

## **ETHICAL CONCERNS IN ARTIFICIAL INTELLIGENCE USAGE FOR NEWS PRODUCTION: A SURVEY OF PERCEPTION OF JOURNALISTS IN RADIO STATIONS IN KWARA STATE, NIGERIA**

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### **Abstract**

This study investigated the ethical concerns surrounding the use of Artificial Intelligence (AI) in news production, focusing on the perceptions of journalists in radio stations across Kwara State, Nigeria. This research employed a descriptive survey method involving 67 journalists drawn from four NUJ-registered radio stations in the state. Findings revealed that AI adoption in radio journalism remains limited, with most respondents reporting only occasional or rare use. Among those who use AI, the most cited ethical concerns were loss of editorial independence, job displacement, and bias in AI-generated content. Additionally, a significant majority disagreed that replacing human journalists with AI is ethically acceptable, even amid economic pressures. In terms of ethical safeguards, the most common practices include verifying AI-generated content and collaborating with human editors. However, transparency remains a concern, as only 10% of respondents disclose AI-assisted content to their audience. The study concluded that while journalists in Kwara State acknowledged AI's benefits, they remain cautious of its ethical implications and prioritize human oversight. It recommended the development of clear ethical guidelines, training programs on AI literacy, and mandatory disclosure practices to ensure trust, accountability, and journalistic integrity in AI-assisted newsrooms.

**Keywords:** Artificial Intelligence, Editorial Independence, Journalism Ethics, Journalists' Perception, Radio News Production

### **Introduction**

Globally, every profession has a set of guiding principles that its practitioners are expected to follow to attain excellence. These

principles are referred to as ethics. The field of journalism is no exception. Onyebuchi, Obayi, Udorah, and Onwukwaluonye (2019)

emphasize that following ethical standards is particularly crucial in journalism to earn public trust.

However, the methods by which traditional media in the news industry gather, write, edit, store, retrieve, and disseminate news are undergoing significant changes. The demand for data, effective information management, and the urgency in a data-driven society are generating substantial opportunities that prompt a reevaluation of digital work tools, ultimately enhancing the core objectives and ethics of journalism and the news industry (Okocha & Ola-Akuma, 2019). The implication of this is that journalists have no choice than to adapt to the demands of a data-driven society by embracing digital tools.

Journalists in Nigeria are progressively recognizing the incorporation of artificial intelligence into the news production process (Udoh, Nsude & Oyeleke, 2022). These AI-powered writing tools are becoming popular in newsrooms, as various Nigerian news organizations start to explore their potential in their usage. AI writing tools are being tested for a range of tasks, such as content creation, fact-checking, and editing. Their use is increasing among journalists seeking to optimize their writing process and produce high-quality content more effectively (Alekhugie, 2023).

Amid current economic difficulties, many radio stations in Nigeria have faced challenges in hiring and keeping sufficient newsroom staff due to financial limitations. This staffing shortage has impeded their capacity to fulfill crucial content production requirements. An increasing number of journalists are stating that they work as unpaid volunteers or receive stipends significantly lower than the national minimum wage, underscoring the unstable conditions in the industry (Salkida, 2025). The Broadcasting Organization of Nigeria (BON) has recognized this issue. Arise TV

(2022 para.4) quoted BON stating that “there are ominous signs that danger of high magnitude is looming in Nigeria as the conventional media, which has been the stabilising factor in maintaining political stability, security and peace of the country is under serious threat due to the harsh economic environment.” In light of this situation, adopting artificial intelligence (AI) technologies could offer a solution to address the human resource gap. AI tools could be utilized to automate news gathering, editing, and presentation, thereby decreasing dependence on human labor and reducing operational costs (Linden, 2017).

Given the increasing incorporation of AI in journalism in Nigeria, it is important to approach this trend with caution and skepticism. Although AI technologies offer the potential to improve efficiency and broaden the scope of news production, there are serious concerns about their possible implications and impacts. Therefore, it is essential to critically evaluate how journalists at radio stations perceive the ethical ramifications of using AI in news production.

### **Statement of the Problem**

While the use of Artificial Intelligence in news production brings many advantages, it also raises growing ethical concerns. These include worries about the future of human jobs in journalism, the potential impact on the quality and trustworthiness of news, a lack of transparency and accountability, and ongoing debates over who should determine what information is truly important for the public to know. For instance, Diakopoulos (2019a) pointed out the ethical challenges that come with automating news production, especially regarding objectivity and journalistic independence. He emphasized that as technology companies gain more control over how news is produced, traditional news organizations are losing that influence. These shifts raise serious ethical questions,

particularly as artificial intelligence becomes more integrated into newsroom practices.

Furthermore, many studies have been conducted on awareness, adoption and perception of Nigerian journalists on application of Artificial intelligence in journalism practice (Bello, Salaudeen & Umeaku, 2023; Guanah, Agbanu & Obi, 2020; Lawal, 2024; Sholola et al, 2024; Udoh, Nsude & Oyeleke, 2022; Ukwela, 2021), none of these studies have specifically explored the ethical perceptions of journalists in radio stations in Nigeria regarding the integration of AI tools in news production. This presents a critical gap in scholarship, particularly given the unique operational and economic challenges faced by radio stations in Nigeria.

### **Research Questions**

1. What is the frequency of the usage of artificial intelligence tools for news production among journalists in radio stations in Kwara State?
2. What specific ethical concerns are associated with the use of AI in news production by journalists in radio stations in Kwara State?
3. To what extent do journalists in radio stations in Kwara State consider the replacement of human roles with AI tools as ethically acceptable?
4. What strategies or guidelines do journalists in radio stations in Kwara State employ for the ethical use of AI in the news production?

### **Literature Review**

#### **Artificial Intelligence and News Production**

In the 1950s, Artificial Intelligence (AI) was defined as a branch of science focused on creating robots capable of imitating human behavior (Russell & Norvig 2019). Beckett (2019) defines AI as a blend of concepts, tools, and methods that allow computer systems and software to undertake tasks that require significant intellectual effort.

According to Lawal (2024), artificial intelligence involves replicating human intelligence in machines, allowing them to think, learn, and perform tasks similar to humans. Lawal (2024) emphasizes that AI includes various subfields such as natural language processing, robotics, machine learning, expert systems, and computer vision, which work together to achieve intelligent behavior. This technology allows machines to learn and carry out tasks autonomously at a quicker and more efficient rate. The definition by Lawal (2024) is adopted in this study because it clearly captures the core concept of artificial intelligence as the replication of human intelligence in machines, which is central to understanding its ethical implications in news production.

At its core, news refers to information about recent events that are unusual, significant, or have an impact on society. As noted by Pednekar, Kulkarni, and Mahanwar (2022), "news" generally implies the delivery of new information. It encompasses updates on current events that can be shared through various media. Ude (2018) defines it as the timely reporting of opinions that are of interest or importance to a large audience. Kamal (2017) further emphasizes that news should also be understandable to the audience. The esteemed British editor Northcliffe, as mentioned by Suntar and Vakkai (2014) in Oloyede et al. (2024), defines news as that which someone somewhere does not want published or wishes to suppress, with everything else being considered advertising. Essentially, news consists of significant information from various sources (North, East, West, and South) that merits attention due to factors such as prominence, proximity, impact, oddity, consequence, and human interest (Ukozie, 2015). Ukozie's definition is adopted in this study as it effectively outlines the key elements of news, including

prominence, proximity, impact, immediacy, conflict, oddity, consequence, and human interest.

The integration of AI in journalism has significantly enhanced the speed and breadth of coverage. With AI, media organizations can more easily collect, process, and distribute information on both local and global issues, thereby broadening the scope of civic engagement beyond individual communities or nations. AI has transformed communication and the methods of news reporting. This advancement is possible because when journalists utilize AI alongside their traditional skills, the news gathering and reporting processes become faster, allowing journalists to focus on higher-level tasks and deliver content more quickly and cost-effectively (Guanah, Agbanu & Obi, 2020).

AI functions in newsgathering encompass not just the collection of materials and sourcing information but also aiding editorial teams in evaluating what might engage users, generating story ideas, spotting trends, and extracting relevant information or content (Beckett, 2019).

Simultaneously, AI is revolutionizing journalism in the area of news production, where algorithms can create news stories independently of human input. This technology, exemplified by the Associated Press, is especially beneficial for generating data-driven reports like financial updates, sports news, and weather forecasts (Kalfeli & Angeli, 2025).

According to Clerwall (2014), automated journalism allows for the production of news content at a pace and scale far beyond what humans can achieve, giving newsrooms the ability to cover more topics and deliver updates more quickly. In addition, AI technologies such as natural language processing (NLP) and machine learning are valuable tools for journalists. They help in analyzing vast amounts of data, spotting patterns, and even suggesting possible story

directions, thereby enhancing both research and writing processes. Furthermore, Casswell and Dörr (2018) highlight that AI can improve investigative journalism by revealing hidden patterns within extensive data, allowing journalists to create more thorough and detailed stories.

For instance, AI algorithms are capable of scanning social media platforms, public records, and other data sources to provide journalists with real-time insights, allowing them to respond quickly to breaking news. Moreover, AI-powered tools like chatbots and personalized news recommendation systems have transformed user engagement by tailoring content to suit individual interests and preferences (Nguyen, 2020).

### **AI and Ethical Concerns in News Production**

The growing use of AI in news writing, editing, and distribution has raised important ethical concerns. Scholars like Frost (2015), van Dalen (2020), and Ward (2018) stress that ethical journalism depends on truthfulness, accuracy, and fairness to maintain public trust. Kalfeli and Angeli (2025) identified key challenges in AI-driven journalism, including transparency, accountability, data privacy, algorithmic bias, and copyright issues. Similarly, Dierickx et al. (2024) highlighted concerns around accuracy, fairness, and transparency, while Somorin and Ademola (2024) emphasized algorithmic bias, lack of transparency, accountability, and broader societal impacts. Some of these ethical concerns are further explained below:

**Bias and Fairness:** Bias and fairness are key ethical concerns in the use of AI for news reporting. AI systems trained on biased or non-representative data can unintentionally produce skewed content, leading to misinformation and harming marginalized groups (Gillmor, 2020). Such bias threatens the credibility of journalism by eroding public trust and reinforcing stereotypes

(Somorin & Ademola, 2024). Fair reporting requires the use of balanced, unbiased methods (Helberger & Diakopoulos, 2022; Ward, 2015). Journalists must carefully evaluate AI-generated content and provide context to minimize errors and bias. Addressing these ethical issues is essential for preserving journalistic integrity while embracing AI's benefits (Somorin & Ademola, 2024).

**Transparency:** Transparency, which involves uncovering the hidden factors that shape news content, is a core principle in journalism, especially in open practices like data journalism (Zamith, 2019). However, the ethical issues surrounding transparency in AI-driven journalism are complex, involving the data used, the algorithms applied, and the outputs produced (Karlsson, 2020). Achieving true transparency is challenging, as many journalists lack the technical knowledge to fully understand how these algorithms work (Porlezza & Eberwein, 2022). This becomes even more difficult with deep learning models, which are often so complex that even their developers struggle to interpret them (Burkart & Huber, 2021). Diakopoulos (2019b) advocates that news organizations must be open about their use of AI and clearly explain how automated content is produced, as this is key to maintaining public trust.

**Accountability:** Accountability is a core ethical value in journalism, but it becomes more complex with the adoption of AI technologies. Siau and Wang (2018) and Rai (2020) emphasize that accountability is crucial for building trust, not only with audiences but also among journalists who rely on AI tools. However, when content is generated by automated systems, it's often unclear who should be held responsible for errors, bias, or misinformation. This raises difficult questions about whether responsibility lies with the developers, the journalists, or the news organizations.

García-Avilés (2021) argues that to manage this challenge, there must be a clear accountability framework. Strong policies and procedures are needed to detect, address, and correct inaccuracies in AI-generated news content.

**Human Oversight:** Human oversight remains crucial in ensuring that editorial judgment and ethical reasoning guide journalistic practices, even with the growing use of AI tools. While AI can support tasks like content creation and data analysis, final decisions should rest with human professionals to preserve context, nuance, and responsibility. Kalfeli and Angeli (2025) found that Greek journalists are particularly wary of fully automated systems, which may overlook cultural and moral sensitivities. Likewise, Dierickx et al. (2024) stress that ethical journalism requires more than technical checks, it demands professional judgment to evaluate AI-generated content for accuracy, fairness, and relevance.

**Job displacement:** Another major concern is the possibility of job displacement resulting from the rapid advancement of AI in journalism. As AI systems become more proficient at handling complex tasks, there is growing anxiety that they could replace human journalists, particularly in functions like routine reporting and data analysis. This technological shift threatens not only employment opportunities but also the inherent value of human journalistic skills and insights, which may be overshadowed by automated processes (Amponsah & Atianashie, 2024).

### **Empirical Review**

Osoba and Welser (2017) examined how AI systems, especially those using machine learning, can replicate and amplify human biases due to flawed training data. Using real-world examples, they highlighted risks like opaque algorithms and feedback loops that lead to discrimination. They recommended

improving transparency, data diversity, and human oversight to reduce these ethical risks. In their study titled “The Ethical Revolution: Challenges and Reflections in the Face of the Integration of Artificial Intelligence in Digital Journalism,” Forja-Pena, García-Orosa, and López-García (2024) examined the views of communication professionals by analyzing 99 codes of ethics and 14 international press associations. Additionally, they explored audience perceptions through a survey conducted with nearly 2,000 respondents. The findings revealed that both the public and journalists are concerned about the misinformation that AI could generate and the potential erosion of trust between journalists and the audience. A significant majority of people are calling for external regulation of AI use to uphold the values, ethical principles, and best practices of journalism.

Omar, Normahfuzah, and Norsiah (2024) employed a qualitative methodology to investigate the ethical dilemmas that journalists encounter with AI. Their findings indicated that the primary ethical challenges in newsrooms when integrating AI include data bias, privacy infringements, and the lack of legislation and international regulations governing AI usage in journalism.

### **Theoretical Framework**

This study is grounded in the Social Responsibility Theory, a normative framework that asserts the media's accountability to society. Although the theory primarily emphasizes the relationship between media and government (Abigail, 2019), it posits that information technologies (in this case, AI adoption in journalism) should not be viewed as ends in themselves but as tools for fostering civil society.

Journalists play a key role in shaping the information the public receives through their choices in news coverage and presentation. What stories are told, which sources are used, and how the information is delivered are all influenced by journalistic judgment. Ethical journalists understand that these decisions should prioritize the public interest and align with established ethical principles, ensuring that their reporting serves the greater good (Omar, Normahfuzah, & Norsiah, 2024). Technology has the potential to transform society (Ahmad, 2017). Any technology utilized in news production can affect journalists' behavior over time and eventually alter newsroom working conditions (Omar et al., 2024). Therefore, these considerations make the theory particularly relevant to the study of AI adoption and journalistic ethics.

### **Methodology**

The study employed a descriptive survey research design. The population consisted of registered members of the Nigerian Union of Journalists (NUJ) from the Kwara State Chapter, which includes journalists from Radio Kwara (34), Harmony FM (14), Sobi FM (8), and Unilorin FM (17). Journalists from other radio stations in the state were excluded as they were not NUJ members (source: General Secretary, NUJ, Kwara State Chapter). This resulted in a total of seventy-three (73) registered journalists across four (4) radio stations. A census sampling technique was utilized, meaning the entire population was included in the sample since it was fewer than 200, allowing for a high level of precision (Singh & Masuku, 2014). Questionnaire was used for data collection, and the gathered data were analyzed using SPSS (version 23) with frequency tables and simple percentages.

### Data Presentation

A total of sixty-seven (67) respondents filled the questionnaire out of the possible seventy-three (73). Therefore, analysis is based on the number of respondents that filled the questionnaire.

**Table 1: Demographic Characteristics of Respondents**

Gender	Frequency	Percentage
Male	43	64.2%
Female	24	35.8%
Total	67	100%
Age	Frequency	Percentage
18-38 years	25	37.3%
39-59 years	31	46.3%
60 years and above	11	16.4%
Total	67	100%
Qualifications	Frequency	Percentage
PhD	1	1.5%
M.Sc/M.Ed/M.A/MPR	12	17.9%
B.Sc/B.A/LL.B	35	52.2%
HND	19	28.4%
NCE/OND	-	-
SSCE	-	-
Total	67	100%

Table 1 shows that the sample was male-dominated, with 64.2% male and 35.8% female respondents. Most participants were aged 39–59 years (46.3%), indicating a largely middle-aged demographic. In terms of education, a majority of the respondents (52.2%) held a Bachelor's degree.

### Research Question 1: What is the frequency of the usage of artificial intelligence tools for news production among journalists in radio stations in Kwara State?

**Table 2: Frequency of the usage of artificial intelligence (AI) tools in news production tasks by respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Frequently	4	6.0	6.0	6.0
Frequently	12	17.9	17.9	23.9
Occasionally	20	29.9	29.9	53.7
Rarely	14	20.9	20.9	74.6
Never	17	25.4	25.4	100.0
Total	67			

Table 2 shows that most respondents use AI tools occasionally (29.9%), while 25.4% reported never using them and 20.9% use them rarely. This indicates that although AI is integrated in news production, its regular or intensive use remains limited.

Since seventeen (17) respondents never used artificial intelligence tools in their news production, all other analysis were based on the fifty (50) respondents that made used of artificial intelligence tools in their news production.

**Research Question 2: What specific ethical concerns are associated with the use of AI in news production by journalists in radio stations in Kwara State?**

Table 3: Ethical concerns that respondents personally associated with the use of AI in radio news production? (*multiple responses were recommended*)

	Responses		
	N	Percent	Percent of Cases
Job displacement of human journalists	22	28.6%	44.0%
Loss of editorial independence	28	36.4%	56.0%
Bias in AI-generated content	14	18.2%	28.0%
Lack of transparency in how - AI tools work	-	-	-
Lack of accountability for errors made by AI	13	16.9%	26.0%
None of the above	-	-	-
Total	77	100.0%	154.0%

a. Dichotomy group tabulated at value 1.

Table 3 shows that the most cited ethical concern was loss of editorial independence (36.4%), followed by job displacement of human journalists (28.6%). These concerns, representing 56.0% and 44.0% of all cases respectively, indicate strong awareness of the ethical implications of AI in news production.

**Research Question 3: To what extent do journalists in radio stations in Kwara State consider the replacement of human roles with AI tools as ethically acceptable?**

Table 4: *Respondents responses on whether they agreed with the following statement: "Given the current economic challenges facing radio stations, it is ethically acceptable to use artificial intelligence (AI) tools to replace certain human roles in news production."*

				Cumulative
	Frequency	Percent	Valid Percent	Percent



Valid	Strongly Agree	-	-	-	-
	Agree	10	20.0	20.0	20.0
	Undecided	9	18.0	18.0	38.0
	Disagree	18	36.0	36.0	74.0
	Strongly Disagree	13	26.0	26.0	100.0
	Total	50			

Table 4 shows that most respondents disagreed with the ethical acceptability of using AI to replace human roles in news production, with 36.0% disagreeing and 26.0% strongly disagreeing making a total of 62.0% opposition. This indicates broad discomfort with such automation despite economic challenges.

#### Research Question 4: What strategies or guidelines do journalists in radio stations in Kwara State employ for the ethical use of AI in news production?

Table 5: Ethical practices respondents personally applied when using AI tools in their news production task (*multiple responses were recommended*)

	Responses		
	N	Percent	Percent of Cases
Verifying AI-generated content before airing	41	43.2%	82.0%
Declaring AI-assisted content to the audience	5	5.3%	10.0%
Avoiding full automation of news reporting	22	23.2%	44.0%
Collaborating with human editors to review AI outputs	23	24.2%	46.0%
None of the above	4	4.2%	8.0%
Total	95	100.0%	190.0%

a. Dichotomy group tabulated at value 1.

Table 5 shows that the most common ethical practice was verifying AI-generated content before airing (43.2%), applied in 82.0% of cases. This was followed by collaborating with human editors (24.2%) and avoiding full automation (23.2%), representing 46.0% and 44.0% of cases respectively. This implies that while respondents show strong commitment to verification and oversight, transparency to the audience remains notably low.

### **Discussion of findings**

The findings indicate that AI usage among journalists in Kwara State radio stations is relatively low. As shown in Table 2, only a few respondents reported using AI tools frequently, while the majority use them occasionally, rarely, or not at all. This suggests that AI has yet to become a routine part of newsroom operations. The limited adoption may reflect concerns noted by Osoba and Welser (2017), who observed that AI systems can replicate human biases and produce errors due to flawed or non-representative data. Their study emphasized the risks of opaque algorithms and lack of accountability, which may contribute to journalists' cautious approach and reluctance to fully integrate AI into their editorial processes.

Furthermore, the main ethical concerns associated with AI use in news production are loss of editorial independence and job displacement, with additional concerns about bias and lack of accountability (as shown in Table 3). These align with findings by Forja-Peña et al. (2024), who noted widespread apprehension about AI's potential to erode public trust and spread misinformation. These concerns highlight a commitment to protecting journalistic integrity, autonomy, and professional standards by journalists locally and globally.

As shown in Table 4, most respondents disagreed with the ethical acceptability of replacing human roles with AI tools, and none strongly agreed. This reflects strong ethical resistance to automation in journalism. The reluctance suggests concerns about losing human judgment, editorial sensitivity, and accountability which are core principles of journalistic ethics. These views are consistent with Omar, Normahfuzah, and Norsiah (2024), who identified issues like data bias, weak legal frameworks, and privacy risks as key barriers to ethical AI adoption in journalism.

Finally, regarding strategies for ethical AI use, Table 5 shows that the most common practice among respondents is verifying AI-generated content before broadcasting, followed by collaborating with human editors and avoiding full automation. However, very few disclose AI use to their audience, revealing a significant gap in transparency. This suggests that while internal safeguards are prioritized, public accountability is lacking. These findings align with Forja-Peña et al. (2024), who advocate for external regulation to uphold ethical standards and transparency in AI-assisted journalism.

### **Conclusion**

This study investigated perception of ethical concerns in the usage of artificial intelligence (AI) tools in news production among journalists in radio stations in Kwara State. The findings reveal that usage of AI in news production by journalists in radio stations in Kwara State is relatively low, with most journalists applying them occasionally or rarely. Ethical concerns are widespread, particularly regarding loss of editorial independence, job displacement, misinformation, and accountability for AI-generated errors. The majority of journalists rejected the notion that replacing human roles with AI is ethically acceptable, even in the face of economic challenges. Despite this, many respondents reported applying ethical practices such as verifying AI-generated content and maintaining human oversight. However, transparency in disclosing AI use to audiences remains notably low. These findings align with previous global studies and highlight the tension between technological advancement and journalistic integrity.

### **Recommendations**

- i. Media organizations and regulatory bodies in Nigeria should develop clear, context-specific ethical guidelines for AI use in journalism, ensuring they

- address local realities and concerns of journalists in Nigeria.
- ii. Regular training programs should be organized for journalists by media organizations to improve their understanding of AI technologies, ethical implications, and best practices in integrating AI into newsroom activities.
- iii. Journalists and media houses should adopt policies that require disclosure to audiences when AI tools are used in news content creation, to promote trust and accountability.
- iv. Rather than replacing human roles, media houses should focus on encouraging collaborative approaches where AI supports, but does not override, human editorial judgment.

## References

- Abigail, M. (2019, November 15). Social Responsibility Theory: A theoretical analysis of the media landscape in Ghana. The Black Ink. <https://abigailmercywrites.wordpress.com/2019/11/15/social-responsibility-theory-a-theoretical-analysis-of-the-media-landscape-in-ghana/>
- Ahmad, N. (2017). The decline of conventional news media and challenges of immersing in new technology. *eSharp*, 25(1), 71-82.
- Alekhugie, N. (2023). Effects of Artificial Intelligence in Newsroom. Retrieved from <https://www.thisdaylive.com/2023/05/18/effects-of-artificial-intelligence-in-newsroom/>
- Amponsah, P. N., & Atianashie, M. A. (2024). Navigating the new frontier: A comprehensive review of AI in journalism. *Advances in Journalism and Communication*, 12(1), 1-17 <https://doi.org/10.4236/ajc.2024.121001>
- Arise TV (March, 2022). Nigerian Broadcast Stations Gasping for Breath, BON Cries Out. Retrieve from: <https://www.arise.tv/nigerian-broadcast-stations-gasping-for-breath-bon-cries-out/>
- Beckett, C. (2019). *New Powers, New Responsibilities: A Global Survey of Journalism and Artificial Intelligence*. London: The London School of Economics.
- Bello, S., Salaudeen, A., & Umeaku, P. C. (2023). A survey of awareness and adoption of artificial intelligence journalism among Lagos and Kwara States journalists. *The Indonesian Journal of Communication Studies*, 16(2), 95–105.
- Burkart, N., & Huber, M. F. (2021). A survey on the explainability of supervised machine learning. *Journal of Artificial Intelligence Research*, 70, 245–317. <https://doi.org/10.1613/jair.1.12228>
- Casswell, D. & Dörr, K. (2018). Automated Journalism 2.0: Event-driven narratives: From simple descriptions to real stories. *Journalism Practice*, 12, 477–496. DOI: <https://doi.org/10.1080/17512786.2017.1320773>
- Clerwall, C. (2014). Enter the Robot Journalist: Users' perceptions of automated content. *Journalism Practice*, 8, 519–531. <http://dx.doi.org/10.1080/17512786.2014.883116>
- Diakopoulos, N. (2019a). Towards a design orientation on algorithms and automation in news production. *Digital Journalism*, 7(8), 1180-1184. [10.1080/21670811.2019.1682938](https://doi.org/10.1080/21670811.2019.1682938)
- Diakopoulos, N. (2019b). *Automating the news: How algorithms are rewriting the media*. Harvard University Press: Cambridge, MA, USA; London, UK.
- Dierickx, L., Opdahl, A. L., Khan, S. A., Lindén, C. G., & Guerrero Rojas, D. C. (2024). A data-centric approach for ethical and trustworthy AI in journalism. *Ethics and Information Technology*, 26, 64. <https://doi.org/10.1007/s10676-024-09801-6>
- Forja-Pena, T., García-Orosa, B. & LópezGarcía, X. (2024). The Ethical Revolution: Challenges and Reflections in the Face of the Integration of Artificial Intelligence in Digital Journalism. *Communication & Society*, 37(3), 237-254.

- Frost, C. (2015). *Journalism ethics and regulation* (4th ed.). Routledge. <https://doi.org/10.4324/9781315757810>
- García-Avilés, J. A. (2021). An inquiry into the ethics of innovation in digital journalism. In M. Luengo & S. Herrera-Damas (Eds.), *News media innovation reconsidered: Ethics and values in a creative reconstruction of journalism* (pp. 1–19). Wiley
- Gillmor, D. (2020). AI and Ethics: Impact on Journalism. *Journalism Practice*, 14(4), 456–467.
- Guanah, J. S., Agbanu, V. N., & Obi, I. (2020). Artificial Intelligence and Journalism Practice in Nigeria: Perception of Journalists in Benin City, Edo State. *International Review of Humanities Studies*, 5(2), 698–715.
- Helberger, N., & Diakopoulos, N. (2022). The European AI act and how it matters for research into AI in media and journalism. *Digital Journalism*. <https://doi.org/10.1080/21670811.2022.2082505>
- Kalfeli, P. & Angeli, C. (2025) The Intersection of AI, Ethics, and Journalism: Greek Journalists' and Academics' Perspectives. *Societies*, 15, 22. <https://doi.org/10.3390/soc15020022>
- Kamal, H. (2017). Does commercial orientation matter for policy-game framing? A content analysis of television and radio news programmes on public and private stations. *European Journal of Communication*, 29(4), 433–448.
- Karlsson, M. (2020). Dispersing the opacity of transparency in journalism on the appeal of different forms of transparency to the general public. *Journalism Studies*, 21(13), 1795–1814. <https://doi.org/10.1080/1461670x.2020.1790028>
- Lawal, B. A. (2024). Perception of registered journalists on the establishment of ethical framework and collaboration with Artificial Intelligence to ensure job security in Katsina State, Nigeria. *International Journal of Innovative Social Sciences & Humanities Research*, 12(1), 77–85.
- Linden, C.-G. (2017). Decades of automation in the newsroom. *Digital Journalism*, 5(2), 123–145.
- Nguyen, A. (2020). AI in Journalism: Opportunities, Challenges, and Ethical Implications. *Communications of the ACM*, 63(7), 72–79.
- Noain-Sánchez, A. (2022). Addressing the Impact of Artificial Intelligence on Journalism: The perception of experts, journalists and academics. *Communication & Society*, 35(3), 105–121.
- Okocha, D. O., & Ola-Akuma, R. O. (2022). Journalistic metamorphosis: Robot journalism adoption in Nigeria in a digital age. *Igwebuike: African Journal of Arts and Humanities*, 8(1), 255–294.
- Oloyede, O., Okoji, M. C., Agwolo, N. G., Azeez, M. A., & Okoji, C. T. (2024). Effect of news commercialization on audience perception of reality in Nigeria: A review of propaganda model. *African Journal of Social and Behavioural Sciences*, 14(1), 1–14.
- Omar A., Normahfuzah, A., & Norsiah, A. (2024). Artificial Intelligence in Newsrooms: Ethical Challenges Facing Journalists. *Studies in Media and Communication*, 12(1), 401–409.

- Onyebuchi, C. A., Obayi, P. M., & Udorah, C. M. (2019). Evaluation of adherence of journalists to the codes of journalism practice in Enugu State. *African Journal of Social Sciences*, 9(1), 13–37. Retrieved from <http://eprints.gouni.edu.ng/2187/1/Code%20of%20Journalism%20Practice.pdf>
- Osoba, O. A., & Welser, W. (2017). *An intelligence in our image: The risks of bias and errors in artificial intelligence* (RR-1744-RC). RAND Corporation. [[https://www.rand.org/pubs/research/\\_reports/RR1744.html](https://www.rand.org/pubs/research/_reports/RR1744.html)]([https://www.rand.org/pubs/research/\\_reports/RR1744.html](https://www.rand.org/pubs/research/_reports/RR1744.html))
- Pednekar, S., Kulkarni, R. D., & Mahanwar, P. (2022). *Introduction to journalism II* (S.Y.B.A., Semester IV, CBCS, Subject Code: UAJOUR401). University of Mumbai, Institute of Distance and Open Learning (IDOL). Mumbai University Press. <https://mu.ac.in/wp-content/uploads/2022/08/INTRODUCTION-TO-JOURNALISM-II.pdf>
- Porlezza, C., & Eberwein, T. (2022). Uncharted territory: Datafication as a challenge for journalism ethics. In Karmasin, M., Diehl, S. & Koinig, I. (ed.) *Media and change management* (pp. 343–361). Springer
- Rai, A. (2020). Explainable AI: From black box to glass box. *Journal of the Academy of Marketing Science*, 48(1), 137–141. <https://doi.org/10.1007/s11747-019-00710-5>
- Russell, S. & Norvig, P. (eds.) (2021). *Artificial Intelligence: A Modern Approach*, (4th ed.) Harlow, UK: Pearson.
- Salkida, A. (2025). Radio Silence: The Fragility of Independent Broadcasting in Nigeria. Retrieved from <https://humanglemedia.com/radio-silence-the-fragility-of-independent-broadcasting-in-nigeria/>
- Sholola, Y. A., Banjo, Y. O., Saliu-Yusuf, M. J., Ogundeyi, T. S., & Ayantunji, K. A.-A. (2024). Perceived effect of artificial intelligence on ethical journalism among journalists in Kwara State. *International Journal of Research and Innovation in Social Science (IJRISS)*, 8(2), 2051. <https://doi.org/10.47772/IJRISS>
- Singh, A.S. and Masuku, M.B. (2014) Sampling Techniques and Determination of Sample Size in Applied Statistics Research: An Overview. *International Journal of Economics, Commerce and Management*, 2, 1-22. <https://ijecm.co.uk/wp-content/uploads/2014/11/21131.pdf>
- Siau, K., & Wang, W. (2018). Building trust in artificial intelligence, machine learning, and robotics. *Cutter Business Technology Journal*, 31(2), 47–53.
- Somorin, K., & Ademola, O. E. (2024). Ethical imperatives in the era of AI journalism: Navigating the intersection of technology and responsibility. *Humanities, Management, Arts, Education & the Social Sciences Journal*, 12(2), 31–36. <https://dx.doi.org/10.22624/AIMS/HUMANITIES/V12N2P4>
- Ude, F. (2018). *The rudiments of news*. Enugu: Linco Enterprises.
- Udoh, W. A., Nsude I., Oyeleke A.S. (2022) Awareness of Artificial Intelligence for News Production among Journalists in Ebonyi State, Nigeria. *International Journal of Network and*

*Communication Research*, 7 (1), 33-45. <https://www.eajournals.org/wp-content/uploads/Awareness-of-Artificial-Intelligence.pdf>

Ukozie, Y. (2015). News commercialization trend in journalism. *Journalism Studies*, 15(10), 64–82.

Ukwela, C.O. (2021). Artificial Intelligence and Broadcast Media Presentation in Nigeria: What does the Future Hold? Knowledge Societies: Artificial Intelligence and the Media. UNESCO / ACSPN

van Dalen, A. (2020). Journalism, trust, and credibility. In K. Wahl-Jorgensen & T. Hanitzsch (Eds.), *The Handbook of Journalism Studies* (2nd ed., pp. 356–371). Routledge.

Ward, S. J. A. (2015). *The invention of journalism ethics: The path to objectivity and beyond*. McGill-Queen's Press.

Ward, S. J. A. (2018). Reconstructing journalism ethics: Disrupt, invent, collaborate. *Media & Journalism*, 18(32), 9–17. [https://doi.org/10.14195/2183-5462\\_32\\_1](https://doi.org/10.14195/2183-5462_32_1)

Zamith, R. (2019). Transparency, interactivity, diversity, and information provenance in everyday data journalism. *Digital Journalism*, 7(4), 470–489. <https://doi.org/10.1080/21670811.2018.1554409>