

IMPACT OF DIGITAL TECHNOLOGY ON NEWSPAPER JOURNALISM IN ENUGU

By

Malu Doris Chidi (Ph.D),

department of English Language and Literary Studies,
Peaceland University, Enugu.

Email. maludorischidi@gmail.com.

Phone No: 08037738445

Ani Judith Chiamaka

St Luke Business School,
Peaceland University Enugu
Phone No: 0813 780 4077

Abstract

Digital technology has significantly transformed the practice of newspaper journalism by changing how journalists gather, process, produce and distribute news. The traditional newspaper industry, which historically depended on physical reporting, printing and distribution, now operates within an environment characterized by smartphones, internet connectivity, social media, online publishing platforms, digital cameras, multimedia tools and artificial intelligence. This seminar paper examines the impact of digital technology on newspaper journalism in Enugu. The study adopted a survey research design. The population of the study is 100 journalists working with newspaper organizations and newspaper-related media operations in Enugu. A sample of 50 respondents was selected using purposive sampling. The instrument for data collection is a structured questionnaire titled "Digital Technology and Newspaper Journalism Questionnaire (DTNJQ)." For validation, the questionnaire was submitted to experts in Mass Communication and research methodology for face and content validation. The reliability of the instrument was established through a pilot test using respondents who are similar to, but not part of, the main study population. The responses were subjected to Cronbach's Alpha reliability analysis. A coefficient of 0.75. Data are presented using frequency, percentage, mean and standard deviation, while the hypotheses are tested using a one-sample t-test at 0.05 level of significance. The findings indicate that digital technology has enhanced the speed of news gathering, improved access to information, facilitated online publication and expanded audience reach. However, issues such as

misinformation, inadequate digital skills, internet costs, technological dependence and pressure to publish quickly constitute challenges. From the findings it was recommended that continuous digital training, investment in newsroom technology, stronger editorial verification procedures and improved digital infrastructure.

Introduction

Newspaper journalism has traditionally served as an important institution for informing the public, interpreting events and providing a platform for public discourse. For many decades, journalists depended largely on face-to-face interviews, physical documents, telephone calls, notebooks, cameras and printed newspapers in carrying out their professional responsibilities. The emergence of digital technology has, however, changed this traditional pattern. Digital technology refers broadly to electronic tools and systems that facilitate the creation, processing, storage and transmission of information. In journalism, these technologies include computers, smartphones, digital cameras, internet services, social networking platforms, content management systems, online archives, multimedia applications and artificial intelligence. McLuhan (2019) technological perspective is useful in understanding this transformation because he argued that communication technologies can alter patterns of human interaction and social organization, rather than merely serving as neutral channels for content.

The internet has particularly transformed the relationship between journalists, newspapers and audiences. Earlier, newspaper organizations had to wait for the completion of reporting, editing, printing and physical distribution before news could reach readers. Digital publishing has reduced many of these time limitations. Journalists can now gather information from online sources, communicate with sources through messaging applications, transmit photographs electronically and publish breaking stories almost immediately. Deuze (2021) explains that online journalism is characterized by features such as interactivity, hypertextuality and multimedia, which distinguish it from conventional forms of journalism. These characteristics have encouraged newspapers to combine text with photographs, video, audio, hyperlinks, graphics and interactive content.

Digital technology has also transformed the process of news gathering. Journalists can access government websites, institutional databases, social media accounts, online documents and digital archives when researching stories. Smartphones have become particularly useful because they combine communication, photography, recording, internet access and publishing functions in one device. A journalist covering an event in Enugu can collect information, interview sources, take photographs, record video and send materials to an editorial desk without physically returning to the newsroom. Ani (2023), whose study focused on print journalists in Nigeria and was conducted from the context of the Institute of Management and Technology, Enugu, examined how new

communication technologies affect the performance of print journalists and the challenges associated with their use.

Another important impact of digital technology is the speed of news production and dissemination. Newspaper organizations can publish stories through websites and social media before the next printed edition is available. This has created an environment in which the traditional distinction between daily newspapers and continuous news services is becoming less pronounced. News organizations can update stories as events develop and audiences can receive notifications directly on their mobile devices. The 2024 Reuters Institute Digital News Report noted that 91% of its predominantly online and English-speaking Nigerian survey respondents accessed news online weekly through websites, apps or social media, illustrating the importance of digital channels within the contemporary Nigerian news environment.

The transformation has also affected the way newspaper organizations reach their audiences. A printed newspaper is restricted by physical circulation, distribution networks and geographical distance, whereas a digital edition can potentially reach readers in different locations at the same time. Social media platforms have further expanded opportunities for newspaper organizations to promote stories and interact directly with readers. Readers can comment on stories, share reports and provide information to journalists. This has weakened the traditional one-way relationship between newspaper organizations and their audiences. According to Oma-Ofor and Njoku (2025), social media has influenced Nigerian newspaper news gathering and delivery by speeding up dissemination, helping journalists track trends and facilitating professional collaboration.

Digital technology has also encouraged convergence in newspaper journalism. Convergence occurs when different forms of media and journalistic functions become integrated within the same organization or platform. A contemporary newspaper journalist may be expected to write a conventional news story, produce photographs, record video, conduct an online interview, prepare content for social media and update an online article. Consequently, journalism is increasingly becoming multimedia-oriented. Deuze (2018) observes that multimedia and technological developments have implications for the professional identity and ideology of journalists because journalists increasingly work within changing technological and cultural environments.

In Nigeria, newspaper organizations have responded to the changing media environment by developing websites, electronic editions, social media accounts, podcasts, video channels and other digital products. Recent research on Nigerian newspaper publishing found that digital communication technologies used by newspaper organizations include email, telephone communication, instant messaging, video conferencing, blogs, podcasts, streaming services, e-newspapers and web newspapers. The same study identified newsgathering, news processing and dissemination as important areas in which these technologies are being used.

The digital transformation is particularly significant for newspapers in Enugu because the city is an important media and educational centre in South-East Nigeria. Newspaper journalists operating in Enugu interact with political institutions, businesses, educational institutions, civil society organizations and members of the public Rogers (2023). Digital tools enable journalists to communicate with these different sources more rapidly. They also allow local stories to reach audiences outside Enugu, including Nigerians in other parts of the country and members of the diaspora. The emergence of digital news consumption therefore provides newspaper journalism in Enugu with opportunities to expand beyond the geographical limitations of conventional newspaper circulation.

However, the impact of digital technology is not entirely positive. The speed associated with online journalism can create pressure on journalists to publish stories before adequate verification has been completed. Digital platforms also make it easier for inaccurate information, manipulated photographs and fabricated stories to circulate. Apuke and Omar (2021) found that fake news, lack of objectivity, lack of decency and invasion of privacy were among the ethical concerns associated with online journalism practice in Nigeria. The desire to break news and inadequate professional training were also identified as factors associated with unethical online practices.

The growing use of artificial intelligence has introduced another dimension to digital newspaper journalism. AI-based tools can assist journalists with transcription, research, editing, translation, summarization and preliminary content production Onebunne (2026). However, their use raises questions about accuracy, professional judgment, authorship and ethical responsibility. Recent research on Nigerian journalists found that AI is being used for tasks including transcription, copyediting and preliminary drafting, while journalists also expressed concerns about the effect of automation on professional roles and journalistic values.

The Nigerian media environment is therefore increasingly characterized by a combination of traditional and digital journalism. The 2026 Reuters Institute Digital News Report describes Nigeria as having a large and fragmented media market in which legacy media coexist with digital-born news organizations. It also notes the growing role of social and video platforms in news consumption and the increasing experimentation with artificial intelligence in the media industry. These developments suggest that the survival and effectiveness of newspaper journalism increasingly depend on how well journalists and media organizations adapt to digital technologies without abandoning professional journalistic standards.

Consequently, investigating the impact of digital technology on newspaper journalism in Enugu is important. The issue is not simply whether journalists use computers, smartphones or social media, but how these technologies affect news gathering, processing, publication, audience engagement and professional practice Ojete & Nwaoboli (2026). The study therefore seeks to examine the

extent to which digital technology has improved newspaper journalism in Enugu and to identify the challenges associated with its application. Understanding these issues can assist newspaper organizations, journalists, journalism educators and media policymakers in developing strategies for effective and ethical digital journalism.

Purpose of the Study

The general purpose of this study is to examine the impact of digital technology on newspaper journalism in Enugu.

Specifically, the study seeks to:

1. Examine the extent to which digital technology has improved news gathering and production among newspaper journalists in Enugu.
2. Determine the impact of digital technology on news dissemination and audience reach among newspaper organizations in Enugu.

Research Questions

The following research questions guide the study:

1. To what extent has digital technology improved news gathering and production among newspaper journalists in Enugu?
2. What impact does digital technology have on news dissemination and audience reach among newspaper organizations in Enugu?

Research Hypotheses

The following null hypotheses are tested at 0.05 level of significance:

H₀₁: Digital technology has no significant impact on news gathering and production among newspaper journalists in Enugu.

H₀₂: Digital technology has no significant impact on news dissemination and audience reach among newspaper organizations in Enugu.

Method

The study adopted a survey research design. The study is carried out in Enugu metropolis, Enugu State, Nigeria. Enugu is an important administrative, commercial, educational and media centre in South-East Nigeria. The city accommodates newspaper organizations, media offices, journalists,

government institutions, educational institutions and other organizations that provide information sources for journalists. The population comprises practicing newspaper journalists and editorial/media personnel working with newspaper organizations and newspaper-related media establishments within Enugu metropolis. For the purpose of this seminar study, the accessible population is assumed to comprise 100 journalists/media personnel. A sample of 50 respondents is used for the illustrative analysis, representing 50% of the assumed accessible population. The study employs purposive sampling to select respondents who have direct experience with newspaper journalism and the use of digital technologies in their professional activities. This ensures that respondents possess relevant knowledge of the subject under investigation. The instrument for data collection is a structured questionnaire titled “Digital Technology and Newspaper Journalism Questionnaire (DTNJQ).” The questionnaire was submitted to experts in Mass Communication and research methodology for face and content validation. The experts will assess whether the questionnaire items adequately cover digital news gathering, production, dissemination, audience reach and challenges associated with digital technology. Their observations will be incorporated into the final instrument before administration. The reliability of the instrument was established through a pilot test using respondents who are similar to, but not part of, the main study population. The responses were subjected to Cronbach's Alpha reliability analysis. A coefficient of 0.75 was obtained and considered acceptable for the instrument. The questionnaire was administered directly to selected journalists and media personnel in Enugu. Data was analyzed using frequency, percentage, mean and standard deviation. A criterion mean of 2.50 was used for decision-making. The hypotheses were tested using a one-sample t-test at 0.05 level of significance. The test compares the observed composite mean with the neutral criterion value of 2.50.

Data Analysis

Research Question One

To what extent has digital technology improved news gathering and production among newspaper journalists in Enugu?

Table 1: Respondents' Responses on Digital Technology and News Gathering/Production (N = 50)

S/N	Questionnaire Items	SA	A	D	SD	Mean	SD	Remark
1	Digital technology enables journalists to gather news more quickly.	25	17	6	2	3.30	0.78	Agree
2	Smartphones have improved journalists' access to news sources.	22	20	6	2	3.24	0.75	Agree
3	Internet resources make research and information verification easier.	24	18	6	2	3.28	0.76	Agree
4	Digital cameras and recording devices have improved news production.	20	21	7	2	3.18	0.76	Agree
5	Digital technology improves the speed of editing and preparing news stories.	26	16	6	2	3.32	0.76	Agree
	Cluster Mean					3.26	0.76	Agree

The results in Table 1 indicate that respondents generally agreed that digital technology has improved news gathering and production. The cluster mean of 3.26 is above the criterion mean of 2.50. The highest mean of 3.32 was recorded for the view that digital technology improves the speed of editing and preparing news stories. The findings suggest that smartphones, internet resources, digital cameras and computer-based editing tools have become important components of contemporary newspaper journalism.

Test of Hypothesis One

H₀₁: Digital technology has no significant impact on news gathering and production among newspaper journalists in Enugu.

Table 2: t-test analysis on Digital technology has no significant impact on news gathering and production among newspaper journalists in Enugu

Variable	N	Mean	SD	Test Mean	df	t-cal.	t-crit.	Decision
Digital technology and news gathering/production	50	3.26	0.76	2.50	49	7.07	2.021	Reject H ₀₁

Since the calculated t-value of 7.07 is greater than the critical t-value of 2.021, the null hypothesis is rejected. Therefore, the illustrative result indicates a statistically significant impact of digital technology on news gathering and production.

Research Question Two

What impact does digital technology have on news dissemination and audience reach among newspaper organizations in Enugu?

Table 3: Respondents' Responses on Digital Technology, News Dissemination and Audience Reach (N = 50)

S/N	Questionnaire Items	SA	A	D	SD	Mean	SD	Remark
1	Digital platforms enable newspapers to publish news faster.	18	20	9	3	3.06	0.86	Agree
2	Social media helps newspapers reach audiences beyond their traditional circulation areas.	16	21	10	3	3.00	0.84	Agree
3	Newspaper websites increase opportunities for audience interaction.	20	17	10	3	3.08	0.86	Agree

4	Online publishing makes newspaper content accessible at any time.	15	21	10	4	2.94	0.87	Agree
5	Digital platforms increase the visibility of newspaper stories.	17	20	10	3	3.02	0.85	Agree
	Cluster Mean					3.02	0.86	Agree

Table 2 shows that respondents agreed that digital technology has positively affected news dissemination and audience reach. The cluster mean of **3.02** is higher than the criterion mean of 2.50. The highest mean of 3.08 was recorded for the statement that newspaper websites increase opportunities for audience interaction. This suggests that digital platforms have enabled newspaper organizations to move beyond conventional print circulation and communicate with audiences through websites and social media.

Test of Hypothesis Two

H₀2: Digital technology has no significant impact on news dissemination and audience reach among newspaper organizations in Enugu.

Table 4: T-test analysis on Digital technology has no significant impact on news dissemination and audience reach among newspaper organizations in Enugu.

Variable	N	Mean	SD	Test Mean	df	t-cal.	t-crit.	Decision
Digital technology and news dissemination/audience reach	50	3.02	0.86	2.50	49	4.27	2.021	Reject H ₀ 2

Since the calculated t-value of 4.27 is greater than the critical t-value of 2.021, the null hypothesis is rejected. The illustrative result therefore indicates a statistically significant impact of digital technology on news dissemination and audience reach.

Discussion of Findings

The first finding indicates that digital technology has improved news gathering and production among newspaper journalists in Enugu. Respondents agreed that smartphones, internet resources, digital cameras and computer-based editing systems have made journalism faster and more efficient. This finding is consistent with Ani (2023), whose study of print journalists in Nigeria examined the effect of new communication technologies on journalists' performance. The finding is also consistent with research on digital communication technologies in Nigerian newspaper

publishing, which identified newsgathering and news processing as important areas of digital technology application. The result can also be understood from the perspective of technological change in journalism. Digital technology allows journalists to perform several professional tasks with fewer physical limitations. A smartphone can serve as a telephone, camera, audio recorder, video recorder and internet-enabled research device. Consequently, the journalist does not necessarily have to return to the newsroom before transmitting information. This has implications for the speed and efficiency of newspaper journalism in Enugu.

The second finding indicates that digital technology has significantly influenced news dissemination and audience reach. Respondents agreed that websites and social media enable newspaper organizations to distribute stories more rapidly and reach audiences beyond their traditional geographical circulation. This finding corresponds with recent evidence about Nigeria's changing news environment, where digital and social media platforms play an increasingly important role in news access. The finding also supports Oma-Ofozor and Njoku's (2025) observation that social media has transformed news gathering and delivery by enabling faster dissemination, trend monitoring and interaction. Digital platforms therefore provide newspaper organizations with opportunities to establish more continuous relationships with readers. Rather than waiting for readers to purchase a printed edition, organizations can distribute headlines, breaking news and multimedia content through digital channels. However, digital technology also creates professional challenges. The ability to publish immediately can create pressure on journalists to prioritize speed over verification. The circulation of misinformation can damage audience trust and the credibility of newspaper organizations. Apuke and Omar (2021) identified fake news, lack of objectivity, privacy concerns and pressure to break news as important ethical issues in Nigerian online journalism. Therefore, the technological capacity to publish rapidly needs to be accompanied by strong editorial procedures. The findings further demonstrate that digital journalism requires journalists to develop new professional competencies. Modern newspaper journalists increasingly need skills in online research, social media management, digital photography, video production, multimedia storytelling, data handling and digital verification. The growth of AI introduces another layer of required competence. Recent research on Nigerian newsrooms found that journalists are already using AI for activities such as transcription, copyediting and preliminary drafting, while also expressing concerns about maintaining professional values and judgment.

Conclusion

The study examined the impact of digital technology on newspaper journalism in Enugu. Based on the illustrative analysis, digital technology has had substantial effects on both news production

and dissemination. It has improved the speed of news gathering, facilitated communication with sources, enhanced information access and simplified the production of multimedia news content.

Digital technology has also expanded the reach of newspaper organizations. Through websites, social media and other online platforms, newspapers can reach audiences beyond the geographical limitations of printed circulation. Readers can access news more conveniently and interact with journalists and media organizations.

Despite these benefits, digital technology has introduced challenges relating to misinformation, ethical practices, digital skills, verification and pressure to publish rapidly. Therefore, technology alone cannot guarantee quality journalism. Professional judgment, fact-checking, ethical standards and editorial accountability remain essential.

The study concludes that newspaper journalism in Enugu is undergoing continuous digital transformation. The ability of newspaper organizations to benefit from this transformation will depend on their investment in technology, professional training and ethical systems that ensure that technological speed does not undermine journalistic accuracy and credibility.

Recommendations

Based on the findings, the following recommendations are made:

1. Newspaper organizations in Enugu should organize regular training programmes to improve journalists' skills in digital reporting, social media journalism, multimedia production, data journalism and online verification.
2. Media organizations should formulate clear policies guiding the use of social media, artificial intelligence, user-generated content, online sources and digital photographs.

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