

IMPACT OF ARTIFICIAL INTELLIGENCE (AI) ON JOURNALISM PRACTICE IN NIGERIA

BY

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Abstract

This research examines the ways artificial intelligence (AI) is transforming journalism in Nigeria, exploring its capacity to fundamentally change how news is gathered, processed, and shared. This study reveals that Nigerian newsrooms are swiftly adopting AI tools to automate tasks like transcribing interviews, personalize content for individual readers, monitor social media for breaking news, and fact-check information. This adoption holds the promise of increased efficiency and productivity, greater audience engagement, and reduced operational costs. However, this study also emphasizes the need to address challenges such as the potential displacement of human journalists, the risk of algorithmic bias, ethical concerns surrounding AI-generated content, and the limitations posed by Nigeria's technological infrastructure. Through an analysis of real-world examples, this study highlights both the successes and setbacks of AI integration in Nigerian media. This includes examining the introduction of "Leo," Africa's first AI chatbot launched by the United Bank for Africa (UBA) to provide personalized financial advice, as well as a case study of an AI-powered tool designed to interpret medical images. Furthermore, this research explores emerging AI technologies with the potential to revolutionize investigative journalism by analyzing vast datasets, personalize news experiences for individual users, and create immersive storytelling formats. This study acknowledges the broader implications of AI for Nigeria's media, including its potential to reshape how news is consumed, influence media ownership and control, and redefine the role of journalists in society. It underscores the importance of media organizations proactively developing AI literacy programs, collaborating with AI developers to create tools tailored to their needs, establishing ethical guidelines for AI use, addressing infrastructure limitations, and fostering a culture of innovation. Journalists are encouraged to adapt by acquiring new skills, upholding journalistic ethics in the AI era, collaborating with AI developers, and critically evaluating AI-generated content. Finally, this study provides detailed recommendations for policymakers to promote AI literacy among the public, invest in crucial infrastructure, develop regulatory frameworks for AI in media, and support research and development in this field.

Keywords: Artificial Intelligence, Journalism, Newsrooms, AI Ethics

Introduction

Artificial intelligence (AI) is rapidly changing the world around us, and its impact is being felt in a variety of industries and Journalism is no exception (Thomas, 2022). AI is already being used in newsrooms around the world to automate tasks, personalize content, and even generate news stories. This is particularly true in Nigeria, where AI is being used to help journalists overcome the challenges of reporting in a complex and rapidly changing

environment (Pavlik, 2023). The Nigerian media scene has undergone substantial transformations since the inception of the first printing press in 1846 (Makinde, 2024). The journey began with the publication of "*Iwe Irohin*," a newspaper that primarily served as a missionary tool (Ogbondah & Anim, 2016). Over time, the media scene expanded to include radio broadcasting in 1933 and television broadcasting in 1959 (Nnayanwu & Nwanyanwu, 2021). Journalism in Nigeria has a long and rich history, dating back to the colonial era (Ogbiten, 2010). The first newspapers in Nigeria were founded in the 19th century, and they played an important role in the struggle for independence (Maringues cited in Pavlik, 2023). After independence, the Nigerian media continued to grow and develop. Today, there are hundreds of newspapers, magazines, radio stations, and television stations in Nigeria (Larraz, 2023).

The transition from traditional media to the modern era was marked by the rise of the internet. This digital revolution opened up new avenues for information dissemination and consumption. Traditional media outlets had to adapt to the changing times, embracing online platforms to remain relevant in the face of increasing competition from new media entities (Al-Zoubi, Ahmad & Hamid, 2024). In recent years, the prominence of artificial intelligence (AI) has grown significantly, impacting various sectors, including journalism. AI refers to the development of computer systems capable of performing tasks that typically require human intelligence, such as visual perception, speech recognition, decision-making, and language translation (Alzoubi *et al.*, 2024). There are a number of ways that AI is being used in Nigerian newsrooms. For example, AI is being used to automate the process of transcribing interviews, translating languages, and generating news summaries (Gondwe, 2024). AI is also being used to help journalists personalize content for their audiences. Additionally, AI is being used to create new forms of investigative reporting and to help verify and fact-check information (Alzoubi *et al.*, 2024). AI is also being used to personalize the user experience. For example, some news organizations are using AI to recommend articles to readers based on their interests. The integration of AI into journalism has been met with mixed reactions. Some hail it as a revolutionary tool that can enhance efficiency and productivity, while others express concerns about its potential to displace human journalists (Makinde, 2024).

The impact of AI on journalism practice in Nigeria is significant. AI is helping journalists to be more efficient and effective. It is also helping to create new forms of journalism and to reach new audiences. However, AI is also raising several ethical challenges for journalists (Sonni, Hafied, Irwanto & Latuheru, 2024). For example, there is the risk that AI could be used to create fake news or spread propaganda (Shukla & Tripathi, 2024). There is also the risk that AI could lead to job losses in the journalism industry. It is important to note that the adoption of AI in Nigerian newsrooms is still in its early stages. However, AI is already significantly impacting journalism practice in Nigeria (Nneji, 2024). This study aims to explore how AI is used in Nigerian newsrooms and the challenges and opportunities AI presents to journalists. Using a conceptual approach, it provides insights into the potential of AI in a developing country context. Nigeria is the most populous country in Africa and has a large and growing media industry. The findings of this study will be of interest to journalists, media scholars, and policymakers in Nigeria and other developing countries.

Objectives of the Study

This study aims to explore how AI is used in Nigerian newsrooms and the challenges and opportunities AI presents to journalists. The objectives include to:

- i. examine the current applications of AI in Nigerian newsrooms;
- ii. assess the perceived benefits and challenges of AI adoption in Nigerian journalism;
- iii. investigate the ethical implications of AI in Nigerian journalism;
- iv. analyze the potential of emerging AI technologies in reshaping Nigerian journalism;

- v. identify the implications of AI for the future of news consumption, media ownership, and the role of journalists in Nigeria;
- vi. provide recommendations for media organizations, journalists, and policymakers on how to effectively navigate the AI revolution in the Nigerian media.

Literature Review

Artificial intelligence (AI) is the development of computer systems capable of performing tasks that typically require human intelligence, such as visual perception, speech recognition, decision-making, and language translation (Mukasa, 2024). AI is already being used in newsrooms around the world in a variety of ways. For example, AI is being used to automate the process of transcribing interviews, translating languages, and generating news summaries. AI is also being used to help journalists personalize content for their audiences (Guanah, Agbanu & Obi, 2020). Additionally, AI is being used to create new forms of investigative reporting and to help verify and fact-check information. It is important to note that the impact of AI on journalism practice in Nigeria is not limited to the newsroom. AI is also impacting how news is consumed and shared. For example, AI is also being used to personalize the user experience. For instance, some news organizations are using AI to recommend articles to readers based on their interests (Nwanyanwu & Nwanyanwu, 2021). There are a number of studies that have examined the impact of AI on journalism globally. For example, a study by the Tow Center for Digital Journalism found that AI is being used in a variety of ways to support journalism, such as automating tasks, providing insights into data, and creating new forms of storytelling (Mukasa, 2024).

According to Atoi, (2024), in Nigeria, AI is being used to help journalists overcome the challenges of reporting in a complex and rapidly changing environment. Another study by the Reuters Institute for the Study of Journalism found that journalists are generally optimistic about the potential of AI to support journalism. However, the study also found that journalists are concerned about the potential for AI to be used to create fake news or to spread propaganda (Marconi, 2020). Udoh, Nsude & Oyeleke, (2022) found that journalists in Nigeria are generally aware of AI and its potential to impact journalism. However, the study also found that journalists in Nigeria are concerned about the potential for AI to lead to job losses in the journalism industry. Iyinolakan, (2023) found that AI is already being used in Nigerian newsrooms to automate tasks, personalize content, and even generate news stories. The study also found that AI is helping to create new forms of investigative reporting and to help verify and fact-check information. The impact of AI on journalism practice in Nigeria is still unfolding. However, AI is a transformative technology that can revolutionize how journalism is practiced in Nigeria (Mukasa, 2024).

AI Applications in Nigerian Journalism

AI tools are being employed in Nigerian newsrooms in a variety of ways, including:

1. **Automated content creation:** AI is being used to generate news summaries, data visualizations, and even entire news articles. This is helping journalists be more efficient and productive, and it is also helping to create new forms of journalism (Nwanyanwu & Nwanyanwu, 2021). For example, the Nigerian news agency, *The Punch*, is using AI to generate news summaries and translate languages (Bello, Salaudeen & Umeaku, 2023).
2. **Content personalization and recommendation systems:** AI is being used to personalize content for audiences and recommend articles to readers based on their interests. This is helping news organizations reach new audiences and increase engagement with their content (Bello *et al.*, 2023). For example, the Nigerian newspaper, *The Guardian*, is using AI to recommend articles to readers based on their interests (Hansen, Roca-Sales, Keegan & King, 2017).

3. **Social media monitoring and analysis:** AI is being used to monitor social media platforms for breaking news and analyze public sentiment. This is helping journalists stay ahead of the news cycle and better understand the public mood (Latar, 2018). For example, the Nigerian television station, *Channels TV*, is using AI to monitor social media platforms for breaking news.
4. **Fact-checking and combating misinformation:** AI is being used to help verify and fact-check information and combat the spread of misinformation. This is helping to ensure that the public has access to accurate and reliable information (Alzoubi *et al.*, 2024). For example, the Nigerian fact-checking organization, *Africa Check*, is using AI to help verify and fact-check information.

Potential Benefits of AI in Nigerian Journalism

1. **Increased efficiency and productivity:** A key driver for the adoption of AI in Nigerian journalism is the pursuit of increased efficiency and productivity. AI-powered tools can automate various tasks, such as transcribing interviews, translating languages, and generating news summaries. This automation frees up journalists' time, allowing them to focus on more complex and creative aspects of their work, such as investigative journalism and in-depth reporting (Bello *et al.*, 2023).
2. **Enhancing News Quality and Accuracy:** AI is instrumental in enhancing news quality and accuracy. AI-powered fact-checking tools can quickly verify information, combating the spread of misinformation and fake news (Hansen *et al.*, 2017). This not only improves the credibility of news organizations but also fosters trust among the audience. Additionally, AI algorithms can analyze vast amounts of data to identify patterns and trends, leading to more insightful and data-driven news stories (Alzoubi *et al.*, 2024).
3. **Expanding Reach and Audience Engagement:** AI is pivotal in expanding the reach of news organizations and enhancing audience engagement. AI-powered translation tools can break down language barriers, making news content accessible to a wider audience (Lawal, 2023). This is particularly relevant in Nigeria, where linguistic diversity is a hallmark of the media landscape. Additionally, AI algorithms can personalize news delivery, recommending content based on user preferences and behavior. This personalization not only increases audience satisfaction but also fosters loyalty and engagement (Ade-Ibijola & Okonkwo, 2023).
4. **Cost Reduction and Resource Optimization:** AI can contribute to cost reduction and resource optimization in Nigerian journalism. AI-powered tools can automate tasks that are traditionally labor-intensive, such as transcribing interviews and generating news summaries. This automation not only saves time but also reduces the need for additional human resources. Additionally, AI algorithms can optimize content distribution, ensuring that news reaches the right audience at the right time, minimizing wasted resources (Saad & Issa, 2020).

Challenges and Concerns of AI in Nigerian Journalism

While the integration of Artificial Intelligence (AI) into journalism practice in Nigeria presents a plethora of opportunities, it is essential to acknowledge and address potential drawbacks.

1. **Job Displacement and Skills Gap:** One of the most pressing concerns is the potential for job displacement. As AI-powered tools become more sophisticated, they may automate tasks previously performed by human journalists, leading to job losses (Schmelzer, 2018). This is particularly concerning in the Nigerian context, where the journalism industry is already facing challenges such as job insecurity. Additionally, the integration of AI may lead to a skills gap, as journalists need to adapt to new technologies and acquire new skills to remain relevant (Guanah & Ijeoma, 2020).
2. **Mitigating Algorithmic Bias and Ethical Considerations:** AI algorithms are trained on data, and if this data is biased, the AI system will also be biased. In the context of journalism, this can lead to the spread of misinformation and the amplification of harmful stereotypes. Therefore, it is crucial to ensure that AI

systems are trained on diverse and unbiased data. Additionally, human oversight is essential to ensure that AI-generated content is accurate and fair (Christian, 2024).

3. **Addressing Dependence on Technology and Infrastructure Limitations:** The successful integration of AI into Nigerian journalism is contingent on the availability of robust technological infrastructure. This includes reliable internet connectivity, access to advanced AI tools, and the availability of skilled personnel to manage and maintain AI systems (Nneji, 2024). However, Nigeria's technological infrastructure is still developing, and there are concerns that this may hinder the widespread adoption of AI in journalism (Ibrahim, Liu, Asim, Battu, Benabderrahmane, Alhafni & Zaki, 2023).
4. **Maintaining Journalistic Integrity and Credibility:** The use of AI in journalism raises concerns about the potential threats to journalistic integrity and credibility. AI-powered tools can generate news content, but they may not always adhere to the ethical standards and professional norms of journalism (Ibrahim *et al.*, 2023). This can lead to the spread of misinformation and the erosion of public trust in the media. Therefore, it is crucial to ensure that AI is used in a way that complements and enhances human journalism, rather than replacing it altogether (Ade-Ibijola & Okonkwo, 2023).

AI Integration in Nigerian Media - Case Studies

A comprehensive examination of the impact of AI on journalism practice in Nigeria necessitates a close look at specific case studies. These real-world examples provide insights into the successes and challenges of AI integration in the Nigerian media scene. One notable case study is the United Bank for Africa's (UBA) introduction of Leo, Africa's first AI chatbot. Leo serves as a financial assistant, providing customers with personalized financial advice and assistance. Leo's success underscores the potential of AI to enhance customer engagement and service delivery in the media industry (Afolabi, Oladesu, Siyanbola, Adeloye, & Odewole, 2024). Despite the successes, there have been challenges in integrating AI into the Nigerian media landscape. The case of the Akure-based Print designers, who had limited awareness of AI and its applications, underscores the need for increased AI literacy and training among media professionals. Another challenge is the potential for AI to perpetuate biases and spread misinformation. The case of the 2023 general elections, where AI-generated content was used to spread fake news and disinformation, highlights the need for ethical guidelines and human oversight in AI-driven journalism (Afolabi *et al.*, 2024).

Future Trends and Implications

Emerging AI Technologies in Nigerian Journalism

The future of journalism in Nigeria is poised for a significant transformation with the advent of emerging AI technologies. These advancements promise to redefine how news is gathered, processed, and delivered, opening up new possibilities for investigative journalism, personalized news experiences, and immersive storytelling formats.

1. **AI-Powered Investigative Journalism:** AI can be a game-changer for investigative journalism in Nigeria. AI algorithms can sift through vast troves of data, such as public records, financial reports, and social media feeds, to identify patterns, anomalies, and potential leads that may be missed by human journalists. This can help investigative journalists to uncover corruption, expose wrongdoing, and hold power to account. Additionally, AI-powered tools can assist in verifying information and authenticating sources, ensuring the accuracy and credibility of investigative reports.
2. **Personalized News Experiences:** AI can usher in a new era of personalized news experiences in Nigeria. AI algorithms can analyze user data, such as reading habits, interests, and location, to curate and deliver news content tailored to individual preferences. This can enhance audience engagement and satisfaction by ensuring that readers receive news that is relevant and meaningful. Furthermore, AI-powered news

aggregators can filter through various news sources and provide readers with a balanced and comprehensive view of events, catering to their specific information needs.

3. **Immersive Storytelling Formats:** AI can revolutionize storytelling formats in Nigerian journalism. AI-powered tools can create interactive data visualizations, 360-degree videos, and augmented reality experiences that immerse readers in the news. This can make news more engaging and accessible, particularly for younger audiences who are accustomed to consuming information in a multimedia format. Additionally, AI can assist in automating the production of multimedia content, such as generating subtitles for videos and creating audio versions of news articles, making news more accessible to a wider audience.

Implications for the Future

The implications of AI for the Nigerian media are significant, with the potential to reshape news consumption habits, media ownership and control, and the role of journalists in society.

1. **News Consumption Habits:** AI is poised to revolutionize news consumption habits in Nigeria. As AI-powered personalized news experiences become more prevalent, audiences will likely gravitate towards curated content that aligns with their interests and preferences. This may lead to a decline in the consumption of general news sources and an increase in the use of niche news aggregators. Additionally, the rise of immersive storytelling formats, such as interactive data visualizations and AI-generated 360-degree videos, may transform how audiences engage with news content.
2. **Media Ownership and Control:** The increasing use of AI in journalism may also impact media ownership and control in Nigeria. AI technologies can be expensive to develop and implement, potentially giving larger, well-funded media organizations an advantage. This may lead to further concentration of media ownership and control in the hands of a few, potentially stifling independent journalism and diverse voices. However, the availability of open-source AI tools and the potential for collaborative AI development may also empower smaller media organizations and independent journalists, fostering a more diverse and competitive media landscape.
3. **The Role of Journalists in Society:** The role of journalists in society may also evolve with the integration of AI into journalism practice. As AI-powered tools take over routine tasks, such as data collection and basic reporting, journalists may have more time to focus on investigative journalism, in-depth analysis, and holding power to account. This may elevate the role of journalists as critical thinkers and storytellers, enhancing their ability to serve the public interest. However, it is essential for journalists to adapt to the changing media landscape and acquire new skills to remain relevant in the AI-driven era.

Summary

This paper has explored the impact of AI on journalism practice in Nigeria. The findings highlight the potential of AI to revolutionize newsgathering, processing, and dissemination, while also acknowledging the challenges and concerns that accompany this technological wave. AI is being used in Nigerian newsrooms to automate tasks, personalize content, and even generate news stories. This is helping journalists to be more efficient and effective, and it is also helping to create new forms of journalism and to reach new audiences. However, AI is also raising several ethical challenges for journalists. For example, there is the risk that AI could be used to create fake news or spread propaganda. There is also the risk that AI could lead to job losses in the journalism industry.

Conclusion

The future of journalism in Nigeria is intertwined with the development and integration of AI technologies. AI has the potential to reshape news consumption habits, media ownership and control, and the role of journalists in

society. The Nigerian media can harness the power of AI to enhance its service to the public and contribute to a more informed and engaged citizenry by embracing these advancements responsibly and addressing the associated challenges.

Recommendations

For Media Organizations: Media organization should:

1. Invest in comprehensive training programs to educate journalists and editors about AI, its applications in journalism, and its ethical implications.
2. Partner with AI developers to create and customize AI tools that cater to the specific needs and challenges of Nigerian journalism.
3. Develop and implement clear ethical guidelines for the use of AI in journalism to ensure fairness, accuracy, and transparency.
4. Advocate for policies that improve internet connectivity and access to AI technologies, particularly for smaller and community-based media organizations.
5. Encourage a culture of innovation and experimentation with AI tools and technologies to stay ahead of the curve in the evolving media landscape.

For Journalists: Journalist should:

1. Invest in continuous learning to acquire new skills in data analysis, multimedia storytelling, and AI literacy to remain relevant in the changing media landscape.
2. Remain committed to the core principles of journalism, such as accuracy, fairness, and transparency, even when using AI-powered tools.
3. Collaborate with AI developers and data scientists to create and refine AI tools that enhance journalistic capabilities.
4. Critically evaluate AI-generated content and insights to ensure accuracy, fairness, and alignment with journalistic standards.

For Policymakers: The policymakers should

1. Develop and support AI literacy programs for the general public to foster a more informed and critical understanding of AI and its implications for society.
2. Invest in improving internet connectivity and access to AI technologies, particularly for underserved communities and smaller media organizations.
3. Develop clear regulatory frameworks for the ethical development and deployment of AI in journalism to ensure fairness, transparency, and accountability.
4. Support research and development of AI technologies that cater to the specific needs and challenges of the Nigerian media landscape.

Suggestions for Future Research

Future research could focus on conducting empirical studies to gather quantitative and qualitative data on the impact of AI on Nigerian journalism. This could include investigating the effects of AI on audience engagement, the ethical implications of AI-generated content, and the long-term effects of AI on the journalism profession. Additionally, future research could explore the potential of AI to support and promote indigenous language journalism in Nigeria, addressing the issue of linguistic diversity in the media landscape.

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