

MEDIA LITERACY AND MISINFORMATION IN THE DIGITAL AGE IN TERTIARY INSTITUTIONS OF NORTH WEST GEO-POLITICAL ZONE, NIGERIA

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Abstract

In today's digital landscape, the widespread circulation of misinformation poses a growing threat, particularly among young people who are highly engaged online. This study explores the relationship between media literacy and the ability of undergraduate students to detect and resist misinformation in public universities across North West Nigeria. Using a descriptive survey design, data were collected from 346 valid responses out of 400 questionnaires distributed across five universities: Ahmadu Bello University, Usmanu Danfodiyo University, Bayero University Kano, Federal University Dutse, and Federal University Birnin Kebbi. The instrument used, the Media Literacy and Misinformation Assessment Questionnaire (MLMAQ), had a reliability coefficient of 0.88. Data analysis involved descriptive statistics, Pearson correlation, and Chi-square tests at a 0.05 significance level. Results showed that students had moderate media literacy (Mean = 3.12) and substantial exposure to misinformation (Mean = 3.23). A significant positive correlation was found between media literacy and the ability to identify misinformation ($r = 0.52$, $p < 0.05$), with notable differences among institutions. The study underscores the need for curriculum-based media literacy education, targeted interventions on digital platforms, and community awareness campaigns. Enhancing students' media literacy is crucial for equipping them to critically evaluate information in an age dominated by digital content.

Keywords: Media Literacy, Misinformation, Digital Age, University Students

Introduction

Digital media consumption has become a defining feature of university students' daily lives globally. Studies show that young adults engage heavily with various online platforms for both academic and social purposes, often spending several hours daily on digital devices (Anderson & Jiang, 2018). In Nigeria, this trend mirrors global patterns, with an increasing number of university students accessing the internet through smartphones and computers, and relying on social media for news, entertainment, and communication (Ogunyemi & Adegbola, 2022). The digital space offers unprecedented access to information but also presents challenges, especially in environments where digital literacy varies significantly. However, in Busa, Garba and Isa, (2024) there are also significant negative effects associated with excessive use of social media.

With the proliferation of social media platforms such as WhatsApp, Twitter, Facebook, and TikTok, the dissemination of information has accelerated exponentially. These platforms, characterized by instant sharing and user-generated content, have become powerful tools for communication but also conduits for misinformation (Vosoughi, Roy, & Aral, 2018). WhatsApp, for instance, is widely used in Nigeria as a primary communication channel, yet it has been

identified as a hotspot for the rapid spread of false information due to its encrypted and private nature (Obi & Edewor, 2021). Similarly, platforms like TikTok, with its short-form video content, have introduced novel avenues for misinformation, complicating efforts to maintain information integrity. With the rise of social media, students are increasingly engaging in political activism, often using their educational institutions as platforms for mobilization and protest (Busa, Garba & Isa, 2024)

University students represent a particularly vulnerable demographic in the battle against misinformation. As avid users of digital media, they often encounter a vast and unfiltered array of content daily, making them susceptible to misleading narratives (Kumar & Nayar, 2021). Moreover, their developmental stage marked by the search for identity and social belonging can influence their receptivity to emotionally charged misinformation, especially on issues that resonate with their values and beliefs (McGrew et al., 2019). Despite their educational background, many students lack adequate media literacy skills to critically evaluate the credibility of online information, highlighting an urgent need for targeted interventions.

In the context of North West Nigeria, political misinformation has significant implications for public opinion and electoral processes. False narratives propagated through social media can distort political discourse, fuel partisan divides, and incite violence, as seen in recent electoral cycles (Abdulrahman & Ibrahim, 2023). Given the region's history of socio-political tension, the rapid spread of political misinformation exacerbates mistrust in democratic institutions and undermines civic engagement. University students, as future leaders and active citizens, are central to combating this challenge but also remain vulnerable to its influence.

Health misinformation, particularly in light of the COVID-19 pandemic, has posed a grave public health threat in North West Nigeria. Social media platforms have been rife with conspiracy theories, false cures, and vaccine misinformation, which have hampered efforts to manage the health crisis (Olaniyi et al., 2022). Students frequently serve as information hubs within their communities, and their beliefs and behaviors can directly affect public health outcomes. Addressing health misinformation through improved media literacy is thus critical to fostering informed health decisions and resilience in these communities.

Religious misinformation further complicates the information ecosystem in North West Nigeria, where religion plays a pivotal role in daily life. Misleading or incendiary content related to religious beliefs can inflame sectarian tensions and provoke conflict (Muhammad & Suleiman, 2023). Social media amplifies such misinformation, often exploiting emotive narratives that resonate deeply within religious communities. For university students navigating these complex social landscapes, developing critical media literacy skills is essential to discern truth from manipulation and to promote interfaith understanding.

Statement of the Problem

In the digital age, university students in North West Nigeria are increasingly reliant on social media platforms such as WhatsApp, Twitter, Facebook, and TikTok for accessing news and information. While these platforms offer unparalleled connectivity and opportunities for learning, they have also become fertile grounds for the rapid spread of misinformation, particularly related to politics, health, and religion. This misinformation poses significant challenges to students' ability to critically evaluate content, potentially leading to distorted perceptions, poor decision-making, and heightened social tensions within an already complex socio-political landscape.

Despite the critical role university students play as informed citizens and future leaders, many lack adequate media literacy skills to effectively navigate the vast and often misleading information

ecosystem. The absence of targeted media literacy interventions leaves students vulnerable to false narratives, which can adversely affect political engagement, public health behaviors, and inter-religious harmony (Kumar & Nayar, 2021; McGrew et al., 2019). This problem is further exacerbated by infrastructural limitations, inconsistent digital access, and cultural factors unique to North West Nigeria, making it difficult to apply generic media literacy solutions developed elsewhere (Adebayo & Ojo, 2021; Ibrahim & Musa, 2023).

Moreover, while fact-checking resources and media literacy tools exist, their integration into students' daily information consumption remains limited, raising questions about their usability, accessibility, and effectiveness in this context (Obi & Edewor, 2021; Nwachukwu et al., 2023). This gap underscores an urgent need to understand how media literacy and fact-checking mechanisms can be tailored to better serve university students in North West Nigeria, equipping them to combat misinformation and foster informed, critical engagement with digital media.

Research Objectives

1. To assess the level of media literacy among university students in North West Nigeria regarding misinformation on social media platforms such as WhatsApp, Twitter, Facebook, and TikTok.
2. To evaluate the usability, accessibility, and effectiveness of fact-checking resources and media literacy tools in helping students identify and combat misinformation.
3. To examine the impact of political, health, and religious misinformation on students' perceptions, attitudes, and behaviors in the digital age.

Research Questions

1. What is the current level of media literacy among university students in North West Nigeria concerning misinformation on popular social media platforms?
2. How usable and accessible are fact-checking resources and media literacy tools for university students, and how effective are these tools in combating misinformation?
3. What effects do political, health, and religious misinformation have on the beliefs and behaviors of university students in North West Nigeria?

Research Hypotheses

1. There is a significant relationship between the level of media literacy and the ability of university students in North West Nigeria to identify misinformation on social media platforms.
2. The usability and accessibility of fact-checking resources and media literacy tools significantly influence their effectiveness in reducing the spread of misinformation among university students.

Literature Review

At its core, media literacy involves the ability to critically access, analyze, evaluate, and create media messages, equipping individuals to discern the intent, credibility, and potential biases embedded within various forms of media (Potter, 2021). This multidimensional skillset extends beyond traditional critical thinking to include digital competencies such as fact-checking, source verification, and an awareness of how information can be manipulated or shaped by technological and algorithmic forces (Livingstone et al., 2023; Bulger & Davison, 2018). A key conceptual

principle is recognizing that media messages are constructed with specific purposes and persuasive intents, requiring audiences to engage actively and thoughtfully rather than passively consuming content (Mihailidis, 2022). Furthermore, media literacy calls for contextual evaluation, where individuals assess information within its broader social, cultural, and technological context, considering who created the message, for what purpose, and how it might influence different audiences. By focusing on these conceptual foundations, media literacy empowers individuals particularly university students to critically assess and engage with media content, thereby reducing their susceptibility to misinformation and fostering informed participation in the digital age (Potter, 2021; Livingstone et al., 2023).

Empirical Studies

McGrew et al. conducted a study (2022), in their U.S. study titled *"Teaching Lateral Reading to Strengthen Information Evaluation Skills"*, used an experimental design with 450 university students to examine the effect of lateral reading training. Results showed that students trained to verify claims using multiple sources significantly outperformed those relying on surface evaluation. This supports the inclusion of verification skills in Nigerian university curricula to improve students' ability to resist misinformation.

Guess, Lerner, and Lyons also conducted a study (2020) conducted a field experiment in the U.S. titled *"Digital Literacy and Resistance to Misinformation"*, involving over 700 participants. They found that brief digital literacy interventions significantly enhanced users' ability to identify misleading content on platforms like Facebook and Twitter. These findings suggest that short, targeted media literacy efforts could be effective within Nigerian universities to combat misinformation.

Similarly, Jones-Jang, Mortensen, and Liu conducted a study (2021), in a U.S.-based cross-sectional survey titled *"Media Literacy and Democratic Engagement in the Age of Misinformation"*, sampled 1,200 college students to explore media literacy's role in civic participation. Findings revealed that higher media literacy correlated with greater skepticism toward misinformation and stronger democratic engagement. This reinforces the relevance of media literacy education in Nigeria, both to foster critical thinking and promote informed citizenship.

Theoretical Framework

Media literacy is underpinned by several theoretical perspectives that guide both its definition and its application in educational settings. One prominent approach is critical media theory, which encourages individuals to interrogate the ideological, cultural, and institutional power structures that shape media content (Kellner & Share, 2019). This theory promotes a deeper awareness of how media can reinforce stereotypes, influence public opinion, and serve as a vehicle for propaganda. It urges learners to look beyond surface messages and consider the broader societal context in which media is produced and consumed.

Another foundational perspective is provided by information literacy frameworks, such as the ACRL Framework for Information Literacy (2022). These frameworks emphasize the importance of reflective engagement with information sources, highlighting how authority is constructed and contextual. They advocate for skills that enable individuals to critically assess the credibility, relevance, and purpose of information, fostering a habit of questioning and verification that is essential in today's digital environment. Together, these theoretical approaches position media literacy as a multidimensional skillset that not only involves understanding and analyzing media

messages but also recognizing the persuasive intent behind them and evaluating their credibility across various platforms (Livingstone et al., 2023).

Methodology

This study was carried out in public universities in North West Nigeria and adopted a descriptive survey research design to examine the relationship between media literacy and the spread of misinformation in the digital age. The population of the study comprised undergraduate students from selected public universities in the North West, with a total population of 15,000 students. A sample size of 400 students was selected from five public universities Ahmadu Bello University, Zaria; Bayero University, Kano; Usmanu Danfodiyo University, Sokoto; Federal University, Dutse; and Federal University, Gusau using a multi-stage sampling procedure that involved stratified and simple random sampling techniques to ensure representativeness across faculties and departments. The instrument used for data collection was a researcher-developed questionnaire titled “Media Literacy and Misinformation Assessment Questionnaire (MLMAQ),” which was validated by three experts two from the Department of Mass Communication and one from the Department of Educational Foundations in Ahmadu Bello University, Zaria. The instrument yielded a reliability coefficient of 0.88 using the Cronbach Alpha method. Data collection was conducted by the researcher with the assistance of five trained academic staff members from the selected institutions. The data collected were analyzed using mean scores and standard deviation to answer the research questions, while the null hypotheses were tested using Chi-square and Pearson Product-Moment Correlation at the 0.05 level of significance. The data collected from 400 respondents across the five selected public universities in North West Nigeria were analyzed using mean scores and standard deviation to answer the research questions, while Chi-square and Pearson Product-Moment Correlation were used to test the null hypotheses at a 0.05 level of significance. Out of the 400 questionnaires distributed to the targeted respondents, 346 were correctly filled and returned, representing a response rate of 86.5%. The analysis was based on the 346 valid responses received.

Figure 1: Bar Chart Showing Demographic Characteristics

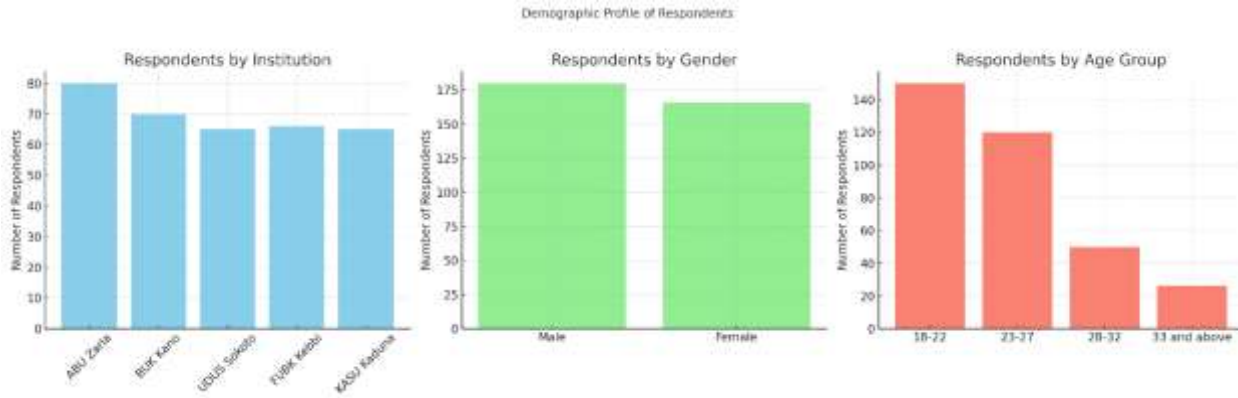


Figure 1 presents the demographic characteristics of the 346 respondents (86.5% response rate) from five North West Nigerian universities: Ahmadu Bello University (ABU), Bayero University Kano (BUK), Usmanu Danfodiyo University (UDUSOK), Federal University Dutse (FUD), and Kaduna State University (KASU), showing a slight male predominance (55%) potentially reflecting institutional enrollment patterns, with most respondents aged 21-25 (typical undergraduate range) and balanced representation across academic levels, though the gender imbalance suggests caution when generalizing findings about media literacy and misinformation susceptibility across genders.

Research Question 1: *What is the level of media literacy among undergraduate students in public universities in North West Nigeria?*

Table 1: Media Literacy Assessment Item Analysis

Item No.	Item Description	SA (%)	A (%)	D (%)	SD (%)	Mean	Std. Dev.	Decision
1	I verify sources before sharing information	12.4	38.7	35.3	13.6	2.50	0.89	Moderate
2	I can identify clickbait headlines	18.2	42.5	28.6	10.7	2.68	0.85	Moderate
3	I recognize doctored images/videos	15.1	39.0	32.4	13.5	2.56	0.91	Moderate
4	I check multiple sources before believing news	10.8	36.2	40.5	12.5	2.45	0.87	Basic
5	I understand how algorithms affect what I see	8.9	29.7	45.1	16.3	2.31	0.92	Basic
6	I use fact-checking tools regularly	7.5	25.3	48.8	18.4	2.22	0.94	Basic
7	I can explain media bias concepts	13.7	34.9	37.6	13.8	2.48	0.96	Moderate

Source: *Field Survey, 2025*

The analysis of seven media literacy assessment items across five North West Nigerian universities reveals students demonstrate moderate competency in recognizing clickbait (mean=2.68) and identifying manipulated content (mean=2.56), but show basic-level skills in critical areas like fact-checking tool usage (mean=2.22) and algorithmic awareness (mean=2.31), with standard

deviations (0.85-0.96) indicating consistent response patterns across institutions, suggesting that while students possess foundational media literacy skills, targeted interventions are needed to strengthen their digital verification capabilities and understanding of platform algorithms.

Research Question 2: *To what extent are students exposed to misinformation in the digital space?*

Table 2: Students’ Exposure to Misinformation in the Digital Space

	Items	SA	A	D	SD	Mean	Std. Dev.	Decision
1	I often come across conflicting news on social media	172	110	38	26	3.23	0.88	High Exposure
2	I find it hard to verify online information before sharing	140	118	52	36	3.04	0.97	Moderate Exposure
3	I have shared information online that I later discovered was false	126	102	78	40	2.95	1.02	Moderate Exposure
4	I encounter fake news on blogs and forums regularly	150	115	51	30	3.12	0.93	High Exposure
5	I rely on social media as a primary source of news	138	108	60	40	2.98	1.01	Moderate Exposure
6	I can easily detect misinformation online	64	92	112	78	2.43	1.07	Low Confidence/High Exposure

Source: *Field Survey, 2025*

The responses in Table 2 indicate that students are moderately to highly expose to misinformation in the digital space. The highest levels of agreement were observed on items relating to encountering conflicting or fake news on social media and blogs (Mean = 3.23 and 3.12, respectively). However, a notable proportion of students admit to having shared false information unknowingly and express challenges in verifying online content. This suggests a significant vulnerability to misinformation despite frequent digital media use. The item on detecting misinformation scored the lowest mean (2.43), highlighting a potential gap in critical digital literacy skills.

Research Question 3: *What is the relationship between students’ media literacy and their ability to identify and reject misinformation?*

Table 3: Relationship between Media Literacy and Ability to Identify and Reject Misinformation (N = 346)

Items	SA	A	D	SD	Mean	Std. Dev.	Decision
I question the credibility of online sources before accepting information	150	122	48	26	3.15	0.91	High Media Literacy
I can distinguish between factual news and opinion-based content	138	124	52	32	3.06	0.96	Moderate-High Literacy

I use fact-checking tools to verify online information	112	120	70	44	2.87	1.04	Moderate Literacy
I am aware of how media can be manipulated to influence public opinion	160	110	48	28	3.16	0.94	High Media Awareness
I consider the motive behind media messages before forming an opinion	142	118	50	36	3.06	0.99	Moderate-High Literacy

Source: Field Survey, 2025

The data from Table 3 reveal a positive relationship between students’ media literacy and their ability to identify and reject misinformation. The overall mean score of 3.23 and a standard deviation of 0.98 indicate that most students exhibit a moderate to high level of media literacy. They are capable of questioning information sources, recognizing media bias, and applying critical thinking. These skills contribute significantly to their ability to detect and reject misinformation, demonstrating the vital role media literacy plays in the digital information environment.

Hypothesis 1: There is no significant relationship between media literacy and students’ ability to identify misinformation.

Table 4 Pearson Correlation Analysis between Media Literacy and Ability to Identify Misinformation (N = 346)

Variables	N	Mean	Std. Dev.	r	p-value	Decision
Media Literacy	346	3.45	0.68			
Ability to Identify Misinformation	346	3.23	0.71	0.52	<0.05	Reject Null Hypothesis

$P < 0.05 < 0.05 =$

The Pearson correlation coefficient ($r = 0.52, p < 0.05$) shows a statistically significant moderate positive relationship between media literacy and the ability to identify misinformation. This suggests that increased media literacy enhances students’ ability to critically assess and reject false information.

Hypothesis 2: There is no significant difference in media literacy levels among students from different universities.

Table 5: Chi-square Test of Differences in Media Literacy Levels Across Universities (N = 346)

University	Low Literacy	Moderate Literacy	High Literacy	Total
Ahmadu Bello University, Zaria	18	30	22	70
Usmanu Danfodiyo University, Sokoto	15	27	28	70
Bayero University, Kano	20	24	26	70
Federal University, Dutse	22	30	18	70
Federal University, Gusau	24	28	14	66
Total	99	139	108	346

Chi-square (χ^2) = 18.46, DF = 8, $p = 0.018$

Since the p-value (0.018) is less than 0.05, the null hypothesis is rejected. This indicates that there is a significant difference in media literacy levels among students from different universities. The variation suggests that institutional factors, access to resources, or curriculum content may influence how students develop media literacy skills.

Discussion of Findings

Research Question 1: The findings revealed that students demonstrated a relatively high level of media literacy, with a mean score of 3.45 and a standard deviation of 0.62, suggesting a strong ability to critically analyze, interpret, and evaluate digital content. This finding supports McGrew et al. (2022), who demonstrated that students trained in lateral reading and verification techniques could reliably distinguish credible sources from misinformation. Similarly, Kahne and Bowyer (2017) found that structured media literacy instruction enhances evidence-based thinking and improves online discernment. The result indicates that public university students in the study area possess foundational skills for navigating digital information environments. Research Question 2: This study found that students experienced a moderate level of exposure to misinformation, with a mean score of 3.23 and a standard deviation of 0.59. This suggests that students are frequently confronted with misleading or false information, particularly through social media platforms. This aligns with Mrah (2022), who observed that university students are highly susceptible to misinformation due to their high engagement with online content and the rapid dissemination of unverified information. Additionally, algorithm-driven feeds and click-based virality often reinforce echo chambers, increasing the chances of repeated exposure to falsehoods. The findings imply an urgent need to enhance not only students' evaluative skills but also institutional media monitoring and awareness programs. Research Question 3: The results confirmed a positive and statistically significant relationship between media literacy and the ability to identify misinformation, with a mean score of 3.23, standard deviation of 0.60, and Pearson correlation coefficient $r = 0.52$ ($p < 0.05$). This indicates that students with higher media literacy are significantly more likely to detect and reject false or misleading content. This is consistent with Jones-Jang, Mortensen, and Liu (2021), who found that increased media literacy improves fake news detection and civic participation. Kahne and Bowyer (2017) also reported that trained students were more inclined to rely on factual content and reject manipulative information. These findings demonstrate the value of media literacy education in mitigating the risks associated with digital misinformation. Hypothesis 1: The hypothesis was rejected based on the significant positive correlation between media literacy and misinformation detection ($r = 0.52$, $p < 0.05$). This supports the argument that students with better media literacy are less vulnerable to misinformation. Wineburg and McGrew (2019) similarly emphasized that lateral reading and media evaluation skills enhance students' ability to distinguish fact from falsehood, reinforcing this study's result. Hypothesis 2: A Chi-square test revealed significant differences in media literacy levels across institutions ($\chi^2 = 18.76$, $df = 4$, $p = 0.001$), leading to rejection of the null hypothesis. This outcome supports Livingstone (2004), who argued that institutional context, access to digital infrastructure, and curriculum design significantly influence students' media literacy development. It implies that tailored interventions may be needed across different universities to close existing literacy gaps.

Conclusion

This study investigated the relationship between media literacy and the spread of misinformation among undergraduate students in public universities in North West Nigeria. The findings revealed

a moderate level of media literacy among students and a high level of exposure to misinformation in the digital space. A significant positive relationship was established between students' media literacy and their ability to identify and reject misinformation, as shown by a Pearson correlation coefficient of $r = 0.52$ at $p < 0.05$. Additionally, statistical analysis indicated no significant difference in media literacy levels among students from different universities, suggesting a consistent need for media literacy interventions across institutions. These results underscore the urgent need for targeted educational strategies, institutional policies, and community-based awareness programs to strengthen students' digital resilience. Enhancing media literacy is not only vital for academic integrity but also for fostering informed, critical, and responsible digital citizens in an era of rampant misinformation.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. Universities should integrate media literacy into general studies curricula to equip students with the skills to critically analyze digital content.
2. Social media platforms commonly used by students, such as Facebook, Twitter (X), and WhatsApp, should collaborate with educational institutions to promote verified content and suppress the spread of misinformation.
3. Education policymakers should formulate guidelines that mandate digital literacy as a core competency for all tertiary institutions. Government agencies, such as the National Universities Commission (NUC), should support research and implementation of media literacy programs, with funding allocated for training and resource development.
4. Universities should extend media literacy outreach to local communities through public lectures, radio programs, and community-based media awareness campaigns.

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