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Software Piracy: A Literature Study on Ethical Issues in Information Technology

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Abstract

Ethics constitute a set of principles, norms, and moral guidelines that direct human conduct. These ethical foundations play a vital role in technology, particularly software, which continues to evolve rapidly. The increasing demand for high-quality software has, however, encouraged unethical behavior such as software piracy. This study examines software piracy from an ethical perspective within information systems. A narrative literature review method was employed, synthesizing reputable national and international publications and established institutional practices especially scholarly journals recognized for upholding research ethics. The review identifies the major impacts, applicable legal frameworks, and potential solutions concerning the use of pirated software within Information Technology Ethics. The findings emphasize the importance of ethical awareness and the adoption of licensed software to mitigate piracy and enhance responsible technology use.

Keywords

Ethics, Information Systems, Pirated Software

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Introduction

The rapid advancement of computer technology has not only transformed the way humans live, work, and communicate but also introduced new ethical challenges within the digital ecosystem. As information technology continues to evolve, it brings with it both opportunities and vulnerabilities that affect individuals, organizations, and societies at large. One of the most pressing ethical issues emerging from this digital evolution is software piracy, a phenomenon that undermines intellectual property rights and disrupts the software industry globally (Negeri Bali, 2020). Software, as a fundamental component of modern computing, drives innovation and enables automation across various sectors—from education and business to government and defense. However, the ease of digital duplication and distribution has also facilitated the unlawful proliferation of pirated software, creating complex ethical, legal, and economic implications (Irmayani, 2019).

The concept of ethics serves as a cornerstone in understanding these issues. Derived from the Greek words ethikos and ethos, ethics refers to customs, practices, and moral principles that guide human behavior (Zagzebski, 2023). In the context of information technology, ethics can be interpreted as a moral framework that governs how individuals and organizations create, use, and share digital resources responsibly (Lavender, 2022). Ethical principles in IT aim to balance innovation with integrity, ensuring that technological progress does not come at the cost of fairness, privacy, or respect for intellectual property. The growing reliance on software has made adherence to ethical and legal norms increasingly crucial in preserving trust and accountability within the digital economy.

Within the software industry, ethical issues arise when individuals or organizations intentionally bypass legal frameworks that protect the rights of developers and copyright holders. Software piracy, defined as the unauthorized copying, distribution, or use of software, is one of the most prevalent forms of digital misconduct. According to Lutfi and Setiawan (2021), such acts constitute violations of intellectual property law and are punishable under criminal statutes. Piracy practices take multiple forms, including counterfeiting, unlicensed installations, internet-based file sharing, and hard-disk loading, where illegal copies are pre-installed on computers for commercial gain. Each of these forms reflects a deliberate disregard for the moral principles of honesty, respect, and justice that underpin professional conduct in information technology.

The motivations behind software piracy are multifaceted, ranging from economic factors such as high licensing costs to psychological and cultural attitudes that normalize unethical behavior. In many developing countries, including Indonesia, software piracy has been fueled by limited access to affordable software and the perception that digital content should be freely available. This mindset, however, poses a significant threat to innovation, as it discourages software developers from investing in research and product improvement. Moreover, pirated software often exposes users to cybersecurity risks, such as malware infections and data breaches, which can compromise both personal privacy and national digital infrastructure. Thus, the act of piracy not only represents an ethical lapse but also endangers the broader ecosystem of digital trust and security.

From a legal standpoint, software licensing serves as the primary mechanism to regulate usage rights and protect intellectual property. A valid license provides users with legitimate access while ensuring that developers receive due compensation for their work (Hariyadi & Nastiti, 2021). Despite these legal safeguards, violations remain widespread, including the unauthorized installation of single-user licenses on multiple devices and the distribution of cracked software versions (Al-Rahmi et al., 2020). Such practices highlight the persistent gap between awareness and compliance, underscoring the need for stronger ethical education and enforcement mechanisms within the field of information technology.

In Indonesia, Law No. 28 of 2014 on Copyrights clearly stipulates that the use, duplication, or distribution of pirated software constitutes a violation of intellectual property rights (Prakoso, 2019). Beyond the legal repercussions, this behavior contradicts the ethical values that should guide digital citizenship, such as respect for creators and accountability in software use. The prevalence of software piracy indicates not only a legal problem but also a moral one, where societal attitudes toward intellectual ownership remain underdeveloped. Addressing this issue requires a multidimensional approach that integrates ethics education, policy reinforcement, and public awareness.

Therefore, understanding the ethical dimensions of software piracy is crucial for fostering responsible behavior among technology users and professionals alike. This literature study aims to explore software piracy from an ethical perspective, analyzing its moral, legal, and socio-economic implications. By reviewing theoretical frameworks and empirical findings, the study seeks to promote ethical awareness in software utilization and support initiatives that encourage compliance with copyright laws. Ultimately, this research contributes to the broader discourse on digital ethics, emphasizing the need to harmonize technological advancement with moral responsibility in the information age.

Theoretical Framework

Pirated Software

Software piracy refers to the unauthorized reproduction or distribution of software programs. A software license typically permits use by a single user or device. According to Article 1(8) of Law No. 19 of 2002 on Copyright, software is any computer-readable medium designed to perform specific functions. Piracy not only deprives software producers of revenue but also hampers innovation (Rahman et al., 2022; Rhomadhona et al., 2020). To deter such acts, the Indonesian Copyright Law No. 28 of 2014 imposes strict penalties under Article 113(4) (Helena & Suardana, 2019). For both individuals and organizations, awareness of licensing obligations is crucial to avoid ethical breaches and legal sanctions (Paisal et al., 2021).

Information Technology Ethics

Information Technology Ethics concerns the moral issues arising from the development and application of digital technologies (Cooke, 2020). It addresses foundational moral responsibilities, including property rights, privacy, data protection, freedom, and accountability. The absence of ethical principles can result in privacy violations, identity theft, and cybercrime, underscoring the necessity of ethical literacy and compliance.

Software Licensing

A software license is a legal contract specifying user rights and restrictions related to a software product. Licenses may vary depending on software type and vendor. Open-source licenses such as the GNU Public License (GPL) permit users to modify and redistribute code freely, while proprietary licenses require paid authorization (Ballhausen, 2019). Understanding licensing terms ensures lawful software use and protects both users and developers from legal and financial risks.

Copyright and Intellectual Property Law

Copyright and Intellectual Property (IP) laws safeguard creators' rights over their intellectual works, including software (Margaritha Rami Ndoen & Monika, 2020). These laws grant exclusive privileges for reproduction, distribution, and adaptation, and impose penalties for unauthorized use. Robust enforcement of copyright and IP legislation stimulates innovation and sustains a fair creative economy.

Methodology

This research employs a narrative literature review approach, as outlined by Ramadani (2021), which focuses on synthesizing theoretical perspectives, empirical findings, and ethical frameworks from existing scholarly works. The narrative literature review method is particularly suitable for exploring multidimensional phenomena such as software piracy, which involves intersections between technology, ethics, law, and society. Unlike systematic reviews that rely on quantitative meta-analysis, the narrative approach emphasizes conceptual depth, interpretative analysis, and critical reflection. Through this method, the study seeks to construct a comprehensive understanding of the ethical implications of software piracy by connecting diverse academic viewpoints and identifying recurring patterns, theoretical gaps, and emerging debates within the field of information technology ethics.

The data sources for this research were drawn from reputable international academic databases including Scopus, ProQuest, and Google Scholar. The search strategy utilized specific and relevant keywords such as "Ethics," "Information Technology," "Software Piracy," and "Intellectual Property Rights." These keywords were combined using Boolean operators to ensure a focused and comprehensive retrieval of scholarly materials. The inclusion criteria prioritized peer-reviewed journal articles, conference proceedings, and institutional reports published between 2015 and 2024 to ensure the relevance and currency of the reviewed literature. Publications were selected based on their credibility, methodological rigor, and alignment with the core themes of ethical issues in software usage, copyright compliance, and technological accountability.

The literature review process involved several analytical stages. First, all selected articles were screened to remove duplicates and non-academic sources. Second, the contents were systematically analyzed to identify conceptual frameworks, ethical theories, and practical implications discussed by previous researchers. Third, the extracted information was organized thematically to highlight trends in ethical reasoning related to software piracy, such as deontological versus utilitarian perspectives, as well as moral and legal considerations in digital environments. The results of this synthesis provided the foundation for interpreting how ethical principles can be applied to mitigate software piracy and promote responsible digital behavior. This methodological approach ensures that the findings are not only grounded in

established scholarship but also contribute new insights to the discourse on ethics in information technology.

Results and Discussion

Ethical Implications of Using Pirated Software The use of pirated software, whether for personal or commercial purposes, is a direct violation of copyright law and ethical principles (Chowdhury et al., 2020). Such software often contains malware or spyware, threatening data integrity and system performance (Zihran et al., 2021). Ethically, piracy reflects dishonesty and injustice because it denies creators fair compensation for their labor. Moreover, piracy discourages technological innovation by reducing developers' research incentives. Upholding software ethics requires integrity, respect for intellectual property, and commitment to using licensed products.

Legal Frameworks Governing Piracy Several Indonesian regulations address software piracy: Copyright Law No. 28 of 2014: Grants creators exclusive rights and prescribes penalties up to four years' imprisonment or fines of IDR 1,000,000,000 (Amin, 2018).Consumer Protection Law: Excludes users of pirated software from legal protection, as piracy constitutes an unlawful transaction (Maharani & Darya Dzikra, 2021).Electronic Information and Transactions (ITE) Law No. 11 of 2008: Prohibits unauthorized access to computer systems and prescribes penalties up to seven years' imprisonment or fines of IDR 1,000,000,000 (Pratiwi & Yunarti, 2022).Patent Law: Protects patentable software components and innovative algorithms (Bustani, 2021).Government Regulation No. 20 of 2017: Reinforces legal enforcement for copyright violations (Soemarsono & Dirkareshza, 2021).

Adverse Impacts of Pirated Software, Piracy produces multifaceted negative effects:Security Risks: Exposure to malware and lack of critical security updates (Maulana et al., 2021).Intellectual Property Losses: Financial harm to developers and damage to industry reputation (Losung et al., 2021).Absence of Technical Support: Users of pirated versions receive no official assistance (Adani, 2020).Privacy Violations: Unauthorized data collection and identity breaches (Tridipta et al., 2020).Therefore, ethical and lawful software use is imperative for data security, innovation, and digital trust.

Strategies to Reduce Software Piracy To mitigate piracy, coordinated actions from multiple stakeholders are required:Raising Public Awareness: Promote understanding of ethical and legal implications (Mat Dawi et al., 2021).Offering Affordable Pricing: Make legitimate software accessible to broader markets (Cabrera-Sanchez & Villarejo-Ramos, 2019).Providing Diverse Legal Alternatives: Increase user choice in licensed solutions (Hasselbring et al., 2020).Introducing Free or Trial Features: Encourage legitimate usage through low-risk evaluation (Sinitcyn et al., 2021).Ensuring Comprehensive Technical Support: Strengthen customer confidence and retention (Anggara Putra & Arya Kadyanan, 2019).Promoting Open-Source Software: Offer free and legal alternatives developed collaboratively (Rochman et al., 2020).

These solutions collectively foster an ethical software ecosystem grounded in legality, innovation, and digital sustainability.

Conclusion and Recommendations

Software piracy constitutes both a criminal offense and a moral violation that undermines creators' rights and impedes technological progress. Various laws including the Copyright Law, Consumer Protection Law, ITE Law, Patent Law, and Government Regulation No. 20 of 2017 explicitly prohibit piracy. Yet the persistence of illegal software use highlights deficiencies in public awareness and access to affordable legal alternatives.

This study underscores the urgency of enhancing ethical education, enforcing intellectual property rights, and expanding access to licensed software. Cultivating ethical awareness within digital practices not only protects creators but also strengthens the integrity and sustainability of the global information ecosystem.

Disclosure Statement

The author declares no conflict of interest related to this research.

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