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Libraries and the Fight against Misinformation: Information Literacy Strategies in Focus

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ABSTRACT

Misinformation has become one of the most serious challenges of the digital information environment because false, misleading and manipulated content can spread rapidly through social media, websites, messaging platforms and artificial intelligence-driven communication systems. This descriptive narrative review examines the role of libraries in combating misinformation through information literacy strategies. The article synthesizes scholarly and professional literature on misinformation, information disorder, news literacy, media and information literacy, digital literacy, reference services, community outreach and library instruction. The review shows that libraries are well positioned to respond to misinformation because they are trusted information institutions with expertise in source evaluation, information access, user education and community engagement. Key strategies include curriculum-based information literacy instruction, workshops, digital literacy programmes, critical thinking activities, lateral reading, fact-checking guidance, social media literacy and reference support. However, libraries face several limitations, including limited staff time, resource constraints, low user engagement, rapidly changing online platforms, algorithmic influence, emotional belief systems and difficulty assessing learning outcomes. The article concludes that libraries should adopt proactive, evidence-informed and community centered approaches to misinformation by strengthening information literacy education, collaborating with educators and media organizations, improving librarian training and developing sustainable misinformation-response programmes.

Keywords: *Misinformation; Information Literacy; Libraries; Media Literacy; Digital Literacy; News Literacy; Fact-Checking; Critical Thinking; Library Instruction; Disinformation.*

Introduction

Misinformation has become a major social, educational and information-management problem in the digital age. The rapid growth of social media, online news platforms, video-sharing services, blogs, messaging applications and algorithmic recommendation systems has changed how people access, share and interpret information. While digital technologies have expanded access to knowledge, they have also increased the speed and scale at which false or misleading information can circulate. Misinformation can affect public health, elections, education, science communication, social trust and community decision-making.

The problem of misinformation is complex because it includes different forms of information disorder. Wardle and Derakhshan (2017) explained that information disorder includes misinformation, disinformation and malinformation. Misinformation refers to false information shared without the intention to cause harm, disinformation refers to false information shared deliberately to deceive, and malinformation refers to genuine information used in a harmful context. This distinction is important for libraries because not all inaccurate information is created or shared for the same reason. Users may share false content because they trust the source, misunderstand evidence, respond emotionally, or lack the skills to evaluate digital information.

Research has shown that false information can spread faster and more widely than accurate information. Vosoughi et al. (2018) found that false news diffused farther, faster and more broadly than true news on Twitter, partly because false information often appears more novel and emotionally engaging. This finding shows why misinformation cannot be addressed only by providing correct information after false content has already spread. Instead, users need preventive skills that help them question, evaluate and verify information before accepting or sharing it.

Libraries are important in the fight against misinformation because they have a long professional commitment to reliable information, intellectual freedom, public access, learning and informed citizenship. Academic, public, school and special libraries all support users in locating, evaluating and using information. In the misinformation age, this role has become more urgent. Libraries are not only places where users find books and databases; they are also educational and community institutions that can teach people how to judge credibility, recognize bias, verify sources and understand the information ecosystem.

Information literacy is central to this role. The Association of College and Research Libraries (ACRL, 2015) describes information literacy through a framework that includes authority, inquiry, scholarship, searching, information creation and information value. These concepts are directly relevant to misinformation because users need to understand who created information, why it was created, how it was distributed, what evidence supports it and whether it can be trusted. UNESCO (2021) similarly presents media and information literacy as a set of competencies that helps people think critically, engage responsibly with information and navigate complex media environments.

This descriptive review article examines the role of libraries in combating misinformation through information literacy strategies. It focuses on curriculum design, workshops, digital literacy programmes, critical thinking, source evaluation, reference support, community outreach and social media guidance. The article argues that libraries can play a central role in reducing the harmful effects of misinformation if they adopt proactive, collaborative and evidence-informed information literacy practices.

Literature Review**Information Literacy Strategies**

Information literacy strategies are essential in helping users recognize, evaluate and respond to misinformation. In library settings, these strategies may be delivered through formal curriculum design, one-shot instruction sessions, workshops, online tutorials, research guides, community programmes, reference consultations and social media campaigns. The goal is not only to help users identify false information but also to develop habits of critical inquiry, source verification and responsible sharing.

Curriculum design is one of the strongest approaches in academic and school libraries. When information literacy is embedded in courses, students receive repeated and structured opportunities to develop evaluation skills. One-time library sessions are useful, but they may not be enough to change long-term information behavior. Saunders (2023) found that many academic librarians address misinformation in library instruction, but time limits, faculty expectations and the one-shot instruction model can restrict deeper engagement. This suggests that misinformation education should be integrated across curricula rather than treated as an optional or isolated topic.

Workshops are another practical strategy. Libraries can organize workshops on fake news, fact-checking, evaluating websites, identifying bias, understanding algorithms, recognizing manipulated images and using reliable databases. Public libraries can design workshops for community members, older adults, parents, young people and local organizations. Academic libraries can provide workshops for students, researchers and faculty. These sessions should include active learning rather than only lectures. Users benefit when they practice evaluating real examples, comparing sources, tracing claims and discussing why misinformation is persuasive.

Digital literacy programmes are also important because misinformation often spreads through digital platforms. Digital literacy involves the ability to use digital tools effectively, but it also includes understanding online behavior, platform design, privacy, algorithms, search engines and social media influence. UNESCO (2021) emphasized that media and information literacy should include knowledge, skills, attitudes and values that help people engage critically and responsibly with information. Libraries can support this by teaching users how search results are ranked, how social media feeds are personalized, how sponsored content appears, and how online popularity does not always indicate reliability.

Critical thinking is a core element of information literacy. Users need to ask questions such as: Who created this information? What evidence is provided? Is the source credible? Is the claim supported by other reliable sources? What is the purpose of the message? Does the content use emotional language? Is important context missing? Pennycook and Rand (2021) argued that poor truth discernment is often linked to lack of careful reasoning and reliance on familiarity or simple heuristics. This means that libraries should not only teach users to check sources but also help them slow down, reflect and avoid impulsive sharing.

Evaluation skills are especially important in digital environments where traditional signs of authority may be unclear. Users may encounter professional-looking websites, edited videos, AI-generated text, anonymous posts and misleading headlines. Traditional checklists such as currency, relevance, authority, accuracy and purpose can still be useful, but they should be combined with more active verification practices. One important strategy is lateral reading, where users leave the original source and check what other reliable sources say about the author, organization or claim. Saunders (2023) noted that evidence-based strategies such as

lateral reading are increasingly important because checklist approaches alone may not fully address the complexity of misinformation.

Fact-checking instruction is another useful strategy. Libraries can teach users how to use professional fact-checking websites, official statistics, government sources, academic databases and primary documents. However, fact-checking should not be presented as a simple mechanical process. Users must also understand that some claims are complex, evidence changes over time, and source credibility depends on context. Libraries should therefore teach verification as a flexible process involving evidence, context and judgment.

Information literacy strategies should also address emotional and social dimensions of misinformation. People often believe or share misinformation because it confirms existing beliefs, triggers fear or anger, or comes from trusted friends and family members. Pennycook and Rand (2021) showed that cognitive factors such as reasoning, attention and familiarity affect belief in false news. Therefore, library instruction should include discussion of confirmation bias, motivated reasoning, emotional manipulation and the social pressure to share information quickly.

Libraries' Role in Combating Misinformation

Libraries play a multidimensional role in combating misinformation. Their contribution includes information literacy education, reference support, community outreach, social media guidance, resource development, collaboration with educators and support for democratic access to reliable information. Libraries are especially important because they serve different user groups across society, including students, researchers, children, older adults, professionals and community members.

One of the most direct roles of libraries is instruction. Academic librarians teach students how to search databases, evaluate sources, use evidence and cite information. In the misinformation context, these skills must be expanded to include news literacy, digital verification, social media evaluation and AI-generated content awareness. Saunders (2023) found that academic librarians are concerned about misinformation and many are integrating related skills into instruction. This confirms that librarians already recognize misinformation as part of their educational responsibility.

Public libraries have a strong role in community outreach. Unlike academic libraries, public libraries serve people of different ages, educational levels and social backgrounds. They can organize community programmes on misinformation, health information, election information, online scams, climate information and digital safety. Public libraries can also provide neutral spaces for discussion, helping users engage with controversial information in a respectful and evidence-based way. De Paor and Heravi (2020) argued that librarianship can help combat fake news through information literacy, professional ethics and user education.

Reference support is also important. Users often approach librarians when they need help finding reliable information. In misinformation-related reference work, librarians can help users verify claims, locate authoritative sources, compare evidence and understand the difference between scholarly, journalistic, governmental and opinion-based information. This support is especially valuable when users are dealing with health, legal, political or scientific information, where misinformation can have serious consequences.

Libraries also support misinformation resistance through curated resources. Many libraries create LibGuides, pathfinders, online tutorials and resource lists on fake news, media literacy, fact-checking and source evaluation. The International Federation of Library Associations and Institutions (IFLA, 2017) developed a widely used "How to Spot Fake News" info graphic that encourages users to check the source, read beyond the headline, check the author, verify

supporting sources, check the date, consider whether it is satire, examine personal bias and consult experts. Such resources are useful because they translate information literacy principles into simple public-facing guidance.

Social media guidance is another growing role. Libraries themselves use social media to communicate with users, promote services and share reliable information. They can model responsible information-sharing behavior by posting verified sources, correcting false claims carefully, promoting fact-checking resources and explaining how misinformation spreads. Libraries can also teach users how to evaluate social media posts, identify manipulated images, recognize click bait and avoid sharing unverified claims.

Libraries also have a professional responsibility to protect intellectual freedom while addressing misinformation. This requires balance. Combating misinformation should not mean suppressing legitimate debate or controversial viewpoints. Instead, libraries should focus on helping users evaluate evidence, understand context and distinguish between unsupported claims and well-supported information. IFLA (2018) warned that concern about fake news can be misused to justify censorship, so libraries must defend access to information while strengthening users' critical evaluation skills.

The rise of artificial intelligence adds another dimension to libraries' role. AI tools can generate convincing text, images, audio and video, which may make misinformation more difficult to detect. Libraries therefore need to include AI literacy within broader information literacy programmes. Users should understand that AI-generated content can be useful but may also be inaccurate, biased or fabricated. Libraries can teach users to verify AI outputs, check citations, identify deep fakes and understand the limits of automated information systems.

Materials and Methods

This article adopted a descriptive narrative review approach to examine the role of libraries in combating misinformation through information literacy strategies. This approach was suitable because the purpose of the article was to describe, interpret and synthesize existing literature on misinformation, libraries, information literacy, media literacy, digital literacy and community education rather than to conduct a systematic review, statistical meta-analysis or formal quality appraisal. The literature was searched through major academic and professional sources, including Google Scholar, Scopus, Web of Science, Library and Information Science Abstracts, Emerald Insight, Taylor & Francis Online, Science Direct, Sage Journals, College & Research Libraries, ACRL, IFLA, UNESCO and American Library Association resources. The search focused on scholarly articles, professional guidelines, policy documents, library case discussions, review articles and institutional resources related to misinformation and information literacy.

The main search terms included "libraries and misinformation," "information literacy and fake news," "library instruction misinformation," "media literacy libraries," "news literacy academic libraries," "digital literacy misinformation," "librarians combating disinformation," "fake news and librarianship," "critical thinking source evaluation," and "social media misinformation libraries." The literature mainly covered publications from 2015 to 2026. The year 2015 was selected because the ACRL Framework for Information Literacy for Higher Education became an important reference point for modern information literacy instruction. More recent literature from 2020 onward was given greater attention because misinformation became especially visible during the COVID-19 pandemic, political polarization, social media growth and the rise of generative artificial intelligence.

Broad literature selection criteria were used. Sources were included if they focused on misinformation, disinformation, information literacy, media literacy, digital literacy, library instruction, news literacy, fact-checking, source evaluation, public library outreach, academic

library teaching or user education. Sources were excluded if they were purely technical misinformation-detection studies with no clear connection to libraries or literacy education, duplicate materials, non-scholarly opinion pieces without professional value, or sources unrelated to information literacy and libraries. Since this article is a descriptive narrative review, PRISMA-based systematic screening, statistical meta-analysis and formal quality appraisal were not conducted. Instead, the selected literature was analysed thematically to identify major patterns related to information literacy strategies, library roles, challenges, best practices and research gaps.

Challenges and Limitations

Libraries face several challenges in combating misinformation. The first major challenge is user engagement. Many users do not actively seek misinformation education unless they already recognize a problem. Some users may believe they are already skilled at identifying false information, while others may not see misinformation as relevant to their personal or academic lives. This makes it difficult for libraries to attract participants to workshops or persuade faculty members to include misinformation instruction in courses.

A second challenge is the limited time available for library instruction. Academic librarians often teach one-shot sessions that must cover database searching, citation tools, research strategies and assignment support. Saunders (2023) found that lack of time and dependence on faculty requests can limit librarians' ability to teach misinformation topics. This shows that misinformation instruction needs stronger curricular integration rather than relying only on occasional library sessions.

Resource constraints are another limitation. Many libraries have limited staffing, funding and training opportunities. Effective misinformation education requires librarians who understand information literacy, media literacy, digital platforms, algorithms, fact-checking, cognitive bias and pedagogy. Not all librarians have received formal preparation in these areas. Libraries may also lack technology, teaching spaces, online learning platforms or outreach budgets.

Rapidly changing information environments also create challenges. Misinformation tactics change quickly as new platforms, formats and technologies appear. False information may circulate through memes, videos, podcasts, livestreams, private messaging groups, AI-generated images or deepfake videos. This makes it difficult for libraries to keep teaching materials current. A guide created one year may become outdated when platforms, search engines or AI tools change.

Another challenge is the emotional and identity-based nature of misinformation. Users may reject corrective information when it conflicts with their beliefs, values or group identity. Pennycook and Rand (2021) showed that belief in fake news is influenced by reasoning, familiarity and cognitive shortcuts. Therefore, simply giving users correct information may not always change their beliefs. Libraries must use respectful, non-confrontational and reflective teaching approaches.

Libraries must also balance misinformation response with intellectual freedom. If libraries appear to police opinions, users may distrust them. Therefore, libraries should avoid partisan or censorial approaches and focus on transparent methods of verification, evidence evaluation and critical inquiry. IFLA (2018) emphasised that responses to fake news should not be used to justify unnecessary restrictions on freedom of expression or access to information.

Assessment is another limitation. Many libraries provide misinformation instruction but do not systematically measure whether users improve their evaluation skills. Saunders (2023) found that relatively few librarians assess student learning outcomes related to identifying or

evaluating misinformation. Without assessment, it is difficult to know which instructional strategies are most effective.

Results and Discussion

The descriptive review shows that libraries are increasingly important in the fight against misinformation because they combine public trust, professional ethics, information expertise and educational responsibility. The reviewed literature indicates that misinformation cannot be addressed through technology alone. While automated detection tools and platform policies are useful, users still need critical skills to evaluate information, understand context and make responsible decisions. Libraries are well positioned to provide this kind of education.

One major finding is that information literacy remains the strongest foundation for library-based misinformation response. The ACRL Framework emphasizes authority, inquiry, searching, information creation and information value, all of which are directly relevant to misinformation (ACRL, 2015). When users understand that authority is contextual, that information is created for different purposes and that searching is a strategic process, they are better prepared to evaluate claims critically. However, information literacy must be updated for the social media age. Users need to understand algorithms, platform incentives, viral content, emotional manipulation and AI-generated information.

A second finding is that libraries are shifting from traditional source evaluation toward broader media and news literacy. Traditional library instruction often focused on scholarly databases, peer-reviewed articles and citation practices. These remain important, but misinformation frequently appears outside academic databases, especially on social media, video platforms and messaging applications. Therefore, libraries need to teach users how to evaluate news stories, websites, social media posts, images and videos. UNESCO's media and information literacy curriculum supports this broader approach by combining media literacy, information literacy and digital competencies (UNESCO, 2021).

A third finding is that active learning is more effective than passive instruction. Users need opportunities to practice evaluating real examples of misinformation, comparing sources, tracing claims and checking evidence. Workshops, classroom exercises, online tutorials and community programmes should include practical activities. Simple lectures about fake news may raise awareness, but applied exercises are more likely to develop transferable skills.

The review also shows that librarians should use evidence-informed strategies such as lateral reading, source tracing and fact-checking. Saunders (2023) noted that checklist-based approaches may be limited if they encourage users to evaluate a source only by looking at the source itself. In contrast, lateral reading encourages users to leave the original page and investigate what reliable external sources say about the author, organization or claim. This strategy is especially useful online because unreliable websites can appear professional and persuasive.

Another important trend is the expansion of misinformation education beyond academic libraries. Public libraries, school libraries and community libraries also have important roles. Public libraries can address misinformation through adult education, digital literacy workshops, health information programmes, election information guides and community discussions. School libraries can teach young people how to evaluate online content before harmful habits of information sharing become fixed. Community-based approaches are important because misinformation affects people beyond formal educational settings.

The review also identifies collaboration as a best practice. Libraries cannot fight misinformation alone. Academic librarians need partnerships with faculty members to embed information literacy in the curriculum. Public librarians can work with local journalists, schools, health

departments, civic organizations and community leaders. School librarians can collaborate with teachers and parents. Collaboration increases reach, credibility and sustainability.

At the same time, the literature reveals important research gaps. More empirical research is needed on which library-based misinformation interventions produce measurable improvement in user behavior. Many publications describe strategies, guides or programmes, but fewer studies assess long-term learning outcomes. There is also a need for more research in developing countries, rural communities, non-English contexts and public library settings. Much of the literature focuses on academic libraries in Western contexts, even though misinformation is a global problem.

The rise of artificial intelligence creates another research gap. Generative AI can produce persuasive false text, fabricated citations, synthetic images and manipulated audio or video. Libraries need to develop AI literacy as part of misinformation education. Future research should examine how librarians can teach users to evaluate AI-generated content, verify citations, identify synthetic media and understand the limitations of automated tools.

Overall, the discussion shows three major patterns. First, libraries have a strong role in combating misinformation through information literacy, media literacy, digital literacy and community education. Second, effective strategies require active learning, critical thinking, lateral reading, fact-checking and collaboration. Third, libraries face constraints related to time, staffing, resources, user engagement, rapidly changing technology and limited assessment. Therefore, library responses to misinformation should be strategic, continuous and integrated into wider educational and community programmes.

Recommendations

- Libraries should develop clear misinformation-response strategies that connect information literacy, media literacy, digital literacy, news literacy and AI literacy.
- Academic libraries should work with faculty members to embed misinformation education into curricula rather than relying only on one-shot library sessions.
- Libraries should design workshops on fake news, fact-checking, source evaluation, social media literacy, algorithmic awareness, image verification and AI-generated content.
- Library instruction should include active learning activities where users practice evaluating real examples of misinformation, comparing sources and tracing claims.
- Librarians should teach evidence-informed strategies such as lateral reading, source tracing, fact-checking and verification through authoritative sources.
- Public libraries should organize community outreach programmes on misinformation related to health, elections, scams, science, climate and local issues.
- Libraries should create online guides, info graphics, videos and tutorials that explain how to evaluate digital information and avoid sharing unverified claims.
- Librarians should receive professional development in misinformation studies, digital media platforms, cognitive bias, fact-checking, AI literacy and instructional design.
- Libraries should collaborate with schools, universities, journalists, fact-checking organizations, health agencies and community groups to expand misinformation education.
- Libraries should assess the effectiveness of their misinformation instruction through quizzes, reflective activities, surveys, assignments and follow-up studies.
- Future research should examine misinformation literacy programmes in developing countries, rural libraries, school libraries, public libraries and non-English information environments.

Conclusion

Misinformation is a major challenge in the digital age because false and misleading information can spread quickly, influence public understanding and weaken trust in institutions. Libraries have an important role in addressing this problem because they are trusted information institutions with expertise in access, evaluation, education and community service. Through information literacy, media literacy, digital literacy and news literacy strategies, libraries can help users critically evaluate information and make responsible decisions. This descriptive review shows that effective library responses to misinformation include curriculum integration, workshops, reference support, social media guidance, community outreach, fact-checking instruction and active learning. However, libraries also face challenges such as limited time, resource constraints, rapidly changing platforms, low user engagement, emotional belief systems and limited assessment of learning outcomes. The article concludes that libraries should not treat misinformation as a temporary issue. Instead, misinformation education should become a continuing part of library and information services. By strengthening information literacy programmes, training librarians, collaborating with educators and community partners, and promoting critical evaluation skills, libraries can become central actors in building more informed, resilient and responsible information communities.

References

- Association of College and Research Libraries. (2015). *Framework for information literacy for higher education*. American Library Association. <https://www.ala.org/acrl/standards/ilframework>
- De Paor, S., & Heravi, B. (2020). Information literacy and fake news: How the field of librarianship can help combat the epidemic of fake news. *The Journal of Academic Librarianship*, 46(5), 102218.
- International Federation of Library Associations and Institutions. (2017). *How to spot fake news*. <https://repository.ifla.org/items/c5dbfa34-7d00-47ac-8057-0183a5056438>
- International Federation of Library Associations and Institutions. (2018). *IFLA statement on fake news*. <https://repository.ifla.org/items/b41af74a-eb8b-4513-b6af-e75ce3923506>
- Pennycook, G., & Rand, D. G. (2021). The psychology of fake news. *Trends in cognitive sciences*, 25(5), 388-402.
- Saunders, L. (2023). Librarian perspectives on misinformation: A follow-up and comparative study. *College & Research Libraries*, 84(4), 478.
- UNESCO. (2021). *Media and information literate citizens: Think critically, click wisely! Media and information literacy curriculum for educators and learners*. UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000377068>
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *science*, 359(6380), 1146-1151.
- Wardle, C., & Derakhshan, H. (2017). *Information disorder: Toward an interdisciplinary framework for research and policymaking* (Vol. 27, pp. 1-107). Strasbourg: Council of Europe.