Research Article

Critical literacy as a countermeasure to misinformation in the social media age: Review of the literature

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Abstract

In the social media age, misinformation presents significant challenges to information integrity. This study explores critical literacy as a countermeasure to misinformation in the social media age, through a review of the literature. The Social Cognitive Theory (SCT) and the Message Interpretation Process (MIP) model served as theoretical framework. Articles reviewed were manually and purposively extracted from Google Scholar, Semantic Scholar and Research Gate. 36 articles in total, comprising 3 discourses, 6 literature reviews, and 17 position papers, amongst others, analysed. Results showed that critical literacy promotes analytical thinking and informed cynicism pertinent to fostering good power relations, reducing inequalities, and empowering people to effectively recognise and challenge misinformation. The study concludes that raising a generation of critically educated people may offer a solid basis for spotting misinformation, halting its dissemination, and countering its detrimental impacts. The study recommended the incorporation of critical literacy in educational curricula and public awareness initiatives to counter misinformation, particularly from a Nigerian perspective.

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Introduction

Since the launch of Facebook in 2004, the communication landscape has benefited immensely from the development of social media. For instance, users create and share content about politics, health, edutainment, entertainment, and many other topics in real-time using the interactive and multimodal features of social media platforms like Facebook, Twitter, YouTube, WhatsApp, and several more. Social media have evolved into reliable methods for information collection, dissemination, and evaluation since they are quicker and more accessible to rapid responses than traditional media platforms such as print media, television, radio, and telephone (Fasunwon, 2019). The interactivity and multimodality of social media have led to an ever-increasing number of users across the world, including those in Nigeria. Available data on DataReportal indicate that out of the 103.0 million internet users in Nigeria at the start of 2024, 36.75 million used social media users in January 2024, equating to 16.2 per cent of the total population (Kemp, 2024).

Notwithstanding these advantages, misinformation, which is the unintentional dissemination of inaccurate or misleading information, has been a significant problem on social media (Lazer et al., 2018). Misinformation on social media does occasionally arise, but it is more prevalent in times of crisis, such as pandemics, epidemics, political activism, and natural and human tragedies (Inazu & Onwih, 2021). According to Lazer et al. (2018), misinformation thrives on social media for a number of reasons such as it aligning with individuals' preconceptions and beliefs, internet algorithms and bots, poor regulations, etc. Owing to its detrimental consequences, the proliferation of misinformation in the era of social media has garnered considerable attention from governments, academic institutions, social media companies, and researchers worldwide. Since 2016, for instance, more than 50 countries, including Bangladesh, Belarus, Brazil, Cambodia, Chile, China, Egypt, Ireland, Kenya, Malaysia, Myanmar, and others have enacted legislation to stop the spread of misleading information (Bhagyanagar, 2021).

In Nigeria, the Cybercrimes Act of 2015 provides comprehensive regulatory framework "for the prohibition, prevention, detection, prosecution and punishment of cybercrimes in Nigeria". Such crimes include wilful misdirection of electronic messages, tampering with critical national information infrastructure, unlawful interceptions, cybersquatting, phishing, spamming, cyberstalking, child pornography, computer-related fraud, cyber terrorism, among others. The Nigerian government has been persistent in advocating for more stringent social media laws, through the Frivolous Petitions (Prohibition) Bill 2015, also known as the social media Bill, which is yet to be signed into law due to public outcry. Also, in 2021, access to X (formerly Twitter) was suspended for seven months in the country to regulate social media use.

Noticeably, misinformation has continued to spread on social media despite efforts at regulation. As a result, it has been argued that critical literacy, which is the ability to read texts in an active, reflective manner to better understand power, inequality, and

injustice in human relationships has the potential to counter misinformation (Coffey, 2009). Over the past two decades, several studies conducted outside the context of Nigeria have highlighted the positive nexus between critical literacy and misinformation or false information in diverse contexts (e.g., Barton, 2019; Bennett, 2023; Coffey, 2009; Comber et al., 2018; Cooke, 2018; Darvin, 2017; Fabos, 2008; Golden & Couffer, 2022; Luke, 2024; National Literacy Trust, 2018; Picton & Teravainen, 2017). There is a consensus among these studies that critical literacy, which enables the receiver of a message to cultivate an inquisitive and critical mind-set, has huge potential for countering misinformation.

However, while critical literacy is recognised as a vital skill for navigating complex information environments, there appears to be insufficient exploration of how these competencies have been integrated into everyday social media practices to combat the pervasive spread of misinformation from a Nigerian perspective. To the researchers' knowledge, most of the existing literature from Nigeria highlighted the role of critical literacy mainly in the areas of sustainable development, governance, peace, education, and security.

For instance, Apata (2023) explored critical literacy as a 21st-century skill for language educators in Nigeria; Ngamsa and Teneke (2017) examined the challenges and prospects of language awareness and critical literacy in 21st-century Nigeria. Ogenyi and Nwokolo (2013) discussed the relevance of mass media and critical literacy in societal peace. Orkaa, et al. (2023) investigated the role of critical literacy in fostering sustainable governance in 21st-century Nigeria; Tunde-Awe (2021) discussed the navigation of the turbulent sea of COVID-19 discourses using critical literacy skills, while Ukume, Ochugwu and Chen (2013) examined critical literacy by highlighting the role of literature in promoting peace education in Nigeria. Uguma, Ukume and Jude (2023) x-rayed the meaning of critical literacy and examined the role of peace education as a catalyst for sustainable national development in Nigeria.

Despite Nigeria's rich and expanding critical literacy literature, none seems to have specifically addressed the intersections between critical literacy and misinformation. Addressing this knowledge gap is crucial for developing effective interventions that enhance public resilience against misinformation in a digital landscape increasingly characterised by ambiguity and manipulations that promote sectional power relations and their attendant volatile outcomes. Therefore, to address this gap in the research, this study aims to build on extant studies through a review of the literature to demonstrate the intersections between critical literacy and misinformation in the social media age. We believe this study would contribute to the corpus of knowledge in this largely unexplored area from a Nigerian perspective by providing an overview of the current research landscape and some background information for future empirical research.

Social media

In their seminal work, Kaplan and Haaenlein (2010, p. 61) defined social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of User Generated Content". Kaplan and Haaenlein provided six categories of social media namely, collaborative projects (e.g., Wikipedia), blogs and microblogs (e.g., Twitter), content communities (e.g., YouTube), social networking sites (e.g., Facebook), virtual game worlds (e.g., World of Warcraft), and virtual social worlds (e.g., Second Life). According to Apuke, Omar and Tunca (2022), social media platforms are built on web and mobile applications that enable users to produce content that promote interaction, sharing, and participation.

In their Honeycomb Social Media Functionality Model, Kietzmanm et al. (2012) described specific facets of the social media user experience, where each social media platform, is driven by primary, secondary and tertiary building blocks such as identity, groups, relationships, reputation, presence, conversations, sharing. At the centre of these building blocks is identity. Accordingly, we conceptualise social media as multimodal, interactive web and mobile platforms that facilitate content creation, co-creation, and real-time sharing, thereby promoting user interaction and identity.

Information disorder

Misinformation is the unintentional dissemination of erroneous information without the intent to harm (Berger, 2018; Wardle & Derakhshan 2018). It is a variant of fake news or false and misleading information. As Aduloju (2021) puts it, when a person relays anything heard on television, radio or something they saw in the newspaper or on social media that was not real but accidentally transmitted the incorrect information, then one is technically disseminating misinformation. It differs from disinformation, which is the purposeful spread of false information for political, economic, or social purposes (Bhagyanagar, 2021), or mal-information which is purposefully misleading, and whose principal consequences are to incite fear and distrust or cause harm among the populace (Berger, 2018; Ireton & Posetti, 2018; Wardle & Derakhshan, 2018). Figure 1 illustrates these overlapping differences.
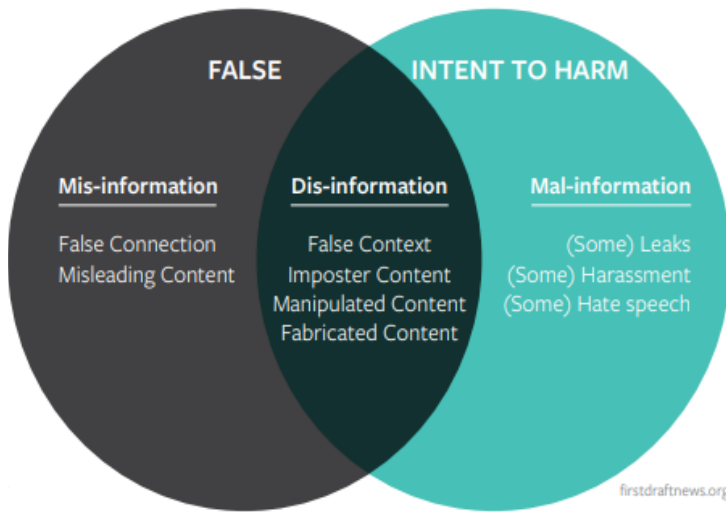
Figure 1: Misinformation, disinformation and mal-information distinguished
Source: (firstdraftnews.org as cited in Wardle & Derakhshan, 2018)

Figure 1 highlights the overlapping variants of fake news or misleading information, namely misinformation, disinformation and mal-information. Inazu and Onwih (2021) posit that such misleading information is propagated when people are allowed to self-generate and distribute information without the need for strict fact-checking procedures. Despite becoming more prevalent on social media, misinformation is not new; rather, it has taken on new forms and new ways to disseminate quickly in the digital age (Ahmed et al. 2022; Polizzi & Taylor, 2019). As Suntwal, Brown and Patton (2020) point out; the spread of false information online is extremely difficult since content on the internet spreads rapidly and widely, making it possible for online events to have a significant impact on a larger audience.

According to Barton (2019), in the post-truth era, it is more difficult than ever to trust information. Due to the internet's scourge of fake news, truth is no longer a scientific idea but rather a relative one. It has become difficult to sort through the media and get the facts about contemporary affairs. Post-truth is a political phrase to describe the era we currently live in after the big events of 2016, Brexit and the US election were characterised by falsehoods, misinformation, and fake news. It is a world where people give in to the politics of emotion rather than facts and where truth is not valued. This creates a risky environment for democracy and could jeopardise any significant democratic efforts in the future.

Furthermore, Golden and Couffer (2022) attest that misinformation spreads like wildfire and that it spreads even more quickly in the media circles of young people due to the tools and platforms developed over the past three decades. It has been shown by Madrid-Morales et al. (2021) that misleading information is very prevalent in Sub-

Saharan Africa. The misinformation practices of the young and the old were shown to differ in a comparative analysis of Sub-Saharan African countries. It was perceived that the older population was more likely than the younger generation to spread misleading information. According to Ahmed, Madrid-Morales, and Tully's (2022) survey of three Sub-Saharan African countries (Kenya, Nigeria, and South Africa), younger population are more active in online political activities. They also discovered that perceived exposure to misinformation has different effects on political engagement across age groups, as more frequent perceived exposure to misinformation tends to be a mobilizer for online political engagement for the older population (see also Guess, Nagler & Tucker, 2019). In contrast to disinformation, which is deliberately false and designed to mislead, in this paper, misinformation refers to false or misleading information spread ignorantly regardless of intent.

Misinformation and social media: Empirical review

The spread of misinformation is complex and influenced by a variety of psychological, social, and technological factors. In their assessment, Talwar et al. (2019) found that although people are increasingly worried about misleading information spreading on social media, they don't know as much about the reasons behind its persistence. According to studies, people distribute information that reinforces their sense of self and group identification. Tandoc, Lim, and Ling (2018), for example, claimed that spreading misleading information can be interpreted as a sign of group loyalty or conformity. Del Vicario et al. (2016) demonstrated that when people see their friends or relatives sharing news, they are more likely to do the same. They also stated that each echo chamber has unique cascade dynamics, and that homogeneity appears to be the main factor influencing the spread of contents.

A study conducted by Apuke et al. (2022) to investigate whether misinformation increases with SNS dependency and perceived online social impact found that social tie strength is the strongest predictor of the dissemination of erroneous information by Nigerian social media users. Most people propagate false information because they believe it to be true (Pennycook & Rand, 2019). In contrast, people also spread misleading information even when they do not believe it is true (Pennycook & Rand, 2021). Again, users may inadvertently disseminate misleading information due to the ease of sharing on social media (Wasserman & Madrid-Morales, 2019).

Furthermore, Allcott and Gentzkow (2017) believed that individuals with strong political beliefs can potentially disseminate misleading information to support such beliefs without carefully examining their accuracy. Apuke and Omar (2021) concluded that altruism, information seeking, and idle time were all linked to the spread of false information. According to Madrid-Morales et al.'s (2021) investigation of the causes and facilitators of misinformation in six sub-Saharan African countries, including Nigeria revealed that people spread false information because they see it as both entertaining

and a civic duty.

The threat that misinformation poses to democracy and its ability to spread quickly and unchecked has brought attention to the necessity for preventative measures (Oji & Tsala, 2020). Since 2016, more than 50 countries, including Bangladesh, Belarus, Brazil, Cambodia, Chile, China, Egypt, Ireland, Kenya, Malaysia, Myanmar, and others, have passed laws limiting the dissemination of false information (Bhagyanagar, 2021). In Nigeria, due to the prevalence of misinformation on social media, the Frivolous Petitions (Prohibition) Bill 2015, also known as the social media Bill, is aimed at regulating social media use is often brought to the spotlight, even though it is yet to be passed into law. Despite these legislative efforts, misinformation has thrived in the social media age.

Some researchers have reported that different age groups respond differently to false information they come across online, using strategies like fact-checking, distributing, and refuting, in starkly different social and political contexts like in Singapore and the United States (Duffy, Tandoc & Ling, 2019; Guess et al., 2019). Thus, as misinformation takes on new and viral forms in the digital age, teaching children how to identify it has become urgent (Polizzi &Taylor, 2019). Critical literacy has therefore become essential for reducing the impact of misinformation as it provides a thorough grasp of the numerous elements that contribute to its spread. Since misinformation is mostly spread ignorantly, it is anticipated that developing critical literacy skills will come handy in mitigating its spread.

Understanding critical literacy

The phrase "critical literacy," like most social science concepts, has been interpreted differently depending on the context. As noted by Holmes-Henderson (2014), "critical literacy" can mean a variety of things; it can entail anything from the ability to evaluate language and assess whether someone is attempting to convince them to the critical examination of communication that motivates social or political action to address injustices and inequalities. According to Coffey (2010), social critical theorists who were committed to eradicating social injustice and inequality were the first to introduce the term "critical literacy." For instance, Freire's critical pedagogy is a fundamental component in the development of independent, critical, and responsible people since it aids in the self-construction of subjects who are conscious of their place and social role (Freire, 1970).

From a communication perspective, Luke (2004) defined critical literacy as the use of print and other communication technologies for the analysis, critique, and modification of the social norms, rule structures, and practices that control institutional social domains and daily life. It goes beyond literacy, which is the acquired capacity for text reading and writing. Coffey (2009) posits that critical literacy is the capacity to engage with texts in an active and reflective manner in order to gain a greater understanding of power, injustice, and inequality in interpersonal relationships. Bishop (2014) noted that critical literacy employs texts and print skills in ways that allow students to analyse the

politics of everyday life in modern society and understand what it means to identify and actively seek out contradictions in meaningful intellectual positions, theories, and ways of living. Bishop added that the profound abilities of critical literacy can be acknowledged, encouraged, broadened, and reimagined to enable profound personal and group growth.

However, Coffey contended that schools only accept a specific type of information, meaning that people from particular groups are unable to help with the process of verifying that information. These specific types of information are often products of rote learning. To address the issue of rote learning literacy, Lee (2011) proposed that learning to critically evaluate texts in a variety of formats is essential for making decisions in our daily lives in various contexts. This method ought to be incorporated into education curricular. As Picton and Teravainen (2017) noted, critical literacy skills can be taught most effectively if they are developed alongside topic knowledge in all classrooms and integrated across the curriculum.

According to Behrman (2006), because of its critical importance, critical literacy has gained widespread recognition as a significant ideological notion that influences literacy education. The establishment of the International Reading Association's Critical Perspectives in Literacy Committee to support educators in embracing and putting into practice a critical perspective on literacy in their classrooms highlights the significance of critical literacy (International Reading Association, 2004 as cited in Behrman, 2006). Over the last 20 years, proponents of critical literacy have developed frameworks that have yielded fruitful results. For instance, Buckingham (2007) suggested that children require a type of critical literacy that will help them comprehend the creation, dissemination, and consumption of information as well as how meaning is created. The "key concepts" of media education, such as language, representation, production, and audience, offer a thorough and methodical framework that is readily applicable to digital media, including computer games and the Internet. Beyond the formal educational systems, Holmes-Henderson (2014) proposed Luke and Freebody's paradigm for professional development, which teaches students [a] how to decipher codes and [b] how to interpret them so they may become [c] text users and [d] text analysts.

Therefore, it is possible to combat misinformation in the social media age by including critical literacy in professional development and educational curriculum, given its empowering potential. New literacy necessitates new critical literacy forms and increased reliance on analysis and critical thinking because technology now offers options, such as the ability for anybody to publish anything on open networks like the Internet (Leu et al., 2017). By using this strategy, other social media users in elementary, middle, and high school as well as in the workplace can strengthen their critical literacy abilities and learn how to deal with false information (Picton & Teravainen, 2017). According to Barton (2019), students must be equipped with the skills necessary to critically evaluate media and comprehend the power dynamics that underlie media organisations, their objectives, and the people they serve. By doing this, the truth can surface, and fake news can lose much of its power.

Impliedly, the integration of critical literacy frameworks in education and professional development is expected to counter the spread of false information among Nigeria's throngs of social media users, including professionals and students. Thus, in this study, critical literacy is conceptualised as an integrative active and inquisitive kind of literacy with a specific approach and design for children, teenagers, and adults capable of countering misinformation in the social media age.

Theoretical anchors

This study was anchored on two theories: the Social cognitive theory (SCT) and the Message Interpretation Process (MIP) model. The SCT developed by Albert Bandura in 1986 is a framework that emphasises the role of cognitive, behavioural, and environmental factors in learning and behaviour. It highlights the dynamic and reciprocal relationship between behavioural, cognitive, and environmental factors that influence behaviour and learning, by focusing on the function of self-regulation, self-efficacy, and observation.

The SCT considers an individual's prior experiences, which impact the probability of a behavioural action. Preconceived ideas and views can make it difficult for people to use critical thinking techniques to assess the veracity of information (Allcott & Gentzkow, 2017). Therefore, the SCT can provide valuable insights into how critical literacy could serve as a countermeasure to misinformation in the social media age.

On the other hand, while message interpretation is a concept that spans several areas of communication theory, and scholars have contributed to understanding how people interpret messages (e.g., Barnlund 1970; Petty & Cacioppo, 1986), the MIP model, popularised by the works of Austin and Freeman (1997), and Austin and Johnson (1997b) outlines how individuals process and interpret messages. It refers to the cognitive, emotional and contextual elements through which individuals interpret, make sense of, and respond to messages they receive. According to Austin (2007), the message interpretation process (MIP) model monitors media effects from the standpoint of information processing. It suggests that as messages are gradually internalised or rejected, logical comparisons and affective reactions provide pathways to decision-making that interact and contribute to later-stage beliefs. The MIP model states that people apply heuristics to a communication based on affect (like liking) or logic (like credibility). They can also use wishful thinking or logical analysis to think deeply about a message.

Kupersmidt, Scull, and Benson (2012) also found that individuals go through several phases after receiving a message, including exposure, attention, interpretation, evaluation, and response. For instance, if people receive the proper media education, exposure to media coverage of substance use may not lead them to engage in risky activity. A multi-level multiple mediation analyses indicate that the set of logical analysis Message Interpretation Processing constructs intervened in the effect of the programme on students' imminent intentions to use alcohol or tobacco (Kupersmidt et al., 2012). Understanding these factors is vital for critical literacy, as it encourages users to consider

the implications of the media environment on message credibility. Thus, the MIP offers a structured framework for understanding how people process and react to information, thereby providing a useful framework for this study.

Methodology

This study employed a literature review to explore the intersection of critical literacy and misinformation on social media. The objective was to identify key themes, gaps, and trends in the existing research. A manual search of purposively selected research databases, including Google Scholar, Semantic Scholar, and ResearchGate, was done to find relevant literature. These databases were chosen because they host a wide range of scholarly articles. The search involved the use of keywords and phrases such as "critical literacy" "critical literacy and misinformation," "misinformation on social media," "fake news", and "critical literacy and misinformation in Nigeria".

To determine relevance, a preliminary screening of titles and abstracts of English-language publications during the past 20 years was conducted, utilising the keywords and phrases outlined above. Relevant articles excluding recurring titles from the search were subjected to a full-text review process to ensure they met the inclusion criteria. The author(s), research title/aim, year of publication, methodology, major findings, and conclusions/recommendation(s), were among the data retrieved from each study.

The search yielded 233 articles in total, of which 171 met the inclusion criteria. Further data cleaning reduced the number of articles to 36. These were articles that specifically addressed the intersections between critical literacy and misinformation or fake news in the title, abstract or findings. We included studies on critical literacy that focused on Nigeria whether or not they mentioned misinformation due to a paucity of studies on critical literacy and misinformation from a Nigerian perspective.

Results and discussion

The relevant 36 articles were tabulated and qualitatively analysed. Subsequently, key themes were identified and discussed in line with the purpose of the study.

Table 1: Summary of reviewed studies

S/N	Author(s)/Year	Title	Method	Findings/Conclusion
1.	Amgott, N. (2018)	Critical literacy in #DigitalActivism: Collaborative choice and action	Review/ multimedia project	For students to be most prepared for meaningful interactions in the global and digital world, critical literacy, digital literacy and digital activism must become a core part of classroom instruction. Multimedia projects that are easily sharable and can track analytics are a successful way to raise consciousness and advocate for local and global action.
2.	Apata, S. B. (2023)	Critical literacy skills: A 21st-century skills for language educators in Nigeria	Position paper	The rapid pace of globalization, coupled with the ever-increasing availability of information and the rise of digital media, has made it imperative for language educators to equip their students with the ability to critically evaluate texts and effectively communicate in diverse contexts... It is the responsibility of language educators in Nigeria to foster the development of critical literacy skills, and in doing so, contribute to the creation of a more informed, engaged, and democratic society.
3.	Austrått , J. S. (2021)	Critical literacy and 12 angry men	Critical analysis	Teaching critical literacy is a complex matter and the theoretical field is a "work in progress.
4.	Barton, C. C (2019)	Critical literacy in the post-truth media landscape	Position paper	Students need to be given the tools to critically analyse media as well as understand the structures of power behind media organizations, what their goals are and who they serve. In doing so, fake news can lose much of its power and truth can emerge.
5.	Bennett, N. J. (2023)	Using young individuals' perspectives to create a post-16 lesson to develop critical thinking, and literacy skills and incorporate Inoculation Theory about misinformation encountered on social media: A case study	Case study	A key finding was every participant's epistemology of misinformation was different. An appropriate educational environment is essential for future lesson delivery about social media misinformation.
6.	Behrman, E. H. (2006)	Teaching about language, power, and text: A review of classroom practices that support critical literacy	Review	Classroom literacy practices that involve students in reading supplementary texts, reading multiple texts, reading from a resistant perspective, and producing counter texts all help develop an understanding that text is given meaning, as opposed to containing meaning. Such practices may lead students to recognize that reading and writing are necessarily interpretive events.
7.	Burnett, C. & Merchant, G. (2011)	Is there a space for critical literacy in the context of social media?	Review	Drawing on the work of Greenhow and Robelia (2009), and particularly their notion of advantageous practice, the authors worked towards a model for enabling children and young people to move from a consideration of what they do through social media to a view of what they might do.

8.	Chambers, J. M. & Radbourne, C. L. (2015)	Developing critical literacy skills through using the environment as text	Interview	The study demonstrated the children's abilities to utilize critical literacy skills to 'read their world' and take action. Using the environment as a teaching text offers literacy gains for all children, but in particular for Indigenous learners.
9.	Coffey, H. (2009)	Critical literacy	Position paper	Because students have "free" access to an astonishing amount of information, they must be prepared to evaluate the credibility of sources so that they are not completely vulnerable to fraudulent information. Thus, teachers must demonstrate how the media and the Internet can misinform and provide messages that are harmful if taken as fact.
10.	Comber, B., Janks, H & Hruby, G.G (2018)	Texts, identities and ethics: critical literacy in a post-truth world	Position paper	Educators should give students the skills they need to engage meaningfully with texts. They need to be taught to reason, they need to have sophisticated literacy skills to engage with and to interrogate texts. Acknowledge the different identity positions of students and work with them to consider ethical ways of being.
11.	Cooke, N. (2018)	Critical literacy as an approach to combating cultural misinformation/ disinformation on the internet	Position paper	The internet is inundated with information of all kinds, and so much of that information is of low to no quality. Yet with lightning speed, a great deal of this information goes viral without being vetted or confirmed.
12.	Darvin, R. (2017)	Fake news and critical literacy in the digital age	Presentation	Students should 1. Form groups and identify a note-taker. 2. Watch the mail online video and determine if the news is real or not. 3. The note-taker lists down steps taken and evidence. We all play a role in protecting the truth
13.	Fabos (2008)	The price of information critical literacy, education, and today's internet	Discourse	Because the Internet is clearly the central medium of the new information environment, educators must also confront this issue. We cannot just hope that Google, Yahoo!, and Microsoft will do the right thing—our present experience and history tells otherwise. Critical literacy helps to show us what is wrong with the current information environment. However, it also points the way toward a more ideal information environment and advocates a growing movement of democratic alternatives to the commercial Internet. Critical literacy reveals the truth about our information environment and leads us to the idea of a networked public sphere. The important condition is that there will always be a struggle if the public wants a stake in controlling it.
14.	Georgiadou, E. et al. (2018)	Fake news and critical thinking in information evaluation	Position paper	Critical thinking for evaluating information should now be considered a basic literacy, equally important to literacy itself, as well as information and information technology literacies. Reported on levels of awareness and practices in five higher education institutions, which revealed varying levels of awareness of the significance of critical literacy and different practices in each location.

15.	Golden, N. A. & Couffer, B. (2022)	Putting out fires through a re-grounded critical literacy: Slowing the spread of misinformation through teacher education	Discourse	There is much promise in teacher educators and future teachers inviting secondary-level scholars to read and critique texts using 'beyond the text' investigations and knowledge production. Re-grounding critical literacy is vital as both literal and metaphorical wildfires spread.
16.	Kerslake, L., Millar, E., & Natale, E. (2022)	Fake news: Is developing critical literacies a waste of time?	Position paper	Developing children's media and information literacies is key in helping them to grow as compassionate, global citizens, who can demonstrate the values of democratic societies. , It shares the reflections and results from a classroom project completed by two of the authors, where the authors sought to develop the children's media and information literacy by focusing on 'fake news' and the role that critical thinking skills can play in identifying these.
17.	Luke, A. (2024)	Critical literacy, pedagogy and democratic education	Review	Given the destabilisation of 'truth' and 'reality' in an increasingly volatile post-literate digital culture –dialogue and face-to-face talk around texts in the classroom remain a core component of critical literacy and democratic education.
18.	Luke, A. (2014)	Defining critical literacy	Discourse	While there are challenges, many teachers and students across these national and institutional contexts continue to explore and invent critical ways of engaging with texts, their cultural practices and traditions – old and new, residual and emergent, global and local, print and digital.
19.	Nash, B. L. (2021)	Constructing meaning online: Teaching critical reading in a post-truth era	Position paper	Utilizing tools drawn from critical literacy, this article builds on new literacies pedagogies by introducing instructional strategies that help students attend to the ways in which their own culturally situated viewpoints influence the meanings they make online.
20.	National Literacy Trust (2018)	Fake news and critical literacy: The final report of the Commission on Fake News and the Teaching of Critical Literacy in Schools	Survey	Discovered a dangerous lack of literacy skills that children and young people require to navigate our digital world and identify fake news. Critical literacy skills hold the key. Recommendations include focusing on supporting the acquisition of critical literacy in schools, in the home and in the community, so that we can equip children to confidently navigate the news and our changing digital media landscape.
21.	Ngamsa & Teneke (2017)	Language awareness and critical literacy in 21st century Nigeria: challenges and prospects	Position paper	All stakeholders in education should put in place strategies to secure the negative impact of social media by putting the platform to positive use. Close and prompt examination of the structure of classroom interaction and discourse leading to good teaching practices should be carried out to create awareness of language and critical literacy in the 21st century.
22.	Nurjanah, N. et al. (2024)	Critical literacy of young citizens in the digital era	Descriptive/ Survey	Critical literacy needs to be continuously improved, including the use of learning resources and learning media that encourage the use of digital technology.

23.	Ogenyi, L. C. & Nwokolo, B. O. (2013)	Mass media and critical literacy: Precursors of societal peace	Position paper	The paper authenticates claims through the explication of the major terms/concepts in the topic. The overall effect of the scenario that the mass media and critical literacy create includes positive—economic, political and cultural improvements.
24.	Olatunji, S. O. (2023)	Critical literacy and sustainable development: Appraising Nigerian education's status	Review	Critical literacy, because of its multi-directional impacts, is a necessary ingredient for sustainable development. It is thus logical to conclude that any country that lags behind in the area of raising critically literate citizens will be left behind in matters of sustainability... Innovative pedagogies and instructional materials that facilitate the acquisition of critical thinking skills in other countries are non-existent in the country.
25.	Orkaa, M.D., et al. (2023)	Fostering sustainable governance in Nigeria in the 21st century: The role of critical literacy	Position paper	Critical literacy is imperative for sustainable governance in Nigeria
26.	Ottonicar, S. L. C. (2020)	Brazilian policy and actions to fight fake news: A discussion focused on critical literacy	Documentary research	Fake news has impacted many peoples' lives, especially people who are connected to social media. To fight against fake news, individuals need critical literacy to verify the trustfulness of information sources.... Also, the Brazilian educational system needs initiatives to develop critical literacy.
27.	Picton, I. & Teravainen, A. (2017)	Fake news and critical literacy: An evidence review	Review	There is a need for a UK-based survey of children and young people's feelings about – and ability to identify – fake news. This should allow for a timely and valuable exploration of any associations that may be found between age, gender, social background and exposure to, and ability to identify fake news.
28.	Polizzi, G. (2018)	Fake news and critical literacy in the digital age: Sharing responsibility and addressing challenges	Position paper	We live in what has been referred to as a post-truth era, where the boundary between truth and fiction is blurred. Fighting fake news and promoting critical literacy through different actors are priorities in the digital age.
29.	Tunde-Awe (2021)	Navigating the turbulent sea of COVID-19 discourses: Critical literacy skill to the rescue	Documentary and observation	Many Nigerians hardly put their critical literacy skills into practice as many of them swallowed hook, line, and sinker, every news item they read and heard about the pandemic without verifying their sources. Nigerians should cultivate the habit of questioning digital news. Critical literacy skills should be included in Nigeria's school curriculum. Parents should train their children to acquire critical thinking skills required for understanding online news.
30.	Uguma, V.U., Ukume, G.D., & Jude, W.I. (2023)	Critical literacy: The role of peace education in sustainable national development in Nigeria	Position paper	Critical literacy and peace education are crucial in achieving sustainable national development.

31.	Ukume, G.D.,Ochugwu, C. E., & Chen, D. M. (2013)	Critical literacy: The role of literature in promoting peace education in Nigeria	Position paper	The notion of critical literacy is for the individual to make use of what he has learnt to function profitably in society and be useful to himself...Insecurity as a social challenge in Nigeria calls for a kind of literacy that will bring about peace in education.
32.	Vasquez, V. M., Janks, H., & Comber, B. (2019)	Critical literacy is a way of being and doing	Position paper	Critical literacy is particularly urgent at a time when facts are no longer considered relevant or important...Critical literacy as a way of being and doing in the world contributes to creating spaces to take on these sorts of issues, engaging learners in powerful and pleasurable ways and creating spaces to achieve a better life for all.
33.	Visser, J., Lawrence, J., & Reed, C. (2020)	Reason-checking fake news	Position paper	The ability to properly assess the quality of premises and reasoning in persuasive or explanatory texts—critical literacy—is a powerful tool in combating the problem posed by fake news. While technology certainly contributes to the distribution of fake news and similar attacks on reasonable decision-making and debate, we posit that technology—argument technology in particular—can equally be employed to counterbalance these deliberately misleading or outright false reports made to look like genuine news.
34.	Vraga, E. K. & Bode, L. (2017)	I do not believe you: how providing a source corrects health misperceptions across social media platforms.	Experimental design	Results suggest that a source is necessary to correct misperceptions about the causes of the Zika virus on both Facebook and Twitter, but the mechanism by which such correction of study reinforces the importance of studying how the evolving new media environment alters information and misinformation flows online. If social media are often criticized as a source of misinformation, this study suggests they can also serve as a corrective, when social peers are willing to offer short rebuttals of information backed up with a credible source.
35.	Wohlwend, K. E., & Lewis, C. (2011).	Critical literacy, critical engagement, and digital technology: Convergence and embodiment in glocal spheres	Review	Focused on critical literacy in transition and the promise of new directions at a time that demands a critically literate public in the face of changing economic and informational flows brought on by globalization Critical engagement is built upon the legacy of critical literacy and rational deconstruction of logical structures of text.
36.	Zengilowski et al. (2022)	Bringing refutation texts back to their literacy roots: What do critical literacy and culturally responsive pedagogy have to teach us about students' conceptual change	Position paper	Literacy experts can redirect attention away from autonomous truths to be consumed by a relatively passive audience and back to students as active learners, ensuring that students' knowledge is leveraged as meaningful and important.

General nature of studies

The table above summarises the 36 papers retrieved based on the inclusion criteria. As the table indicates, the articles represent a wide variety of topics on critical literacy or critical literacy and misinformation. The articles included 17 position papers, 6

literature reviews, 3 discourses, 1 review and multimedia project, presentation, critical analysis, case study, interview, survey, descriptive and survey, documentary research, documentary and observation, and experimental design, respectively. The majority, 28 of the studies were carried out outside the context of Nigeria, with only eight of the articles focusing on Nigeria. It is worth noting that the fact that the terms "misinformation" and "critical literacy," included in the search, did not appear in the search results as frequently as "fake news" "digital literacy" or "media and information literacy" suggests that there are not many studies that explicitly address the connections between critical literacy and misinformation.

As the table shows, the quality of the papers varied, with position papers providing strong theoretical foundations but lacking empirical data. The single critical analysis added depth by evaluating the existing literature's strengths and weaknesses. The case study and survey articles offered practical insights and data that enriched the discourse, while the documentary research provided historical context that is essential for understanding current challenges. The interview provided valuable insights from educators or practitioners, shedding light on the practical challenges and successes they face in teaching critical literacy. This qualitative data complements the more theoretical perspectives found in the position papers and literature reviews.

The three studies on discourse (Fabos, 2008; Golden & Couffer, 2022; Luke, 2014) explored the cultural and ideological dimensions of critical literacy, suggesting that context matters greatly. These papers argue for a culturally responsive approach to critical literacy that acknowledges diverse backgrounds and experiences. In this regard, the MIP model highlights the importance of contextual factors in message interpretation. Critical literacy fosters an understanding of the social media landscape, including algorithms that prioritize sensational content over factual accuracy. This awareness allows users to navigate the media environment more effectively, recognising how context shapes their exposure to information.

Nature of the Nigeria-specific evidence

In general, there were eight Nigeria-specific studies on critical literacy. Out of these, six were position papers (e.g., Apata, 2023; Ngamsa & Teneke, 2017; Ogenyi, & Nwokolo, 2013; Orkaa, et al. 2023; Uguma, et al., 2023; Ukume, et al., 2013). Olatunji (2023) carried out a literature review, while Tunde-Awe (2021) combined documentary research and observation. In one of the position papers, titled, "Critical literacy skills: A 21st century skills for language educators in Nigeria", Apata (2023) argued that language teachers must give their students the skills they need to critically analyse texts and communicate effectively in a variety of settings because of the quick speed of globalisation, the proliferation of digital media, and the ever-increasing availability of information.

In another study titled, "Language Awareness and Critical Literacy in 21st Century Nigeria: challenges and Prospects", Ngamsa and Teneke (2017) posited that all parties

involved in education should implement plans to mitigate social media's detrimental effects by making constructive use of the platform. They added that to raise awareness of language and critical literacy in the twenty-first century, a thorough and timely analysis of the structure of classroom interaction and discourse leading to effective teaching techniques should be conducted.

Ogenyi and Nwokolo (2013) explored the subject of mass media and critical literacy as precursors of societal peace and contended that the scenario that the mass media and critical literacy produce has a beneficial overall impact that includes political, cultural, economic, and other improvements. Also, Olatunji (2023) carried out a literature review on critical literacy and sustainable development, by appraising Nigerian education's status and observed that critical literacy is an essential component of sustainable development due to its multifaceted effects. In their study, "Fostering Sustainable Governance in Nigeria in the 21st Century: The Role of Critical Literacy", Orkaa et al. (2023) concluded that critical literacy is vital for sustainable governance in Nigeria. Tunde-Awe (2021) carried out a documentary and observation research on the topic, "Navigating the turbulent sea of COVID-19 discourses: Critical literacy skill to the rescue" and discovered that many Nigerians seldom used their critical reading abilities since they believed what they read and heard about the pandemic without questioning the reliability of their sources. The study suggested that critical literacy skills be taught in Nigerian schools and that Nigerians develop the habit of challenging digital news.

Uguma et al. (2023) work on critical literacy posited that critical literacy and peace education are fundamental in achieving sustainable national development. Similarly, the work of Ukume and colleagues (2013) on critical literacy suggested that Nigeria's social problem of insecurity necessitates a type of literacy that will lead to peace education. Despite the invaluable insights gleaned from these Nigerian studies on critical literacy in diverse socio-political and developmental contexts, only Apata (2023) and Ngamsa and Teneke (2017) appeared to have highlighted the positive impact of critical literacy on information flow in the social media era. None, though, specifically addressed the intersections between misinformation and critical literacy.

The nexus between critical literacy and misinformation

In stark contrast to the Nigerian research, most of the non-Nigerian studies highlighted the intersections between online misinformation or fake news and critical literacy. For example, in a study titled "Critical literacy in the post-truth media landscape", Barton (2019), posited that following the two key events of 2016, the Brexit vote and the US election, that were characterised by false information, lies, and fake news post-truth became a political phrase to describe the time we are living in. According to Barton, this creates a risky environment for democracy and could jeopardise any significant upcoming democratic initiatives. Besides understanding the power dynamics underlying media organisations, their objectives, and their target audiences, students must be equipped

with the skills necessary to critically assess media. By doing this, the truth can surface, and fake news can lose much of its influence (Barton, 2019).

Similarly, Coffey (2009) made the case in his work "Critical Literacy" that students need to be ready to assess the reliability of sources to avoid being totally duped by false information because they have "free" access to an incredible amount of information. Teachers must therefore illustrate how the media and the Internet can spread false information and send messages that could be dangerous if believed to be true (see also Cooke, 2018; Golden & Couffer, 2022). These studies align with the constructs of the MIP model, which highlights the intricacies of message processing. The MIP approach supports giving people critical literacy skills by highlighting the roles of receiving characteristics, contextual factors, content analysis, and source evaluation. For instance, those who have received critical literacy training are better able to evaluate the reliability of sources. Identifying possible biases, acknowledging conflicts of interest, and challenging the author's authority are all part of this process. In addition to empowering users to efficiently navigate misinformation, this comprehensive strategy cultivates a more resilient and informed society that can critically engage with the wide range of information found on social media.

Also, consistent with aspects of the SCT with critical literacy skills, individuals can enhance their self-efficacy regarding information evaluation. When users believe they possess the skills to analyse and challenge misinformation, they are more likely to engage critically with content. In the age of social media, misinformation has proliferated, influencing public opinion and behaviour on a massive scale. Critical literacy emerges as a vital tool for navigating this landscape, empowering individuals to analyse, evaluate, and engage with information critically.

Emerging themes

The majority of the studies, especially those carried out outside of Nigeria, emphasised the importance of giving people the critical literacy skills they need to separate fact from false and misleading information, especially when it comes to the Internet and social media (National Literacy Trust, 2018; Nurjanah, et al., 2024; Picton & Teravainen, 2017). This aligns with the SCT, which emphasises the value of reciprocal connections, self-efficacy, and observational learning in fostering critical literacy abilities. According to the idea of reciprocal determinism, there is constant interaction between behavioural (such as actions made in reaction to information), environmental (such as social media platforms and community standards), and personal (such as knowledge, skills, and attitudes) elements. A robust critical literacy curriculum can improve people's abilities and understanding, which will affect how they behave online. Teachers and influential people can set an example of critical literacy skills, such as confirming sources and critically evaluating content, in the face of disinformation. People can learn to use similar strategies in their own information consumption by seeing examples of these behaviours on social media sites.

Conversely, the distinctive socio-cultural setting in which critical literacy functions was highlighted by major themes from the research with a Nigerian focus. The difficulties that Nigerians encounter such as limited critical literacy, socioeconomic inequality, and uneven access to credible information are highlighted in these studies. Given Nigeria's unique dynamics of peace, education, and sustainable development, critical literacy is positioned not only as a talent but also as a necessary reaction. Nonetheless, Ngamsa and Teneke (2017) and Tunde-Awe (2021) explored the relationship between critical literacy and the abundance of information on social media platforms and promoted the acquisition of critical literacy abilities that enable users to successfully use them. While the broader literature on critical literacy provides a wealth of theoretical insights and strategies, the limited number of Nigerian studies suggests a gap in localised research. Due to this lack of representation, international viewpoints regarding the relationship between critical literacy and misinformation though may be adapted, might not adequately consider the unique difficulties and dynamics that exist in the Nigerian context.

Limitations and recommendations for future research

There were limitations in the study. The manual search and limited range of search terms and phrases in the research databases were two significant drawbacks, making the literature review in-exhaustive. While the articles highlight effective strategies, these suggestions are nevertheless only valid for the scope and context of the articles under consideration. Therefore, continuous research is required to improve the generalisability of findings by expanding the scope through the use of automated search alternatives.

Future studies can also evaluate the long-term impacts of critical literacy education on individuals' ability to navigate misinformation. Based on the overview provided in this study, we anticipate that it would encourage empirical studies on the intersections between critical literacy and misinformation to aid the development of new approaches to mitigate misinformation on social media, particularly in Nigeria. Though the extant Nigerian studies offer insightful information, there is a pressing need for further research and regional approaches to combat the consequences of misinformation. Despite the limitations, this study has added to the body of knowledge on critical literacy and misinformation. It has shown that there is widespread consensus in the literature that misinformation thrives on social media, and we have also shown that critical literacy has shown potential to counter the spread of misinformation in the social media age.

Conclusion

Misinformation encompasses false or misleading information spread regardless of intent. Accordingly, this study reviewed the literature on critical literacy as a countermeasure to misinformation in the social media age, anchoring on SCT and the MIP model. Based on the studies reviewed, we argue that the ability to critically analyse information sources is

fostered through critical literacy. Users learn to identify logical fallacies, assess evidence, and evaluate the credibility of authors, content creators, disseminators and organisations. This capability is crucial for navigating the complex landscape of social media, where misinformation often masquerades as fact. The results also revealed that while the bulk of the research was position papers and literature reviews, the methodological methods showed more theoretical than empirical studies.

Furthermore, research on the intersections between critical literacy and misinformation in the Nigerian setting appears to be lacking. Perhaps the study's findings demonstrate how little evidence there is of the deliberate use of critical literacy in Nigeria's educational system and society at large. Despite this, critical literacy is a crucial defence against the complications caused by misinformation in the social media age. Through the development of critical literacy, users can better navigate the complicated information world by strengthening their analytical abilities, advancing contextual awareness, and empowering themselves through education. Resolving the related issues would be essential to maintaining critical literacy as a powerful weapon against misinformation and, eventually, promoting an informed and involved public in a time of digital complexity and information overload. In conclusion, raising a generation of critically educated people may offer a solid basis for spotting misinformation, halting its dissemination, and countering its detrimental impacts.

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