

Cultivation Strategies, Methods, and System Construction of College Students' Digital Literacy

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Abstract

With the rapid development of the Internet, the current status of college students' Internet usage and their digital literacy levels have attracted widespread attention. Digital literacy education is crucial for college students' all-round development and adaptation to modern society. This study aims to explore the necessity and methods of digital literacy education for college students, and propose corresponding strategies and suggestions. Through literature review, survey research and other methods, relevant data were collected and analyzed. The results show that the current digital literacy level of college students is generally low, while the importance of digital literacy education in universities is widely recognized. Effective digital literacy education requires comprehensive promotion, including classroom teaching, social practice, and independent learning. It is suggested that universities and educational authorities increase support for college students' digital literacy education, provide necessary resources and training, and strengthen cooperation and participation between families and society to jointly promote the improvement of college students' digital literacy.

Keywords

College Students; Digital Literacy; Internet; Ideological and Political Education.

1. Introduction

With the rapid development of information technology, the Internet has become an indispensable part of people's daily lives. As the main force of social development, college students' digital literacy levels have an important impact on personal development and social progress. Scholar Jia Shilin elaborated on college students' digital literacy from three disciplinary perspectives: informatics, moral education, and pedagogy, arguing that it encompasses information literacy, moral literacy, and responsibility norms [1]. However, the current situation shows that college students' digital literacy faces numerous problems, such as information overload and weak awareness of cybersecurity [2]. Therefore, it is imperative to carry out effective digital literacy education for college students.

2. Current Status of College Students' Digital Literacy

College students use the Internet frequently and are highly dependent on it, integrating it into daily activities including classes, learning, socializing, and entertainment. Surveys indicate that some students access the Internet regularly, considering it a vital method for acquiring knowledge [3]. Their purposes for Internet use are diverse, such as obtaining learning materials, socializing, and entertainment, making the Internet a key channel for information acquisition and personal needs satisfaction. Additionally, college students adopt various ways to access the

Internet, using mobile phones, tablets, computers, etc., and engage with a wide range of online applications and social media platforms.

Nevertheless, college students generally encounter issues such as information overload, insufficient cybersecurity awareness, and poor ability to identify online information. Some students become addicted to online content like games and social media, struggling to balance learning and entertainment. This imbalance leads to academic problems such as course failures, academic probation, and delayed graduation, as well as increased academic pressure and decreased social skills. Furthermore, inadequate cybersecurity awareness and weak information discrimination ability make some students neglect personal privacy protection, resulting in information leakage and vulnerability to online fraud. Consequently, universities have become high-risk areas for telecom fraud.

3. Necessity of Digital Literacy Education for College Students

3.1. Broadening Knowledge Horizons

The Internet provides college students with extensive learning and educational resources, including online education platforms, knowledge-sharing websites, and academic paper databases. Digital literacy education guides students to utilize these resources rationally, helping them not only deepen their professional knowledge but also access diverse fields of study, gain broader insights, and enhance information acquisition and processing capabilities.

3.2. Cultivating Information Literacy and Innovation Capabilities

In the era of information explosion, it is crucial to learn to obtain information from various channels and distinguish its credibility and value. Digital literacy education equips students with skills to effectively acquire and screen information, thereby fostering their information literacy. Moreover, it encourages students to participate in open learning and collaborative projects, stimulating innovative thinking. By engaging in practical opportunities and innovation initiatives, students apply theoretical knowledge to address real-world problems and develop creative solutions, nurturing their sense of innovation and problem-solving abilities. Overall, digital literacy education helps cultivate college students' information literacy and innovation capabilities, enhancing their competitiveness in the information society.

3.3. Enhancing Cybersecurity Awareness

Given college students' insufficient cybersecurity awareness and weak information discrimination ability, high-quality digital literacy education helps them understand basic cybersecurity knowledge and recognize potential risks in the online world, such as common cyberattacks like online fraud, phishing, and malware. Beyond theoretical instruction, it includes practical operations and skill training-teaching students to create strong passwords, use antivirus software, and identify and avoid malicious links-enabling safer daily Internet use. Additionally, it guides students to develop positive online usage habits and moral values, fostering a sense of responsibility for cybersecurity and encouraging active participation in safeguarding online security. Effective digital literacy education reduces the risks of online fraud and privacy leakage by enhancing students' cybersecurity awareness.

3.4. Developing Online Communication and Collaboration Skills

Digital literacy education facilitates practical experience in project cooperation and team collaboration. By completing relevant tasks and projects with others, students learn to communicate and collaborate effectively, nurturing their cooperative awareness and abilities in the online environment. They acquire skills in various forms of online interaction, including text communication, online discussions, and remote collaboration. These learning experiences enhance their social skills, enabling them to build positive relationships online. Through

learning and practicing collaboration tools, information sharing, and cross-cultural communication, digital literacy education equips college students with the necessary skills to adapt to Internet-based cooperation and communication in modern society, improving their expression and collaboration capabilities in virtual social settings.

4. Strategies and Methods for Digital Literacy Education of College Students

4.1. Classroom Teaching

Universities should strengthen the development of digital literacy-related courses or modules, providing students with systematic teaching content. Teachers can adopt methods such as theoretical lectures, case analysis, group discussions, and interactive activities to guide students in understanding the importance of cybersecurity and digital literacy, while fostering skills such as information search, critical thinking, and information discrimination.

4.2. Social Practice

Organize students to participate in cybersecurity-related social activities, such as publicity campaigns, forums, and awareness training programs. These activities allow students to gain in-depth understanding of practical cybersecurity issues and solutions, strengthening their awareness. Additionally, encouraging participation in cybersecurity competitions stimulates interest and enthusiasm, honing their cybersecurity skills and teamwork abilities. Social practice exposes students to real cybersecurity environments, enabling them to learn and apply relevant knowledge and skills, thereby improving their digital literacy. It also cultivates practical capabilities, innovative thinking, and adaptability to future career and social requirements.

4.3. Independent Learning

Encourage students to take the initiative in learning and exploring online knowledge, set clear and feasible learning goals, and develop specific plans. Students should be motivated to utilize online resources such as courses, teaching videos, and e-books to enhance their digital literacy. Universities should provide support through independent learning platforms, creating a favorable environment with quiet, clean, and comfortable spaces, as well as necessary tools and technical equipment like computers and Internet access. Independent learning helps students master self-management and learning skills, develop the ability to engage in lifelong learning and adapt to technological changes, and enhance their independent thinking and problem-solving capabilities, building confidence in the field of digital literacy.

5. Implementation and Support of Digital Literacy Education for College Students

5.1. The Role and Responsibility of Universities

Universities should increase investment in digital literacy education, cultivate a team of highly qualified teachers [4], and provide relevant resources and facilities. They should integrate digital literacy into the curriculum-either through specialized courses or by incorporating related content into various disciplines-and define clear educational goals and indicators to ensure students acquire essential knowledge and skills during their university studies. Additionally, universities should offer training and support for teachers to enhance their professional competence in teaching digital literacy. They should provide abundant learning resources and online platforms to facilitate independent learning, and establish cybersecurity support centers or relevant departments to offer consulting, training, and support services.

These measures strengthen students' cybersecurity awareness, educating them on personal information protection, cyber threat response, and fraud identification.

5.2. Support and Guidance from Educational Authorities

"College students are in a critical stage of socialization and transition to adulthood, and various social institutions and groups play a vital role in this process [5]." Educational authorities should formulate relevant policies and guidelines, strengthen management and supervision of digital literacy education, and clarify its objectives, content, and requirements. They should provide policy and resource support to universities through funding programs or special funds for training, activities, and resource development.

Authorities can also organize training sessions and seminars, inviting experts and practitioners to share the latest theoretical research and practical experience. Developing assessment standards and systems guides universities in evaluating students' digital literacy. Establishing or supporting national digital literacy teaching resource libraries and learning platforms provides abundant educational resources and tools. These measures promote the comprehensive development of college students' digital literacy education, enhancing their adaptability and safety awareness in the digital age.

5.3. Family and Social Cooperation and Participation

Family and social collaboration play a crucial role in cultivating college students' digital literacy [6]. Within families, parents should pay attention to their children's online behavior, provide correct guidance and advice, encourage reasonable Internet use time limits, and help develop healthy online habits. Families should also cooperate with universities, supporting digital literacy education activities and participating in family-oriented workshops to improve the entire family's digital literacy.

Social organizations and institutions act as bridges, cooperating with universities to promote digital literacy education. They can provide educational resources, organize publicity campaigns, conduct training programs and lectures, and offer professional guidance to enhance students' cybersecurity awareness and prevention capabilities. Additionally, social media can carry out publicity and reports on digital literacy, raising public attention to related education [7].

Active family and social participation is essential for advancing college students' digital literacy education. Through family support and multi-sectoral social cooperation, a interactive educational environment can be formed, providing comprehensive resources and opportunities for cultivating college students' digital literacy.

6. Conclusion

Through research and analysis on college students' digital literacy education, this paper reveals the current low level of digital literacy among college students and the necessity of relevant education. In terms of strategies and methods, it proposes implementation approaches from multiple perspectives, including classroom teaching, social practice, and independent learning. Meanwhile, it emphasizes the importance of cooperation and support from universities, educational authorities, families, and society. Only through joint efforts from various sectors can the digital literacy of contemporary college students be effectively improved, enabling them to keep pace with the times and become the main force of the new era.

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