Research on Preventing College Students from Overusing Network Technology for Learning under the Background of Technological Criticism Philosophy

Yingying Wu, Yibo Song

Zhengzhou Urban Construction Vocational College，Zhengzhou 450000, China.

Abstract: With the rapid development of network technology, college students are increasingly dependent on network technology in their learning process. However, excessive dependence on network technology learning may bring some negative impacts, such as decreased learning effectiveness and thinking, etc. This article explores the reasons and harms of college students' excessive dependence on network technology learning from the perspective of critical philosophy of technology, and puts forward corresponding countermeasures and suggestions.

Keywords: Critical philosophy of technology; Network technology; College students; Critical learning

1. Introduction

With the rapid development of information technology, the internet has become an important way for people to acquire knowledge and exchange information. As the backbone of future society, college students' learning and thinking methods are of great significance to the development of individuals and society. However, in reality, many college students overly rely on network technology for learning, which not only affects their learning effectiveness, but may also lead to some potential problems. Therefore, from the perspective of critical philosophical theory of technology, it is of great significance to criticize the excessive reliance of college students on online technology learning.2. Concept definition.

2. Concept definition

2.1 Philosophy of Technical Criticism

Critical philosophy of technology is a philosophical trend aimed at critical thinking about technology. It believes that technology is not a neutral tool, but a force with social and political influence. The core idea of critical philosophy of technology is that technology is not just a tool, but a social phenomenon that is closely related to society, culture, politics, economy, and other aspects. The purpose of critical philosophy of technology is to explore the impact of technology on human society and how technology shapes and changes the development of human society[1].

The critical philosophy of technology focuses on issues such as how technology affects people's lifestyles, social relationships, values, and power structures. It emphasizes that the development of technology is not simply a technical issue, but a profound social problem. Representative figures in critical philosophy of technology include Herbert Marcuse, Jacques Erida, Neil Postman, and others. Through critical thinking on technology, they have revealed the profound impact of technology on human society.

2.2 Network Technology

Network technology refers to the technology that enables information exchange and sharing through computer networks. It includes computer network technology, internet technology, email, instant messaging, social media, cloud computing, the Internet of Things, and so on. The development of network technology has enabled people to access information and communicate more quickly and conveniently, changing their way of life and work.

The development of network technology has given rise to new business models and ways of social interaction. People can engage in daily life and work through online shopping, online payments, remote work, and other means. [2]The rise of social media has also made it

more convenient for people to socialize and share information. At the same time, network technology has also brought new security and privacy issues, requiring continuous strengthening of network security and protection of personal privacy.

2.3 Educational Technology

Educational technology refers to the use of technological means to improve teaching and learning outcomes. It includes computer-aided teaching, online education, online courses, educational games, virtual reality, artificial intelligence, etc. The development of educational technology has made education more personalized, flexible, and efficient.

The development of educational technology has made learning no longer limited by time and space. Students can learn courses online, engage in online discussions, and do homework. Teachers can use educational technology to design more vivid and interesting teaching content, improving students' learning enthusiasm and participation. Meanwhile, educational technology has also brought new challenges, such as how to protect student privacy and ensure the quality of online education. Educational technology needs to be combined with educational theory in order to better serve the development of education[3].

A Review of Network Technology, Educational Technology, and Software Learning Applications for College Students: Current Status and Trends With the rapid development of information technology, network technology, educational technology, and various learning software have become an indispensable part of the learning life of contemporary college students. The widespread application of these technologies not only changes traditional learning methods, but also provides more abundant and convenient learning resources for college students. However, just like the duality of any technological development, these technologies bring convenience but also have some negative impacts. This article aims to summarize the current situation and trends of college students using network technology, educational technology, and software for learning, and explore their negative impacts[4].

3. The current situation and trend of using network technology for learning

3.1 Widespread Application of Network Technology

Nowadays, network technology has penetrated into various aspects of college students' learning. Whether through online courses for remote learning or using search engines to search and integrate academic materials, network technology has provided unprecedented learning convenience for college students. Meanwhile, social media and online forums also provide a platform for college students to exchange academic ideas and share learning experiences.

3.2 Continuous Innovation in Educational Technology

Educational technology, as an important bridge connecting teaching and learning, is also constantly developing and innovating. For example, the application of multimedia technology makes teaching content more vivid and interesting; Online evaluation and feedback systems can help students timely understand their learning progress and effectiveness, thereby adjusting their learning strategies.

3.3 The Rise of Software Learning

With the emergence of various learning software, software learning has become an emerging way of learning. These software not only provide rich learning resources, but also customize teaching according to the personalized needs of students. For example, language learning software helps students improve their language application abilities by simulating real language environments; Programming learning software provides practical projects to help students master programming skills through practice.

3.4 Negative impacts of excessive reliance on network technology learning

With the increasing dependence of college students on network technology, educational technology, and software learning, some students may experience an excessive dependence on technology. This may make it difficult for them to learn effectively without technical support. In addition, excessive reliance on technology may also lead to students lacking the ability to think independently and solve problems. Network technology makes information acquisition exceptionally convenient, but at the same time, it may also lead to the problem of infor-

mation overload. College students may feel at a loss when facing massive amounts of information, making it difficult to filter out truly valuable information. In the long run, this may affect their learning efficiency and quality. [5]Although network technology provides convenient social platforms for college students, excessive addiction to virtual socializing may lead to a decline in their social skills in real life. In addition, some students who excessively expose their personal privacy online may also have adverse effects on their physical and mental health. Long term use of electronic devices such as computers and mobile phones may lead to some health problems, such as decreased vision and cervical pain. In addition, excessive use of electronic devices may also affect the sleep quality of college students, thereby affecting their learning outcomes and physical health.

4. Discussion on excessive use of network technology by students from the perspective of critical philosophy of technology

From the perspective of critical philosophy of technology, we need to recognize that the development of network technology is not blindly promoting and following, but requires careful thinking and rational use. We should encourage college students to acquire knowledge in a diversified way in their studies, not only relying on network technology, but also cultivating their reading, thinking, and critical thinking abilities. In addition, schools and families should also strengthen the education of network literacy for college students, guide them to use network technology rationally, and avoid excessive dependence.

4.1 The impact of critical philosophy of technology on the large-scale use of teaching software and hardware in the field of education today

In the field of education, the impact of technology critical philosophy on the large-scale use of teaching software and hardware is mainly reflected in the following aspects:

4.1.1 Redefining the teacher-student relationship

The philosophy of technological criticism holds that modern technology is redefining the teacher-student relationship. Traditionally, teachers are the transmitters and interpreters of knowledge, while students are the recipients of knowledge. But with the help of teaching software and hardware, students can engage in self-directed learning through search engines, online courses, and other digital resources. This shifts the role of teachers from being knowledge transmitters to being guides and mentors of learning, while students become more proactive knowledge builders.

4.1.2 Changes in knowledge acquisition methods

The philosophy of technological criticism holds that modern technology has changed the way knowledge is acquired. In traditional education, students mainly acquire knowledge through classroom learning, reading books, and other means. In the digital age, students can acquire knowledge through digital resources such as search engines, online courses, and digital libraries. The transformation of this knowledge acquisition method allows students to arrange their learning time and location more flexibly.

4.1.3 Improvement of educational equity

The philosophy of technological criticism holds that modern technology helps to improve educational equity. In some impoverished areas, due to limited teaching resources, students often find it difficult to access high-quality educational resources. Digital educational resources can break geographical limitations and enable all students to access high-quality educational resources. This helps to narrow the education gap between urban and rural areas and improve educational equity.

5. The Impact of Artificial Intelligence Technology on the Education Sector

Artificial intelligence technology can provide personalized learning plans for students based on factors such as their learning style, interests, and learning abilities. This helps to improve the learning effectiveness and interest of students. For example, intelligent teaching systems can recommend suitable learning resources and exercise questions for students based on their learning situation. Artificial intelligence technology can automatically evaluate students' learning outcomes and homework quality, and provide timely feedback and suggestions to students. This helps to reduce the evaluation burden on teachers, improve the accuracy and efficiency of evaluations. Meanwhile, students

can also adjust their learning strategies in a timely manner based on feedback to improve learning outcomes. Artificial intelligence technology can provide decision-making support for educational institutions. For example, by analyzing a large amount of educational data, artificial intelligence technology can help schools make more scientific teaching plans, resource allocation, and enrollment policies. This helps to improve the management level and decision-making efficiency of educational institutions.

5.1 Criticism of the Overreliance on Technology in the Future Education Sector

Although modern technology has brought positive impacts to the field of education, if there is a trend of excessive reliance on technology in the future, it may bring some negative impacts. The following is a criticism from the perspective of technology critical philosophy that there may be an excessive reliance on technology in the future education field:

5.1.1 Technology replacing human teachers

With the continuous development of artificial intelligence technology, some people may advocate for the complete replacement of human teachers with intelligent teaching systems. However, from the perspective of critical philosophy of technology, although artificial intelligence technology can assist in teaching and evaluation, it cannot completely replace the role of human teachers in certain aspects. For example, human teachers can provide emotional support, personality charm, and innovative thinking guidance for students, which are difficult to replace with artificial intelligence technology.

5.1.2 Privacy and data security issues

With the increasing dependence on technology in the education sector, issues of student privacy and data security are becoming increasingly prominent. If a student's personal information is leaked or abused, it may cause harm to their personal privacy and rights. Therefore, in the future education field, it is necessary to strengthen the attention and supervision of data management and privacy protection.

5.1.3 Expansion of technological gap

Although modern technology can help improve educational equity, in some cases, it may also widen the technological gap. In some impoverished areas or developing countries, due to the lack of advanced technological equipment and network facilities, students may have difficulty accessing high-quality educational resources. This may lead to further widening of the digital divide, which is not conducive to the balanced development of education.

In summary, the critical philosophy of technology believes that the application of technology in the field of education has both positive aspects and potential negative impacts. In future development, we should maintain a rational and cautious attitude towards the application of technology in the field of education. We should not only fully utilize its advantages to promote the development and fairness of education, but also be vigilant about the risks and problems it may bring.

6. How can education managers avoid further imbalances?

In order to change the trend of high reliance on network technology for learning that may arise in the field of education:

6.1 Emphasize the comprehensive development of students

Although network technology can provide abundant learning resources and methods, it cannot replace the core role of traditional education. Schools should focus on cultivating students' comprehensive qualities, including the development of knowledge, skills, emotions, values, and other aspects. Avoid focusing solely on knowledge transfer and skill development, while neglecting the development of students' emotional and social abilities.

6.2 Strengthening the guiding role of teachers

Teachers play an important role in guiding and assisting students in their learning process. Teachers should improve their information technology literacy and teaching ability, master the ability to screen, integrate, and evaluate network information, and provide students with high-quality learning resources. At the same time, teachers should also focus on cultivating students' independent thinking and problem-solving abilities to avoid excessive reliance on network technology.

6.3 Balancing Digital Learning and Traditional Learning

Although digital learning has advantages such as convenience and flexibility, traditional learning also has its irreplaceable value. Students should balance digital learning and traditional learning methods, and choose appropriate learning methods based on their own learning needs and actual situations. At the same time, schools should also reasonably arrange the ratio of digital learning and traditional learning according to the actual situation, ensuring that students can obtain a comprehensive educational experience.

6.4 Strengthen the management and supervision of network resources

Schools and parents should strengthen the management and supervision of online resources to ensure that students have access to safe, reliable, and high-quality learning resources. At the same time, the government should also strengthen its supervision of the online environment, combat cybercrime and the spread of harmful information, and provide students with a healthy online environment.[1]

6.5 Cultivate students' information literacy and critical thinking

Students should improve their information literacy and critical thinking, and use network technology correctly for learning. Students should have the ability to screen, integrate, evaluate, and identify online information to avoid being misled by incorrect information. Meanwhile, students should also focus on cultivating their independent thinking and innovation abilities, avoiding excessive reliance on network technology.

In short, changing the trend of highly relying on network technology for learning requires multiple efforts and cooperation. Schools, teachers, parents, and students should all recognize the double-edged nature of technology and make reasonable use of network technology to bring positive impacts to education, while also being wary of its potential negative impacts.

7. Summary

In the field of education, the widespread application of network technology has brought convenience and efficiency, but it has also brought about the problem of excessive dependence on technology. From the perspective of critical philosophy of technology, we should pay attention to the double-edged nature of technology. We should not only utilize its advantages to promote the development of education, but also be vigilant about the risks and problems it may bring. To change the trend of highly relying on network technology for learning, it is recommended that schools, teachers, parents, and students work together. Schools should focus on the comprehensive development of students, strengthen the guiding role of teachers, and balance digital learning and traditional learning. Teachers should improve their information technology literacy and teaching ability, and focus on cultivating students' independent thinking and problem-solving abilities. Parents should strengthen the management and supervision of online resources to provide students with a healthy online environment. Students should improve their information literacy and critical thinking, use network technology correctly for learning, and avoid excessive reliance on network technology. Through various efforts and cooperation, we can achieve the positive impact of network technology on education while avoiding its potential negative impact.

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