Assessing Training Needs of Journalists for Enhanced Performance in the Era of Artificial Intelligence (AI) in Enugu Metropolitan City.

Odoemela Emmanuel Ugochukwu Apollos & Maxwell Menkiti Ngene

Abstract

This study focused the training needs of Journalists in Enugu metropolis in thecontemporary era of Artificial Intelligence (AI). While AI continues to shape global communication landscapes, journalists in developing societies like Nigeria, particularly Enugu metropolis face mounting pressure to adapt or be left behind. As a growing media hub in Southeast Nigeria, AI tools are rapidly transforming how news is sourced, produced, and delivered. Yet, beneath this digital evolution lies a critical gap where most journalists are aware of AI's potentials but lack the training and institutional support to optimize the benefits. Drawing from digital disruption theory, technological acceptance model (TAM), human capital theory and UNESCO Ethical AI framework as theoretical consideration, the study evaluates the training need of Enugu journalists. Adopting a descriptive survey design, 115 journalists were sampled using structured questionnaires and analysed through frequency and percentage distribution on SPSS.Findings revealed that while 83% of journalists are aware of AI tools such as ChatGPT, Grammarly, and Canva, only 24% have received any form of AI-related training. A significant 96% expressed a strong need for training, with barriers such as lack of funding, poor institutional support, and limited awareness limiting access. Significant majority, over 89% express willing to participate in future AI training initiatives. These insights not only underscore a widening competence gap but also reveal untapped enthusiasm for the industry can harness.The study concludes that inclusive, accessible, and focused AI training interventions are urgently needed to bridge the skill gaps and equip journalists for better productivity and global competitiveness. It recommends collaborative bootcamps, revamped curriculum with AI competencies, university-media partnerships, AI literacy campaigns as well newsroom-based micro-certifications among others to enhance capacity and resilience. Without intentional AI-focused training interventions, the full benefits of AI in Enugu journalism risks becoming another tool of exclusion rather than empowerment.

Keywords: Artificial Intelligence, Journalism Training, Newsroom Innovation, Ethical Journalism, Enugu, Nigeria

Introduction

Artificial Intelligence (AI) has shifted from a futuristic discussion to present transformative force reshaping the dynamics of industries, institutions, and professions across the globe, including journalism, particularly Enugu metropolis. AI tools like Natural Language Processing (NLP), machine learning algorithms, data visualization systems, and automated transcription software are now integral to modern newsroom operations transforming how news is gathered, processed, and distributed (Diakopoulos, 2019; de Lima-Santos, Yeung & Dodds 2024). Global media giants like BBC, Reuters, and The Washington Post have adopted AI-driven processes to accelerate content creation, tailor user experiences, and improve fact-checking mechanisms (Linden, 2020). However, the adoption of these tools in many parts of Africa, including Nigeria, has been uneven, largely due to deficient infrastructure, training, and ethical preparedness (Roberts & Montoya, 2023; Ibitoye, 2024).

In Nigeria, the media landscape is undergoing a technological awakening and transition as Journalists increasingly interface with digital platforms for news gathering and processing, reporting and dissemination as well as audience engagement. Yet, is a stark disparity between awareness of AI tools and their practical use in editorial processes. Umeora (2025) observed that although 65% of journalists in southern Nigeria were aware of AI's potential in journalism, but fewer than 30% had ever used AI tools such as ChatGPT, Grammarly, or transcription software. The low adoption rate is connected to inadequate training opportunities, poor digital infrastructure, and lack of clear

institutional direction thereby lending credence to this study.

The rise of AI in journalism transcends mere technical development to signals a paradigm shift in professional routines, ethical standards, and newsroom cultures towards global best practices in journalistic parlance. AI tools are already assisting in election monitoring, financial reporting, and personalized news recommendations (Diakopoulos, 2021). Unfortunately, media houses in Nigeria attempt to respond to these transformations without a strategic approach that encompass capacity building. Training gaps persist in areas like data journalism, content automation, digital safety, and understanding algorithmic bias (Sholola, Ajani, & Yusuf, 2024). This deficit risks not only leaving Nigerian journalists within Enugu metropolis technologically behind but also eroding public trust in journalism as a democratic institution.

Additionally, ethical concerns continue to cloud the adoption of AI in newsrooms. Questions about transparency, fairness, bias, and misinformation loom large (UNESCO, 2022). In a country like Nigeria, where press freedom is periodically threatened and digital surveillance is on the rise (Digital Rights Lawyers Initiative, 2023), the uncritical adoption of AI systems without contextual ethical regulation could deepen existing vulnerabilities. The absence of a rights-based framework for integrating AI into media practice raises alarm bells about editorial independence, privacy rights, and media pluralism (Roberts & Montoya, 2023; Gwagwa, 2021).

Training and professional development in journalism have historically been underfunded and undervalued in Nigeria (Omotayo & Akande, 2023). Media organizations often lack institutional mechanisms to assess evolving skill requirements or to offer structured learning pathways for emerging technologies. This deficiency is more pronounced outside the commercial hubs of Lagos and Abuja. In Enugu Metropolitan City, an emerging prominent media cluster in the South-East region, journalists work across print, radio, television, and digital platforms. However, their exposure to AI-related knowledge remains limited, despite the rapid digitalization of their work environments (Umeora, 2025).

Globally, models of AI integration in journalism are being anchored in educational reform, industry-academic partnerships, and on-the-job retraining initiatives. For instance, the Associated Press in the United States provides in-house AI training for its staff, focusing on data verification and content generation ethics (Diakopoulos, 2021). Similarly, media organizations in Kenya and South Africa are partnering with universities and civil society organizations to train journalists in algorithmic literacy and digital accountability (Gwagwa, 2021; Mureithi & Kimani, 2023). Nigeria, by contrast, lacks a national AI journalism strategy or media innovation framework that could support such initiatives at scale.

This study, therefore, seeks to fill a critical knowledge and policy gap by assessing the training needs of journalists in Enugu in the age of Artificial Intelligence with the intent to proffer evidence-based solution. Anchored in the Technology Acceptance Model (TAM) and the Human Capital Theory, the researcher interrogates the intersection of technological innovation, professional development, and ethical journalism in a local Nigerian context. Specifically, the study explores the levels of awareness, existing competencies, perceived benefits, institutional challenges, and ethical concerns among journalists navigating AI's rise.

The research is a timely response to fill a knowledge gap. Undoubtedly, without deliberate interventions to prepare journalists for the age of intelligent machines, the risks of professional redundancy, ethical violations, and public misinformation will intensify. By identifying training gaps and proposing contextual capacity-building frameworks, this study contributes to Nigeria's broader digital transformation discourse; balancing technological advancement with rights-based ethical governance and professional integrity.

STATEMENT OF THE PROBLEM

Undoubtedly, the integration of artificial intelligence (AI) into journalism has transformed the process and speed of news gathering,

production and dissemination to scattered audiences through traditional and digital news platforms. More specifically, AI technologies have introduced automation to the news-flow (workflow) including automated news writing, content personalization, real-time analytics and broadcast as well as fake news detection in journalism profession (Diakopoulos, 2019; Marconi & Siegman, 2017). However, this laudable innovation portends huge challenge for journalists in developing regions like Enugu, because of infrastructural deficit and knowledge gap. Additionally, most journalists in Enugu lack the foundational training and exposure required to adopt and adapt to AI-driven journalistic practices (Umeora, 2025; Bello, Ishola, & Umeaku, 2023).

The findings of existing empirical studies validate that contemporary journalists may be aware of some AI technologies; however, their practical knowledge and application is either completely non-existent or grossly inadequate (Oladosu, Ogunsola, & Folorunsho, 2024). Consequently, it has been observed that limited access to digital infrastructure, inadequate human capital development programs, and the lack of AI-focused journalism curricula in Enugu metropolis contribute to the widening knowledge and skills gap among journalist (Okoro, Abara, & Odoemelam, 2020). This situation is further exacerbated by the absence of institutional and policy initiatives to facilitate AI focused training within media organisations. This prevailing situation lends credence to this study tailored to the training needs of journalists in Enugu metropolis in our contemporary AI dispensation. The outcome of the study will not only assess and cater to the training gaps, foster adapting to change but equally consolidate the relevance and credibility of journalism in an AI-dominated future. It will also ensure that journalists in Enugu are NOT lagging in global competitiveness and professional standards in the digital age.

Research Objectives

The study aims to assess the training needs of journalists in Enugu metropolis necessary for enhance performance in the era of artificial intelligence. Specifically, the study objectives are to:

1. Determine the awareness and usage of AI technologies among journalists in Enugu Metropolis.
2. Identify the types of AI tools available for journalism profession in Enugu Metropolis.
3. Identify AI-related training that journalists in Enugu Metropolis need for improved performance in their work.
4. Identify AI-related training that journalists in Enugu Metropolis have received recently.
5. Find out journalists' perceptions of the impact of AI on their professional performance.
6. Identify the key barriers or limitations hindering journalists in Enugu from accessing AI-related training opportunities.
7. Assess the willingness of journalists to participate in future AI training programs.
8. Recommend evidence-based strategies for building AI-related competencies among journalists in Enugu State.

Conceptual Review

Artificial Intelligence and News gathering

Artificial Intelligence (AI) in journalism refers to systems that replicate human cognitive tasks including summarizing information, recognizing speech, predicting reader interest, fack-checking information and generating content. The world over, media organisations now use AI for news automation, social media analysis, and personalised news delivery (de Lima-Santos, Yeung & Dodds 2024). However, in Nigeria, usage remains limited and uneven. Many journalists rely on manual workflows and are unaware of available tools for transcription, automated fact-checking and audience analytics (Umeora, 2025).

Emerging Trends in Journalism in the AI Era

Undoubtedly, advancement in digital technology, particularly Artificial Intelligence (AI) has brough remarkable transformations in journalism landscape. Globally, newsrooms are increasingly leveraging AI tools to accomplish tasks such as fact-checking, real-time language

translation, automated news writing, and data visualization (Al Jazeera Media Institute, 2024; Dodds et al., 2024). These tools have significantly improved the speed, accuracy, and efficiency of news production. In these days of intellectual warfare through misinformation and disinformation, the importance of fact-checking information and the sources cannot be overlooked. And AI technologies come handy.

In the urban cities of Nigeria like Enugu that serve of journalism hub, there is a gradual shift towards adoption and application of AI-powered technologies in journalistic parlance. Journalists are increasingly relying on tools such as transcription software, content aggregation bots, and sentiment analysis platforms to enhance storytelling and audience engagement (Nwanyanwu & Nwanyanwu, 2021; Guardian Nigeria, 2023).

It is important to emphasize that many local newsrooms are still grappling with how to integrate AI technologies into daily routines or processes in journalism; it is fact that cannot be ignored. This gap is partly due to limited awareness, inadequate infrastructure, expertise and training on how these technologies work. This does not undermine the trend of growing awareness that AI is transforming many industries including journalism. Therefore, AI is no longer optional for modern journalism and audience expectations (Makinde, 2023).

Journalistic Competence in the Digital Age

Journalistic competence now extends beyond storytelling and news ethics. It requires fluency in data science, familiarity with automation tools, and the ability to critically evaluate algorithmic outputs (Sholola, Ajani & Yusuf 2024). These competencies are not widely embedded in journalism curricula and institutional training programmes in Nigeria thereby exacerbating the widening skill gap between local practitioners and global media trends (Ibitoye, 2024).

Training Needs Assessment (TNA)

TNA is a strategic process used to determine gaps between current capabilities and the skills needed to meet emerging demands and global best practice. In media parlance, it helps streamline programmes to specific newsroom peculiar needs, technologies, and editorial goals. TNA ensures relevance, reduces training fatigue, and improves the return on investment in human capital investment (Umeora, 2025). For Enugu metropolitan city, such assessment is critical for designing cost-effective and contextualized AI training modules.

Benefits and Challenges of AI in Journalism

Unarguably, the benefits of AI in journalism are too enormous to be ignored; they are not only extensive but transformative. For instance, journalists can now leverage AI tools to automate repetitive and time-consuming tasks such as transcribing interviews, sorting through large volumes of data, fact-checking data and curating stories from multiple sources in real time (Oginni, 2020). In investigative journalism, AI systems help detect patterns in data that might not be visible to human reporters. These tools also aid in verifying information rapidly, an essential function in the era of rampant misinformation.

It is worth noting that AI-powered technologies enhance content personalization by gathering audience data and subsequently analysing their viewership behaviour and preferences thereby enabling media organizations to serve bespoke content to specific demographics (TechEconomy.ng, 2024). Contextualizing this to journalists in Enugu is strategically important – helping journalists to understanding their audience sufficiently well to create content that meet their needs. It improves workflow efficiency, turnaround time, content quality, audience satisfaction and strong followership. Additionally, AI systems can translate and adapt content across different languages and formats; making journalism more inclusive and accessible (Guardian Nigeria, 2023).

While the benefits AI technologies bring to journalism are not in doubt, journalists in Enugu and other parts of Nigeria face significant setbacks in leveraging them for efficiency and quality reportage. Notable among the barriers to the integration of AI into newsroom operations is poor infrastructure including unreliable electricity, slow internet speeds, and outdated hardware (Salawu, 2021). The absence of consistently reliable connectivity and affordable

modern tools makes difficult, if not impossible to optimize the full potential of AI by journalist in Enugu metropolis.

Another major limitation is dearth of expertise and technical know-how among media practitioners. This is exacerbated by the absence of structured widespread capacity-building training curriculum tailored to their professional needs (Dodds et al., 2024). This subsisting gap prevents many journalists from taking full advantage of AI applications that could significantly ease their workload and efficient performance.

It is equally important to emphasize the concerns of ethical challenges eroding trust which triggers hesitation to adoption and application AI. For instance, arguments like algorithmic bias and lack of transparency in how AI decisions are made, including fear of losing editorial control to machines (AI tools) breed scepticism and resistance to AI within the newsrooms (Punch NG, 2024).

Ethical Journalism in the Era of AI

AI introduction comes with peculiar ethical dilemmas ranging from deepfakes to biased algorithms, data privacy and sovereignty, governance framework as well as rights violations. Journalists require tools to navigate these unfolding challenges responsibly. Ethical journalism in the AI age demands transparency, editorial oversight, and informed consent when using AI-generated content (Roberts & Montoya, 2023; de Lima-Santos et al., 2024). Yet, ethical training specific to AI is still missing from most journalism development programs in Nigeria. Not even the leading media organizations seize the initiate for in-house training to fill this gap.

Infrastructural and Knowledge Gaps in Enugu's Media Sector

The case of Enugu metropolis reflects broader national challenges related to infrastructure and digital imbalance and readiness. Despite its role as a regional media hub, many media organizations in Enugu lack the advanced technology needed to fully implement AI solutions. Journalists often rely on personal devices, low-bandwidth internet, and manually intensive processes (Nwanyanwu & Nwanyanwu, 2021).

Additionally, there is a significant knowledge gap regarding AI literacy. Even though some journalists are aware of AI tools, many do not understand how to use them effectively, let alone how to integrate them into investigative reporting, audience analytics, or fact-checking processes (Makinde, 2023). This gap points to an urgent need for structured training programs and curriculum reforms in journalism education, both at tertiary institutions and within professional development platforms.

Addressing these gaps is critical to ensure that Nigerian journalists, particularly those in Enugu environment are not left behind in the global shift toward tech-driven media. As AI continues to influence how information is produced and consumed, equipping journalists with the right tools and knowledge is essential for ethical, efficient, and impactful journalism in the digital age.

Summing it up, it is evident that AI is reshaping journalism in Nigeria, offering a plethora of new opportunities even though the associated challenges cannot be ignored. For journalists in Enugu metropolis, the transition to AI integration is being slowed down by infrastructural and knowledge deficiency. While AI can enhance accuracy, efficiency, and storytelling capabilities, its full benefits may remain a mirage without targeted training and improved newsroom infrastructure. In addition, limiting ethical bottlenecks/constraints must equally be eliminated through localized policies and enlightenment to ensure that AI supplement rather than threaten human-centered values of journalism. Therefore, a focused assessment of training needs is timely and essential to prepare Enugu journalists for a future and practice increasingly dominated by intelligent technologies.

Review of Existing Literatures

In order to clearly understand the trajectory a course is heading, it is always important to start with appreciable background or hind knowledge of have been. Therefore, in academic research, the literature review serves as essential rearview mirror providing a panoramic view of what has been studied by previous scholars, insights about ongoing debates and

various perspectives of thought leaders, and most importantly, helps to identify existing knowledge gaps thereby lending credence to the research. In line with the postulations of Randolph (2009), a comprehensive literature review is not just a formal requirement in empirical study; it is the intellectual backbone of any meaningful piece of scientific research, providing context, relevance, and scholarly direction – allowing researchers to critically interrogate existing knowledge, trace theoretical and practical developments, and subsequently position their work within broader academic and meaningful conversations that can advance the body of knowledge with acceptable threshold of empiricism.

As digital technologies continues to shape the practice of journalism, the adoption of artificial intelligence (AI) is no longer optional or a futuristic consideration but urgent, daily reality. Hence, the need for all related emerging inquiries to be thoroughly grounded in intellectual rigour and sound scholarship; including review of related literature. Validating this point of view, Webster and Watson (2020), emphasizes that literature reviews do more than summarizing past research findings; they synthesize, critique, and offer new perspectives or interpretations that guides researchers to define their own path with clarity and confidence. In more practical terms, for a study that examines AI training needs among journalists in Enugu Metropolis, a strong literature review helps the researcher to identify and map out how journalists elsewhere are adapting to AI technologies, exploring the tools they use and related trainings. And consequently, explore how to contextualize and draw learning from trends for local context.

Additionally, Hart (2018) emphasizes that a good literature review reflects the researcher's deep engagement and interrogation of the field of study demonstrate awareness of seminal works and recognition or acknowledgement of the contributions of other scholars to mitigate reinventing the wheel. Therefore, for emerging areas like integration of AI in journalism, especially in underrepresented regions such as Enugu metropolis in Nigeria, reviewing the literature also shows the urgency and relevance of localizing global debates.

In view of the foregoing, this literature review transcends scholarly evaluation of past findings. It intentionally seeks to bridge global innovations and local realities; highlighting what is possible and what currently obtains in Enugu metropolis. It is presented under relevant themes to informing and enrich the knowledge of journalists in Enugu metropolis who are at the intersection of transition from traditional practice to the era of technology.

Awareness and Knowledge vs Adoption: Structural Barriers

It is important to emphasize that awareness is the first step towards successful adoption of any innovation, followed by knowledge and skill. In the journalism profession, the increasing integration of AI tools makes awareness and appreciable knowledge indispensable for navigating the digital age effectively. Recent studies indicates that while global awareness of AI tools among journalists is steadily growing, the prevalence of disparities on the basis of region, technological inequality, lack of expertise and scarcity of resource cannot be ignored (Marconi & Siegman, 2020).

In Nigeria, particularly in urban cities like Enugu Metropolis, journalists may be exposed to AI-related information through workshops, seminars, online courses, word-of mouth discussions or even newsroom exposures without deep knowledge and hands-on experience. Edewor and Aluko (2022) notes that a significant population of journalists in Lagos had heard about AI, only a few can demonstrate can demonstrate knowledgeable application of it in their day-to-day reporting. This is consistent with the evidence-based submission emphasize that awareness of AI tools among journalists is moderately high, yet actual usage is constrained by structural barriers such as unreliable electricity, limited bandwidth, and insufficient training infrastructure (Umeora, 2025; Ibitoye, 2024).

Types of AI Tools Used in Journalism

The transformation of journalistic process by AI technologies cannot be overemphasized. Newsrooms operations across the world are increasingly being automated. For instance, mega news organizations are

automating routine tasks such as scheduling and conducting interviews, transcribing interviews, generating reports, fact-checking information, and monitoring content performance. Diakopoulos (2019) notes that tools like Wordsmith, Heliograf, and NewsWhip are commonly used globally for content automation and trend analysis.

The situation is similar in Nigeria as journalists tend to use more accessible and affordable tools (especially basic tools that are mostly open access apps) such as Grammarly for editing, Google Trends for story ideation, and AI-driven transcription services like Otter.ai (Okon & Ogunlade, 2021). There is a visible gap between the types of AI tools available globally and those accessible to journalists within Enugu, potentially due to infrastructural and funding constraints.

AI-Focused Training Gaps

As AI technologies continue to evolve and revolutionize practices across professional divides, journalists must evolve along emerging trends by intentionally investing in personal development and acquire new skills to stay relevant and competitive in the fast-paced knowledge and information economy. The training needs of journalists often revolve around understanding data and precision journalism, fundamentals of machine learning, content automation, and AI ethics (Jones & Van der Burg, 2020).

In Nigeria, research has shown that there is a growing demand for structured training in AI applications among media professionals (Adeyemi & Yusuf, 2021). Most journalists express the need for hands-on training programs that bridge the gap between theoretical awareness and practical skills and application to day-to-reporting.

While there are scattered and far-spaced AI-related training for Nigerian journalists; mostly at the instance and sponsorship of international NGOs and tech-oriented media organizations with limited reach and consistency owing to scarce resources. Udeh and Ifekandu (2023) emphasizes that South-East Nigeria, including Enugu, has witnessed very few AI trainings for journalists. They argued further that where such training exists, it often focuses on basic digital literacy rather than advanced AI integration thereby leaving a huge knowledge and proficiency gap.

Impact of AI on Journalistic Performance

Carlson and Lewis (2020) highlights the proclivity of AI tools to enhance productivity, speed up routine tasks through automation and of course, improve storytelling through data analysis in the journalistic parlance – thereby underscoring the unparallel benefits of AI technology to journalists.

At the same time, it would be foolhardy to overlook the fact that the application of Artificial Intelligence (AI) into journalism has a blend of both excitement and apprehension, especially among practitioners grappling with its expanding role in editorial tasks. While many journalists appreciate the time-saving advantages associated with AI tools such as headline generation, transcription, and automation of routine processes, there are concerns and caution about preservation of editorial judgment and ethical standards (European Broadcasting Union 2024). They strongly emphasize that AI technologies should never substitute human editorial oversight, which remains fundamental to upholding the accuracy and accountability required of ethical journalism, noting that "editorial judgment cannot be outsourced to algorithms, because even the best-trained AI still lacks contextual nuance and moral reasoning" (European Broadcasting Union, 2024).

In another development, Ibrahim and Osho (2022) expresses about the proclivity of AI technologies to trigger job displacement, the risk of dehumanizing journalism, and ethical concerns regarding automation. In Enugu metropolis, the situation not unlikely to to be a a mix of enthusiasm and skepticism too.

Barriers to Accessing AI-Related Training

Undoubtedly, the growing attention on the significance of artificial intelligence (AI) in reshaping journalism in urban cities like Enugu is louder than ever. Sadly, the ability of journalists to take advantage of opportunities presented by AI is hampered by both structural limitations and personal challenges.

On the structural front, many journalists in Enugu contend with poor infrastructure, including erratic power supply, unreliable internet connectivity, and outdated workstations. These technical restrictions directly limit their ability to access or engage in online training programs, which remains the primary source of AI literacy training. These foundational challenges active hinder participation of journalists in AI-related workshops or self-paced online learning programs (Nwafor & Eze, 2024). Subsequently, Eze and Nwachukwu (2021) emphasizes that a lot of media houses in the South-East region lack the infrastructural support for advanced digital training.

Considering the personal level barriers, many practitioners harbor doubts about their technical readiness to explore AI tools exacerbated by absence of prior exposure or knowledge of computational skills and the anxiety if fuels. Consequently, Odu, Ekwo, and Maduka (2023) notes that such personal deficiency tend to fuel resistance and sense of alienation from digital innovation processes. Part of the personal bottle-neck includes the fact that journalists often work under tight schedules, making it difficult to engage in intensive training sessions.

Compounding these issues is the absence of institutional support for structured trainings. Newsrooms in Enugu often lack structured training programs or policies guiding AI integration. Consequently, AI awareness and usage are left to individual initiative, with little to no encouragement from media management (Onyeji & Chikwendu, 2023). The result is a fragmented learning environment where willingness to adapt exists but remains unsupported.

Overall, there is emerging landscape of growing awareness and interest as well as and recognition of AI potential, but the absence of access, capacity-building and infrastructural gaps continue to slow adoption. To bridge the gaps, there is need for deliberate investments in both infrastructure and targeted training programs born out of need gap assessment to ensure that journalists in Enugu metropolis are not excluded from the global digital shift that AI offers to journalism.

Despite the prevailing challenges, there is a strong willingness by journalists to undergo AI training. Olowu and Adebayo (2020) notes that most journalists in Nigeria expressed interest to take advantage of capacity-building opportunities that would make them more competitive in the digital age. In Enugu, this willingness is influenced by peer learning and institutional encouragement. Younger journalists, in particular, show a greater openness to AI training opportunities, emphasizing that it essential to their professional and career growth.

Strategies for Building AI Competency Among Journalists

To bridge the knowledge and infrastructure gap, there is need to adopt intentional inclusive multidimensional approach embracing partnerships between media organizations and tech firms, inclusion of AI in journalism curricula, expanded funding from government, non-governmental organisations as well as international bodies (Nwachukwu and Okoye 2021). The Nigerian Union of Journalists and Nigeria Guild of Editors can equally initiate regional training events for journalists specifically targeting AI and digital competencies. In furtherance to this viewpoint, Ajibade and Isiekwena (2023) recommends collaborative bootcamps and modular e-learning programmes to enable journalists upskill without disrupting their work schedules. This is consistent with the submissions of Onyebuchi and Ezeugo (2023) who proposed collaboration between media organizations and journalism schools; including NUJ to foster mentorship, resource sharing, and hands-on exposure to real-world application of AI tools. The scholars are convinced that such collaborations can transform newsroom practice and also help journalists in Enugu gain the confidence and competence to engage with AI meaningfully.

Subsequently, researchers line Iroanusi and Adebanjo (2022) suggested tailored, modular journalists-friendly training programs that simplifies AI concepts and the associated tools without overwhelming participants. They further emphasized that such training programs should

focus on practical applications such as AI-assisted writing, fact-checking, and content generation; without necessarily attempting to turn journalists into data scientists but to empower them to leverage AI tools meaningfully in daily routines. Olatunji, Mba, and Ekene (2024) emphasized the importance of media training institutions in South-East, particularly Enugu to adopt a forward-thinking approach that exposes students to ethical AI use, algorithmic transparency, and content automation applications. This may require review and overhaul of journalism education curriculum to accommodate AI technologies as early exposure will demystify AI and reduce resistance among emerging journalists.

Gaps in the Literature

Despite the growing body of research on artificial intelligence (AI) and the overwhelming transformations in different industries around the world, a notable gap exist in how this shift is unfolding within the context of journalism in Nigeria, particularly at the subnational level like Enugu metropolis. Several scholars and literature have expressed the benefits of adopting AI technologies in the newsrooms including automating routine reporting tasks to personalizing content delivery, large majority of these studies reflect the experiences from technologically advanced Western media environment (Dörr, 2016; Marconi and Siegman, 2017; Broussard, 2018). Consequently, there is a clear disconnect between global AI journalism research and the realities in low-to-middle-income and emerging countries like Nigeria, where infrastructural, educational, and economic challenges may limit AI integration into journalism and other professions.

A major oversight in existing Nigerian literature is the insufficient attention paid to regional disparities in AI adoption within journalism. Much of the local scholarly work and empirical research focused broadly on digital media transitions (Okoro and Odoemelam, 2016; Agbo & Nwachukwu, 2021), social media impact, and newsroom convergence (Eze, 2019), often isolating AI as a distinct transformative force in the evolving digital transition. Even when AI is mentioned, the focus is typically on its disruptive potential rather than its skill and training implications for media professionals, particularly journalism.

Furthermore, subsisting literatures remain largely silent on journalists' perceptions, awareness levels, and actual training needs for AI-based tools in Nigeria as it relates to the practice of journalism. The absence of such bespoke empirical body of knowledge leaves a gap, leading to a crucial question of preparedness; how equipped are journalists in places like Enugu to engage with and leverage AI technologies in their daily works? More so, there is a dearth of empirical studies examining the specific types of AI tools being used by Nigerian journalists, and of course, the extent to which these tools are localized and suited to the unique sociopolitical and cultural environment of the Nigerian media landscape with focus on Enugu metropolis.

Another significant gap lies in the absence of documentation on existing AI-related training initiatives in Nigeria's journalism sector at large and Enugu metropolis. While AI technology is gaining traction in journalism parlance in technologically developed countries (Diakopoulos, 2019), there is little evidence that journalism schools or media organizations in Nigeria are incorporating AI literacy in their training modules. Moreover, the barriers to accessing such training are rarely studied in depth to ascertain whether it is grounded in infrastructural deficit, cost related, limited expertise institutional barrier.

It is foolhardy to neglect the willingness of journalists to embrace AI training, their concerns about job displacement, and their views on the ethical implications of AI in journalism are aspects that remain largely unexplored in the Nigerian journalistic parlance. Meanwhile, it is a smack of scholarship to assume that those factors do not matter. These gaps are critical, especially in a fast-changing media environment like Enugu where journalists are expected not only to report news but also to navigate new technologies, ethical challenges, and changing audience expectations.

Therefore, this study aims to bridge these gaps by focusing specifically on journalists in Enugu Metropolis, examining their awareness,

usage, training exposure and gaps, perceived challenges, and readiness for future AI-oriented competencies. In doing so, it will contribute original, localized insights that inform not only scholarly discourse but also practical training frameworks for journalism in Enugu's digital and AI-technology era.

Theoretical Review

In view of present-day evolving media landscape, the integration of artificial intelligence (AI) into journalism profession has necessitated the rethinking of traditional approach as well as training curriculum for journalism to reflect contemporary digital technologies. As journalists embrace and adapt to this new reality, theoretical models that explore human-technology interaction, professional adaptation, and digital competency development become invaluable for framing this study. Therefore, the researcher reasoned that a singular theoretical consideration may not adequately explore all the variables that combine to shape journalists disposition to AI technology and trainings needs for enhanced performance. Therefore, a broad spectrum of theories became necessary including Digital Disruption Theory, Technology Acceptance Model (TAM), Human Capital Theory and UNESCO Ethical AI Framework.

Digital Disruption Theory

Digital Disruption Theory emerged as a conceptual framework to explain how emerging digital technologies fundamentally transform traditional models, operations, and controlling structures across different industries around the world. The theory has found increasing relevance in media and journalism parlance, particularly in the global South where digital transitions is evolving amidst uneven infrastructure and readiness (Kaplan, 2021).

The core of digital disruption transcends technological advancement, encompassing unfolding displacement, restructuring, and ultimatelyreinvention and revolutions associated with digital technologies. It includes the process where digital innovations like artificial intelligence, blockchain and mobile platforms challenge and transform longstanding traditional methods, often faster than institutions can adapt (Mutsvairo and Ragnedda, 2022). In journalism, this manifests in disrupted newsroom hierarchies, redefined roles of gatekeepers, and new audience expectations for immediacy and personalization.

For journalists in emerging economies like Nigeria, particularly, Enugu metropolis, the disruption come in twofold. At one hand, it offers unprecedented tools to enhance speed and efficiency of reporting including real-time news gathering, data analytics andfact-checking. On the other, it creates new forms of challenges and inequality. For instance, while AI tools such as ChatGPT and QuillBot support productivity, they also undermine traditional journalistic process and widen the digital literacy gap among practitioners (Okoye, 2023). Additionally, Oladele and Njoku (2024) observed that digital disruption in African newsrooms environments emphasizes more about uneven adaptation driven by infrastructural and structural deficits as well as knowledge gap.

Digital Disruption Theory, therefore, offers more than a framework for critique, emphasizing reimagination; contending that institutionsincluding media unions, journalism schools, and all stakeholders move beyond reactive responses to proactive frameworks that support digital resilience and strategic transition plan. In this regard, scholars such as Adesanya and Moyo(2023) argue for a 'decolonized disruption response' that localizes innovation and aligns digital training with cultural, infrastructural, and ethical realities in Nigeria, especially Enugu.

For journalists in Enugu, digital disruption is not a reality in the distant, rather a practical experience as AI-powered tools like newswriting bots, transcription apps, and audience analytics platforms are increasing penetrating newsrooms, changing how stories are gathered, edited, and disseminated. Yet, this technological intrusion arrives in an environment largely unprepared for its implications. Many journalists still lack adequate training, policy support, and institutional readiness to adapt meaningfully. Okoye (2023) observed that Nigerian journalists often consider AI as "an uninvited guestimposing new expectations without offering the means to meet them.

Undoubtedly, digital disruption theoryhelps this study interpret the observed training gaps not merely as a lack of knowledge, but as a symptom of a wider structural lag. Newsrooms in Enugu are undergoing transformation without a commensurate transformation in professional development frameworks. Traditional journalistic routines which dependents on manual research, one-directional storytelling, and editor-centred authorityare giving way to real-time, data-driven reporting. The sad reality is that journalists who are untrainedare left overwhelmed and professionally vulnerable.

Additionally, the theory sheds light on mental and psychological disruption including how journalists perceive AI not just as a tool, but as a threat to editorial judgment, job security, and journalistic ethics. These perceptions, often rooted in fear of obsolescence and algorithmic bias, further reinforce the need for targeted interventions that go beyond skills acquisition to include reorientation, critical thinking, and ethical awareness (Tan & Agbaje, 2021).

In the context of Enugu metropolis where digital infrastructure is expanding but digital governance is lagging, digital disruption theory becomes particularly urgent. It allows scholars and practitioners to diagnose the dislocations caused by technology while envisioning pathways for inclusive digital transformation. Importantly, it contends that disruption should not be synonymous with marginalization, rather an opportunity to build adaptive, ethical, and citizen-oriented journalism ecosystems that serve both public interest and professional integrity.

In summary, Digital Disruption Theory offers this research a dynamic framework to assess the urgency of training needs, the barriers to adoption, and the readiness of journalists in Enugu Metropolis. It moves the study from a static skills-gap diagnosis to a broader interrogation of preparedness, perception, and institutional adaptability in the face of technological upheaval.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was propounded by Fred Davis in 1989. The Technology Acceptance Model (TAM) may be likened to a roadmap demystifying why people either choose to embrace, use or resist new technology. The original concept of TAM proposed two key components that shape users' disposition to technology. They include: (i) perceived usefulness (PU) which encapsulates the belief that using a particular technology i.e. AI technology in journalism will improve job performance (ii) perceived ease of use (PEOU) which emphasizes the belief that using the technology will be effortless; meaning that the technology should be user-friendly (Fred Davis 1989). In summary, the model concludes that if users are convinced that a tool is helpful and easy to use, they're more likely to adopt it.

As technology and people evolved, so did TAM. The theory has evolved over the years leading to TAM2 and TAM 3. Explaining TAM2, Venkatesh and Davis (2000) emphasized social influence factors including peer opinions and organizational support as well as cognitive processes such as job relevance and output quality as major factors affecting the disposition of individuals to technology. They also recognized environment factors and expectations as key influencers of tech acceptance.

Subsequently, TAM3 (Venkatesh & Bala, 2008) offers a more comprehensive model by incorporating additional variables making it more suitable for the study. The defining variable introduced in TAM 3 includes computer anxiety, computer self-efficacy (users' confidence in using computers), perceived enjoyment, and result demonstrability (how clear the results of using the technology are).

Undoubtedly, incorporating additional variables such as computer anxiety, self-efficacy, and perceived enjoyment as critical factors shaping the acceptance of technology are quite relevant to the study because they reflect the realities facing journalists in AI adoption in journalism, especially in Enugu metropolis (Venkatesh & Bala, 2016). For example, journalists in Enugu may find an AI transcription tool useful, but if they're anxious or unsure about how it works, they may hesitate or resist adoption even though it is advanced and offers plenty benefits.

TAM supports this study as it helps to understand why journalists in Enugu may resist AI tools even when they recognise its potentials. Evidence-based reports by Chris and Kalu (2025) and Ibitoye (2024) shows that low perceived ease of use grounded in the absence of training and organizational supportoften result in resistance and non-adoption. This theory reinforces the need for targeted and structured training interventions as the panacea for skill gap among journalist in Enugu. Consequently, this study contends that strategic training programme is a mandatory necessity to equip contemporary journalist in Enugu and the rest of Nigeria for global competitiveness in this era of digitized world, climaxed by AI revolution.

Human Capital Theory

Human Capital Theory which was first introduced by Becker (1964), views education and training as investments in individuals' skills and productive capabilities to enhance efficiency and performance. In journalism practice, this theory validates the urgency of AI training for professionals through continuous capacity building. Undoubtedly, for a developing journalism ecosystem like Enugu's, this theory provides the rationale for prioritising human capital development in response to digital disruption (Umeora, 2025).

UNESCO Ethical AI Framework

UNESCO's 2022 Recommendation for the Ethics of Artificial Intelligence provides a normative lens for responsible AI application in professional environments. It emphasizes fairness, explainability, transparency, and human oversight or supervision. In journalism, this framework helps contextualise how tools should be used, ensuring that innovation does not come at the expense of public trust, autonomy and democratic accountability (Roberts & Montoya, 2023). This will eliminate the fear of

Justification for Theoretical Framework

Assembling these related theories indicated that the study was anchored on a hybrid theoretical framework combining digital disruption theory, TAM, human capital theory and UNESCO ethical AI framework. This integrated approach allows for a contextual examination of the factors influencing AI training needs, including awareness, accessibility, emotional readiness, and skill alignment with job functions for journalists in Enugu metropolis. In the context of this study for instance:TAM explains adoption behaviour; Human Capital Theory justifies investment in training; and the UNESCO Ethical Framework ensures these interventions are grounded in human rights and professional ethics. Whereas digital disruption theory offers an interpretive framework that goes beyond surface-level observations. It helps this study explore deeper questions such as why are journalists underprepared? What barriers prevent AI training from taking root? What must change in policy and practice to support inclusive digital transition? In doing so, the theory underscores the emphasis of this study on capacity-building, adaptation, and ethical innovation as pillars for transforming journalism in Enugu and the rest of Nigeria.

Research Methodology

Research Design

This study adopts a descriptive survey research design, which is well-suited for understanding current realities, perceptions, and experiences of journalists operating in Enugu metropolis. The descriptive survey approach provides a structured pathway for gathering measurable data while allowing respondents to express their opinion and training needs in the context of AI adoption (Creswell & Creswell, 2018). Given the evolving nature of artificial intelligence in journalism, the survey method helps to capture emerging trends and patterns from different journalist across various expertise including print, broadcast, digital and multimedia.

Population of the Study

The population of this study comprises all practicing journalists in Enugu metropolitan area, including those working in print, broadcast, and online media platforms as well as freelance journalists. A study by Charles Ezema (2025) notes that Enugu metropolis has estimated four hundred (400) journalists.

Enugu metropolis was purposively selected due to its growing media presence, digital penetration, and role as emerging regional hub for journalistic activities in southeastern Nigeria. This includes both freelance and full-

time journalists affiliated with registered news organizations and press bodies.

Sampling Method and Sample Size

To achieve a comprehensive representation, the study employed purposive sampling to target journalists who are actively engaged in the profession in Enugu metropolis with appreciable knowledge of the subject matter who can provide reasonable information. This choice was based on the understanding that AI adoption in journalism is still an emerging area, and the relevant respondents must have basic digital exposure (Bryman, 2021).

A total of 120 respondents will be surveyed. This figure is considered adequate based on Cochran's (1977) formula for determining sample size for descriptive studies, especially where the population is not extremely large but still diverse in occupational roles and experiences.

Sampling Technique

In view of digital literacy and scattered professional locations of journalists, the researcher intentionally adopted snowball sampling technique to accommodate the mobile nature of the respondents. The practical application, recruited initial respondents who met the selection criteria; including being a journalist in Enugu metropolis, willingness to be part of the survey as well as being knowledgeable about the subject area i.e. artificial intelligence and digitally aware. Thereafter, they helped refer other qualified participants for the survey (Etikan, Musa, & Alkassim, 2016).

Vincent and Mathew (2023) emphasizes that snowball sampling aligns well with digital research methodologies where mobile professionals like journalists who may not be easily accessible through conventional methods need to be surveyed. In their study of digital adoption among media workers in sub-Saharan Africa, they found that social media platforms and instant messaging apps like WhatsApp and Telegram provide conducive and convenient conditions for snowball referrals. Bryman (2021) argues that this sampling technique is consistent with the researcher's adoption of online questionnaire distribution strategy, allowing for wider and convenient reach within the journalistic community. It is very suitable for their mobile profession.

To address the default bias associated with snowball sampling, where respondents refer people within their social and ideological circles (Acharya, Prakash, Saxena, and Nigam, 2019); the researcher intentionally recruited respondents from wider and different professional leaning including broadcast journalist, print journalist, online bloggers, freelance and multimedia experts to ensure a more balanced and heterogeneous sample (Lopez, 2020).

Method of Data Collection

Data collection for the study was done using a structured questionnaire administered and distributed electronically through email, WhatsApp, and appropriate social media platforms commonly used by journalists. The choice of an online survey tool is both cost-effective and convenient, particularly for respondents who operate in a mobile and fast-paced work environment. Digital survey enhances ease of access, convenience and anonymity, which encourages honest responses (Nwachukwu & Okoye, 2021).

The questionnaire consisted of closed-ended and Likert-scale questions, tailored to capture demographic information, AI awareness, training history and deficits, perceived benefits and challenges, as well as respondents' willingness to participate in AI tailored training events.

Method of Data Analysis

The collected data was analysed using descriptive and inferential statistical methods with the aid of Statistical Package for Social Sciences (SPSS) version 26. The research leveraged descriptive statistics such as frequencies, percentages to summarize respondents' feedback including their demographic profiles.

This analytical approach provides a nuanced understanding of the training gaps while offering quantitative insights that can inform evidence-based and well-guide curriculum design to address training gaps for journalists in Enugu metropolis (Ojebuyi & Edewor, 2019).

Findings and Discussion

The finding and discussion presented here was based on the responses of 115 respondents out of 120 journalists who received our online questionnaire in Enugu Metropolis. The study adopted SPSS style (versions 26) frequency and percentage tables to summarize the outcome of the research objectives in table 1.

Table 1: Summary of Findings (Frequency and Percentage)

Research Objective	Variable	Response Category	Frequency	Percentage (%)
1. Awareness and usage of AI technologies	AI Awareness	Yes	95	82.6%
		No	20	17.4%
	AI Usage	Yes	78	67.8%
		No	37	32.2%
2. Types of AI tools available	AI Tools Known	ChatGPT	28	24.3%
		Grammarly	26	22.6%
		Canva	22	19.1%
		QuillBot	20	17.4%
		Copy.ai	19	16.5%
3. Training needs for AI	AI Training Needed	Yes	110	95.7%
		No	5	4.3%
4. AI-related training already received	AI Training Received	Yes	28	24.3%
		No	87	75.7%
5. Perception of AI's impact	AI Impact Perception	Positive	82	71.3%
		Negative	21	18.3%
		Neutral	12	10.4%
6. Barriers to AI training	AI Training Barriers	Lack of access	28	24.3%
		Poor awareness	25	21.7%
		Funding	22	19.1%
		Limited time	20	17.4%
		Institutional apathy	20	17.4%
7. Willingness to participate in future training	Willing to Train	Yes	103	89.6%
		No	12	10.4%

Awareness and Usage of AI Technologies

A significant proportion of the respondents, **82.6%** of journalists in Enugu Metropolis are aware of AI technologies whereas **67.8%** have applied them in doing their work. This aligns with trends observed by Statista (2024), indicating increasing exposure to AI tools in urban Nigerian journalism hubs while adoption and usage gap exist, likely reflecting infrastructural and skills barriers.Digital Rights Lawyers Initiative (2023) notes that, "Awareness without corresponding threshold of deep usage reflects surface-level engagement, not transformation."

Types of AI Tools Known and Used

The journalists surveyed reported familiarity with contemporary AI tools such as ChatGPT (24.3%), Grammarly (22.6%), and Canva (19.1%). These are predominantly content generation and editing tools thereby indicating that AI application is still restricted to low-complexity tasks. Tools like QuillBot and Copy.ai were less known among the journalists surveyed in Enugu metropolis.

This reinforces a training gap in the use of advanced AI tools for data journalism, investigative reporting and automation, which

have become increasingly vital in the global newsroom operations (Ajiboye, 2023).

Training Needs on AI

Nearly all respondents (**95.7%**) indicated they need AI training, validating the outcome of research objective 3. This high percentage underscores a clear demand for focused capacity-building programs for journalists, especially in Enugu metropolis as it transforms into a regional media hub in South-Eastern Nigeria. This is consistent with the assertion of Okeke & Nwachukwu (2022)that Nigerian journalists express high receptiveness to digital innovation but lack structured and affordable upskilling platforms.

Recent AI-Related Training Received

Only 24.3% of the journalist surveyed in Enugu had received any recent AI-related training, indicating a significant training-access gap of over 70%. Most existing exposure comes from self-learning or irregular NGO-led workshops. There is total absence of institutionalized AI-focused curriculum in most newsrooms and press unions. This aligns with the position of Nwafor (2021) who argued that media development in Nigeria lacks strategically structured digital transition policies and roadmaps for the next generation of professionals.

Perception of AI's Impact on Professional Work

Majority of respondents (71.3%) perceive AI's impact as positive, particularly for efficiency, speed, and content refinement. A smaller group (18.3%) expressed concerns about job displacement and reduced editorial control. This view reflects global media standpoint about AI being an enabler and a disruptor (Lyu, 2023; UNESCO, 2022).

Barriers to AI Training Access

Top among the barriers to AI adoption by journalist include lack of access (24.3%), poor awareness (21.7%), and funding constraints (19.1%). Institutional issues like apathy and inflexible schedules are not completely exonerated as impeding barriers.These findings mirror the challenges outlined by Gwagwa (2021), emphasizing that African newsrooms face both structural challenges and technological adaptation limitations.

Willingness to Participate in Future AI Training

A significant majority (**89.6%**) of the respondents expressed willingness to attend structured AI training if available. This indicates latent enthusiasm and potential for high program participation, particularly among younger professionals in Enugu.

Conclusion

This study reveals that while awareness of AI among journalists in Enugu Metropolis is growing, actual training and advanced usage remain reasonably low because of access and funding limitations. Most journalists recognize AI's potential benefits but lack the structured capacity-building necessary optimise them for work. The willingness of journalists in Enugu to learn and adapt is evident; just as systemic and infrastructural access gaps exist along with absence of institutional roadmap and commitment to strategic digital transition. Bridging this divide requires urgent stakeholders' collaboration between media organizations, educational institutions, policymakers, and technology providers. Such partnership will address the training and skills requirement to upgrade journalist in Enugu and Nigeria at large for global relevance and completeness in the contemporary digitized world.

Recommendations

1. Develop AI Journalism Bootcamps in partnership with universities and media unions.
2. Integrate AI modules into journalism curricula at mass communication schools including Nigerian Union of Journalism in South-East Nigeria.
3. Provide AI focused newsroom-based micro-certifications for active professionals in collaboration with platforms like Google News Initiative, International Centre for Journalist (ICFJ) as well as Nigerian Union of Journalist (NUJ).
4. It is important for industry thought leaders to consider creating AI Fellowship Programs targeted at early-

career journalists in collaboration with international donors.

5. Intensify strategic AI literacy awareness campaigns to promote the benefits of the technology and demystify fears of job loss and algorithmic manipulation. This will equally address the sentiment of leaving editorial control to machine and subsequently position AI as complimentary tools to enhance efficiency and productivity while empowering Journalist in Enugu for global competitiveness.
6. It is equally important to streamline and strengthen data protection framework through relevant agencies such as National Information Technology Development Agency (NITDA, 2001), Nigeria Data Protection Commission (NDPC, 2022), Nigeria Data Protection Regulation (NDPR, 2019) and Data Protection Compliance Organisations (DPCO, 2021). The multiplicity of agencies for data protection makes the process extremely bureaucratic thus, needing a restructure for effective and harmonized operations. This will mitigate or eliminate the fear of ethical bias. It will also make violation of data privacy enforceable.

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