Received: 04.09.2022| Accepted: 03.10.2022 |Published: 07.10.2022
Citations: ARIKAWE. S.A (2022) Information Literacy vs. Misinformation: Understanding the Battle for Informed Discourse
Gaijlis vol.1.1. pp.54-64 https://globreshub.org/index.php/gaijlis DOI: 10.5281/zenodo.20720259

Information Literacy vs. Misinformation: Understanding the Battle for Informed Discourse

Samuel Adegoriola ARIKAWE

arikawe13@gmail.com.

Deputy Librarian, Library and Information Science Department. Rufus Giwa Polytechnic, Owo

Abstract

In an era defined by unprecedented access to information, the twin challenges of information literacy and misinformation have emerged as critical concerns for societies worldwide. This paper examines the conceptual and practical tensions between information literacy the ability to find, evaluate, and use information effectively and misinformation, the deliberate or inadvertent spread of false or misleading content.

This paper explores the definitions, dimensions, and intersections of these two phenomena, with particular attention to digital environments and social media platforms. It further discusses the role of education, libraries, and critical thinking in building resilient, information-literate communities capable of resisting misinformation. The paper concludes that information literacy represents the most sustainable and empowering response to the misinformation crisis, and calls for coordinated investment in literacy education at all levels of society.

Keywords: information literacy, misinformation, disinformation, fake news, critical thinking, digital literacy, media literacy

*Corresponding author(s) ARIKAWE. S.A. agree that this article remain permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

Introduction

The digital revolution has fundamentally transformed the way human beings access, share, and consume information. While the internet and social media have democratized knowledge by making vast quantities of information available to virtually anyone with a connected device, they have simultaneously created fertile conditions for the proliferation of misinformation. In this complex information landscape, the capacity to critically engage with information — that is, to be information literate — has become not merely an academic skill but a civic necessity.

Information literacy, broadly defined as the ability to recognize when information is needed and to locate, evaluate, and effectively use it (American Library Association [ALA], 2000), has long been championed by educators and librarians as

foundational to lifelong learning. However, the rise of social media platforms such as Facebook, Twitter, and WhatsApp has introduced new vectors through which misinformation, disinformation, and so-called "fake news" travel with alarming speed and reach (Wardle & Derakhshan, 2017). The consequences of this phenomenon are serious: misinformation has been implicated in public health crises, electoral manipulation, ethnic violence, and the erosion of public trust in institutions (Roozenbeek et al., 2020).

This paper argues that information literacy and misinformation are not merely parallel phenomena but are in direct tension with each other: where information literacy builds critical, reflective engagement with content, misinformation exploits cognitive shortcuts, emotional appeals, and social identity to bypass rational scrutiny. Understanding this tension is essential to developing meaningful responses. The paper proceeds in three major parts: first, it examines the concept of information literacy and its evolution; second, it interrogates the nature and typology of misinformation; and third, it discusses the relationship between the two and the implications for education, policy, and society.

Information Literacy: Concepts, Frameworks, and Evolution

Defining Information Literacy

Information literacy has been defined and re-defined since its coinage by Paul Zurkowski in 1974, but its essential features remain relatively stable across definitions. The Association of College and Research Libraries (ACRL, 2016) describes it as "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (p. 3). This definition emphasizes not only the technical ability to find information but the critical and ethical dimensions of information use.

Scholars have distinguished information literacy from related concepts such as media literacy, digital literacy, and health literacy, while also recognizing significant overlaps. Livingstone et al. (2012) note that media literacy — the ability to access, analyze, evaluate, and create media in various forms — is increasingly converging with information literacy in digital environments, where the boundaries between information creation and consumption are blurred. Eshet-Alkalai (2004) proposed the concept of "digital literacy" as an umbrella that includes photo-visual literacy, reproduction literacy, branching literacy, information literacy, and socio-emotional literacy, suggesting that competency in the digital world requires multiple intersecting skill sets.

The ACRL Framework and Its Significance

A watershed moment in the conceptualization of information literacy came with the ACRL's (2016) release of the Framework for Information Literacy for Higher Education, which replaced the earlier Standards (ACRL, 2000). The

Framework introduced six "frames" or conceptual lenses through which information literacy could be understood: Authority Is Constructed and Contextual; Information Creation as a Process; Information Has Value; Research as Inquiry; Scholarship as Conversation; and Searching as Strategic Exploration. These frames shifted the discourse from a checklist of competencies to a more nuanced, epistemological understanding of how knowledge is produced, contested, and circulated.

The Framework's emphasis on authority and context has particular relevance to the misinformation problem. By encouraging learners to interrogate how authority is established and by whom, the Framework cultivates a skepticism toward uncritical acceptance of any information source, including both mainstream media and alternative platforms. Maddux and Hoffman (2012) argue that this kind of reflective epistemological orientation — what they call "critical consciousness" — is essential to resisting manipulation in digital information environments.

Information Literacy in the Digital Age

The proliferation of digital technologies has both extended and complicated the project of information literacy. On one hand, digital tools have made it easier to access diverse information sources, check facts, and cross-reference claims. On the other hand, the algorithmic curation of information on social media platforms has created what Eli Pariser (2011) famously called "filter bubbles" — personalized information environments that reflect and reinforce users' existing beliefs while filtering out challenging or contradictory content. This phenomenon undermines information literacy by narrowing the range of information users encounter and by creating the illusion of comprehensiveness.

Hargittai et al. (2010) found that even among college students who were frequent internet users, there were significant gaps in the ability to critically evaluate online sources. Their study revealed that students often relied on surface-level cues such as web design aesthetics or familiarity of a website's name rather than on rigorous evaluation of content quality or source credibility. This suggests that mere access to digital technologies does not automatically produce information literacy; explicit instruction and scaffold practice are necessary.

The UNESCO Media and Information Literacy (MIL) framework (Wilson et al., 2011) represents a significant international effort to address these challenges by integrating media literacy and information literacy into a single, coherent framework for educational policy and practice. UNESCO's MIL framework targets not just students but citizens broadly, recognizing that information literacy is a prerequisite for democratic participation and human rights in the twenty-first century.

Misinformation: Nature, Typology, and Spread

Defining Misinformation and Related Concepts

The term "misinformation" is often used loosely in public discourse, but scholars have proposed useful distinctions among related concepts. Wardle and

Derakhshan (2017) offer a widely-cited tripartite taxonomy: misinformation refers to false or inaccurate information shared without intent to harm; disinformation refers to false information deliberately created and disseminated to deceive; and malinformation refers to true information shared with the intent to cause harm, such as doxxing or the strategic release of stolen private communications. Each type presents distinct challenges for information literacy and policy responses.

Tandoc et al. (2018) conducted a systematic review of scholarship on "fake news" and identified six types: news satire, news parody, fabrication, manipulation, advertising, and propaganda. They note that the term "fake news" has itself become politically weaponized, with political actors using it to delegitimize credible journalism, which complicates the task of helping citizens distinguish reliable from unreliable information. Similarly, Benkler et al. (2018), in their comprehensive study of the 2016 U.S. election media ecosystem, found that partisan political actors deliberately exploited ambiguity between satire, opinion, and fabrication to muddy epistemic waters.

The Psychology of Misinformation

Understanding why misinformation spreads requires engaging with cognitive psychology. Research in this field has consistently shown that human beings are not the rational, evidence-weighing agents that classical economic models assumed. Rather, people are subject to a range of cognitive biases that make them susceptible to misinformation. Confirmation bias — the tendency to favor information that confirms existing beliefs is among the most significant of these. Nickerson (1998), in a foundational review, documented extensive evidence that confirmation bias operates across a wide range of domains, from everyday decision-making to scientific reasoning.

The "illusory truth effect" the finding that repeated exposure to a claim increases its perceived truth regardless of its actual accuracy has been extensively documented (Pennycook et al., 2018). This has important implications for understanding how misinformation can become entrenched even among individuals who initially doubted it: repeated social media exposure, even to content users consciously recognize as dubious, can gradually normalize false claims. Pennycook and Rand (2019) found that people are often not motivated reasoners in the classical sense, but rather "cognitive misers" who accept misinformation not because it aligns with their worldview but because it is plausible-seeming and requires little cognitive effort to process.

Emotional content significantly accelerates the spread of misinformation. Vosoughi et al. (2018), in a landmark study of Twitter, found that false news stories spread faster, farther, and more broadly than true ones, and that this effect was driven largely by novelty and emotional arousal. False stories evoked greater surprise and disgust than true ones, and these emotional responses were associated with

greater sharing behavior. This finding underlines the importance of affective as well as cognitive dimensions of information literacy — being information literate requires not only knowing how to evaluate evidence but also being aware of one's own emotional responses to information.

Social Media and the Misinformation Ecosystem

Social media platforms have been identified as primary vectors for the spread of misinformation in the contemporary period. The architecture of platforms such as Facebook, Twitter, and YouTube — optimized for engagement, virality, and time-on-platform — creates structural incentives for the amplification of emotionally provocative, identity-affirming, and novel content, which is disproportionately represented by misinformation (Lazer et al., 2018). The recommendation algorithms used by these platforms can create "rabbit holes" — sequences of increasingly extreme content — that expose users to misinformation they might not have sought out themselves (Ribeiro et al., 2020).

The role of social networks in shaping information exposure is also critical. Bakshy et al. (2015), in a controversial study of Facebook users, found that the platform's algorithm reduced exposure to cross-cutting political content relative to organic social sharing, suggesting that the filter bubble is a product of both algorithmic and social factors. Users are more likely to encounter and share information circulating within their social networks, which means that misinformation embedded in close social networks is particularly difficult to dislodge.

The COVID-19 pandemic provided a dramatic illustration of the dangers of the "infodemic" — the WHO's term for the overabundance of information, including misinformation, surrounding a health crisis (WHO, 2020). False claims about the origins, prevention, and treatment of the virus spread rapidly on social media, with real-world consequences including vaccine hesitancy, the ingestion of dangerous substances, and attacks on healthcare workers (Roozenbeek et al., 2020). The infodemic demonstrated that misinformation is not merely an epistemic problem but a public health emergency.

Information Literacy as a Response to Misinformation

The Intersection of Information Literacy and Misinformation

The relationship between information literacy and misinformation is fundamentally one of resistance and vulnerability. Information literacy equips individuals with the conceptual tools — source evaluation, understanding of information production, awareness of bias — that are most directly relevant to detecting and resisting misinformation. Conversely, information illiteracy creates vulnerability: individuals who cannot evaluate sources, who are unaware of their own cognitive biases, or who lack background knowledge to contextualize claims are more susceptible to being

misled.

Cooke (2018), in her book on news literacy and fake news, argues that information literacy education needs to be explicitly updated to address the contemporary misinformation environment. Traditional information literacy curricula, she contends, were designed for an era in which information was scarce and difficult to access, and thus focused on finding and using information. In the current environment of information overabundance, the emphasis must shift toward evaluation, source criticism, and metacognitive awareness of one's own information habits. She advocates for what she calls "news literacy" — a specific adaptation of information literacy that focuses on the news ecosystem and the economic, political, and technological forces that shape it.

Educational Interventions and Their Effectiveness

A growing body of research has examined the effectiveness of various educational interventions in building resilience to misinformation. One of the most extensively studied approaches is lateral reading — a technique in which fact-checkers and expert evaluators navigate away from an unfamiliar website to search for independent information about its credibility, rather than reading deeply within it. Wineburg and McGrew (2017) found that professional fact-checkers, historians, and Stanford students responded very differently to online content: fact-checkers rapidly left a site to investigate its credibility elsewhere, while historians and students engaged in prolonged close reading of the site itself, making them more susceptible to misleading design and rhetoric. This finding suggests that domain-specific, strategic reading skills are essential components of information literacy in digital environments.

The "prebunking" or "inoculation" approach to misinformation resilience has gained considerable research support. Drawing on inoculation theory from social psychology, this approach exposes individuals to weakened forms of misinformation arguments — alongside explanations of the manipulative techniques they employ — with the goal of building cognitive resistance. Van der Linden et al. (2017) demonstrated that inoculation messages could effectively protect individuals against misinformation about climate change, even when the misinformation was presented by a source with high perceived credibility. More recent work has extended inoculation approaches to general misinformation resistance through "bad news" games and other interactive formats (Roozenbeek & van der Linden, 2019).

The role of libraries and librarians in information literacy education has been widely recognized. Libraries have historically served as community hubs for information access and literacy instruction, and librarians have developed sophisticated frameworks for evaluating sources and navigating information environments. Swanson

(2017) argues that librarians are uniquely positioned to address the misinformation crisis because of their professional commitment to intellectual freedom, their expertise in source evaluation, and their trusted role in communities. However, he also notes that libraries face significant resource constraints and that their impact is limited by declining public investment in library services.

Critical Thinking and Information Literacy

At the heart of information literacy is critical thinking — the ability to analyze arguments, evaluate evidence, identify assumptions, and reason logically. Ennis (2011) defines critical thinking as "reasonable, reflective thinking focused on deciding what to believe or do" and argues that it is both a disposition and a set of skills that can be taught and cultivated. Critical thinking is essential to information literacy because it provides the intellectual tools for evaluating the strength of evidence, the credibility of sources, and the coherence of arguments.

However, research has also revealed the limits of critical thinking as a standalone defense against misinformation. Motivated reasoning — reasoning that is guided by the desire to reach a particular conclusion rather than by evidence — can subvert critical thinking skills even in highly educated and intelligent individuals (Kunda, 1990). This suggests that information literacy education cannot rest content with teaching critical thinking skills alone; it must also address the motivational and affective dimensions of information processing, helping learners become aware of their own biases and the social and emotional factors that influence their information judgments.

Mihailidis and Viotty (2017) propose the concept of "civic media literacy" as a framework that goes beyond technical skill to encompass civic engagement, empathy, and collaborative knowledge-building. They argue that in a media environment characterized by fragmentation, polarization, and misinformation, information literacy must be conceived as a social and civic practice, not merely an individual cognitive skill. This vision of information literacy as civic participation echoes UNESCO's framing and points toward the importance of community and institutional contexts for information literacy development.

Institutional and Policy Responses

Beyond individual and educational interventions, addressing the misinformation crisis requires institutional and policy responses. Governments, technology companies, and civil society organizations have experimented with a range of approaches, including fact-checking initiatives, platform content moderation, algorithmic transparency requirements, and media regulation. Each approach involves significant trade-offs between combating misinformation and protecting freedom of expression.

Pennycook and Rand (2019) argue that one of the most promising approaches is the use of accuracy nudges — interventions that prompt social

media users to consider the accuracy of content before sharing it. In experimental studies, they found that simply reminding users to think about accuracy significantly reduced the intention to share false news stories, suggesting that many instances of misinformation sharing are the product of inattention rather than deliberate deception or deeply held false beliefs. This finding has implications for both platform design and information literacy education, pointing to the value of building habits of deliberate, accuracy-focused engagement with information.

The regulation of online platforms remains a highly contested area, with significant variation across jurisdictions. European Union approaches, including the Digital Services Act (2022), have imposed stronger obligations on platforms to address harmful content and misinformation, while the United States has largely relied on industry self-regulation, constrained by First Amendment considerations. Irrespective of the regulatory framework, scholars broadly agree that technical solutions alone are insufficient and must be complemented by investment in information literacy education (Lazer et al., 2018).

Conclusion

This paper has examined the relationship between information literacy and misinformation, arguing that they represent opposing forces in the contemporary information landscape. Information literacy — the capacity to critically find, evaluate, and use information — is the most sustainable and empowering response to the proliferating challenge of misinformation. Misinformation exploits cognitive biases, emotional vulnerabilities, and structural features of digital media to bypass critical scrutiny; information literacy education equips individuals with the tools to resist these tactics.

The scholarship reviewed here consistently underscores several key conclusions. First, information literacy must evolve to address the specific challenges of digital and social media environments, moving beyond the traditional focus on finding information to emphasize critical evaluation, lateral reading, and awareness of algorithmic mediation. Second, misinformation is not merely a problem of individual gullibility but a systemic challenge rooted in the economic and political structures of digital media platforms; responding to it requires both individual empowerment through literacy education and collective action through policy and platform design. Third, the affective and social dimensions of information processing — emotional responses to content, social identity, motivated reasoning — are at least as important as cognitive skills in determining susceptibility to misinformation and must be addressed in comprehensive information literacy programs.

As societies worldwide grapple with the consequences of misinformation — from public health crises to democratic backsliding — the case for sustained, systemic investment in information literacy education has never been stronger. Libraries,

schools, universities, and civil society organizations all have vital roles to play. The challenge is significant, but so is the opportunity: an information-literate citizenry is not only better equipped to resist misinformation but better prepared to participate meaningfully in the democratic life of their communities.

References

Association of College and Research Libraries (ACRL). (2000). Information literacy competency standards for higher education. American Library Association.

Association of College and Research Libraries (ACRL). (2016). Framework for information literacy for higher education. American Library Association. https://www.ala.org/acrl/standards/ilframework

Bakshy, E., Messing, S., & Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on Facebook. Science, 348(6239), 1130–1132. https://doi.org/10.1126/science.aaa1160

Benkler, Y., Faris, R., & Roberts, H. (2018). Network propaganda: Manipulation, disinformation, and radicalization in American politics. Oxford University Press.

Cooke, N. A. (2018). Fake news and alternative facts: Information literacy in a post-truth era. ALA Editions.

Ennis, R. H. (2011). The nature of critical thinking: An outline of critical thinking dispositions and abilities. University of Illinois.

Eshet-Alkalai, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. Journal of Educational Multimedia and Hypermedia, 13(1), 93–106.

European Union. (2022). Regulation (EU) 2022/2065 of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act). Official Journal of the European Union.

Hargittai, E., Fullerton, L., Menchen-Trevino, E., & Thomas, K. Y. (2010). Trust online: Young adults' evaluation of web content. International Journal of Communication, 4, 468–494.

Kunda, Z. (1990). The case for motivated reasoning. Psychological Bulletin, 108(3), 480–498. https://doi.org/10.1037/0033-2909.108.3.480

Lazer, D. M. J., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., Metzger, M. J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, M., Sloman, S. A., Sunstein, C. R., Thorson, E. A., Watts, D. J., & Zittrain, J. L. (2018). The science of fake news. Science, 359(6380), 1094–1096. https://doi.org/10.1126/science.aao2998

Livingstone, S., Van Couvering, E., & Thumim, N. (2012). Converging traditions of research on media and information literacies: Disciplinary, critical, and methodological issues. In D. J. Leu, J. Coiro, M. Knobel, & C. Lankshear (Eds.), Handbook of research on new literacies (pp. 103–132). Routledge.

Maddux, C. D., & Hoffman, E. S. (2012). Critical thinking and the Internet. In T. Good (Ed.), 21st century education: A reference handbook (pp. 178–186). SAGE Publications.

Mihailidis, P., & Viotty, S. (2017). Spreadable spectacle in digital culture: Civic expression, fake news, and the role of media literacies in "post-fact" society. American Behavioral Scientist, 61(4), 441–454. https://doi.org/10.1177/0002764217701217

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. Review of General Psychology, 2(2), 175–220. https://doi.org/10.1037/1089-2680.2.2.175

Pariser, E. (2011). The filter bubble: What the internet is hiding from you. Penguin Press.

Pennycook, G., Cannon, T. D., & Rand, D. G. (2018). Prior exposure increases perceived accuracy of fake news. Journal of Experimental Psychology: General, 147(12), 1865–1880. https://doi.org/10.1037/xge0000465

Pennycook, G., & Rand, D. G. (2019). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. Cognition, 188, 39–50. https://doi.org/10.1016/j.cognition.2018.06.011

Ribeiro, M. H., Ottoni, R., West, R., Almeida, V. A. F., & Meira, W. (2020). Auditing radicalization pathways on YouTube. In Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (pp. 131–141). ACM.

Roozenbeek, J., & van der Linden, S. (2019). Fake news game confers psychological resistance against online misinformation. Palgrave Communications, 5(1), Article 65. https://doi.org/10.1057/s41599-019-0279-9

Roozenbeek, J., Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L. J., Recchia, G., van der Bles, A. M., & van der Linden, S. (2020). Susceptibility to misinformation about COVID-19 across 26 countries. Royal Society Open Science, 7(10), Article 201199. https://doi.org/10.1098/rsos.201199

Swanson, T. (2017). Assembling the networked subject: Meaning-making in the age of memes, tweets, and other ephemera. ALA Editions.

Tandoc, E. C., Lim, Z. W., & Ling, R. (2018). Defining "fake news": A typology of scholarly definitions. Digital Journalism, 6(2), 137–153.

https://doi.org/10.1080/21670811.2017.1360143

Van der Linden, S., Leiserowitz, A., Rosenthal, S., & Maibach, E. (2017). Inoculating the public against misinformation about climate change. Global Challenges, 1(2), Article 1600008. https://doi.org/10.1002/gch2.201600008

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. Science, 359(6380), 1146–1151. https://doi.org/10.1126/science.aap9559

Wardle, C., & Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policy making. Council of Europe.

Wilson, C., Grizzle, A., Tuazon, R., Akyempong, K., & Cheung, C. K. (2011). Media and information literacy curriculum for teachers. UNESCO.

Wineburg, S., & McGrew, S. (2017). Lateral reading: Reading less and learning more when evaluating digital information (Stanford History Education Group Working Paper No. 2017-A1). Stanford University. https://doi.org/10.2139/ssrn.3048994

World Health Organization (WHO). (2020). Infodemic management: A key component of the COVID-19 global response. https://www.who.int/health-topics/infodemic