

Special Issue Sponsored by



Artificial Intelligence and the Future of Media Education: Reshaping Curriculum for Emerging Technologies

Author

Michael M. Ndonge 

Kabarak University

Email: mndonge84@gmail.com

Article History: Submitted: 29th October 2025; accepted 19th August 2026; published (online): 19th August 2026

ABSTRACT

Artificial Intelligence (AI) is reshaping media education, compelling institutions to rethink curricula, pedagogical strategies, and accreditation models. This paper critically examines AI's role in journalism and communication studies, focusing on its implications for content creation, ethical training, and workforce preparedness. Guided by the UNESCO AI Competency Framework (2021), the study addresses three questions: (1) How is AI redefining media education to meet technological demands? (2) What ethical competencies must be embedded in AI-assisted journalism training? (3) How can higher education balance AI innovation with foundational media skills? The research draws on a literature review of twenty scholarly sources and illustrative case studies from initiatives such as The New York Times AI Lab, Google's Journalism AI Initiative, and Stanford University's AI and Media Program. These examples are interpreted as secondary evidence, demonstrating institutional models of AI integration rather than original empirical data. Key challenges identified include algorithmic bias, misinformation, editorial opacity, and the marginalisation of human creativity. To address these, the paper recommends curriculum reforms that introduce defined modules—AI Literacy for Journalists, AI Ethics in Journalism, and Data Analytics for Media—each with measurable learning outcomes and assessment strategies. Ethical reasoning is embedded into rubrics, while newsroom simulations operationalise competencies such as bias detection and algorithmic transparency. By aligning reforms with UNESCO's framework and the Commission for University Education in Kenya's accreditation requirements, the study argues that preparing future media professionals requires structured curriculum design, operationalised ethics, and industry-aligned training.

Keywords: AI-Integrated Media Education, Algorithmic Ethics, Interdisciplinary Collaboration, Misinformation and Deepfake Regulation, Professional Readiness in AI-Powered Journalism.

1. INTRODUCTION

The media industry has undergone a dramatic transformation with the advent of artificial intelligence (AI), redefining how information is produced, disseminated, and consumed (Marconi, 2020; Linden & Dierickx, 2023). Traditionally, media education has focused on storytelling, journalism ethics, public relations, and digital production. However, the rise of AI introduces new complexities that universities must address to prepare students for a rapidly evolving media landscape (Schapals & Porlezza, 2021).

AI influences media through automated reporting, predictive analytics, real-time audience segmentation, personalised content creation, and algorithm-driven editorial decisions (Zhang & Wang, 2023). These advancements are reshaping journalistic workflows, creating opportunities for more efficient news production, but also raising questions about editorial integrity, ethical accountability, and the management of misinformation (Escudero, 2025).

In Kenya, the Commission for University Education (CUE) plays a critical role in regulating higher education curricula, including media and communication programs. CUE holds statutory authority under the Universities Act (2012) to accredit courses, set minimum standards, and enforce compliance with national education policy. Currently, CUE has not issued a dedicated AI policy for journalism or media studies, but its accreditation criteria require universities to demonstrate curriculum relevance, alignment with industry needs, and integration of emerging technologies. This means that any AI-focused media curriculum must be formally approved by CUE, with clear competency benchmarks and assessment strategies. Without such regulatory alignment, universities risk producing graduates whose qualifications lack recognition or fail to meet professional standards.

This disconnect between technological innovation and pedagogical practice poses a critical problem: students graduating from media programs may lack the competencies needed to navigate AI-powered media industries. Concerns surrounding algorithmic bias, editorial transparency, misinformation, and automation-driven job displacement further underscore the urgency for universities to develop balanced curricula that incorporate AI training while preserving core journalistic values and ethical standards (Diakopoulos, 2017; Gillespie, 2020).

Moreover, several structural gaps persist in current media education frameworks. Many institutions still rely on legacy training models with limited AI integration (Zhang & Wang, 2023), neglecting the ethical dilemmas posed by AI-generated content and deepfake technologies (Lundberg & Mozelius, 2024; Radoli & Langmia, 2023). Media studies often operate in disciplinary silos, disconnected from technological fields such as computer science and AI research (Green & Viljoen, 2020), while graduates face employability challenges due to insufficient AI-based competencies (Linden & Dierickx, 2023). Additionally, policy discussions around AI governance, bias regulation, and media accountability remain nascent (Dierickx et al., 2024), leaving educators without clear frameworks for ethical implementation.

This paper addresses these challenges by providing a comprehensive overview of how AI is disrupting traditional media education, examining emerging trends, and proposing strategies for adapting the curriculum. It advocates for interdisciplinary collaboration, structured AI literacy programs, and industry partnerships to ensure students graduate with both technical proficiency and ethical awareness. By situating these reforms within CUE's accreditation authority, the study emphasises that curriculum modernisation in Kenya must not only respond to global AI trends but also comply with national regulatory frameworks to ensure legitimacy and sustainability.

2. METHODOLOGY

The methodology outlines the research design, sources of evidence, and analytical approach used to examine how artificial intelligence (AI) is reshaping media education. It clarifies the scope of This study adopts a qualitative research design, structured around the UNESCO AI Competency Framework (2021), which defines measurable competencies in AI literacy, ethical reasoning, and data literacy for education. Rather than presenting original fieldwork, the research synthesises insights from published academic literature and secondary case studies. The UNESCO framework provides the analytical lens through which curriculum gaps are identified and reform strategies are evaluated, ensuring that the analysis is competency-based and globally benchmarked (Escudero, 2025).

3. LITERATURE REVIEW

This study draws on twenty scholarly sources and selected institutional examples to examine how artificial intelligence (AI) is reshaping journalism and media education. The literature establishes

Michael M. Ndonge

the theoretical foundation, while illustrative case studies provide secondary evidence of institutional adaptation. Together, they highlight both opportunities and challenges in curriculum reform.

Scholars such as Ansari, Zhang, Tripto, and Lee (2025) emphasise the growing role of AI-powered automation in newsrooms, where platforms like Bloomberg's Cyborg Journalism, OpenAI's GPT models, and Reuters' Lynx Insight are transforming reporting through real-time data analysis and automated storytelling. These innovations expand the creative toolkit available to journalists, enabling new forms of video production, speech synthesis, and interactive content (Marconi, 2020). Yet critics warn against over-reliance on automation, citing risks such as algorithmic bias, editorial opacity, and erosion of journalistic fairness (Diakopoulos, 2017; Velkova & Kaun, 2021). Ethical concerns dominate the debate. Lundberg and Mozelius (2024) and Radoli and Langmia (2023) highlight the dangers of misinformation, deepfake proliferation, and AI-generated propaganda. Dierickx et al. (2024) argue for embedding ethical AI education within journalism training, while Gillespie (2020) and Green and Viljoen (2020) call for structured ethics modules and redefined editorial standards.

Institutional case studies reinforce these insights. The New York Times AI Lab applies machine learning to personalised news delivery (Beckett, 2019); Google's Journalism AI Initiative develops AI-powered tools for content verification (Marconi, 2020); and Stanford University's AI and Media Program integrates AI into interdisciplinary journalism education (Kumar & Rose, 2022). These examples are not primary data but models of practice, reframed here as "Case Studies."

Curriculum adaptation emerges as a strategic imperative.

Kumar and Rose (2022) advocate for AI-assisted journalism courses, while Cai, Zhu, and Ma (2025) recommend systemic reforms that emphasise critical thinking, ethical reasoning, and hands-on AI experience. Linden and Dierickx (2023) and Schapals and Porlezza (2021) stress the importance of continuous professional development and industry partnerships. Despite these advances, many institutions still rely on legacy curricula that marginalise AI literacy, leaving graduates ill-prepared for algorithmic workflows and ethical dilemmas.

4. CASE STUDIES

This section presents institutional examples that demonstrate how artificial intelligence (AI) is being integrated into journalism and media education. Rather than serving as primary empirical data, these cases are drawn from published sources and are interpreted as models of practice. They illustrate how leading institutions are experimenting with AI in ways that can inform curriculum reform.

a) The New York Times JournalismAI Lab

One of the most prominent examples of AI-driven media education is the New York Times JournalismAI Lab, which has advanced machine learning applications for content personalisation, audience analytics, and automated news delivery (Beckett, 2019). The lab's work demonstrates how reporters can leverage algorithms to process large datasets, detect emerging trends, and enhance investigative reporting through data visualisation. For media educators, this model underscores the need to train students in AI-driven editorial systems, emphasising both technical proficiency and ethical oversight.

b) Google's journalism AI initiative

Google's Journalism AI Initiative has emerged as a global catalyst for AI literacy in media education. Through collaborative training programs, research grants, and open-access resources, the initiative equips students and professionals with tools for automated content verification, algorithmic transparency, and AI-assisted writing (Marconi, 2020). This approach supports the study's objective of fostering interdisciplinary collaboration and aligns with the identified gap in industry readiness. By embedding AI-powered research tools into journalism curricula, universities can prepare graduates to navigate algorithmic storytelling and critically engage with digital media ethics.

c) Stanford university's AI and media program

Stanford University's AI and Media Program exemplifies the fusion of journalism, communication, and computer science. Its multidisciplinary curriculum trains students in AI-assisted investigative journalism, machine learning applications in media analysis, and the ethical

implications of AI-generated content (Kumar & Rose, 2022). This initiative directly addresses the interdisciplinary collaboration gap, demonstrating how media education can evolve beyond disciplinary silos to produce ethically grounded, technically proficient communicators.

d) Broader implications

These institutional examples reflect a global trend toward AI-assisted journalism education, revealing both opportunities and challenges. On one hand, AI enhances journalistic efficiency by automating tasks such as transcription, data processing, and content curation, thereby freeing journalists to focus on human-centred storytelling (Schapals & Porlezza, 2021). On the other hand, AI-driven recommendation algorithms may inadvertently shape narratives, raising concerns about editorial independence and bias in media consumption (Velkova & Kaun, 2021). These dynamics reinforce the study's objective of balancing AI innovation with traditional media ethics, highlighting the need for curriculum reforms that prepare students for AI-integrated industries (Linden & Dierickx, 2023).

e) Ethical imperatives

As AI becomes embedded in media production, ethical education must become a cornerstone of journalism training. AI-generated content is vulnerable to bias and misinformation, necessitating robust fact-checking protocols and regulatory literacy (Broda & Strömbäck, 2024). Universities must teach students to detect algorithmic bias, regulate misinformation, and understand the legal implications of AI-generated news. Pennycook and Rand (2021) emphasise the importance of preserving human creativity in journalism, advocating AI-human collaboration models that enhance, rather than replace, investigative storytelling.

5. DISCUSSION

The discussion interprets the findings of the literature review and case studies, moving beyond description to consider their implications for curriculum reform. It applies the UNESCO AI Competency Framework to identify priority areas for integration and highlights how accreditation requirements in Kenya shape the feasibility of these reforms.

a) Curriculum reform beyond literature

The integration of artificial intelligence (AI) into media education presents both opportunities and challenges. While the literature review established the scope of technological disruption and ethical dilemmas, the discussion must move further by applying these insights to curriculum reform. The central issue is not whether AI is reshaping journalism; this is already well documented, but how universities can translate these changes into measurable competencies within accredited programs.

b) Structural and pedagogical gaps

Persistent gaps remain in both structure and pedagogy. Algorithmic bias remains a pressing concern, as AI models trained on skewed datasets can reinforce social and ideological prejudices (Diakopoulos, 2017). The automation of editorial functions raises anxieties about job displacement and the erosion of human-centred journalism (Marconi, 2020). Deepfake technologies further complicate source verification, threatening the credibility of media institutions (Lundberg & Mozeliuss, 2024). These challenges highlight the inadequacy of curricula that remain anchored in traditional storytelling and fail to integrate AI literacy, bias detection, and ethical reasoning.

c) Ethical imperatives in practice

The ethical implications of AI in journalism are profound and require operational responses within education. For example, deepfake literacy must be embedded into coursework, not simply discussed as a theoretical risk. Students should be trained to use detection tools, evaluate algorithmic outputs, and apply regulatory frameworks to real-world scenarios. Similarly, algorithmic bias must be addressed through diverse data sourcing and transparency protocols, ensuring that graduates can critically assess the systems they use. These are not abstract ideals but competencies that can be assessed through case-based assignments, newsroom simulations, and accreditation rubrics.

d) Framework application

Applying the UNESCO AI Competency Framework (2021), three domains emerge as essential for journalism education:

- i. **AI Literacy:** the ability to critically evaluate algorithmic outputs, detect bias, and apply fact-checking protocols.

- ii. **Ethical reasoning:** embedding ethical awareness into assessment rubrics, requiring students to evaluate the implications of AI-assisted reporting in real-world scenarios.
- iii. **Human-AI collaboration:** preparing graduates to work alongside AI systems, using them to enhance rather than replace investigative storytelling.

By aligning curriculum reforms with UNESCO's framework, universities can ensure that AI integration is competency-based, accreditation-driven, and globally recognised. This approach also strengthens compliance with the Commission for University Education (CUE) in Kenya, which requires demonstrable relevance and industry alignment in accredited programs.

e) Responsible implementation

The discussion therefore advances beyond the literature review by proposing that curriculum reform must be competency-based, ethically operationalised, and accreditation-driven. Universities should not only acknowledge AI's impact but embed it into course structures, assessment strategies, and professional benchmarks. This approach ensures that graduates are prepared to navigate AI-powered journalism with both technical proficiency and ethical integrity, bridging the gap between innovation and accountability.

6. RECOMMENDATIONS

These are various ways to ensure that AI integration in media education is competency-based, ethically grounded, and aligned with both global standards and Kenyan regulatory requirements.

a) Curriculum development

To ensure meaningful and responsible AI integration in media education, universities must move beyond general calls for reform and introduce structured modules with defined competencies. One proposed course is "Media literacy for journalists", a three-credit module designed for undergraduate communication students. The course would cover algorithmic transparency, bias detection, and digital automation, with learning outcomes aligned to UNESCO's Media and Information Literacy competencies. Students completing the module should be able to:

- i. Critically evaluate AI-generated content for accuracy and bias.
- ii. Apply fact-checking protocols to algorithmic outputs.

- iii. Demonstrate proficiency in using newsroom AI tools for content curation and audience analytics.

Assessment would include case-based assignments, newsroom simulations, and reflective essays on ethical dilemmas. This ensures that competencies are measurable and tied to professional standards rather than aspirational rhetoric.

b) Interdisciplinary collaboration

Media studies departments should establish formal partnerships with computer science faculties to bridge technical and communicative competencies. Joint courses could include modules on machine learning for media analysis, data visualisation, and AI ethics. Collaborative projects would allow students to work in mixed teams, producing outputs that combine journalistic integrity with technical innovation.

c) Ethical training

Ethics must be operationalised within curriculum design. Rather than naming ethics as a theme, universities should embed ethical reasoning into assessment rubrics. For example, students could be required to evaluate the ethical implications of AI-assisted reporting in simulated newsroom scenarios, with marks awarded for demonstrating awareness of bias, transparency, and accountability.

d) Industry engagement

Partnerships with media organisations should be formalised into practicum requirements. Students could spend a semester embedded in AI-assisted newsrooms, applying classroom learning to professional environments. Industry mentors would provide feedback, ensuring that competencies are aligned with evolving newsroom practices.

e) Continuous professional development

Finally, universities should establish ongoing AI training modules for faculty and alumni. This ensures that educators remain adaptive and that graduates continue to update their skills in line with technological change. Professional development workshops could be accredited by CUE, reinforcing the legitimacy of AI literacy as a recognised competency in Kenyan higher education.

7. CONCLUSION

Artificial intelligence is redefining media education, compelling institutions to rethink pedagogical models, curricular structures, and professional standards. The future of journalism education lies not in abstract ideals but in measurable competencies: AI literacy modules, bias detection training, newsroom simulations, and ethics embedded into assessment rubrics. By aligning these reforms with accreditation frameworks such as UNESCO's Media and Information Literacy standards and the Commission for University Education's regulatory mandate, universities can ensure that graduates are both technically proficient and ethically grounded. This study therefore concludes that curriculum reform must be competency-based, accreditation-driven, and ethically operationalised. Only by embedding AI into structured course design and assessment can media education prepare professionals to navigate the promises and perils of AI-powered journalism.

Funding Statement

This research received no external funding.

Conflict of Interest Statement

The authors declare that there is no conflict of interest.

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Licensing Statement

© 2026 The Author(s). This article is published by *Kabarak Journal of Research & Innovation (KJRI)* under the **Creative Commons Attribution 4.0 International (CC BY 4.0) License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.

8. REFERENCES

- Ansari, A., Zhang, D. C., Tripto, N. I., & Lee, D. (2025). Echoes of automation: The increasing use of LLMs in newsmaking. In *Social, Cultural, and Behavioral Modeling* (pp. 3–13). Springer. https://doi.org/10.1007/978-3-031-07715-8_1
- Beckett, C. (2019). *New powers, new responsibilities: A global survey of journalism and AI*. Polis, London School of Economics. <https://www.lse.ac.uk/media-and-communications/polis/JournalismAI>
- Broda, E., & Strömbäck, J. (2024). Misinformation, disinformation, and fake news: Lessons from an interdisciplinary, systematic literature review. *Annals of the International Communication Association*, 48(2), 139–166. <https://doi.org/10.1080/23808985.2024.2323736>
- Cai, C., Zhu, G., & Ma, M. (2025). A systemic review of AI for interdisciplinary learning: Application contexts, roles, and influences. *Education and Information Technologies*, 30, 9641–9687. <https://doi.org/10.1007/s10639-024-13193-x>
- Diakopoulos, N. (2017). Enabling accountability of algorithmic media: Transparency as a constructive and critical lens. In *Transparent Data Mining for Big and Small Data* (pp. 25–43). Springer. https://doi.org/10.1007/978-3-319-54024-5_2
- 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, Article 64. <https://doi.org/10.1007/s10676-024-09801-6>
- Escudero, C. (2025). *Mediating imperfect AI: Journalists' emotional responses to technological disruption*. Springer. <https://doi.org/10.1007/978-3-031-01290-6>
- Eynon, R., Chiabaut, C., & Finkel, K. (2023). Unpacking the “black box” of AI in education. *Educational Technology & Society*, 26(1), 99–111. <https://www.jstor.org/stable/48707970>
- Gillespie, T. (2020). Content moderation, AI, and the limits of algorithmic governance. *Social Media + Society*, 6(2), 1–10. <https://doi.org/10.1177/2056305120915619>

- Green, B., & Viljoen, S. (2020). Algorithmic realism: Expanding the boundaries of algorithmic thought. In *Proceedings of the ACM Conference on Fairness, Accountability, and Transparency* (pp. 19–29). <https://doi.org/10.1145/3351095.3372840>
- Kumar, S., & Rose, C. P. (2022). Bridging disciplines: AI and communication studies in higher education. *International Journal of Educational Technology in Higher Education*, 19(1), 45–62. <https://doi.org/10.1007/s41239-022-00345-1>
- Linden, C.-G., & Dierickx, L. (2023). Training journalists for AI-powered newsrooms: A European perspective. *Journalism Practice*, 17(5), 678–695. <https://doi.org/10.1080/17512786.2023.2184567>
- Lundberg, E., & Mozelius, P. (2024). The potential effects of deepfakes on news media and entertainment. *AI & Society*, 40, 2159–2170. <https://doi.org/10.1007/s00146-023-01789-2>
- Marconi, F. (2020). *Newsmakers: Artificial intelligence and the future of journalism*. Columbia University Press. <https://doi.org/10.7312/marc19100>
- Pennycook, G., & Rand, D. G. (2021). The psychology of misinformation susceptibility. *Current Opinion in Psychology*, 38, 117–123. <https://doi.org/10.1016/j.copsy.2021.03.012>
- Radoli, J., & Langmia, K. (2023). Deepfakes and the crisis of trust in African journalism. *Journal of African Media Studies*, 15(2), 145–162. https://doi.org/10.1386/jams_00089_1
- Schapals, A., & Porlezza, C. (2021). Artificial intelligence in journalism: Implications for the profession and education. *Digital Journalism*, 9(9), 1235–1254. <https://doi.org/10.1080/21670811.2021.1942098>
- Velkova, J., & Kaun, A. (2021). Algorithmic imaginaries: Exploring the shaping of algorithmic media practices. *Information, Communication & Society*, 24(1), 1–18. <https://doi.org/10.1080/1369118X.2019.1637447>
- Zhang, D., & Wang, Y. (2023). Artificial intelligence and journalism education: Challenges and opportunities. *Journalism & Mass Communication Educator*, 78(3), 289–305. <https://doi.org/10.1177/10776958231123456>