

Adoption of Artificial Intelligence in News Production in Enugu State: Threats or Opportunities

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Abstract

This study critically examines the opportunities and threats of AI adoption in Nigerian news, focusing on selected media journalists from print and electronic media houses in Enugu state. The primary objective of the study is to examine the Threats or Opportunities of AI adoption in news production in Enugu state. Rooted in Technological Determinism and Diffusion of Innovation theories, the study employed a quantitative survey of 171 valid respondents, drawn from a 300 population size determined using the Taro Yamane sampling formula. Structured questionnaire was used as instrument for data collections. Findings reveal that AI offers significant opportunities, including enhanced news accuracy, faster content production, improved fact-checking, and strengthened audience engagement through personalization. However, notable threats include job displacement, misinformation risks, reduced investigative quality, and weakened editorial independence. Only a handful of respondents reported receiving training to adapt to AI-driven changes, indicating a substantial skills gap. While AI-assisted transcription and editing tools are widely adopted, fully automated writing systems are less utilized, reflecting a cautious approach prioritizing human oversight. Audience perceptions remain a barrier as majority of the respondents believed that the public prefers human written stories, and only a few think audiences trust AI-generated news. These findings suggest that successful AI adoption in Nigerian newsrooms requires ethical safeguards, transparency, and infrastructural support. The study concludes that AI is neither wholly a threat nor purely an opportunity; its impact hinges on balanced ethical integration supported by robust policy frameworks, targeted reskilling initiatives, and improved digital infrastructure. Recommendations include developing contextual ethical guidelines, implementing regular AI literacy programmes, fostering collaborative human-AI workflows, and investing in infrastructure to enable equitable adoption across diverse media

Keywords: Artificial Intelligence, News production, Threats, Opportunities, News Media

Introduction

The 21st century has witnessed unprecedented technological advancements, with Artificial Intelligence (AI) emerging as one of the most transformative forces in the media industry. Globally, renowned news organizations such as the Associated Press, Reuters, and the BBC employ AI for automated content generation, audience analytics, and fact-checking. In Africa, particularly Nigeria, AI integration in news media is steadily increasing as newsrooms adopt tools for transcription, automated content generation, fact-checking, editing and audience analytics. Training initiatives by media organizations and institutes further support this growth, demonstrating a gradual but meaningful rise in AI adoption despite persistent challenges (Ojoajogwu, et al, 2025). In Southeast Nigeria, especially in Enugu state, media houses such as NAN Enugu, Radio Nigeria Enugu, and Enugu State Broadcasting Service (ESBS) are beginning to experiment with AI-driven tools for transcription, editing, and real-time news monitoring.

The integration of Artificial Intelligence (AI) in today's news production represents a transformative shift in the media landscape, presenting both unprecedented opportunities and significant challenges. Artificial intelligence technologies, including automated content generation, transcription tools, fact-checking algorithms, and audience analytics, offer Nigerian newsrooms the potential to enhance efficiency, improve content personalization, and compete in a globalized digital media environment (Guanah et al., 2020). With Nigeria's rapidly expanding internet penetration exceeding 100 million users by 2023—and a dynamic media landscape, AI offers opportunities to ease resource constraints, streamline newsroom windows and enhance journalistic quality in understaffed media organizations. (Bello, 2023) For instance, AI-driven tools can automate routine tasks like data analysis or transcription, enabling journalists to focus on investigative reporting and creative storytelling.

However, the adoption of AI in Nigerian news production is not without threats. Fear of job displacement loom large, with journalists especially entry level reporters concerned about automation replacing roles like copy-editing or basic reporting (Bello, 2023). Infrastructural challenges, including unreliable internet, high costs of AI tools, and low digital literacy, further complicate adoption, particularly in rural areas. Studies indicate high awareness of AI among Nigerian journalists, yet adoption remains low, reflecting a cautious approach due to these barriers (Bello, 2023).

The discourse is framed by technological determinism and diffusion of innovation theories, which contextualize how emerging technologies reshape media practices in developing economies (Guanah et al., 2020; Bello, 2023). This study explores both the opportunities and threats of AI integration in Enugu state newsrooms, grounding its analysis in empirical data from practising journalists and contextualizing findings within the broader global debate on AI in journalism.

Statement of the Problem

The growing adoption of Artificial Intelligence (AI) in news production is reshaping journalism practices in Nigeria, yet its implications remain unclear. While AI offers opportunities for faster news gathering, improved efficiency, and enhanced audience engagement, it also raises serious concerns about job displacement, ethical standards, accuracy, bias, and the erosion of professional journalistic roles. In a media environment characterized by limited resources, weak regulation, and varying levels of digital literacy, Nigerian news organizations face challenges in integrating AI responsibly. The problem, therefore, is the lack of clear understanding of whether Artificial Intelligence in news production in Nigeria represents a threat to journalistic integrity and employment or an opportunity for innovation and improved news delivery. It is this problem that this study seeks to address.

Research Objectives

The primary objective of this study is to examine the threats and opportunities of Artificial Intelligence integration in news production among Enugu State media organization. The specific objectives are to:

1. Identify AI technologies currently used in Print and Electronic Media Houses in Enugu State.
2. Assess the perceived benefits of AI in news production efficiency and quality in Print and Electronic Media Houses in Enugu State.
3. Investigate the risks and ethical concerns related to AI-generated news in Print and Electronic Media Houses in Enugu State.

Research Questions

1. What AI tools are currently used in Enugu state news production?
2. How does AI improve news efficiency and quality?
3. What risks does AI pose to journalistic ethics and public trust?

Literature Review

Conceptual Review

Artificial Intelligence (AI) in journalism refers to the use of computer systems to perform tasks traditionally requiring human intelligence, such as gathering, processing, and disseminating information (Russell & Norvig, 2020). Applications in the news industry include automated reporting, where algorithms generate stories from

structured data; AI-Assisted editing, which detects errors and enhances content quality; natural language processing (NLP) for text analysis; machine learning for trend predictions; and computer vision for analysing images and videos. Globally, organizations like the *Associated Press* use AI to produce thousands of automated financial reports annually, while *Reuters* deploys AI for real-time language translation in news coverage (Diakopoulos, 2019).

In the Nigerian context, AI applications are still emerging but notable examples exist. *Radio Benue* has piloted AI based audio editing tools to streamline programme production, *JOY FM Otukpo* uses AI transcription services for interviews, and *NAN Enugu* has experimented with automated news feeds. Print media like *The Punch* and *Vanguard* employ AI analytics to identify trending topics, while *ESBS* uses AI tools for live broadcast captions. These developments illustrate both the promise and limitations of AI adoption in an environment marked by resource constraints.

Opportunities of AI in News Production

Scholars and industry practitioners highlight several benefits AI can offer in Nigerian journalism:

1. **Enhanced Accuracy and Error Reduction:** AI proofreading tools can detect factual and grammatical errors faster than manual editing, improving credibility and trustworthiness (Latar & Matani, 2020).
2. **Speed and Timeliness:** Automated reporting allows newsrooms to publish breaking news stories within seconds, especially for formulaic content like election results or sports scores. (Liu, X. and Yang, S. 2024)
3. **Data Driven Investigations:** AI can process large datasets for investigative stories, uncovering patterns that human reporters might overlook (Adeleke & Yusuf, 2022).
4. **Fact Checking and Misinformation Detection:** AI tools like Claim Review and Full Fact automate the verification of statements, helping curb fake news (Tandoc & Maitra, 2018).
5. **Audience Engagement and Personalization:** AI-driven recommendation systems help tailor news feeds to readers' interests, increasing loyalty and readership.
6. **Resource Optimization:** By automating repetitive tasks, AI allows journalists to focus on complex, human-led storytelling.

Threats of AI in News Production

The opportunities are significant, however some scholars caution against ignoring the risks:

1. **Job Displacement:** Automation could lead to the loss of junior editorial and reporting roles, especially in entry level news writing (Jamil, 2021).
2. **Algorithmic Bias:** AI models can inherit biases from their training data, leading to skewed reporting or discriminatory content. (Diakopoulos, 2019)
3. **Erosion of Editorial Independence:** Reliance on AI for story selection may prioritise click driven metrics over public interest journalism, shifting editorial power from journalists to algorithms. (Newman et al, 2023)
4. **Misinformation Amplification:** Poorly supervised AI could spread false narratives faster than human oversight can correct them. (Tandoc & Maitra, 2018)
5. **Ethical and Transparency Issues:** Lack of disclosure about AI-generated content could weaken audience trust and accountability. (Gondwe, 2025)
6. **Technological Dependence:** Over reliance on AI could reduce investigative depth and critical thinking in newsrooms. (Latar and Matani, 2020)

Empirical Reviews

Okonkwo and Nwokedi (2020), conducted a study on the topic: Analysis of AI in broadcasting: Opportunities and Challenges in Enugu State broadcasting service (ESBS). The study provides an analysis of AI in broadcasting, exploring its applications, benefits and challenges. The study was anchored on Artificial Theory of mind, a foundational concept in psychology and cognitive science which postulates that a socially intelligent agent could be imbued with the ability to model and engage effectively in human agent interaction through qualitative and literature study approach. The study examined the broadcast media development. AI based on innovation including a content creation, distribution and audience engagement. Findings highlighted the potential of AI to

enhance broadcasting efficiency, improve audience engagement and data driven decision making. It also highlighted significant challenges such as technical complexity, privacy concerns, resistance to change, skills gap and job displacement. The study concluded that Artificial Intelligence (AI) presents significant opportunities for enhancing broadcasting in ESBS, including improvements in operational efficiency, audience engagement, content personalization, automation of routine tasks, and data-driven decision-making.

Similarly, Guanah, Agbanu and Obi (2020) conducted a study on the topic: AI and Journalism practice in Nigeria: perception of journalists in Benin City, Edo state. The study published in the International Humanitarian studies, investigates how AI is perceived and could impact journalistic practices in Nigeria, using Benin City as a study. It employed a mixed method approach, a survey of 152 registered journalists (from a population of 254 registered journalists under the Nigerian Union of journalists, Benin City chapter) and in depth oral interviews. The theoretical framework was media morphosis theory, which examines how new technologies transforms media forms and practices. Key findings show that in opportunities, a strong majority viewed AI as an improvement over manual reporting. Citing benefits like faster news generation, error reduction and enhanced productivity. While in threats, concerns raised included job losses, loss of journalistic authenticity and ethical risks such as biased AI outputs if not locally calibrated. It concludes that AI cannot replace human creativity and wisdom, but can be used as a tool to complement human capabilities, making content creation and broadcasting more efficient and successful. The study recommended curriculum reforms in journalism schools to include AI training, emphasizing that without adaptation, Nigerian Media risked irrelevance.

Theoretical framework

The study was anchored on two theories, namely:

Technological Determinism theory as proposed by Marshall McLuhan (1964), This theory argues that technology shapes societal structures and behaviours independently of human intent. In journalism, AI's capabilities such as rapid data processing and automation drive changes in news production, forcing adaptations in workflows and roles.

Diffusion of Innovation (DOI) theory, developed by *Everett Rogers (2003)*, describes how innovations spread through social systems. It categorizes adopters as innovators, early adopters, early majority, late majority, and laggards, influenced by factors like relative advantage, compatibility, complexity, trialability and observability. In Nigerian media, DOI explains how AI adoption: perceived usefulness (e.g., speed) is high, but complexity and incompatibility (with traditional practices) act as barriers. This framework highlights the need for communication channels and social support to accelerate diffusion.

Together, these theories provide a lens for analyzing AI's deterministic impact and diffusion challenges in Nigeria.

Methodology

Research Design

This study adopted a quantitative research design, which was deemed appropriate for examining the perceptions and attitudes of a sample of these media practitioners. Bhandari, (2020) opines that a quantitative research is the process of collecting and analysing numerical data. It employed a descriptive analysis of data. Moreover, this study adopted a cross- sectional survey research method to enable the researcher draw inference on the variables under study. Lauren (2022), notes that a cross- sectional study is a type of research method in which the researcher collects data from respondents at a single point in time.

Population of Study

The population of this study comprises registered journalists in Enugu State. A total of 300 journalists were obtained from the Enugu State NUJ Secretary's database. Hence, the population for this study is 300 respondents.

Sampling Technique

The sampling technique used in this study was purposive sampling technique. A purposive sampling according to Owuamalam, (2023, p.119), is the sampling technique where the judgment of the researcher is the deciding element

on who should be selected. Nwodu, (2006) describes it as a judgmental sampling technique. Similarly, a self-administered questionnaire was used to collect data from the respondents.

Sample Size

The sample size of this study is 171. Pritha, (2020) writes that a sample size is a part of the population chosen for a survey or experiment through appropriate sampling technique. Taro Yamane formular was used to determine the sample size as explained below:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = total population = 300

e = level of precision (0.05)

$$n = \frac{300}{1+300(0.05)^2} = \frac{300}{1+300(0.0025)} = \frac{300}{1.75} = 171.4 \approx 171$$

Therefore, the sample size for this study is 171 respondents.

Data Presentation and Analysis

This section presents the revised data from the field survey, based on a valid sample size of 171 respondents.

Table 1.1: AI Tools Currently Used in Nigerian News Production (n=171)

AI Tool/Technology	Frequently Used (n/%)	Occasionally Used (n/%)	Rarely Used (n/%)	Not Used (n/%)	Total (n)
Automated Transcription Software	78 (45.6%)	50 (29.2%)	24 (14.0%)	19 (11.1%)	171
AI-Assisted Editing/Proofreading	68 (39.8%)	58 (33.9%)	27 (15.8%)	18 (10.5%)	171
Automated Writing Tools	35 (20.5%)	45 (26.3%)	39 (22.8%)	52 (30.4%)	171
Content Recommendation/Analytics	57 (33.3%)	60 (35.1%)	32 (18.7%)	22 (12.9%)	171
AI Fact Checking Tools	36 (21.1%)	53 (31.0%)	45 (26.3%)	37 (21.6%)	171

Source: Data base from Enugu State NUJ Secretary

Interpretation: The most frequently used AI tools are automated transcription software (74.8% use at least occasionally) and AI-assisted editing/proofreading tools (73.7%). Automated writing systems have the lowest adoption, with only 47% using them occasionally or more. This suggests that Nigerian newsrooms favour AI in supporting rather than replacing human reporting.

Table 1.2: AI's Impact on News Efficiency and Quality (n = 171)

Variables	SA (n/%)	A (n/%)	N (n/%)	D (n/%)	SD (n/%)	Total (n)
AI improves news accuracy	71 (41.5%)	71 (41.5%)	13 (7.6%)	9 (5.3%)	7 (4.1%)	171
AI speeds up content production	76 (44.4%)	67 (39.2%)	12 (7.0%)	9 (5.3%)	7 (4.1%)	171
AI supports fact-checking	65 (38.0%)	74 (43.3%)	15 (8.8%)	10 (5.8%)	7 (4.1%)	171

Source: Data base from Enugu State NUJ Secretary

Interpretation: Over 80% of respondents acknowledge AI's ability to improve accuracy (83.0%) and speed (83.6%). Fact-checking (81.3%) is also highly rated, showing strong belief in AI's role in enhancing journalistic quality. These findings confirm that AI is seen as a critical tool for improving efficiency and accuracy in Nigerian newsrooms.

Table 1.3: Risks of AI to Journalistic Ethics and Public Trust (n = 171)

Variables	SA (n/%)	A (n/%)	N (n/%)	D (n/%)	SD (n/%)	Total (n)
AI could spread misinformation if unchecked	64 (37.4%)	62 (36.3%)	26 (15.2%)	12 (7.0%)	7 (4.1%)	171
Overreliance on AI may reduce investigative quality	61 (35.7%)	66 (38.6%)	27 (15.8%)	12 (7.0%)	5 (2.9%)	171
AI might weaken editorial independence	55 (32.2%)	68 (39.8%)	29 (17.0%)	14 (8.2%)	5 (2.9%)	171

Source: Data base from Enugu State NUJ Secretary

Interpretation: The data indicate strong concern among respondents about AI's potential risks. A combined 73.7% believe AI could spread misinformation if unchecked. Additionally, 74.3% agree that overreliance on AI may reduce investigative quality, and 72.0% agree that AI might weaken editorial independence. These findings suggest that while AI improves efficiency, Nigerian journalists remain deeply cautious about its ethical and professional implications.

Discussion of Findings

The findings indicate that Nigerian newsrooms are gradually integrating AI tools, with adoption favoring supportive rather than fully autonomous systems. The most widely used tools are automated transcription software (74.8% use frequently or occasionally) and AI-assisted editing/proofreading tools (73.7%). These applications enable faster production workflows by reducing transcription time and enhancing text quality. In contrast, automated writing tools have a lower adoption rate (46.5%), indicating reluctance to delegate creative content generation to machines, likely due to concerns over editorial quality.

A significant proportion of respondents recognize AI's role in enhancing news accuracy (83.0%) and accelerating content production (83.6%). Additionally, AI is valued for supporting fact-checking (81.3%). These findings align with literature emphasizing AI's potential to improve newsroom efficiency (Latar & Matani, 2020).

The findings also highlight substantial ethical concerns surrounding AI adoption. A combined 73.7% believe AI could spread misinformation if unchecked, 74.3% warn that overreliance may reduce investigative quality, and 72.0% express concerns that AI might weaken editorial independence. These concerns underscore the need for robust editorial oversight, ethical guidelines, and accountability frameworks to safeguard Nigerian journalism's integrity in the AI era, as cautioned by scholars like Diakopoulos (2019) and Newman et al. (2023).

Overall, the study presents a nuanced understanding of AI in Nigerian news production. While AI offers operational advantages particularly in speed, accuracy, and task automation, it poses significant ethical challenges. A hybrid human-AI model, where AI manages repetitive tasks and human journalists maintain editorial judgment and investigative depth, appears most sustainable. Such a model would allow Nigerian newsrooms most especially Enugu State media to leverage technological innovation without compromising journalism's foundational values.

Conclusion

This study therefore concludes that AI adoption in newsroom is favouring supportive rather than fully autonomous. This implies that both AI and manual news production are combined. It also notes that relying only on AI will dissuade investigative quality of news production especially in Enugu state. Similarly, a hybrid AI model where AI manages repetitive task while human journalists maintain editorial judgment is the best. Finally, though there are ethical concerns surrounding AI adoption, it remains a good complement for human tasks in news production. Hence, adoption of AI in news production in Enugu state is neither threats nor opportunities.

Recommendations

Based on the findings of this study, the following recommendations are proposed to guide the responsible and effective integration of Artificial Intelligence (AI) in Nigerian news production:

- **Adopt a Hybrid Human–AI Workflow:** Media organisations should integrate AI as a supportive tool rather than a replacement for human journalists. This approach will ensure that while AI handles repetitive and technical tasks, human journalists retain control over editorial judgment, investigative reporting, and ethical decision-making.
- **Develop and Enforce Ethical Guidelines:** Industry regulators such as the Nigerian Press Council should formulate clear ethical frameworks for AI use in journalism. These guidelines should address misinformation prevention, transparency in AI-generated content, and safeguard against editorial bias.
- **Invest in Continuous Training:** Media houses must implement structured training programmes to equip journalists with the technical skills required to work alongside AI tools. Areas of focus should include data analysis and AI oversight.
- **Strengthen Digital Infrastructure:** Government and private sector stakeholders should prioritise investment in digital infrastructure, including reliable power supply and high-speed internet, to enable effective AI deployment in newsrooms across the country.

By implementing these recommendations, Nigerian newsrooms can harness AI's potential to improve efficiency and accuracy, while addressing ethical concerns. This balanced approach will help sustain high standards of journalism in the evolving digital media landscape.

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