019).

¹⁵ United Nations, *Piracy Under International Law* (2012), <https://www.un.org/depts/los/piracy/piracy.htm> (last visited Feb 9, 2022).

in most cases is a malware. A malware is malicious computer software such as a virus that the user does not know about or want and is designed to damage how a computer or computer network works.¹⁶ Thus by downloading pirated content the user is made vulnerable by his/her own actions. A study has confirmed the fact and has stated that there is direct proportionality between visiting a pirated site/downloading pirated content and malware infection in the computer system.¹⁷

Conclusion

Software piracy may be tempting to those who are not familiar with the risks. But far from being an innocent, victimless crime, software piracy exposes users to unacceptable levels of cyber-security risk, including the threat of costly identity theft. It also undermines the value of intellectual property, which is one of the key drivers of innovation and the way millions of people earn a living. In today's increasingly interconnected global economy, the Internet has opened incredible new frontiers for communicating, shopping, learning, and simply having fun. At the same time, the Internet's global reach, anonymity, and speed can be used for harmful purposes as well as benign ones. As long as the Internet remains a central front in the war on software piracy and related crimes, Business Software Alliance will continue to raise awareness of the problem and focus its resources on pushing back the enemy.

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¹⁶ Robert Moir, *Defining Malware: FAQ* (2009), [https://docs.microsoft.com/en-us/previous-versions/tn-archive/dd632948\(v=technet.10\)?redirectedfrom=MSDN](https://docs.microsoft.com/en-us/previous-versions/tn-archive/dd632948(v=technet.10)?redirectedfrom=MSDN) (last visited Feb 9, 2022).

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