
LEGAL REGULATION OF THE USE OF TECHNOLOGY IN ELEMENTARY SCHOOL LEARNING

Siti Hapsah Pahira^{1*}, Rio Rinaldy², Labisal Fitri Al-qalbi³, Amelia⁴

Poltek Siber Cerdika Internasional Cirebon, Indonesia¹, Universitas Catur Insan Cendekia (CIC) Cirebon, Indonesia^{2,4}, Sekolah tinggi Agama Islam Kuningan, Indonesia³

Email : sitihafsahfahira23@gmail.com^{1*}, rio71933@gmail.com²,
labisal33@gmail.com³, melameliaaa99@gmail.com⁴

*Correspondence

ABSTRACT

Keywords: law; technology; education.

Nowadays, technology is essential in various aspects of life, including education. Education is the right of all members of society, and the government is obliged to organise education to educate the nation's life. However, besides having a positive impact, technology can also have a negative impact. Thus, there is a need for legal protection against the negative impact of technology use on learning in elementary schools. The purpose of this study is to determine the legal regulation of the use of technology in learning in elementary schools. This research uses a qualitative approach and the Miles and Huberman interactive analysis model, which consists of 3 main things: data reduction, data presentation, and conclusion drawing. The results show that using technology in primary school learning requires legal regulations that balance educational innovation and the protection of students' data. This regulation is essential to regulate the use of technology as a supporting tool, improve learning effectiveness, and create a safe environment. The protection of students' data and cybercrime monitoring should also be integrated into the regulation to create an efficient and ethical education in the digital era.



Introduction

Since 2013, the Ministry of Education and Culture (Kemdikbud) has implemented the 2013 curriculum. The government eliminates technology lessons from elementary to high school in this curriculum. According to the government, technology lessons are being phased out, but technology is integrated into all lessons. This decision is based on the awareness that technological developments have affected various aspects of human life. This encourages a new era of human civilisation from the industrial to the information age (Warshina, 2014). The development of science has progressed very rapidly. Mastery of technology is essential in today's digital era. Using computers to access, process, and present information and data, individually and in groups, is a primary need in today's era (Martiana, 2020).

Information technology is a combination of computer technology and communication technology used to compile data, store data, manage data, manipulate data, process data, and obtain data that aims to produce relevant and accurate information data. Information technology is crucial in learning activities (Sucipto, 2022).

Information technology is currently a "double-edged sword" because, in addition to contributing to improving welfare, progress, and human civilisation, it is also an effective means of unlawful acts, including criminal acts (crimes). These various forms of crime (crime) have come to be known as "cybercrime" (Rumlus & Hartadi, 2020). Technology discusses cybercrime also related to the leakage of personal data, basically referring to individual privacy. Especially in this era of big data, various widespread data collection applications and devices and diverse communication technologies (such as powerline communications, cellular networks, Internet, and sensor networks) have provided tremendous efficiency in collecting individual data, which includes individual identity, finance, physical condition, and livelihood (Alfaridzi, 2022).

The perception of personal data protection is related to the concept of privacy, where the concept of privacy itself is the idea of maintaining personal integrity and dignity because the right to privacy includes the right to determine, provide, or not provide personal data (Ramadhani et al., 2021).

Previous research conducted by Ningsih et al. (2020) stated that in the current era of globalisation, teachers are required to use technology in the learning process to add insight and can help teachers add teaching materials with the use of technology in the learning process.

Unlike previous studies, the novelty of this study is to discuss more deeply the impact of technology use on learning in elementary schools. There are positive impacts and negative impacts on the use of technology in learning. Thus, it needs a legal umbrella protecting the technology's negative impact. So, this study aims to determine the legal regulation of technology use in elementary school learning.

Research Methods

A qualitative approach is used in this study, which is used to find out or describe the reality of the events studied to facilitate obtaining objective data (Adhimah, 2020). A qualitative approach is a process of research and understanding based on methodologies that investigate a social phenomenon and a human problem. In this approach, researchers make a complex picture, examine words, provide detailed reports of respondents' views, and conduct studies on the situation experienced (Arkandito et al., 2016). The research model used is the Miles and Huberman interactive analysis model. Qualitative data analysis activities are carried out interactively and continuously until complete so the data is saturated. This analysis consists of 3 main things: data reduction, data presentation, and conclusion drawing (Lisabela, 2019).

Results and Discussion

Law No. 20 of 2003 states the National Education System in Article 3, which reads that national education limits development in forming a good person and noble state progress, which means educating the country's life (Purnasari & Sadewo, 2020). In Law Number 20 of 2003 concerning the National Education System, in Article 1 paragraph (1) here, it is stated that:

"Education is an effort that is carried out intentionally or with self-awareness and has been planned to carry out a learning atmosphere along with the course of learning so that students can quickly develop the abilities that exist within themselves, in order to have spiritual defence, personality, self-control, intelligence, noble character, and also skills needed by each person, society, nation, and state."

Primary education is critical education in the process of printing Human Resources in the future, and as a candidate for the nation's successor, so the role of the learning process dramatically determines the success of its students; in the current era of Discretion in the era of the industrial revolution 4.0 educational institutions are required to produce quality graduates, one of which is the use of technological media (Simanjuntak et al., 2020).

Education is an endless process, and education is a process of forming fundamental basic abilities regarding thinking and intellectual and emotional forces directed at human nature and others. Therefore, the learning process is the key to educational success, so the learning process becomes quality and requires quality service governance (Zulfitria et al., 2020). Successful learning is the primary goal of the educational process. Efforts that can be made in achieving educational goals are by designing the learning process that is right on power, right on target, and has an impact on improving student competence both from cognitive, affective, and psychomotor aspects. To support the implementation of learning, especially in education at the elementary school level, a teacher must be able to design learning that suits the needs of students and adapt it to the times (Purnasari & Sadewo, 2020).

Technology as a source and medium of learning can use computer devices as innovative learning resources and media. The use of technology in education has led to a fundamental change in how teachers teach, learners learn, and school management has changed from what existed before. Technology causes changes in terms of the role of teachers, who are not only a source and providers of knowledge but also a facilitator and even a learning friend of students. Therefore, teachers can provide great choices and responsibilities to students to experience learning events (Dewi & Hilman, 2019).

Technology can help all humans around the world become a means to carry out daily activities carried out by humans in work and education. Technology is also included in a field of science to study a system contained in a computer or laptop and make a device or application installed in a network to help or facilitate humans in daily activities (Maritsa et al., 2021). The role of information technology in online learning includes:

- a. Information technology is used as a support tool for knowledge design.
- b. Information technology can increase the effectiveness and efficiency of the learning process.
- c. Information technology as a tool to achieve educational goals.
- d. Information technology as a means of information is used to find knowledge that supports students.
- e. Information technology is used as a medium in facilitating students to present arguments.

Kohler & Weisz (Cayeni & Utari, 2019) identify the challenges of Industry 4.0 as follows;

- a. information technology security issues;
- b. reliability and stability of production machines;
- c. lack of adequate skills;
- d. unwillingness to change by stakeholders; and

The loss of many jobs due to turning into automation Revitalization of learning systems includes,

- 1) curriculum and character education,
- 2) learning materials based on information and communication technology,
- 3) entrepreneurship,
- 4) coordination and Evaluation.

Education units include,

1. new school units and new classrooms,
2. other study rooms,
3. rehabilitation of classrooms,
4. student and teacher dormitories,
5. equipment, and
6. School management and culture.

Elements of learners include,

1. awarding scholarships and
2. talent development of interests.

Elements of educators and education personnel include,

1. Preparation
2. Distribution
3. Qualification
4. Certification
5. Training
6. career and welfare, and
7. Awards and Patronage.

Information technology is currently a "double-edged sword" because, in addition to contributing to improving welfare, progress, and human civilisation, it is also an effective means of unlawful acts, including criminal acts (crimes). These various forms of crime (crime) have come to be known as "cybercrime" (Rumlus & Hartadi, 2020). Technology discusses cybercrime also related to the leakage of personal data, basically referring to individual privacy.

Previous research conducted by Arbella (2020) stated that legal protection of personal data is critical. Indonesia's data protection rules are spread across various laws and regulations. However, the increasing cases of misuse of personal data in Indonesia have forced the Personal Data Protection Bill to be passed immediately. GDPR's defence is good enough, ranging from personal data subjects, types of rights, and obligations to sanctions, which create a sense of security for personal data users.

According to Ratnawati (2022), the right to human privacy is a fundamental right, so to provide legal protection for the patient's privacy/confidentiality rights has been regulated in various laws, both *lex generalis* and *lex specialis*, as follows:

1. Article 28G Paragraph (1) of the 1945 Constitution.

"Everyone has the right to the protection of his person, family, honour, dignity, and property under his control, and to security and protection from the threat of fear to do or not to do something which is a human right."

2. Article 12 of the Universal Declaration of Human Rights

"No one shall be arbitrarily interfered with in his personal affairs, family, household, or correspondence, nor shall he commit any offence of his honour and good name. Everyone has the right to legal protection against such disturbances or violations."

3. Article 17 of the International Covenant on Civil and Political Rights

- a. no one shall be arbitrarily or unlawfully interfered with in his personal, family, home, or correspondence matters, or unlawfully invaded his honour and good name; and
- b. Everyone has the right to legal protection against such interference or attack.

The positive law places the regulation of personal data and data protection separately in several regulations, including Law Number 19 of 2016 concerning amendments to Law Number 11 of 2008 concerning Information and Electronic Transactions (ITE Law), Law Number 43 of 2009 concerning Archives, Law Number 14 of 2008 concerning Public Information Openness, Law Number 24 of 2013 concerning Population Administration, Law Number 36 of 1999 concerning Telecommunications which was repealed by Law Number 11 of 2020 concerning Job Creation, Ministerial Regulation Number 20 of 2016 concerning Protection of Personal Data in Electronic Systems, and Government Regulation Number 82 of 2012 which was enforced for Electronic System and Transaction Operators (Alfina et al., 2022).

Conclusion

Based on the results of the study, it was found that legal regulations regarding the use of technology in learning in elementary schools have an essential role in facing the era of the Industrial Revolution 4.0. In primary education, the learning process has a central role in shaping students' essential abilities and competencies. The use of technology in education brought about a significant change in the role of teachers, with a shift from informers to facilitators of learning. While technology brings many benefits, it also carries risks related to personal data security and cybercrime. Therefore, legal regulation is needed to protect the right to privacy and regulate the use of technology in education, including protecting the personal data of students and students.

Legal regulations must cover essential aspects of the use of technology in education, such as the protection of students' data, the use of information technology-based learning media, and sanctions related to data breaches or cybercrimes. The importance of this regulation is not only to protect students' data but also to create a safe and effective learning environment. In addition, regulations should also encourage proper integration of technology and provide guidelines for teachers and educational institutions in making

good use of technology. In the context of the Industrial Revolution 4.0, prudent legal regulation will help maintain a balance between the use of technology in learning and the protection of individual rights, as well as support the creation of a skilled generation that is ready to face future challenges.

Bibliography

- Adhimah, S. (2020). Peran orang tua dalam menghilangkan rasa canggung anak usia dini (studi kasus di desa karangbong rt 06 rw 02 Gedangan-Sidoarjo). *Jurnal Pendidikan Anak*, 9(1), 57–62.
- Alfaridzi, M. R. (2022). Analisis Framing Pemberitaan Kasus Kebocoran Data Pribadi Di Media Online (Studi Deskriptif Analisis Framing Model Robert N Entman Pemberitaan Terkait Kasus Kebocoran Data Pribadi oleh Hacker Bjorka di Tempo.co dan Kompas.com Periode 22 Agustus – 18 Novem. *Universitas Sebelas Maret*.
- Alfina, L., Rizqi, M., Radya, S., & Mada, U. G. (2022). *Jurist-Diction* (Vol. 5, Issue 1). <https://doi.org/10.20473/jd.v5i1.32867>
- Arbella, W. I. A. (2020). Perbandingan Hukum Terhadap Perlindungan Data Pribadi Menurut Hukum Positif Indonesia dan General Data Protection Regulation (GDPR) Uni Eropa. *Faculty of Law*.
- Arkandito, G. F., Maryani, E., Rahmawan, D., & Wirakusumah, T. K. (2016). Komunikasi Verbal pada Anggota Keluarga yang Memiliki Anak Indigo. *Jurnal Manajemen Komunikasi*, 1(1), 42–56.
- Cayeni, W., & Utari, A. S. (2019). Penggunaan Teknologi Dalam Pendidikan: Tantangan Guru Pada Era Revolusi Industri 4 . 0. *Prosiding Seminar Nasional Program Pascasarjana*, 658–667. <https://jurnal.univpgri-palembang.ac.id/index.php/Prosidingpps/article/view/3096>
- Dewi, S. Z., & Hilman, I. (2019). Penggunaan TIK sebagai Sumber dan Media Pembelajaran Inovatif di Sekolah Dasar. *Indonesian Journal of Primary Education*, 2(2), 48. <https://doi.org/10.17509/ijpe.v2i2.15100>
- Lisabela, M. (2019). Model Analisis Interaktif Miles and Huberman. *Universitas Bina Darma*.
- Maritsa, A., Hanifah Salsabila, U., Wafiq, M., Rahma Anindya, P., & Azhar Ma'shum, M. (2021). Pengaruh Teknologi Dalam Dunia Pendidikan. *Al-Mutharahah: Jurnal Penelitian Dan Kajian Sosial Keagamaan*, 18(2), 91–100. <https://doi.org/10.46781/al-mutharahah.v18i2.303>
- Martiana, E. (2020). Penggunaan ICT Dalam Pembelajaran. *Workshop Nasional Penguatan Kompetensi Guru Sekolah Dasar*, 3(3), 951–952.

- Ningsih, S., Kuntarto, E., & Kurniawan, A. R. (2020). Teachers' Problems in Using Information and Communication Technology (ICT) and Its Implications in Elementary Schools. *JURNAL PAJAR (Pendidikan Dan Pengajaran)*, 4(3), 518. <https://doi.org/10.33578/pjr.v4i3.7964>
- Purnasari, P. D., & Sadewo, Y. D. (2020). Pemanfaatan Teknologi Dalam Pembelajaran Sebagai Upaya Peningkatan Kompetesnsi Pedagogik. *Publikasi Pendidikan*, 10(3), 189. <https://doi.org/10.26858/publikan.v10i3.15275>
- Ramadhani, S. A., Hukum, F., & Brawijaya, U. (2021). Komparasi Pengaturan Perlindungan Data Pribadi Di Indonesia Dan Uni Eropa. *Jurnal Hukum Lex Generalis*, 3(1), 73–84.
- Ratnawati, E. T. R. (2022). Perlindungan Hukum Pasien Atas Hak Rahasia Kedokteran Dalam Pelayanan Medis Di Era Pandemi Covid 19. *Jurnal Meta-Yuridis*, 5(2), 55–70. <https://doi.org/10.26877/m-y.v5i2.11294>
- Rumlus, M. H., & Hartadi, H. (2020). Kebijakan Penanggulangan Pencurian Data Pribadi dalam Media Elektronik. *Jurnal HAM*, 11(2), 285. <https://doi.org/10.30641/ham.2020.11.285-299>
- Simanjuntak, H., Endaryono, B. toni, & Balyan. (2020). Bakti Peran Teknologi Informasi dalam Proses Kegiatan Belajar Mengajar di Sekolah Dasar. *Inventa*, 4(1), 1–10. <https://doi.org/10.36456/inventa.4.1.a2122>
- Sucipto, T. A. (2022). Efektivitas Penggunaan Teknologi Informasi untuk Pembelajaran Daring di Masa Pandemi. *Jurnal SNATI*, 1(2), 32–39.
- Warshina, J. (2014). Peranan Tik Dalam Pembelajaran Di Sekolah Dasar Sesuai Kurikulum 2013. *Jurnal Teknodik*, Vol. 18(No.2), hal 156-164.
- Zulfitria, Ansharullah, & Fadhillah, R. (2020). *Penggunaan Teknologi dan Internet sebagai Media*.