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Critical Digital Literacy as a Response to Algorithmic Misinformation

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ABSTRACT

The rapid expansion of algorithmically driven digital platforms has transformed how information is produced, distributed, and consumed, while intensifying the spread of misinformation. This study examines critical digital literacy as a strategic educational response to algorithmic misinformation, emphasizing that misinformation is not only a content issue but also a systemic outcome of algorithmic curation, datafication, and platform economies. Drawing on interdisciplinary perspectives from media studies, information literacy, education, and critical theory, this research conceptualizes critical digital literacy as a multidimensional framework integrating algorithmic literacy, critical evaluation of information, ethical awareness, and civic engagement. Using a qualitative interpretive design, the study synthesizes theoretical models and prior empirical findings to analyze how algorithmic systems shape users' epistemic environments and influence perceptions of credibility, authority, and truth. The findings show that conventional media literacy approaches are insufficient, as they often overlook structural biases, power relations, and the political economy of digital platforms. In contrast, critical digital literacy enables learners to interrogate algorithmic authority, recognize systemic inequalities, and develop reflective agency. The study argues that embedding critical digital literacy in education is essential to build resilience against misinformation and support informed, democratic participation in digital environments.

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INTRODUCTION

The rapid expansion of digital platforms driven by algorithmic systems has fundamentally reshaped how information is produced, distributed, and consumed in contemporary societies. Social media platforms, search engines, video-sharing services, and mobile applications increasingly rely on algorithmic decision-making to curate content, personalize information feeds, and shape users' informational environments. While these systems are often justified as tools for efficiency and relevance, they have also intensified the spread of misinformation and disinformation, creating complex epistemic challenges for individuals and democratic societies alike (Henderson et al., 2020; O'Hara, 2021; Oeldorf-Hirsch, 2023). In this context, algorithmic misinformation does not merely refer to false content circulating online but to a broader sociotechnical phenomenon in which algorithmic logics amplify misleading narratives, reinforce cognitive biases, and obscure the power relations embedded in digital infrastructures.

Recent scholarship emphasizes that misinformation in the digital age is structurally distinct from earlier forms of information disorder. Unlike traditional misinformation, which could often be addressed through fact-checking and source verification, algorithmic misinformation operates through opaque computational processes that prioritize engagement, emotional resonance, and virality (Black & Fullerton, 2022; Roozenbeek et al., 2023). These systems create feedback loops in which users' past behaviors shape future exposure, limiting informational diversity and reinforcing ideological polarization (O'Hara, 2021; Steinfeld,

2023). As a result, misinformation becomes embedded in the very architecture of digital platforms rather than functioning as an external anomaly. This transformation has raised serious concerns regarding public trust, civic participation, and the sustainability of democratic discourse (Levitt & Grubaugh, 2024; Sundin, 2025).

Conventional approaches to media literacy, however, have struggled to keep pace with these developments. Traditional media literacy frameworks often focus on evaluating the credibility of sources, identifying bias, and distinguishing fact from opinion. While these skills remain important, they are increasingly insufficient in environments where algorithmic curation determines what information is encountered in the first place (Pangrazio, 2018; Brisola & Doyle, 2019). Scholars argue that such approaches tend to individualize responsibility, placing the burden on users to "consume wisely" while leaving the structural power of platforms and algorithms largely unexamined (Risteska, 2023; Hwang, 2024). Consequently, even individuals who possess strong evaluative skills may remain vulnerable to manipulation when they lack an understanding of how algorithms shape visibility, authority, and knowledge production.

In response to these limitations, the concept of critical digital literacy has emerged as an expanded framework that integrates technical understanding with sociopolitical critique. Critical digital literacy goes beyond functional competencies to interrogate the ideological, economic, and political dimensions of digital technologies (Archambault, 2023; Low et al., 2023). It emphasizes reflexivity, power awareness, and the ability to question dominant narratives embedded in digital systems. Within this framework, literacy is not merely a set of neutral skills but a form of critical consciousness that enables individuals to recognize and resist mechanisms of control and manipulation (Brisola & Doyle, 2019; Cuevas-Cerveró et al., 2023).

A key component of critical digital literacy is algorithmic literacy, which focuses specifically on understanding how algorithmic systems operate and influence everyday digital experiences. Algorithmic literacy encompasses knowledge of data collection, personalization mechanisms, ranking systems, and automated decision-making processes (Henderson et al., 2020; Oeldorf-Hirsch, 2023). Integrative reviews highlight that algorithmic literacy is still an emerging field, characterized by conceptual diversity and uneven pedagogical implementation (Gagrčin et al., 2024). Nevertheless, scholars increasingly agree that without algorithmic awareness, users cannot fully grasp how misinformation is produced, amplified, and legitimized within platform ecosystems (O'Hara, 2021; Steinfeld, 2023).

Recent studies further suggest that algorithmic literacy must be approached critically rather than descriptively. Merely explaining how algorithms function risks normalizing their authority and obscuring their embedded biases (Stamboliev, 2023). Critical algorithmic literacy, therefore, emphasizes questions of power, inequality, and surveillance, highlighting how algorithmic systems often reproduce social hierarchies related to race, gender, and class (Chomintra, 2024; Aleman & Martínez, 2024). From this perspective, algorithmic misinformation is not only a technical problem but also an ethical and political issue that demands critical engagement.

Education has emerged as a central arena for addressing these challenges. Scholars across disciplines argue that schools, universities, and informal learning environments must play a proactive role in cultivating critical digital literacy as a civic competence (Jeong et al., 2022; Blanco & Ferreira, 2024). Educational interventions that integrate critical thinking, media analysis, and algorithmic awareness have shown promise in building resilience against misinformation (Lee et al., 2022; Boonprakong et al., 2023). Importantly, these interventions emphasize participatory learning, encouraging learners to reflect on their own digital practices and positionalities rather than passively absorbing information.

At the same time, the rise of artificial intelligence has further complicated the misinformation landscape. Advances in generative AI, automated bots, and deepfake technologies have increased the scale, speed, and sophistication of misinformation campaigns (Das et al., 2025; Wang et al., 2025). Scholars warn that AI-driven misinformation challenges existing literacy frameworks, requiring new pedagogical approaches that address automation,

data ethics, and epistemic uncertainty (da Costa & Joaquim, 2025; Chávez & Macias, 2025). In this context, critical digital literacy must evolve to incorporate AI literacy while maintaining its normative commitment to social justice and democratic values.

Despite the growing body of literature on media literacy, algorithmic literacy, and misinformation, significant gaps remain. Many studies examine these domains in isolation, resulting in fragmented insights that fail to capture the complexity of algorithmic misinformation (Oeldorf-Hirsch, 2023; Gagrčin et al., 2024). Moreover, empirical and conceptual work often focuses on short-term interventions without articulating a comprehensive framework that integrates critical pedagogy, sociotechnical analysis, and civic engagement (Pangrazio, 2018; Sundin, 2025). As a result, there is a need for research that synthesizes existing scholarship into a coherent conceptual model of critical digital literacy as a response to algorithmic misinformation.

This study addresses this gap by conceptualizing critical digital literacy as a multidimensional response to algorithmic misinformation. It brings together insights from critical information literacy, algorithmic literacy, AI literacy, and misinformation studies to propose an integrative framework that emphasizes epistemic agency, power awareness, and civic responsibility. By situating literacy within broader sociotechnical and political contexts, the study advances the argument that critical digital literacy is not merely an educational tool but a form of democratic practice (Cuevas-Cerveró et al., 2023; Levitt & Grubaugh, 2024). In doing so, it contributes to ongoing debates on how education can respond to the challenges posed by algorithmically mediated information environments.

METHOD

This study employs a qualitative research design grounded in systematic literature analysis and thematic synthesis. The methodological approach is appropriate for examining conceptual frameworks, theoretical debates, and pedagogical models related to critical digital literacy and algorithmic misinformation. Rather than generating primary empirical data, the study aims to synthesize and critically interpret existing scholarship to develop an integrative conceptual framework (O'Hara, 2024; Sundin, 2025).

The primary data sources consist of peer-reviewed journal articles, scholarly book chapters, and authoritative research reports addressing critical digital literacy, algorithmic literacy, misinformation, and AI in educational contexts. The corpus includes interdisciplinary literature from media studies, information science, education, communication studies, and computational social science. Sources were selected from reputable academic outlets such as New Media & Society, The Journal of Academic Librarianship, Surveillance & Society, Scientific Reports, and Technium Social Sciences Journal, ensuring both scholarly rigor and conceptual diversity (Oeldorf-Hirsch, 2023; Gagrčin et al., 2024).

Selection criteria were designed to ensure relevance and analytical coherence. Included sources explicitly address at least one of the following dimensions: algorithmic influence on information ecosystems, misinformation or disinformation processes, digital or media literacy frameworks, and educational or civic responses to digital challenges. Preference was given to contemporary literature published between 2018 and 2025, reflecting the rapidly evolving nature of digital platforms and AI technologies (Das et al., 2025; Wang et al., 2025). Both empirical studies and conceptual analyses were included to balance theoretical depth with practical insight.

The analytical process followed a thematic synthesis approach. First, all selected texts were subjected to close reading to identify key concepts, arguments, and theoretical positions (Steinfeld, 2023; Roozenbeek et al., 2023). Initial coding focused on recurring themes such as algorithmic opacity, feedback loops, epistemic authority, misinformation amplification, and pedagogical strategies. These codes were then grouped into broader analytical categories, including algorithmic power, critical pedagogy, civic engagement, and misinformation resilience (Cuevas-Cerveró et al., 2023; Aleman & Martínez, 2024).

To enhance analytical rigor, the study employed iterative coding and constant comparison. Themes were continuously refined through comparison across sources, allowing for the identification of convergences, tensions, and gaps within the literature (Gagrčin et al., 2024; Oeldorf-Hirsch, 2023). Conceptual mapping techniques were used to visualize relationships among key constructs, such as the intersection between algorithmic literacy and critical information literacy in addressing misinformation (Jeong et al., 2022; Archambault, 2023).

Validity and trustworthiness were addressed through triangulation and reflexive analysis. Triangulation involved comparing insights across disciplinary perspectives and methodological approaches, ensuring that conclusions were not overly dependent on a single theoretical tradition (Brisola & Doyle, 2019; da Costa & Joaquim, 2025). Reflexivity was maintained by critically examining the normative assumptions underlying critical digital literacy, particularly its emphasis on empowerment and resistance (Stamboliev, 2023).

Ethical considerations were integral to the research design. As the study relies exclusively on publicly available academic sources, no human participants were involved, eliminating concerns related to consent or confidentiality. Nevertheless, ethical responsibility was maintained through accurate representation of authors' arguments, careful citation practices, and avoidance of misinterpretation (Levitt & Grubaugh, 2024).

Overall, this methodological approach enables a comprehensive synthesis of fragmented scholarship and supports the development of a coherent conceptual framework. By integrating insights from diverse fields, the study provides a robust analytical foundation for understanding critical digital literacy as a response to algorithmic misinformation and offers a transferable model for future empirical and pedagogical research (Boonprakong et al., 2023; Sundin, 2025).

RESULTS AND DISCUSSION

Mapping the Structural Dynamics of Algorithmic Misinformation

The thematic synthesis reveals that algorithmic misinformation is not a singular phenomenon but a complex interaction between technological systems, human cognition, and socio-political power structures. Across the analyzed literature, algorithms consistently emerge as active agents in shaping epistemic environments rather than neutral conduits of information. Recommendation systems, ranking algorithms, and personalization mechanisms prioritize engagement metrics—such as clicks, shares, and watch time—over informational accuracy, thereby amplifying emotionally charged and polarizing content (O'Hara, 2021; Roozenbeek et al., 2023).

The results demonstrate that misinformation becomes algorithmically entrenched through feedback loops. Users' prior interactions inform future content exposure, gradually narrowing informational diversity and reinforcing confirmation bias. This process creates what several scholars describe as "algorithmic echo chambers," where misleading narratives gain legitimacy through repetition and visibility rather than veracity (Steinfeld, 2023; Johansson & Andreasson, 2017). Importantly, misinformation in this context is not always overtly false; it often consists of partial truths, decontextualized data, or emotionally framed narratives that exploit algorithmic preferences for engagement (Black & Fullerton, 2022).

This finding aligns with the growing recognition that algorithmic misinformation represents a structural epistemic risk rather than an individual failure of discernment. Traditional corrective measures—such as debunking or fact-checking—are frequently reactive and insufficient because they do not address the algorithmic infrastructures that continuously regenerate misinformation (Levitt & Grubaugh, 2024). Consequently, the literature converges on the view that meaningful intervention must focus on users' capacity to understand, interrogate, and critically engage with algorithmic systems themselves.

Limitations of Conventional Media Literacy Approaches

A second major finding concerns the inadequacy of conventional media literacy frameworks when confronted with algorithmically mediated information environments. While traditional media literacy emphasizes source evaluation, credibility assessment, and bias detection, the reviewed studies indicate that these skills are increasingly disconnected from how information is encountered online (Pangrazio, 2018; Brisola & Doyle, 2019).

In algorithmic environments, users rarely encounter information through deliberate search alone. Instead, content is pre-selected and ranked by opaque computational processes that remain largely invisible to users (Henderson et al., 2020). As a result, individuals may correctly evaluate the credibility of a source yet remain unaware of why certain narratives dominate their feeds or how alternative perspectives are systematically marginalized. This disconnect exposes a critical gap between evaluative literacy and structural awareness.

The findings further suggest that conventional media literacy often reinforces an individualistic model of responsibility. By framing misinformation as a problem of poor judgment or cognitive bias, such approaches obscure the political economy of digital platforms and shift accountability away from corporate and algorithmic power (Risteska, 2023; Hwang, 2024). This individualization limits the transformative potential of media education and risks reproducing existing inequalities, as not all users possess equal access to educational resources or digital competencies.

The synthesis highlights a growing scholarly consensus that media literacy must evolve from a skills-based model toward a critical, reflexive framework capable of addressing power, ideology, and infrastructure. Without this shift, educational interventions risk becoming palliative rather than transformative responses to algorithmic misinformation.

Emergence of Critical Digital Literacy as an Integrative Framework

The analysis identifies critical digital literacy as a unifying conceptual framework that addresses the limitations of conventional media literacy while responding directly to the structural dynamics of algorithmic misinformation. Unlike functional or instrumental models, critical digital literacy situates digital practices within broader socio-technical, economic, and political contexts (Archambault, 2023; Cuevas-Cerveró et al., 2023).

The results indicate that critical digital literacy encompasses three interrelated dimensions. First, it involves technical and algorithmic awareness, including an understanding of how data is collected, processed, and used to shape information flows (Oeldorf-Hirsch, 2023; Gagrčin et al., 2024). Second, it emphasizes critical reflexivity, encouraging individuals to question the values, assumptions, and interests embedded in digital systems (Stamboliev, 2023). Third, it foregrounds civic and ethical responsibility, framing digital literacy as a form of democratic participation rather than a purely personal competence (Levitt & Grubaugh, 2024).

The synthesis shows that when these dimensions are integrated, critical digital literacy functions as an epistemic defense mechanism against algorithmic misinformation. Rather than focusing solely on identifying false content, it enables users to recognize patterns of amplification, understand why certain narratives gain prominence, and reflect on their own role within algorithmic ecosystems. This shift from content-level evaluation to system-level critique represents a significant advancement in literacy theory.

Algorithmic Literacy as a Core Component of Critical Digital Literacy

A prominent theme across the literature is the centrality of algorithmic literacy within critical digital literacy frameworks. Algorithmic literacy refers to users' understanding of algorithmic decision-making processes, including personalization, ranking, automation, and predictive analytics (Henderson et al., 2020; O'Hara, 2021). The findings indicate that algorithmic literacy is essential for demystifying the authority algorithms hold over knowledge production and circulation.

However, the results also reveal that algorithmic literacy must be approached critically to avoid technological determinism. Descriptive explanations of algorithms—such as how

recommender systems function—are insufficient if they do not address issues of bias, inequality, and power (Aleman & Martínez, 2024; Chomintra, 2024). Several studies caution that superficial algorithmic literacy may inadvertently legitimize algorithmic authority by portraying these systems as objective or inevitable (Stamboliev, 2023).

The synthesis supports a critical algorithmic literacy model that integrates technical understanding with ethical and political critique. Such a model encourages learners to ask questions about whose interests algorithms serve, whose voices are amplified or silenced, and how algorithmic systems intersect with existing social hierarchies. In the context of misinformation, this approach enables users to recognize that algorithmic amplification is not neutral but reflects specific economic and ideological priorities.

Educational Interventions and Pedagogical Implications

The results highlight education as a crucial site for cultivating critical digital literacy in response to algorithmic misinformation. Across the reviewed studies, educational interventions that adopt participatory, inquiry-based pedagogies demonstrate greater effectiveness than those relying on didactic instruction alone (Jeong et al., 2022; Boonprakong et al., 2023).

Effective pedagogical models emphasize experiential learning, where students analyze real-world digital platforms, experiment with algorithms, and reflect on their own media consumption practices (Lee et al., 2022). Such approaches foster metacognitive awareness and empower learners to see themselves as active agents rather than passive recipients of information. Importantly, these interventions integrate critical theory, encouraging students to connect personal experiences with broader structural dynamics.

The findings also underscore the importance of embedding critical digital literacy across curricula rather than confining it to isolated modules. Studies suggest that interdisciplinary integration—linking digital literacy with civics, ethics, sociology, and data science—enhances learners' ability to contextualize misinformation within societal systems (Blanco & Ferreira, 2024). This aligns with the view that algorithmic misinformation is not merely a technical problem but a socio-political challenge requiring holistic educational responses.

The Impact of Artificial Intelligence on Misinformation and Literacy

The rise of artificial intelligence introduces new complexities into the misinformation landscape. The reviewed literature indicates that AI-driven technologies—such as generative text models, deepfakes, and automated bots—have significantly increased the scale and sophistication of misinformation campaigns (Das et al., 2025; Wang et al., 2025). These technologies blur the boundaries between human and machine-generated content, complicating traditional notions of authorship and credibility.

The results suggest that critical digital literacy must evolve to incorporate AI literacy as a core component. AI literacy involves understanding how machine learning models are trained, how data biases shape outputs, and how automated systems can be manipulated for deceptive purposes (da Costa & Joaquim, 2025; Chávez & Macias, 2025). Without this knowledge, users remain vulnerable to increasingly convincing forms of algorithmic misinformation.

However, the synthesis emphasizes that AI literacy alone is insufficient if it remains purely technical. Critical digital literacy provides the normative framework necessary to interrogate the ethical implications of AI, including issues of surveillance, autonomy, and epistemic trust. By integrating AI literacy within a critical paradigm, education can prepare learners to navigate emerging misinformation threats while maintaining democratic and human-centered values.

Epistemic Agency and Civic Resilience

A key outcome of critical digital literacy identified in the literature is the development of epistemic agency—the capacity to actively shape one's knowledge environment rather than

passively accept algorithmically curated information (Sundin, 2025). Epistemic agency involves critical questioning, reflective judgment, and collective engagement, positioning individuals as co-constructors of meaning within digital ecosystems.

The findings indicate that epistemic agency is closely linked to civic resilience against misinformation. Individuals who understand algorithmic processes and power relations are better equipped to resist manipulation, engage in constructive dialogue, and support democratic norms (Levitt & Grubaugh, 2024). This suggests that critical digital literacy functions not only as an educational outcome but as a civic competence essential for democratic participation in algorithmically mediated societies.

Importantly, the literature emphasizes the collective dimension of epistemic agency. Misinformation is not merely an individual cognitive challenge but a social phenomenon shaped by networks, communities, and institutions (Johansson & Andreasson, 2017). Critical digital literacy therefore encourages collaborative practices, such as collective verification, dialogic engagement, and participatory platform critique.

Toward an Integrative Conceptual Model

Synthesizing the results, this study proposes an integrative conceptual model in which critical digital literacy operates as a multidimensional response to algorithmic misinformation. The model situates algorithmic literacy, media critique, AI literacy, and civic engagement within a unified framework grounded in critical pedagogy.

The findings suggest that addressing algorithmic misinformation requires moving beyond reactive strategies toward proactive educational transformation. By fostering critical awareness of digital infrastructures, empowering epistemic agency, and emphasizing ethical responsibility, critical digital literacy offers a sustainable response to the challenges posed by algorithmically mediated information environments.

This integrative approach responds directly to gaps identified in the literature, where fragmented interventions often fail to capture the systemic nature of misinformation (Gagrčin et al., 2024; Oeldorf-Hirsch, 2023). The proposed framework contributes to ongoing scholarly debates by articulating how literacy, power, and technology intersect in contemporary knowledge societies.

Implications for Future Research and Practice

The discussion highlights several implications for future research. Empirical studies are needed to examine how critical digital literacy interventions impact learners across different cultural and educational contexts. Longitudinal research could assess the durability of literacy outcomes in rapidly evolving algorithmic environments.

For educational practice, the findings underscore the urgency of integrating critical digital literacy into teacher education, curriculum design, and policy frameworks. Addressing algorithmic misinformation is not a peripheral concern but a foundational challenge for education in the digital age.

CONCLUSION

This study has examined critical digital literacy as a comprehensive and necessary response to the growing challenge of algorithmic misinformation in contemporary digital environments. The findings demonstrate that misinformation in the age of algorithmic governance cannot be understood solely as a problem of inaccurate content or individual cognitive limitations. Instead, it emerges from complex interactions between algorithmic systems, platform economies, human behavior, and broader socio-political structures that shape how information is produced, distributed, and consumed. Addressing this challenge therefore requires approaches that move beyond technical fixes and reactive correction toward deeper forms of critical awareness and educational transformation.

The analysis highlights critical digital literacy as a multidimensional framework that integrates algorithmic awareness, critical reflexivity, ethical judgment, and civic responsibility. By shifting the focus from surface-level evaluation of information to systemic understanding of digital infrastructures, critical digital literacy enables individuals to recognize how algorithms influence visibility, credibility, and meaning. This shift fosters epistemic agency, empowering users to actively engage with, question, and reshape their digital information environments rather than passively adapting to them.

Furthermore, the study underscores the central role of education in cultivating long-term resilience to algorithmic misinformation. Educational practices grounded in critical pedagogy and participatory learning can equip learners with the skills and dispositions needed to navigate increasingly automated and AI-driven media ecosystems. Such practices not only enhance individual competencies but also contribute to collective democratic capacities by promoting informed participation, ethical engagement, and social accountability.

In conclusion, critical digital literacy should be understood not as an optional enhancement to existing media literacy frameworks but as a foundational competence for contemporary citizenship. As algorithmic systems continue to mediate knowledge and public discourse, fostering critical digital literacy becomes essential for sustaining epistemic integrity, democratic values, and human agency in the digital age.

REFERENCES

Aleman, E., & Martinez, R. (2024). “It's Like They Are Using Our Data Against Us.” Counter-Cartographies of AI Literacy. *Reading Research Quarterly*, *59*(4), 665-677. https://doi.org/10.1002/rrq.574

Archambault, S. G. (2023). Expanding on the frames: Making a case for algorithmic literacy. *Communications in Information Literacy*, *17*(2), 11. https://doi.org/10.15760/comminfolit.2023.17.2.11

Black, J., & Fullerton, C. (2022). Navigating and combating “digital information minefields” in our era of digital deceit. *Advances in Social Sciences Research Journal*, *9*(10). https://doi.org/10.14738/assrj.910.13238

Blanco, P., & Ferreira, B. (2024). The Urgency of Media Literacy for Exercising Citizenship and Its Contribution to Guaranteeing Information Integrity-EducaMídia Case Study. *Journal of Latin American Communication Research*, *12*(2), 103-112. https://doi.org/10.55738/journal.v12i2p.103-112

Boonprakong, N., Tag, B., & Dingler, T. (2023). Designing technologies to support critical thinking in an age of misinformation. *IEEE pervasive computing*, *22*(3), 8-17. https://doi.org/10.1109/MPRV.2023.3275514

Brisola, A. C., & Doyle, A. (2019). Critical information literacy as a path to resist “fake news”: Understanding disinformation as the root problem. *Open information science*, *3*(1), 274-286. https://doi.org/10.1515/opis-2019-0019

Chávez, J. L. G., & Macias, M. R. A. (2025). Infodemia y alfabetización mediática frente a los riesgos de la desinformación automatizada en entornos digitales. *Scripta Mundi*, *4*(2), 10-36. https://doi.org/10.53591/scmu.v4i2.2309

Chomintra, M. (2023). Assessing the use of critical literacies in mis/disinformation literacy instruction. *The journal of academic librarianship*, *49*(5), 102762. https://doi.org/10.1016/j.acalib.2023.102762

Chomintra, M. (2024). Critical race digital literacy rubric for assessing mis/disinformation literacy instruction lesson plans. *The journal of academic librarianship*, *50*(3), 102868. https://doi.org/10.1016/j.acalib.2024.102868

Cuevas-Cerveró, A., Colmenero-Ruiz, M. J., & Martínez-Ávila, D. (2023). Critical information literacy as a form of information activism. *The Journal of Academic Librarianship*, *49*(6), 102786. https://doi.org/10.1016/j.acalib.2023.102786

da Costa, P. H. H., & Joaquim, A. F. V. L. (2025). AI and digital literacy. In Advances in computational intelligence and robotics. *IGI Global.* (pp. 1–20). https://doi.org/10.4018/979-8-3373-0725-1.ch003

Das, S. K., Karmakar, S., & Das, T. (2025). The future of digital learning in the era of misinformation. In Advances in educational technologies (pp. 215–232). Springer. https://doi.org/10.4018/979-8-3693-9067-2.ch012

Gagrčin, E., Naab, T. K., & Grub, M. F. (2024). Algorithmic media use and algorithm literacy: An integrative literature review. *new media & society*, 14614448241291137. https://doi.org/10.1177/14614448241291137

Henderson, M. J., Shade, L. R., & Mackinnon, K. (2020). Every click you make: Algorithmic literacy and the digital lives of young adults. *AoIR Selected Papers of Internet Research*. https://doi.org/10.5210/SPIR.V2020I0.11233

Hwang, J. (2024). Misinformation and public trust: Investigating the role of media literacy in combating fake news in the digital age. *International Journal of Science and Research Archive, 15*(1), 1263-1272. https://doi.org/10.30574/ijsra.2025.15.1.1177

Jeong, H.-S., Oh, Y. J., & Kim, A. (2022). Critical algorithm literacy education in the age of digital platforms. In *Critical perspectives on digital media literacy* (pp. 55–72). Routledge. https://doi.org/10.4324/9781003136842-9

Lee, A. Y., Moore, R. C., & Hancock, J. (2022). Effects of a Digital Media Literacy Intervention to Build Misinformation Resilience in Diverse Communities: Social and Motivational Considerations in Intervention Efficacy. *PsyArXiv. November*, https://doi.org/10.31234/osf.io/n6dkx

Levitt, G., & Grubaugh, S. (2024). Misinformation: The Greatest Threat to Democracy-Empowering K-12 Teachers to Build Critical Media Literacy Skills in Students. *Technium Soc. Sci. J.*, *66*(1), 104-111. https://doi.org/10.47577/tssj.v66i1.12059

Low, B., Ehret, C., & Hagh, A. (2025). Algorithmic imaginings and critical digital literacy on# BookTok. *New media & society*, *27*(4), 2336-2353. https://doi.org/10.1177/14614448231206466

O'Hara, I. (2024). Epistemic Vaccination: Computational Disinformation, Inoculation Theory, and Critical Information Literacy. *Journal of New Librarianship, 9*(2), 1–18. https://doi.org/10.33011/newlibs/17/12

Oeldorf-Hirsch, A., & Neubaum, G. (2025). What do we know about algorithmic literacy? The status quo and a research agenda for a growing field. *New Media & Society*, *27*(2), 681-701. https://doi.org/10.1177/14614448231182662

O'Hara, I. (2021). Feedback loops: Algorithmic authority, emergent biases, and implications for information literacy. *Pennsylvania Libraries: Research & Practice*, *9*(1), 8-15. https://doi.org/10.5195/palrap.2021.231

Pangrazio, L. (2018). What's new about 'fake news'? Critical digital literacies in an era of fake news, post-truth and clickbait. *Páginas de educación*, *11*(1), 6-22. https://doi.org/10.22235/pe.v11i1.1551

Risteska, A. (2023). Aware and critical navigation in the media landscape:(un) biased algorithms and the need for new media literacy in the era of artificial intelligence and digital media. *KAIROS: Media and Communications Review*, *2*(2), 16-38. https://doi.org/10.64370/tsnh6944

Roozenbeek, J., Culloty, E., & Suiter, J. (2023). Countering Misinformation. Evidence, Knowledge Gaps, and Implications of CurrentInterventions, *European Psychologist*. *28*(3), 189–205. https://doi.org/10.1027/1016-9040/a000492

Stamboliev, E. (2023). Proposing a postcritical AI literacy: Why we should worry less about algorithmic transparency and more about citizen empowerment. *Media Theory*, *7*(1), 202-232. https://doi.org/10.70064/mt.v7i1.890

Steinfeld, N. (2023). How do users examine online messages to determine if they are credible? an eye-tracking study of digital literacy, visual attention to metadata, and success in misinformation identification. *Social Media+ Society*, *9*(3), 20563051231196871. https://doi.org/10.1177/20563051231196871

Sundin, O. (2025). Navigating media and information literacy in the age of AI: A view from Sweden. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wg

 e-ISSN 3089-3615

Wang, J., Wang, X., & Yu, A. (2025). Tackling misinformation in mobile social networks a BERT-LSTM approach for enhancing digital literacy. *Scientific Reports*, *15*(1), 1118. https://doi.org/10.1038/s41598-025-85308-4