

The Role of Libraries in Improving Digital Literacy and Preventing Misinformation Among Students

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ARTICLE INFO

Accepted : August 01, 2025

Revised : August 15, 2025

Approved: September 10, 2025

Published: September 27, 2025

Keywords:

digital literacy;
misinformation; college
libraries; students.

ABSTRACT

The development of digital technology presents challenges for students in accessing valid information while increasing the risk of exposure to misinformation. This study aims to describe the role of libraries in improving digital literacy and their efforts to prevent misinformation among students. The research method used is descriptive qualitative with data collection techniques through in-depth interviews, observation, and documentation. Research informants include students as users of library services and librarians as service providers. Data analysis was conducted using the Miles and Huberman model through the stages of data reduction, data presentation, and drawing conclusions. The results show that libraries play a strategic role in supporting students' digital literacy by providing access to verified academic sources, digital literacy training, and facilitation by librarians. In terms of preventing misinformation, libraries provide education on information verification, provide valid content, and conduct information literacy campaigns. Despite challenges such as limited resources and low student participation, libraries still have opportunities to develop innovative digital services, strengthen collaboration with lecturers, and optimize digital literacy programs.

INTRODUCTION

The development of information technology has encouraged students to be more active in accessing various digital information sources, not only limited to academic needs such as searching for references for assignments, research, or lecture discussion materials, but also to support daily activities such as following the latest news, interacting on social media, and using productivity-supporting applications (Abdul



Sakti, 2023). This widespread access to digital information makes students more independent in acquiring knowledge, while also requiring strong digital literacy skills to be able to sort, understand, and utilize information critically and responsibly.

Misinformation and hoaxes are increasingly prevalent in the digital age, as information is easily distributed through various online platforms. Therefore, students are required to have adequate digital literacy to protect themselves from its negative impacts. Good digital literacy enables students not only to critically filter information but also to assess the credibility of sources, understand the context of information, and distinguish between fact, opinion, and manipulation (Amril & Sazali, 2025) with these skills, students can become savvy users of information and contribute to creating a healthier and more trustworthy digital ecosystem.

Today's college libraries are no longer limited to their traditional function as providers of printed book collections, but have evolved into digital resource centers that provide access to e-books, electronic journals, academic databases, and various online learning platforms (Kolesnykova, 2019). Furthermore, libraries play a crucial role in providing information literacy and digital literacy training for students, enabling them to effectively navigate the complex flow of information. Furthermore, libraries serve as facilitators of critical learning by providing discussion spaces, workshops, and educational programs that encourage students to think analytically, assess the credibility of information, and develop academic skills relevant to the needs of the digital era (Caffrey et al., 2022).

Several previous studies have emphasized the importance of digital literacy for students, but most of them still focus on classroom learning practices, teaching strategies, or the role of lecturers in improving these skills (Latief et al., 2025). Studies on the contribution of libraries as strategic institutions that play a role in equipping students with digital literacy skills are still relatively limited. Yet, libraries hold significant potential not only as providers of digital information resources but also as institutions that can develop training programs, mentoring, and support facilities to develop critical and intelligent students in facing the information challenges of the digital age.

Libraries have great potential in preventing the spread of misinformation by presenting various strategic initiatives, such as digital literacy programs that equip students with the skills to evaluate the credibility of information and utilize trusted sources (Rezeki et al., 2024). Through workshops, training, and seminars, libraries can provide practical understanding on how to recognize hoaxes, use fact-checking technology, and develop critical thinking in consuming information. Furthermore, providing valid, verified, and easily accessible digital content also makes libraries a primary resource for students in obtaining accurate information, thus playing an active role in building a healthy academic ecosystem free from misinformation (Afifatul Awalia et al., 2025).

The increasingly rapid flow of digital information makes it easier for students to acquire knowledge, but also increases the risk of exposure to misinformation and hoaxes if digital literacy skills are inadequate (Sinaga & Azhar, 2025). The rapid spread of information through social media demands that students develop critical thinking skills to sort out valid information. Most previous research has emphasized the role of lecturers or classroom learning, while the contribution of libraries as strategic institutions has rarely been examined. While university libraries are now transforming into digital resource centers and facilitators of critical literacy, their role in preventing misinformation is crucial, yet there is still little research (Diepeveen & Pinet, 2022).

The research gap in this study lies in the lack of studies specifically highlighting the role of university libraries in the context of digital literacy, particularly in preventing misinformation among students. Most previous studies have focused on developing individual competencies, both for students and lecturers, in accessing and managing information. However, few have discussed how libraries, as strategic institutions, can play an active role in supporting digital literacy. Libraries play a crucial role not only as providers of information resources but also as educational institutions capable of providing training, mentoring, and

facilities to enhance students' critical skills in filtering information. This gap in research makes this study relevant and provides a new contribution to broadening the understanding of digital literacy and misinformation prevention from an institutional perspective.

The novelty of this research lies in its attempt to present a new perspective by positioning libraries as agents of digital literacy and at the same time preventing misinformation among students. This research not only views libraries as providers of information resources but also qualitatively examines the strategies, programs, and practices implemented to equip students to face the rapid flow of digital information. Thus, this research makes an academic contribution to the development of a more proactive role for modern libraries, namely as educators of critical literacy and facilitators of learning, thereby broadening the understanding of how libraries can play a strategic role in building a healthy and reliable information ecosystem in higher education environments.

The purpose of this study is to provide an in-depth description of the role of libraries in enhancing students' digital literacy, particularly in the context of higher education. This study also aims to explore the strategies libraries employ to prevent the spread of misinformation among students through various digital literacy programs, services, and activities. Furthermore, this study seeks to identify challenges faced and opportunities libraries can exploit in developing student-centered digital literacy. This study aims to provide a tangible contribution to strengthening the library's role as an agent of critical literacy in the digital era.

METHODOLOGY

This research method uses a descriptive qualitative approach to explore in depth the role of libraries in supporting digital literacy and preventing misinformation (Irfaniah et al., 2023). The research was conducted at a university library that already has a digital literacy program for students. The research subjects included students who actively use library services as well as librarians or staff involved in the digital literacy program. The number of participants was determined based on the principle of saturation (saturated data), with informants selected using a purposive sampling technique, namely selecting students who actively participate in digital literacy training and librarians who play a direct role in the activity.

Data collection was carried out through in-depth interviews with students and librarians, participatory and non-participatory observations of digital literacy activities, as well as documentation in the form of brochures, modules, activity reports, and digital content provided by the library (Kasperski et al., 2022). The research instruments used were semi-structured interview guidelines, observation notes, and recording devices. Data analysis followed the Miles & Huberman model, which includes data reduction, data presentation, and conclusion drawing/verification. Data validity was tested through source triangulation, technical triangulation, and member checking. The research stages included planning (determining the topic and interview guidelines), data collection, analysis conducted simultaneously with data collection, and preparation of results and conclusion drawing.

RESULTS AND DISCUSSION

The research findings indicate that libraries play a crucial role in supporting students' digital literacy by providing access to various digital resources, such as e-journals, e-books, academic databases, and official platforms. Furthermore, libraries actively conduct digital literacy training and workshops to equip students with the skills to search for, evaluate, and use information appropriately. Librarians act as facilitators, assisting students in developing critical thinking skills amidst the overwhelming flow of information. Misinformation prevention efforts include education on how to distinguish

between valid and hoax information, the provision of verified digital content, and information literacy campaigns through library social media. Students acknowledge the benefits of these services, particularly in supporting coursework and research, although some still rely on social media as their primary source of information.

On the other hand, libraries face a number of challenges, including limited human resources, particularly librarians with digital literacy expertise, low student participation in digital literacy programs, and limited and uneven distribution of facilities and technology. Nevertheless, there are significant opportunities for development, such as strengthening collaboration with lecturers to integrate digital literacy into the curriculum, developing mobile-based digital services, and increasing promotion of digital literacy programs to increase student awareness and interest. This opens up space for libraries to expand their role as agents of critical literacy and prevent misinformation in academic environments.

Libraries as Digital Literacy Agents

The research results show that libraries have transformed from merely providers of print collections into centers of digital literacy that are dynamic and adaptive to the needs of the information era (Wasilah et al., 2025). This transformation is reflected in the provision of digital resources such as e-books, e-journals, academic databases, and online platforms that support student learning and research. Furthermore, libraries are expanding their role as educational centers by holding training, workshops, and digital literacy programs designed to enhance students' ability to access, evaluate, and critically utilize information. Thus, libraries are no longer limited to traditional functions but instead emerge as strategic agents in shaping a technology-based learning ecosystem and preventing misinformation (Rajaram, 2023).

This aligns with information literacy theory, which emphasizes the importance of skills in searching for, evaluating, and critically using information for various academic and daily life purposes. This theory positions information literacy as a basic competency that every individual must possess to be able to navigate the rapid and diverse flow of information in the digital era. With the active role of libraries in providing digital resources and equipping students with literacy training, students' ability to select credible information and avoid misinformation is further honed, enabling them to become intelligent, critical, and responsible information users (Hazan et al., 2025).

Misinformation Prevention Strategy

Education and the provision of verified information sources are key strategies for libraries in addressing the challenges of rampant misinformation in the digital age. Through digital literacy programs, workshops, and credible academic reference services, libraries not only help students obtain valid information but also equip them with the skills to assess the reliability of a source (Dewi, 2024). This is in line with previous research findings that state that libraries act as information "filters" for the academic community, namely filtering, curating, and providing access only to reliable sources, so that the quality of information used in the learning and research process is maintained.

The Role of Students in Digital Literacy

Student perceptions indicate an increasing awareness of the importance of digital literacy, especially in the context of supporting academic needs such as completing

assignments, research, and developing critical insights (Ahammad & Islam, 2025). Students are beginning to understand that skills in evaluating and utilizing credible information are essential amidst the rise of misinformation. However, there is still a strong tendency for some students to use social media as their primary source of information due to its fast and convenient access. This situation reflects both a challenge and an opportunity for libraries to intensify education, promotion, and service innovation to encourage students to turn to valid and verified digital sources (Martzoukou, 2021).

These findings reinforce the need for libraries to actively participate in digital spaces frequently accessed by students, so that the services and resources they provide can reach them more effectively. This active presence extends beyond the provision of academic databases or e-journals, but also through the use of social media, online learning platforms, and mobile applications that are more relevant to students' daily lives (Rafique et al., 2019). With this strategy, libraries can function as relevant learning partners and digital literacy agents capable of instilling critical habits in accessing and verifying information.

Challenges and Implications

The limited resources available to libraries, both in terms of the number of librarians competent in the field of digital literacy and the available technological facilities, are one of the obstacles in optimizing the role of libraries (Baro et al., 2019). Therefore, support from higher education institutions is essential, whether in the form of policy strengthening, budget allocation, or increased human resource capacity. Furthermore, more creative and adaptive service innovations are needed to meet student needs, for example through the development of mobile applications, gamification of digital literacy programs, or integration of literacy services with academic activities. These innovations are expected to increase student interest and participation, enabling libraries to truly become interactive and relevant digital learning centers.

The contribution of this research is to provide empirical evidence that libraries can be important actors in building student resilience against misinformation through digital literacy services, the provision of verified information sources, and educational programs that encourage critical thinking skills (Young et al., 2021). This research also adds a new perspective to previous literature, which tends to focus more on the role of lecturers or formal classroom learning processes. Thus, this research broadens understanding of the strategic role of university libraries as academic support institutions that not only provide information but also play an active role in fostering a healthy digital literacy culture on campus.

CONCLUSION

The conclusion of this study confirms that libraries play a crucial role in enhancing students' digital literacy through the provision of digital services, access to verified academic sources, and relevant information literacy training programs. To prevent misinformation, libraries contribute by providing education, providing valid content, and organizing information literacy campaigns both directly and through digital media. Students experience tangible benefits from library services in supporting their lectures and research, although some still tend to rely on social media as their primary source of information. Challenges faced by libraries include limited human resources, low student participation in digital literacy programs, and

limited technological facilities. However, significant opportunities exist through the integration of digital literacy into the curriculum, collaboration with lecturers, mobile application development, and more intensive promotion. Thus, this study confirms that libraries can play a strategic role in building student resilience against the flow of misinformation in the digital era.

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