



Uses and Challenges of Artificial Intelligence–Enabled Fact-Checking in Journalistic Practice in Selected North-Central States of Nigeria

Aruwa, Joel Elejo^{a*}; Ezeah, Gregory Herbert^b & Adulugba, Maria^c

^aDepartment of Mass Communication, Prince Abubakar Audu University, Anyigba, Kogi State, Nigeria

^bDepartment of Mass Communication, University of Nigeria, Nsukka, Enugu State, Nigeria

*Corresponding Email: aruwa.je@ksu.edu.ng

Abstract

The increasing spread of misinformation has heightened the need for effective fact-checking mechanisms in journalism, particularly in regions marked by political complexity, ethnic diversity, and infrastructural constraints. This study examined the uses and challenges of Artificial Intelligence (AI) as a fact-checking tool among journalists in North-Central Nigeria. Guided by the Technology Acceptance Model (TAM), the study adopted a qualitative approach, employing in-depth interviews with seven experienced media practitioners drawn from the six states in the region and the Federal Capital Territory (FCT), Abuja. Data were analysed thematically. The findings indicate that AI tools offer potential benefits for enhancing journalistic accuracy, speed, and efficiency in verification processes. However, their adoption is significantly constrained by linguistic diversity, cultural nuances that challenge algorithmic interpretation, limited internet connectivity, inadequate technological infrastructure, high costs, and unresolved ethical concerns. These factors collectively shape journalists' cautious and selective use of AI in fact-checking practices. The study concludes that, while AI holds considerable promise for strengthening fact-checking in North-Central Nigeria, its effective integration remains contingent upon addressing contextual and structural barriers. It recommends sustained capacity-building for journalists, improved digital infrastructure, collaborative development of affordable and localised AI solutions, and the establishment of clear ethical guidelines to ensure that AI complements rather than supplants human journalistic judgement.

Keywords: Artificial intelligence; fact-checking; journalism practice; uses; challenges North-Central

Introduction

The landscape of journalism is undergoing an undeniable transformation. Once characterised by handwritten notes, physical archives, and traditional editorial processes, the newsroom has evolved into a digital arena powered by data analytics, real-time monitoring, and, increasingly, Artificial Intelligence (AI). The same technological shift that enables AI to recommend videos on YouTube or predict consumer behaviour is now being channelled into verifying claims, identifying fake news, and analysing complex data sources in journalistic practice. At the global level, media organisations such as Reuters, the BBC, and *The Washington Post* have begun to incorporate AI-driven technologies into various aspects of their operations, ranging from automated news generation to content curation and, most critically, fact-checking (Hermida, 2020; Meyer, 2021). These tools rely on Natural Language Processing (NLP), machine learning, and data mining to sift through vast volumes of

information and assess the accuracy of claims. For instance, a politician's statement can now be compared with a repository of verified data within seconds, potentially flagging misinformation before it spreads widely.

In Nigeria, similar developments are gradually unfolding. Fact-checking organisations such as Dubawa and Africa Check have assumed the responsibility of safeguarding truth in a post-truth era. Their work, although often under-resourced, has become essential in combating the viral misinformation that proliferates on platforms such as WhatsApp, Facebook, and X (formerly Twitter) (Ogunlana, 2020). According to Dubawa (2020), the integration of AI tools into their verification processes has significantly improved both speed and reliability. However, these gains are constrained by the lack of structured data, limited digital infrastructure, and extensive linguistic diversity. For example, the platform *Sahara Reporters* has experimented with AI-enabled tools to verify user-generated content. Nevertheless, the high cost of deploying such tools, the need for continuous training, and the challenge of ensuring accuracy across Nigeria's numerous local languages and dialects hinder widespread implementation (Sahara Reporters, 2020).

The North-Central region, in particular, presents a compelling case. As a geo-political zone, it is politically active, ethnically diverse, and socially complex. These characteristics make it especially vulnerable to the spread of misinformation, particularly during election periods or times of crisis (Nwokeoma, 2020). In such a context, the integration of sophisticated AI tools into journalistic practice may appear both urgent and unrealistic. However, the potential of AI cannot be overlooked. According to Scotts (2021), automation in fact-checking enables journalists to focus on contextual interpretation and analytical judgement, while delegating data-intensive verification tasks to machines. This human-machine partnership, in which AI performs repetitive computational tasks and journalists provide ethical oversight and contextual insight, may be critical to building a more resilient and trustworthy media ecosystem. Consequently, following a review of existing studies on the use of technology in journalistic practice particularly those relating to AI, it became imperative to investigate the use of AI for fact-checking among journalists in North-Central Nigeria.

Statement of the Problem

The rapid proliferation of digital information and the rise of social media have transformed the landscape of journalism globally. In North-Central Nigeria, these changes are particularly pronounced due to the region's diverse socio-political context, which consist of the level of political engagements, religious conflicts, herder-farmers crises and the challenges associated with misinformation and fake news. Journalism in North Central Nigeria operates within an environment characterised by a mix of traditional media practices and modern digital advancements. Scholars: Borel (2018): Missaoui et al. (2019): Umejei et al (2025) have identified principally low levels of knowledge and usage of AI tools for fact-checking coupled with other problems, which include political pressures, limited resources, and the prevalence of misinformation, particularly on social media platforms. Perhaps, these issues undermine public trust in the media and complicate the dissemination of accurate information. However, the implementation of AI in journalism is not without its difficulties. These include technical limitations, the need for significant financial and human resources, ethical considerations, and the potential for algorithmic biases. In response to these challenges, the integration of Artificial Intelligence (AI) as a fact-checking tool presents both opportunities and obstacles. This study aims to search the uses and challenges of AI in enhancing fact-checking processes within the journalistic practices of North Central Nigeria.

Objectives of the Study

The aim of this study was to enquire from journalists in the North-Central region of Nigeria the uses and accompanying challenges in the use of AI for fact-checking. However, the primary objectives of this study are to:

1. Assess journalists' knowledge of the use of AI tools for fact-checking in media organisations of North-Central Nigeria.
2. Find out the advantages of the AI tools used for fact-checking among journalists in North-Central Nigeria.
3. Investigate the challenges associated with the use of AI for fact-checking tools among journalists in North-Central Nigeria.

Review of Related Literature

What is Artificial Intelligence?

Artificial Intelligence (AI) has become one of the most transformative technologies of the 21st century, revolutionizing industries, reshaping social interactions, and redefining the nature of work. While the concept of machines exhibiting intelligence has long fascinated scientists, philosophers, and writers, it is only in recent decades that significant breakthroughs in computing power, data availability, and algorithms have made AI practical and impactful. This essay explores the definition of AI, its historical evolution, types, applications, benefits, limitations, and ethical considerations. Artificial Intelligence can be broadly defined as the ability of machines or computer systems to perform tasks that typically require human intelligence. According to Russell and Norvig (2021), AI is “the study of agents that receive percepts from the environment and perform actions,” suggesting that AI systems can mimic or replicate human reasoning, learning, and decision-making. Similarly, Kaplan and Haenlein (2019) define AI as a “system’s ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation.” These definitions highlight three core components of AI: perception, learning, and decision-making.

The field of AI encompasses multiple sub-disciplines, including machine learning (ML), natural language processing (NLP), robotics, computer vision, and expert systems. Each of these areas contributes to AI’s broader mission: designing intelligent systems capable of solving problems, recognizing patterns, and making decisions with varying degrees of autonomy.

The roots of AI can be traced to ancient philosophical questions about whether machines could simulate thought. However, the formal birth of AI as a scientific discipline occurred in 1956 at the Dartmouth Conference, where John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon introduced the term “Artificial Intelligence” (McCarthy et al., 2006). Early AI research in the 1950s and 1960s focused on symbolic reasoning and problem-solving, with programs designed to play chess or prove mathematical theorems.

Fact-Checking in Journalism

Fact-checking is a foundational element of ethical journalism, essential to maintaining public trust and upholding the integrity of news reporting. In an era characterized by widespread misinformation, disinformation, and a 24-hour news cycle, fact-checking serves as both a corrective tool and a preventive strategy that safeguards the accuracy of information consumed by the public. Historically, fact-checking was performed manually by journalists and editors, relying heavily on cross-referencing with credible sources, verifying documents, and consulting experts. This meticulous process often served as the final gatekeeping

mechanism before publication, especially for investigative stories, political reporting, and in-depth analyses (Graves, 2016).

The emergence of digital media and the accelerated speed of information dissemination have necessitated a shift in the methods and urgency of fact-checking. With the rise of social media and user-generated content, misinformation can now spread globally within minutes. As a result, news organizations have begun institutionalizing fact-checking through dedicated teams or partnering with third-party fact-checking organizations. These initiatives apply journalistic rigor in assessing claims, contextualizing data, and presenting evidence-based conclusions to the public (Graves & Cherubini, 2016). Organizations like PolitiFact, Snopes, and FactCheck.org have set benchmarks in transparency, methodology, and citation standards, becoming key players in this evolving field.

Fact-checking plays several roles in journalism: it verifies the accuracy of published or spoken claims, holds public figures accountable, educates the public, and enhances media literacy. In political reporting, for instance, real-time fact-checking has become an essential function during debates, speeches, and policy discussions. By scrutinizing claims made by politicians or institutions, fact-checkers serve a democratic purpose, helping audiences distinguish between rhetoric and reality. Moreover, in health reporting, fact-checking proved vital during the COVID-19 pandemic by combating harmful misinformation about vaccines, treatments, and public health measures (Brennen, Simon, Howard, & Nielsen, 2020).

Technological advancements have significantly influenced fact-checking practices. Artificial Intelligence (AI), Natural Language Processing (NLP), and machine learning are now being integrated into the workflow to assist in identifying and verifying claims at scale. While these tools enhance speed and coverage, they do not replace human judgment, which remains critical for understanding context, nuance, and intent. Thus, a hybrid model that combines automation with human oversight is increasingly becoming the norm in newsroom fact-checking operations (Graves, 2018).

Review of Empirical Studies

Recent empirical studies have aimed to proof the role of technology in fact-checking in journalism around the world. Umejei, Ayisi, Phiri and Tallam in 2025 studied “Artificial Intelligence and Journalism in Four African Countries: Optimists, Pessimists, and Pragmatists.” This ambitious comparative study across Nigeria, Ghana, Kenya, and South Africa analyzed journalists’ attitudes toward AI through the framework of “imagined affordance”. The researchers found that journalists' attitudes oscillated between optimism (for productivity and editing), pessimism (about misinformation, job loss, and integrity), and pragmatism (using AI for specific functions like transcription). A shared concern across all four contexts was the absence of formal newsroom guidelines on AI use. The study emphasised that journalistic autonomy must be protected, and AI systems must be embedded within ethical, culturally aware, and journalist-led protocols.

Furthermore, in 2024, Amponsah and Atianashie took a look at “Navigating the New Frontier: A Comprehensive Review of AI in Journalism.” This comprehensive review analysed AI's functional and ethical dimensions in journalism, positioning it as a “pivotal component” in modern news production. Case studies from reputable media demonstrated AI's capacity to enhance coverage by automating reports and identifying story leads. However, the study also critiqued AI's shortcomings, citing an editorial mishap due to an AI system making racially insensitive content associations. The rise of large language models like GPT-3 was presented as a concern due to their lack of built-in editorial ethics. The author advocated

a balanced path forward, emphasising the ongoing importance of human journalists in roles requiring interpretation, ethical reasoning, and cultural sensitivity.

In Nigeria, Iyinolakan (2023) explored the Potential of Artificial Intelligence for Supporting Indigenous Language Journalism Pedagogy in Nigeria. This study addressed the underrepresentation of indigenous languages in Nigerian journalism, examining if AI tools could strengthen journalism training and storytelling in a culturally inclusive way. A mixed-methods approach revealed that AI tools like Natural Language Processing (NLP) could support native language transcription and translation. While respondents were optimistic about AI's potential to amplify underrepresented voices, the findings highlighted structural, economic, and socio-technical constraints. Significant hurdles included a gap in institutional readiness, high cost, and the fact that indigenous language journalism remains a largely entry-level topic in the curriculum. The study called for systemic curriculum reform and the development of tools suited for African linguistic diversity.

Zaragoza's "Artificial Intelligence and Journalism: A Multimodal Critical Discourse Analysis of the Instagram page @brut_ia" of 2023, investigated the relationship between journalism and AI by focusing on the French Instagram page @brut_ia, which uses AI-generated avatars and content tools like ChatGPT. Using Multimodal Critical Discourse Analysis (MCDA), the study found the page represents a hybrid model of journalism, balancing informative reporting with entertaining visuals. AI is framed as a playful and empowering tool rather than a threat, consistent with Instagram's platform logic. The research concluded that this fusion of AI with visual digital storytelling necessitates a new conceptualization of journalistic identity as more collaborative and computational.

Kertysova in 2019, studied "Artificial Intelligence and Disinformation: How AI Changes the Way Disinformation is Produced, Disseminated, and Can Be Countered." This study explored the double-edged nature of AI in the digital information ecosystem, particularly concerning disinformation. AI-powered systems like machine learning, bots, and deep fakes have made the weaponisation of information more sophisticated. The study also noted that AI is being used to combat disinformation through automated fact-checking, but these solutions have limitations, including the inability to fully understand context, irony, or cultural nuances, and the issue of algorithmic bias. Kertysova warned that deep fakes may lead to the "liar's dividend": the dismissal of authentic content as fake. The study called for a multilayered approach to governance, combining technological solutions with human oversight, legal frameworks, and civic education.

Also, Kim in 2019 studied "AI in Journalism: Creating an Ethical Framework. Kim's thesis", based on 12 in-depth interviews with professionals, explored the ethical complexities of AI integration in U.S. newsrooms. AI is largely used for routine tasks like financial report generation and comment moderation. The study asserted that AI amplifies ethical issues inherited from traditional journalism, such as bias, accuracy, and transparency. Concerns included the lack of an industry-wide standard for disclosure and a subtle shift in editorial power toward technologists. Kim proposed a framework centered on "human-in-the-loop" oversight, emphasizing that human judgment and responsibility must never be eclipsed by technology.

Missaoui, et al (2019) studied "How to Blend Journalistic Expertise with Artificial Intelligence for Research and Verifying News Stories." This research explored the co-design of AI tools for investigative reporting using a Human-in-the-Loop (HITL) approach. Co-design workshops with journalists revealed three key perspectives: optimism about AI's data processing power, skepticism that AI can replicate human intuition, empathy, and ethical

reasoning, and the most dominant concern, a lack of transparency and trust in “black-box algorithms”. The authors proposed that AI systems should be developed in active collaboration with journalists, emphasising that the principles of transparency and control are essential to maintaining the credibility of AI-augmented journalism.

In 2018, Borel studied “The State of Fact-Checking in Science Journalism.” This report, based on 301 surveys and 91 interviews, mapped the landscape of editorial fact-checking in science journalism. The findings revealed a fragmented and inconsistent system: only 34% of outlets assign fact-checking to specialized staff, with others relying on editors or the journalists themselves. The decline in dedicated fact-checkers was concerning, especially given the complexity of interpreting scientific studies. Financial limitations and a lack of formal fact-checking training were identified as major weaknesses. The authors advocated for renewed investment in editorial fact-checking, clear guidelines, and institutional support to incorporate the skill into journalism curricula.

Another of such studies is that of Graves’ (2017) *Anatomy of a Fact Check: Objective Practice and the Contested Epistemology of Fact Checking*. Graves’ ethnographic study, based on over 200 hours of observation at major U.S. fact-checking organizations like *PolitiFact*, sought to challenge the idea that fact-checking is inherently subjective. The research asserted that fact-checkers maintain “objectivity in shirtsleeves” by employing consistent, rigorous, and transparent journalistic routines. These routines involve selecting checkable claims, consulting sources and experts, tracing origins of statements, and presenting detailed source lists, making it a valid form of epistemological inquiry. The study concluded that fact-checking remains a legitimate and necessary journalistic endeavor even when dealing with contested political narratives.

Theoretical Framework

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), first proposed by Fred Davis in 1986, builds upon the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975) to explain and predict how users come to accept and use new technologies. At its core, TAM emphasises two primary determinants of technology adoption: perceived usefulness (PU): the degree to which a person believes that using a particular technology will enhance their job performance and perceived ease of use (PEOU): the extent to which a person believes that using the technology will be free from effort (Davis, 1989). These perceptions shape the user’s attitude toward the technology, influencing their behavioural intention and, ultimately, their actual use of the technology. Over the decades, TAM has proven to be a robust framework for understanding technology acceptance across diverse contexts, including information systems, healthcare, education, and increasingly, media and journalism.

Within the field of journalism, the relevance of TAM becomes particularly pronounced with the integration of Artificial Intelligence (AI) as a tool for fact-checking and combating misinformation. In regions like North-Central Nigeria, where journalism operates under complex socio-political pressures and infrastructural challenges, AI technologies present both promising possibilities and significant obstacles. The adoption of AI-powered fact-checking tools by journalists and media organizations hinges largely on their perceived usefulness whether these tools genuinely improve the accuracy, efficiency, and credibility of news verification processes and their perceived ease of use, considering the limited digital literacy and technological infrastructure in the area (Venkatesh & Davis, 2000). If journalists find these tools cumbersome or unreliable, their willingness to integrate AI into daily practice

may be limited, undermining efforts to address the pervasive issue of fake news and misinformation in the Nigerian media landscape.

Methodology

The research design for the study was entirely qualitative. The qualitative core of the study utilised an in-depth interview design, focusing on collecting qualitative data from a sizable sample to identify general trends and perceptions thus, enabling a deeper exploration of complex issues, nuances, and contextual factors. The population of this study comprised four (4) practicing, long-term journalists of not less than ten (10) years experience from each of the selected North-Central states. This population further served as the sample size since it was a number that could be handled very reasonably.

The purposive selection of all four (4) states in the region: Benue, Kogi, Kwara and Nasarawa States was done to account for regional variations in media practices by targeting key informants whose roles offer unique insights into AI use and challenges. These individuals were chosen not just for their leadership positions but also for their frontline experiences with technological integration in newsrooms. Their perspectives were invaluable in unpacking the institutional, ethical, and operational hurdles that AI introduces into journalistic workflows. This dual sampling approach combining structured randomness with strategic selectivity ensures that the study captures both the measurable patterns and the lived realities of AI's impact on fact-checking in the region. The respondents were coded as: JA (Journalist A), JB (Journalist B), JC (Journalist C) and JD (Journalist D).

The Data collection was carried out using semi-structured interview guides for qualitative depth. The in-depth interviews, adopted a semi-structured format, striking a balance between consistency and flexibility. An interview guide ensured that all participants address core themes such as AI's reliability in local contexts or its implications for journalistic autonomy while leaving room for unanticipated yet critical angles. Qualitative data from the in-depth interviews were subjected to thematic analysis. This involved identifying recurring themes, patterns, and key insights to understand the nuanced experiences, challenges, and perspectives of journalists regarding AI in fact-checking.

Thematic Analysis of Interview

Journalists' Level of Knowledge on the Use of AI Tools for Fact-Checking

Journalist JA reported a moderate familiarity with AI fact-checking technology. According to him, the newsroom utilises tools like Full Fact AI and Google's Fact Check Explorer. However, the knowledge level is not consistent across all staff: Not all staff are fully trained to utilise the AI tools efficiently. Only a handful of the journalists could use the technology confidently, suggesting a broader trend of limited confident use. The training process for journalists in the state typically involved a two-day workshop organised by the media house in collaboration with an international NGO. This training covered both ethical use and practical exercises using selected tools.

Journalist JB reported being quite familiar with AI fact-checking tools as well, having used them over the past two years. The platforms central to the work include Full Fact, Google Fact Check Tools, and region-specific tools from organizations like Dubawa and Africa Check. JB's organisation places a high premium on proper training. They collaborate with international media development partners for workshops covering the functionality, strengths, weaknesses, and ethical use of AI tools. Training involves real-time news scenarios, which helps build familiarity and confidence among reporters. Despite training efforts, there is internal skepticism, as some journalists remain wary of AI's credibility and the perceived threat it poses to traditional journalism skills.

Journalist JC reported being quite familiar with the use of AI tools for fact-checking. Their newsroom has gradually incorporated AI-assisted tools such as Google Fact Check Tools and AI-driven language models into their editorial workflow. JC's organization conducts periodic workshops, often in collaboration with tech-focused NGOs. These sessions focus on understanding the capabilities and limitations of AI, interpreting AI-generated results, and integrating these tools with human judgment. Ethical considerations are also a key part of the training. JC urged media organizations to invest in staff training.

Journalist JD reported being fairly familiar with AI fact-checking tools, having used tools like ChatGPT-integrated tools to verify political claims and public statements over the past two years. JD participated in training sessions organised by their media organization and fact-checking organisations in Abuja. The onboarding process was described as basic, involving a two-day virtual workshop facilitated by a media innovation hub. This training introduced tools such as Google Fact Check Explorer and included hands-on sessions. JD noted that most continuous learning had been “self-driven”. JD advised media organizations to train staff and integrate AI tools gradually.

Advantages of AI Tools Used for Fact-Checking among Journalists

JA highlighted several benefits of using AI for fact-checking. He noted that, AI speeds up the process significantly compared to manual verification. It reduces the turnaround time for verifying claims, which is particularly useful during elections. Furthermore, AI helps to flag misinformation trends quickly. AI can be used to verify the origin and context of content. For example, during a gubernatorial election, an AI tool helped identify that a viral image was from a 2019 protest in another state, not the current situation as claimed. Urban journalists appreciate AI's objectivity. As infrastructure improves, AI is expected to become essential in combating fake news, especially during elections and emergencies.

JB highlighted several significant advantages of using AI tools. “AI has drastically transformed information verification, especially during high-pressure situations like elections or breaking news. It significantly enhanced both the speed and scope of fact-checking. What once took hours of manual research can now be done in minutes. AI's efficiency boosts speed, enhances accuracy, and offers scalability. AI tools are adept at flagging misinformation patterns, spotting altered visuals, and validating sources. During the 2023 general elections, AI-assisted image forensics was used to quickly identify that a video claiming to show ballot box snatching was actually from a past election in another region, which helped quell tension and prevent unrest. AI is considered a complement, not a substitute, for human insight. As AI use becomes more transparent, there is a rise in public trust. Readers increasingly appreciate the value of evidence-based reporting.”

According to JC “AI has significantly impacted the fact-checking process by enhancing speed and scalability. While manual verification could take hours or days, AI enables rapid analysis of large datasets, allowing journalists to identify misinformation within seconds. AI tools offer speed and accessibility to data. AI provides the ability to monitor multiple platforms simultaneously. AI tools allow journalists to flag misleading content early, particularly during sensitive periods such as elections or public health crises. During the Benue State gubernatorial election, an AI tool flagged a manipulated video within minutes, allowing the team to conduct an analysis and issue a correction within the hour.” JC firmly believes AI will become increasingly prominent in North-Central Nigerian journalism, not only in fact-checking but also in content creation and investigative reporting.

JD highlighted the impact of AI on efficiency and scale in fact-checking: AI had “significantly reduced the time” spent on cross-referencing sources. It automated much of the groundwork

that traditional methods, requiring manual archive searching, demanded. AI offers “speed and breadth,” noting its ability to scan large volumes of text, detect claims, and support multilingual translation. The tools automated repetitive tasks like cross-linking and citation checks. During the 2023 general election, an AI tool helped debunk a viral video falsely claiming ballot box theft in Nasarawa State. The tool traced the video to a 2019 protest in another country. JD is optimistic, asserting that AI will become a “vital tool” for fact-checking, story generation, data analysis, and media monitoring, provided it is adapted to local realities.

Challenges Associated with the Use of AI Fact-Checking Tools among Journalists

JA noted several challenges related to the implementation and effectiveness of AI tools, which include its AI lack of deep contextual understanding that experienced journalists provide. This means that while AI is faster, humans are still more reliable in locally sensitive cases. AI often misinterprets local languages or sarcasm. In North Central Nigeria, which is linguistically and culturally diverse, AI struggles with local slang, idioms, and political nuances. According to him, technological and Infrastructure Issues are prevalent and they include: Connectivity issues and low bandwidth limit accuracy and adoption, a lack of localized AI databases limits accuracy. Also, many tools are designed with Western media contexts in mind, prompting calls for the development of customised AI tools, low Digital Literacy and Trust, low digital literacy and poor internet access in rural areas hinder adoption, people tend to trust community sources over digital fact-checks, rural readers often perceive AI fact-checks as 'foreign' or manipulated, Bias and Accountability and there are no clear AI-specific media laws yet, meaning that if AI makes an error, the journalists are held accountable under existing defamation laws. Blind reliance on AI could lead to defamation or misreporting.

Also, JB noted several flaws and hurdles associated with AI fact-checking tools. According to him, AI lacks the understanding of culture, language, and context that human journalists bring. It falls short in grasping local tones, satire, indirect speech, or regional dialects. This is particularly true in North Central Nigeria, where linguistic diversity and cultural subtleties can easily confound even advanced systems. The systems often have connectivity challenges. There is limited support for local languages. There is a dependence on Western datasets. To counter biases, there is a need to pair machine-generated results with human verification and push for the inclusion of African datasets in algorithm development. Furthermore, there is an absence of a clear regulatory framework for AI in journalism. The potential misuse of misinformation laws makes careful treading essential. Ethical considerations mandate disclosing when AI is used, ensuring no breach of privacy or source confidentiality and avoiding inadvertently amplifying false narratives when debunking misinformation.

JC highlighted a number of challenges, stressing that AI must be combined with human systems. AI is not as reliable as human fact-checkers in interpreting tones. It lacks the contextual awareness and emotional intelligence that humans provide. It has difficulty with local languages and dialects. It can misinterpret satire or sarcasm. AI often misinterpreted culturally specific language, proverbs, and mixed-language expressions common in North Central Nigeria. It also struggled with non-verbal contextual cues in videos or audio. JC noted infrastructural limitations such as poor internet connectivity and challenges with access to real-time data. To address bias, the team manually cross-checks flagged items and ensures diversity in their fact-checking teams. They also advocated for inclusive datasets in AI development. Ethically, there is a need for transparency in disclosing AI usage, avoiding over-reliance on automation, and ensuring human oversight in final decisions. There is a need to prioritize protecting individuals' privacy and minimising harm when correcting

misinformation. Legally, JC noted the evolving nature of Nigeria's digital laws and the need to avoid conflicts with data protection and defamation laws.

JD outlined several technical, cultural, and legal obstacles to effective AI use. The impenetrability of AI algorithms make these tools become "black boxes" and it is further difficult to understand how conclusions are reached. Many tools are not tailored to Nigerian content. Many AI tools are trained on Western datasets, necessitating caution and urging for localization to be more effective. Outputs must be cross-checked with human verification. The regulatory environment is "ambiguous," with no clear policy on AI use in journalism. This is because there is concern that misinformation laws could be misapplied to suppress accurate reporting.

Discussion of Findings

Knowledge level of AI fact-checking tools among journalists in North-Central Nigeria?

A significant portion of respondents reported familiarity with AI concepts. These knowledge levels did not evidently translate to significant use as quite a number of these journalists highlighted their concerns. This aligns with Rogers' Diffusion of Innovations theory, which postulates that awareness is the first stage of technology adoption. The growing integration of AI into media workflows, as discussed by Marconi and Siegman (2020), has increased exposure and training opportunities for journalists globally. Though familiarity was high, actual usage of AI tools for fact-checking was moderately lower and more variable. This suggests that while journalists are aware of AI, barriers like access, cost, and technical skills may limit practical use. According to Karlsson and Clerwall (2019), technological adaptation in journalism depends not only on awareness but also on organizational infrastructure and individual competence.

While a large majority are familiar with the concept of AI in journalism, a much smaller fraction have actually used these tools for fact-checking. This disparity can be effectively analysed through the lens of the Technology Acceptance Model (TAM), developed by Fred Davis (1989). TAM posits that the intention to use a new technology is determined by two primary factors. This aligns with research by scholars like Bruno (2019), who found that while journalists globally are optimistic about AI, practical integration is often stalled by a lack of resources and training within newsrooms.

This finding aligns with research by Umejei *et al.* (2025), which found that across Nigeria, Ghana, Kenya, and South Africa, journalists' attitudes toward AI oscillate between optimism about its capabilities and pragmatic concerns over its implementation. Similarly, Isah *et al.* (2025) noted a comparable disconnect between high awareness and more modest usage among journalists in Benin, Nigeria, citing infrastructural and skills-based challenges. The survey results highlight the dual nature of AI tools, which are simultaneously powerful and flawed.

The advantages of the AI tools used for fact-checking among journalists in north-central Nigeria.

The study's findings on the advantages of Artificial Intelligence (AI) tools for fact-checking among journalists in North-Central Nigeria reveal that their primary benefits lie in enhancing speed and scale, while also offering capabilities for misinformation trend identification and content verification. The experiences of journalists interviewed consistently highlighted the following key advantages: AI drastically accelerates the verification process, reducing the time from hours of manual research to minutes. This efficiency is particularly critical during high-pressure situations such as elections or breaking news. AI allows for the

rapid analysis of large datasets and the monitoring of multiple platforms simultaneously, offering a broader reach than manual methods.

Tools can quickly flag misinformation trends and spot altered visuals. AI-assisted image and video forensics can quickly trace content to its origin, helping to debunk viral but outdated or miscontextualised media. For example, in electoral reporting, an AI tool identified a viral image as being from a previous protest in another state. Some journalists appreciate the perceived objectivity of AI, and public trust is reported to rise as the use of AI becomes more transparent and leads to evidence-based reporting. AI automates groundwork like cross-referencing, citation checks, and scanning large volumes of text, freeing human journalists to focus on contextual analysis.

The advantages identified in North-Central Nigeria largely align with the global literature on AI in journalism, particularly concerning efficiency, but they also underscore a distinctly human-centric view of AI's role: The finding that AI's most significant benefit is its capacity for speed and scale is a consistent theme in AI and journalism research. Scotts (2021) suggests that automation allows journalists to “concentrate on contextual analysis while leaving the data-heavy verification tasks to machines”. Similarly, Missaoui et al. (2019) documented the optimism of journalists regarding AI's data processing power. This study also reinforces the idea of AI as a “sophisticated assistant” for the human journalist, handling repetitive labour.

Despite acknowledging the power of AI, journalists in the North-Central region view the technology as a “complement, not a substitute,” for human insight. This perspective aligns with the “human-in-the-loop” model advocated by global scholars. The conclusion that AI can handle the “quantitative aspects” but “fails at the qualitative judgment” strongly supports the argument by Amponsah and Atianashie (2024), who emphasized the ongoing importance of human journalists in roles requiring ethical reasoning and cultural sensitivity. The most crucial finding that tempers the enthusiasm for AI's advantages is the discovery of its significant weakness: a “critical lack of contextual intelligence”. Interviewees repeatedly noted that AI “struggles with local languages, dialects (like Nigerian Pidgin, Hausa, or Tiv), sarcasm, and cultural idioms”. This issue is specifically supported by Iyinolakan (2023), who highlights AI's limitations in processing indigenous Nigerian languages, and Kertysova (2019), who noted that automated solutions have limitations, including the “inability to fully understand context, irony, or cultural nuances”.

Primarily speed, scale, and automation are consistent with global trends. However, the study's findings are critically framed by the understanding that these advantages are currently limited in North-Central Nigeria by the tools' inability to effectively process local language, context, and cultural subtleties. Research by Missaoui *et al.* (2019) found that journalists, while optimistic about AI's processing power, were skeptical of its ability to replicate human intuition and context. Iyinolakan (2023) specifically highlights AI's limitations in processing indigenous Nigerian languages, a key challenge identified in this study. Furthermore, Gutiérrez-Caneda et al. (2024) noted a common sentiment among professionals that AI can “hallucinate” and produce convincing falsehoods, reinforcing the need for human verification.

Challenges associated with the use of AI fact-checking tools among journalists in North-Central Nigeria?

The most resounding finding of the study relates to the ethical challenges and the overwhelming consensus on the need for regulation. A vast majority of journalists expressed ethical concerns, with most of the respondents agreeing that AI tools in journalism should be regulated. The most pressing ethical issues were “Bias in AI algorithms” and a “Lack of

transparency”, often referred to as the “black box” problem. Journalists rightly fear that AI, trained on potentially biased data, could amplify existing societal stereotypes related to ethnicity or religion, a particularly dangerous prospect in the diverse and sometimes volatile context of North-Central Nigeria. The lack of transparency is incompatible with the journalistic ethic of accountability; if a journalist cannot explain the reasoning behind a decision, they cannot be fully accountable for it.

While not a formal part of the study's chosen framework, these findings resonate with broader critical theories on technology. The concerns about bias directly echo the arguments of scholars like Safiya Noble, whose work, *Algorithms of Oppression*, details how search engines and other automated systems can perpetuate harmful stereotypes. The strong call for regulation indicates a collective desire for an ethical framework, as proposed in documents like the Council of Europe's (2023) guidelines, which advocate for responsible, transparent, and human-centric AI implementation in journalism. These ethical concerns are not unique to North-Central Nigeria but are a central theme in global research on AI in journalism. Kim (2019) concluded that AI amplifies inherited journalistic ethics issues like bias and fairness. Porlezza and Schapals (2024) and Kertysova (2019) also identify bias and the “black box” nature of AI as critical challenges that erode trust and complicate regulation. The identified lack of formal newsroom guidelines on AI use in Africa by Umejei et al. (2025) further underscores the regulatory vacuum that the journalists in this study are concerned about.

Conclusion

Based on this research, the challenges surrounding the use of AI in journalism are the most significant barriers to its knowledge in North-Central Nigeria, covering even the initial optimism about the technology's potential. The findings indicate that journalists are not just passively encountering obstacles; they are actively grappling with profound ethical dilemmas that strike at the core of journalistic integrity. While the potential of AI is recognised, its day-to-day application is hindered by a series of practical and structural challenges. The integration of AI into journalistic fact-checking practices in North Central Nigeria remains at a developmental stage. While journalists increasingly recognize its value in enhancing the accuracy and credibility of news reports, systemic barriers continue to limit its full potential. The study concludes that although AI tools can significantly aid in verifying facts faster and more accurately, their effectiveness depends largely on training, accessibility, and ethical governance. As such, human oversight remains indispensable in AI-driven journalism.

Recommendations

1. To improve journalists knowledge of AI in fact-checking by developing a training curriculum for journalists with different levels: Beginner, Intermediate, and Advanced, which should be in the form of introduction to AI concepts, using basic tools like reverse image search and understanding metadata, training on more advanced platforms for verifying video content, analysing text for sentiment and origin, and using AI-powered transcription services, workshops on understanding AI bias, verifying deepfakes, and using data analysis tools for investigative fact-checking and collaborate with journalism departments in universities within the North-Central zone (e.g., University of Jos, Benue State University, Federal University of Lafia) to co-host these trainings and potentially integrate them into their curricula.
2. Media houses should prioritise, encourage, or provide resources for AI fact-checking, individual journalists are unlikely to adopt it. Media owners and editors should be encouraged to formally integrate the use of verification and fact-checking tools into their newsroom's Standard Operating Procedures (SOPs). Make pre-publication

verification using specific tools a mandatory step for sensitive stories. Media houses should allocate budgets for subscriptions to premium AI fact-checking tools. They can explore pooled subscriptions, where several media outlets share the cost of a powerful tool, making it more affordable. Recognise and reward journalists or editorial desks that effectively use AI tools to debunk major misinformation campaigns, thereby creating a culture that values this skill.

3. Media development Civil Society Organisations (CSOs) like the CJID and Wole Soyinka Centre for Investigative Journalism (WSCIJ) can partner with telecommunication companies to provide subsidised data plans specifically for verified journalists to use for professional fact-checking activities. Media houses should invest in reliable alternative power sources like solar energy for their newsrooms to ensure that fact-checking desks can operate without interruption. The NUJ and media owners' associations should collectively advocate for government policies that improve digital infrastructure and reduce the cost of internet access for everyone, including media professionals.

References

- Africa Check. (2023). Human-AI hybrid systems audit. <https://africacheck.org>
- Africa Check. (2023). Tips for spotting AI-generated images and videos. <https://africacheck.org/fact-checks/guides/guide-africa-checks-tips-spotting-ai-generated-images-and-videos>
- Brennen, J. S., Simon, F. M., Howard, P. N., & Nielsen, R. K. (2020). Types, sources, and claims of COVID-19 misinformation. Reuters Institute. <https://reutersinstitute.politics.ox.ac.uk/types-sources-and-claims-covid-19-misinformation>
- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, MIT Sloan School of Management).
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Dubawa, (2020). Fact-checking Nigeria's misinformation landscape. Retrieved from <https://dubawa.org>
- Dubawa, (2021). Artificial intelligence in fact-checking: Prospects for Africa. <https://dubawa.org/>
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Addison-Wesley.
- Graves, L. (2016). *Deciding what's true: The rise of political fact-checking in American journalism*. Columbia University Press.

- Graves, D., & Cherubini, F. (2016). The rise of fact-checking sites in Europe. Reuters Institute for the Study of Journalism. <https://reutersinstitute.politics.ox.ac.uk/>
- Graves, L. (2017). Anatomy of a fact check: Objective practice and the contested epistemology of fact checking. *Communication, Culture & Critique*, 10(3), 518–537. <https://doi.org/10.1111/cccr.12163>
- Graves, L. (2018). Boundaries not drawn: mapping the institutional roots of the global fact-checking movement. *Journalism Studies*, 19(5), 613–631. <https://doi.org/10.1080/1461670X.2016.1196602>
- Graves, L. (2018). Understanding the promise and limits of automated fact-checking. Reuters Institute for the Study of Journalism.
- Gutiérrez-Caneda, B., Lindén, C.-G., & Vázquez-Herrero, J. (2024). Ethics and journalistic challenges in the age of artificial intelligence: Talking with professionals and experts. *Frontiers in Communication*, 9, Article 1465178. <https://doi.org/10.3389/fcomm.2024.1465178>
- Hermida, A. (2020). The techno-social hybridity of artificial intelligence in journalism. *Digital Journalism*, 8(2), 238–253. <https://doi.org/10.1080/21670811.2019.1702741>
- Isah, A., Aleogho, N. J., Ehiagwina, V., Usman, M., & Emmanuel, S. D. (2025). Prospects and challenges of media practice in an era of artificial intelligence. *ASUP Multidisciplinary Journal*, 1(1), 1–20. <https://www.researchgate.net/publication/391867133>
- Iyinolakan, O. D. (2023). Exploring the potential of artificial intelligence for supporting indigenous language journalism pedagogy in Nigeria. CMCR Conference Paper, Pan-Atlantic University, Nigeria.
- Kim, H. (2019). AI in journalism: Creating an ethical framework (Honors thesis). Syracuse University. https://surface.syr.edu/honors_capstone/1083
- Marconi & Siegman (2020). *Newsmakers: Artificial intelligence and the future of journalism*. Columbia University Press.
- Meyer, T. (2021). Ethical implications of AI in journalism: Challenges and considerations. *Journalism Ethics Review*, 13(4), 56–69.
- Missaoui, S., Gutierrez-Lopez, M., MacFarlane, A., Makri, S., Porlezza, C., & Cooper, G. (2019). How to blend journalistic expertise with artificial intelligence for research and verifying news stories? In Proceedings of the CHI Conference on Human Factors in Computing Systems (pp. 1–10). City, University of London.

- Noble, S. U. (2018). *Algorithms of oppression: how search engines reinforce racism*. NYU Press.
- Nwokeoma, J. (2020). AI and journalism in Africa: Challenges and opportunities. *African Journalism Studies*, 41(2), 45–60.
- Porlezza, C., & Schapals, A. K. (2019). AI ethics in journalism (studies): An evolving field between research and practice. *Emerging Media*, 2(3), 356–370. <https://doi.org/10.1177/27523543241288818>
- Rogers, E. M. (2003). *Diffusion of innovations* (5th Ed.). New York: Free Press.
- Sahara Reporters. (2020). Using AI to verify news content: Lessons from the field. <https://saharareporters.com>
- The Washington Post*. (2023). Fact Checker: The truth behind the rhetoric. <https://www.washingtonpost.com/news/fact-checker>
- Umejei, E., Ayisi, A., Phiri, M., & Tallam, E. (2025). Artificial intelligence and journalism in four African countries: Optimists, pessimists, and pragmatists. *Journalism Practice*. <https://doi.org/10.1080/17512786.2025.2489590>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204.
- Zaragoza, P. (2023). Artificial Intelligence and Journalism: A multimodal critical discourse analysis of the Instagram page @brut_ia (Master's thesis). Linnaeus University, Sweden.