



The Importance of Digital Literacy for University Students in the New Media Era

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Abstract. As 5G technology advances, digital literacy has become a vital skill for university students in the new media era. This paper examines the current state of digital literacy among students, highlighting deficiencies in information retrieval, discernment, and practical application. Survey results show that many students lack basic internet knowledge and critical thinking skills, hindering both academic performance and career prospects. To address these gaps, the paper suggests enhancing education on internet ethics and security, strengthening supervision systems, and optimizing resources to better equip students for the digital world.

Keywords: Digital Literacy; New Media; University Students; Information Discernment; Education.

1 Introduction

With rapid advancements in internet technology, especially the widespread adoption of 5G, cyberspace has become integral to modern society. According to the "Statistical Report on China's Internet Development," China now has over 1.079 billion internet users, with an internet penetration rate of 76.4%, highlighting the growing importance of digital literacy, particularly for university students.

As a dynamic and adaptable group, university students not only reflect contemporary online trends but also influence their personal development, social interactions, and the future of the nation. However, they face challenges such as information overload and difficulty discerning truth from falsehood, which test their critical thinking, ethical awareness, and self-management skills [1].

The concept of digital literacy has expanded with internet technology to include not only basic online skills but also information literacy, ethics, and legal awareness [2]. In the new media era, improving university students' digital literacy is vital for both personal growth and maintaining a healthy cyberspace [3].

Despite increasing research on digital literacy, a standardized evaluation system is still lacking, especially in China. This paper addresses this gap by assessing the cur-

rent state of digital literacy among university students and offering practical solutions for improvement.

2 Background

In recent years, the rapid development of internet technology has continually expanded and refined the concept of digital literacy. Initially defined as the ability to access and process information using internet resources, it has since broadened to include locating, retrieving, using, and evaluating electronic information [4]. Chinese scholars have also contributed, defining digital literacy as involving not only online skills but also cognition, evaluation, and adherence to ethical norms within online communities [5].

Over time, digital literacy has grown to include various competencies. At the skills level, it covers internet use—such as online reading, writing, speaking, and operations like search engine use, email, and online communication [6; 7].

At the knowledge level, it demands understanding of basic internet concepts, including structure and protocols. Critically, it also involves evaluating the reliability of online information [8].

On the attitudinal and ethical fronts, digital literacy emphasizes online security, privacy, and etiquette, urging individuals to respect others' rights and contribute to a healthy online environment.

In the 21st century, the definition has further evolved. Scholars now view digital literacy as a comprehensive ability that integrates knowledge, skills, attitudes, and ethical considerations [9]. This includes critical thinking, self-management of online behavior, and awareness of internet media and security [10; 11]. In the mobile internet era, new challenges such as information overload and cybersecurity incidents have made it essential for individuals to critically assess information, promote online civility, and engage in responsible online consumption.

In summary, digital literacy is a multidimensional and evolving concept that demands skills, knowledge, ethical awareness, and critical thinking to navigate the complexities of the digital world.

3 Methods

To assess the current state of network literacy among college students in the new media era, a targeted questionnaire was developed based on established scales and tailored to students' characteristics. The survey, conducted online through the Questionnaire Star platform, covered 12 universities in Shandong Province using random sampling. Of 412 distributed questionnaires, 373 valid responses were collected, yielding a 90.53% response rate, providing a solid foundation for analysis.

4 Results

The analysis of the data revealed several critical issues concerning the network literacy of college students:

Lack of Basic Network Knowledge. Many students demonstrate an insufficient understanding of fundamental network concepts. This gap in knowledge often leads to errors when using the internet, significantly hindering their overall network literacy development.

Insufficient Information Discrimination Ability. College students frequently struggle to make rational judgments when confronted with complex information. This difficulty renders them particularly susceptible to misinformation and false data, posing a risk to their ability to navigate the digital landscape effectively.

Inadequate Mastery of Network Knowledge. While many college students can perform basic internet operations, they often lack a comprehensive understanding of underlying network technologies. This deficiency contributes to a generally low level of network literacy and limits their ability to utilize digital resources to their full potential.

5 Conclusions

5.1 Discussion

This study highlights the significant challenges faced by college students in developing their network literacy in the new media era. It underscores the crucial need for enhancing this literacy, as it is vital for both individual growth and societal progress. Elevating students' network literacy is not a straightforward task [12]; it requires a sustained and collaborative effort from various stakeholders, including the government, educational institutions, society, and the students themselves [13].

By fostering multi-party cooperation, we can facilitate the comprehensive development of network literacy education, ultimately contributing to the sustainable advancement of society. Moving forward, it is essential to prioritize initiatives that support this educational enhancement, ensuring that students are equipped with the necessary skills to thrive in an increasingly digital world.

5.2 Strategic Recommendations to Improve College Students' Network Literacy

Based on the challenges identified, this study proposes the following recommendations to improve college students' network literacy in the new media era:

Strengthen Cyber Ethics Education. Universities should incorporate cyber ethics and law into courses, using methods like case studies and role-playing to enhance students' ethical understanding and social responsibility in cyberspace.

Deepen Cybersecurity Education. A systematic cybersecurity curriculum aligned with national regulations should be implemented. Regular drills and competitions can improve students' self-protection and response skills, supported by a long-term framework to keep education updated and effective.

Enhance Network Regulation Systems. Governments should clarify roles in online regulation, while universities can establish teams to monitor and address harmful online content, ensuring a safer online environment.

Motivate Students for Self-Improvement. Engaging activities such as competitions and workshops can encourage students to enhance their digital literacy. Sharing success stories on social media can further foster a positive learning environment.

Optimize Educational Resources. Universities should collaborate with external platforms to build diverse digital literacy resources, including online courses and practical projects. Partnering with international education platforms can also improve the quality of education.

Leverage New Media for Promotion. Universities should use new media platforms to promote network literacy, encouraging positive online behavior through interactive communities and collaborations with mainstream media and influencers.

In conclusion, enhancing network literacy is a complex, long-term process that requires cooperation among government, educational institutions, and students. Collective efforts will promote the comprehensive development of network literacy education and contribute to societal growth.

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