Check for updates

New World Information and Communication Order and Its Changing Role in Nigerian Television Authority (NTA) Kano

Eric Msughter Aondover[1] iD, Solomon A. Oyeleye[1] iD, & Maiwada Abdullahi Aliyu[2]

[1] Department of Mass Communication, Caleb University, Lagos, Nigeria

[2] Department of Theatre Arts, University of Abuja, Abuja, Nigeria

ABSTRACT

Media technologies have been considered freeing and empowering since the twentieth century, as they aid in enhancing human capacity. In the media and communication industries, technologies have aided human manipulation of mechanical and electronic processes. Arguably, social interactions were improved by extending audience reach, broadening coverage, changing time and location constraints, and bridging important gaps in information. In this context, this study used in-depth interviews as the research method, and thematic analysis was employed to analyze the data gathered based on the themes that emerged during the interviews. The population of the study consisted of 106 staff in the Nigerian Television Authority (NTA) Kano, and a purposive sampling technique was used to select 15 participants for the study. This study is premised on the Domestication and Technological Determinism Theories. The findings of the study revealed that quality information dissemination, good visualization, easy access to information, and quick spread of information to the target audience are among the factors responsible for the adoption of information technology in NTA Kano. The study concludes that there is a need for an increasing level of information technology, especially NTA Kano, to enhance adequate information dissemination. There is also a need to address financial difficulties, lack of constant training and retraining of staff, poor state of equipment or lack of maintenance, and lack of adequate funding to ensure the proper and smooth running of modern technologies in NTA Kano.

Keywords

changing role; information; mass media; NTA Kano; technology

Contact: Eric Msughter Aondover ✉ aondover7@gmail.com

INTRODUCTION

Societies require knowledge for various reasons, as they progress. Societies require the correct kind of knowledge and information to develop the right physical infrastructure or improve current social systems. As the central circulatory system transports oxygen to all regions of the body and eliminates potentially harmful elements, mass media is expected to provide life-giving knowledge to society's most remote individuals (Pate, 2021). Access to necessary information aids in the removal of barriers to societal well-being such as ignorance or adherence to discordant beliefs and thoughts. Broadcast media is meant to foster peaceful coexistence in society. Technology is intended to improve the efficiency of broadcast media in delivering information.

Digital media have emerged as a result of advancements in Digital Information Communication Technologies (D-ICTs). However, owing to the digital gap between countries and continents, global improvements remain uneven. As technology-based media communication imperatives become more powerful aspects of knowledge-driven societies, there is a pressing need to advance theoretical insights into the issue of gaining a better perspective on media communication imperatives, particularly in relation to the position of a technology-dependent nation (Mojaye & Ogunyombo, 2022).

Information and communication technologies (ICTs) have resulted in enormous advances in all areas of human activity. The mass communication media–radio, television, newspapers, magazines, and so on - were not immune to the great transformation. In particular, satellites have produced instantaneous and simultaneous news, particularly in broadcast media. As a result, new technologies have made media practitioners' jobs more effective, interesting, simple, less expensive, faster, more reliable, and perhaps the most profitable (Fayoyin, 2021). Within this context, the development of electromagnetic technologies, such as microcircuiting, micrographics, holographic memory, microelectronics, optic-fiber satellites, video discs, telex, view data, digital broadcast systems, facsimiles, videophones, computers, and microprocessors, has undoubtedly revolutionized information gathering, processing, storage, retrieval, and transmission, making information available more widely, quickly, and cheaply (Maida, 1996; Idemili & Sambe, 2007; Sambe, 2007; Kurfi & Aondover, 2021).

Today, television broadcasting has undergone many transformations from the era of monochrome to color television broadcasting, from low-quality VHS cameras to DVcam, Videophones, Electronic News Gathering (ENG), and Satellite News Gathering (SNG) gadgets. Information and Communication Technologies (ICTs) have improved TV production and presentations. Gone is the number of days of linear editing, and editing is now performed digitally with the aid of a computer. This is known as non-

linear editing. This ensures effective editing and high-quality post-production (Kurfi et al., 2021).

Consequently, technology and mass communication are always at odds. Every new form of technology that emerges in mass media has a way of infiltrating itself into mass communication practices. Johann Gutenberg's invention of the printing press in the 15th century was followed by a slew of technological improvements in communication, printing, databases, and computing technology before arriving at where mass communication is now. Various technologies have generated new platforms and routes in the field of mass communication, which are still evolving on a regular basis (Anderson & Ross, 2001; Ayotunde, 2012; Ugwu et al., 2021). Thus, this study examines the New World Information and Communication Order within the context of broadcast media using NTA Kano.

When UNESCO was setting up the McBride Commission to look into the impact of new technology on the media development of the development world, it intended to make the new media technology available for the development of the whole world, so there could be some measure of development across the world (Mergui, 1981; Jackson, 1982; Palmer, 2012). However, network societies are becoming increasingly interconnected. Westernized civilizations are interconnected with those in the Global South, and both individuals and media organizations produce content.

The introduction of Information and Communication Technologies (ICTs) has resulted in massive changes in the media sector worldwide. Media from different countries, particularly in the Western World, are adopting and utilizing the myriad opportunities afforded by modern ICTs for more efficiency, better quality, faster production, and delivery of more reliable and cost-effective services. There is a knowledge gap in the literature; however, most broadcast media in Nigeria and Africa have yet to fully catch up with this new trend. According to the Economic Commission for Africa, only a few African countries have begun the process of developing ICT policies, and many countries' mechanisms fall short of the minimum standard.

Nigerian media is also challenged by the issue of adapting foreign technologies to meet local needs (Kadiri et al., 2015; Abegunde & Fajimbola, 2018). Again, substantial infrastructure gaps remain, particularly in the areas of energy and telecommunications as well as in the training of media employees to use some of these highly advanced operational instruments. Thus, according to Ogah (2007), newly emerging trends in technology and mass media globally indicate that the mass media in Nigeria will increasingly be left behind unless the country breaks the cycle of economic stagnation and achieves a higher level of development that will guarantee its citizens a higher standard of living, which will be a strong stimulus for the production and consumption of new technologies.

The mass media in Nigeria is also faced with the problem of adopting foreign technologies to suit local needs (Kadiri et al., 2015; Abegunde & Fajimbola, 2018). Again, there are still serious lapses in infrastructure, especially in the areas of electricity and telecommunications as well as in the training of media personnel to handle some of these new sophisticated operational tools. Thus, Ogah (2007) observes that the newly emerging trends regarding technology and the mass media globally indicate that the mass media in Nigeria will increasingly be left behind unless the country breaks the chain of economic stagnation and achieves a higher level of development that will guarantee its citizens a higher standard of living, which will be a strong stimulus for the production and consumption of new technologies.

As a result, it is sufficient to claim that the issue in this study does not determine the relevance of ICTs in modern mass media. It is well recognized that new ICTs is important in the media. Rather, the real concern is to scientifically investigate information technology and the changing role of Nigerian mass media, with particular reference to NTA Kano. Prior research indicates that there is already a dichotomy in information diffusion, resulting in a digital divide between the "information haves" or "digital highway users" who can afford to acquire and use multiple sophisticated media technologies and the "information have-nots," who may be unable to afford and operate a computer or pay the bill for an internet service connection and subscription.

Hence, if the subject is ignored or overlooked, the existing knowledge gap caused by the absence or use of new media technologies will continue to widen, resulting in widespread ignorance, illiteracy, poverty, wars, hunger, diseases, and desires. To fill this gap in the literature, this study uses NTA Kano to investigate New World Information and Communication Order in the context of broadcast media. The purpose of this research is to investigate the New World Information and Communication Order in the context of broadcast media using NTA Kano. The following core techniques of inquiry were established, based on the following gaps and objectives:

a. What factors are responsible for the adoption of information technology in NTA Kano?
b. What are the implications of the present level of information technology on NTA Kano?
c. What are the challenges faced by NTA Kano in the adoption of new information technology?
d. What are the ways to improve the adoption of information technology by NTA Kano?

LITERATURE REVIEW

The McBride Commission aims to make new media technologies available for global development. The concept of the New World Information and Communication Order (NWICO) has been debated worldwide. Then came Marshal McLuhan's prediction of a day when the rate of technological growth in media will cause the globe to become a "global village." The concept behind this was to imagine a period in which technology would allow everyone to know what everyone else was doing at all times. This appears unlikely. The growth of the Internet and the World Wide Web, on the other hand, has accelerated the realization of this forecast. Today, the global networking of computers, mass manufacture of mobile phones, and the capacity of programmers to develop programs that allow computers and phones to do previously unimaginable things have drastically changed our lives and how we do things. New technologies have succeeded in broadening the information horizon by greatly increasing the number of people engaging in global communication as well as the number of problems being debated. As a result, the key distinguishing feature of the human world–order–is being questioned (Adeyanju, 2022).

Chukwunalu et al. (2022) used a descriptive big data survey research design to investigate the impact of local language used in radio programming. The study population included all Delta North residents, from whom a stratified random sampling technique was used to select a sample of 10 broadcast employees and 120 radio listeners in Nigeria's Delta North Senatorial District. A structured questionnaire with closed questions and a self-structured interview were used to collect data. Frequency distribution tables, percentages, and charts were used for data presentation and analysis. According to the findings, the majority of Delta North respondents listened to radio broadcasts, demonstrating that the use of indigenous dialects or languages could have a significant impact on the population. According to this study, the majority of respondents employed indigenous languages in their daily activities, with English being used mostly in schools.

Adamu (2022) stated that the democratization of Nigeria's broadcast media has created ample opportunity for citizens to turn the traditional'market square' rhetoric into an electronic sphere where thoughts are freely expressed. Freedom necessarily brought with it chances for deception, which were essentially propaganda narratives designed to be misleading. This knowledge strengthens the imagined ability to hide reality on the ground. This study used three trajectories of 'disinformation order' using a post-truth template as a theoretical framework. The first is cultural communication among Hausa in northern Nigeria, followed by political communication, mainly in radio broadcast media, and finally, examples of print political communication in Nigerian

newspapers. As a result, this study is important to the current study because it helps evaluate the subject in the context of broadcast media.

The speed and sophistication with which information and news are disseminated worldwide today via information technology, particularly the Internet, cannot be overstated. Aondover et al. (2022) investigated the impact of information technology on new media by conducting a descriptive survey of 450 people using a stratified sampling technique. The study's findings demonstrated that the creation of new media does not result in the death of old media; rather, it changes and adapts to changing media environments over time. Consequently, it offers improved and simpler methods for addressing communication responsibilities. He concluded that the introduction of information technology has altered information delivery. According to Rodman (2011), the history of progress is intrinsically related to the history of mass media injunctions to information technology. In this context, the study's findings are appropriate because they provide a link between earlier and present research.

ICT enables the electronic creation, storage, administration, and distribution of information. This highlights that with ICT in place, news dissemination has become easier and more dependable (Samadar, 1995; Adigwe, 2012; Bowden & Teague, 2022). According to Aondover et al. (2022), the development of innovative information technologies, as well as ongoing processes of deregulation and concentration of ownership, have had a significant impact on globalization, particularly communication satellites and digitalization. An earlier study examined the topic of the current study in depth.

Within this context, it is clear that existing empirical studies, both local and foreign, agree on the level of adoption and application of ICTs in various sectors, particularly the media in Nigeria. Indeed, the African continent has not only remained inadequate but cannot be compared to what is available in other parts of the world, particularly in developed countries such as Europe, North America, and some parts of Asia. This validates the necessity and goals of the study.

THEORETICAL FRAMEWORK

This study uses the theoretical paradigm of Domestication Theory and Technological Determinism Theory as propounded by McLuhan (1962). Domestication theory is a media studies method that examines the processes through which innovations, particularly new technology, are 'tamed' or appropriated by their consumers. First, technology is integrated into, and adapted to, ordinary life. Second, the user and their surroundings are altered and adapted. The theory was originally developed to assist households in understanding the adoption and use of new media technologies (Hirsch

& Silverstone, 1992), but has since been expanded in the innovation literature as a tool to understand technologies and innovations entering any consuming unit, workplace, country, and so on (Lie & Sørensen, 1996; Habib, 2005).

The domestication method considers both the practical and symbolic components of technology adoption and use, demonstrating that these two elements--the meanings of things and their materiality--are equally crucial in understanding how technologies become a part of everyday life. It is a leading social theory because it emphasizes the discussions, challenges to authority and control, rule making, and breaking that occur when technologies are introduced into any social situation (Vuojärvi et al., 2010; Harwood, 2011; Fox, 2018). Given the Nigerian context, it seems clear that domestication theory applies to what is available. Many traditional media outlets have a traditional method of delivering information; however, as technology has changed, media organizations have begun to adapt to numerous innovations to suit their mode of operation. Online versions of conventional media have been developed to keep up with ever-changing technologies (Ayotunde, 2012; Adigwe, 2012; Igyuve et al., 2020; Chimezie, 2022).

According to Technological Determinism Theory, media technology impacts how individuals in a society think, feel, act, and how society runs as it transitions from one technological age to another (Hirst, 2012; Moore & Pham, 2020). Individual interpretations and meta-theoretical assumptions are used to cover ontological, epistemological, and axiological assumptions in theory (Dervin, 1999; Cobley & Schulz, 2013). According to this hypothesis, individuals learn, feel, and think about the way others do because of the signals they receive through current technology. Radio is necessary for listening to and developing hearing skills. Television, on the other hand, activates both the hearing and visual senses. People desire to apply their newly enhanced senses in everyday situations. The message is medium. This appears to be related to the agenda-setting theory, which describes the media's power to alter the importance of items on the public agenda (de la Cruz Paragas & Lin, 2016; Drew, 2016; Schwarzenegger, 2017).

In other words, if a news story is frequently and prominently covered, the audience will consider the topic more important. Media advances, particularly in the field of online technology, have had a significant impact on some of society's most important transformations (Bruns, 2003; Weber, 2014; Ahmed & Aondover, 2022). Phones that were used to communicate in the past are now advanced and have become a vital tool used to affect communication performance. Examining some of the other assumptions of the theory gives further light on the influence of technological developments on the media as well as on media consumers. Humans have limited free will. They are used to communicating in whatever way society as a whole utilizes to communicate. As a result,

they adapt to the medium to transmit and receive messages like everyone else. People can tell that there is only one truth by looking at what has occurred over time. The way society communicates changes as the medium of communication changes. People can only utilize the medium for which it is designed (phone for over-the-phone conversations or electronic mail for computer-based conversations). If the medium (television) is impersonal, then is a message.

As a result, the link or nexus between the chosen theories and the study is that, over time, television broadcasting has been upgraded from dull black and white forms to dull colors, and then to high definition (HD), Liquid Crystal Display (LCD), and dimensional views, all for the viewing pleasure of the audience. Today, there is also an Internet version of television that allows webcasting, known as online TV, which is the digital distribution of television programs over the Internet. As a result, based on the theories' premises, it is critical that their assumptions are congruent with the aim of this study. The tenets of these theories are consistent with those of McLuhan (1994) and Williams et al. (2005) established their study. This is because information technology and the changing role of the Nigerian mass media need to be technology-driven, especially the broadcast stations that need to move from the analog to technological or modern way of information dissemination. This will enable the audience to access clear and undistorted information from stations, such as NTA Kano.

METHOD

The transformative or interpretative approach of research design informed the choice of the qualitative method, which was used as the most tenable means of securing constructive and valuable data. An In-depth Interview (IDI) was chosen and considered an appropriate method for gathering relevant information for this study. According to Parker (2003), this strategy entails studying subjects in their natural contexts, with the researcher conducting a systematic inquiry into meanings, aiming to explain and make sense of occurrences and the meanings people ascribe to them.

Therefore, the study area was the Nigerian Television Authority, Kano, and the employees of the media organization constituted the participants in the study. The entire population of NTA Kano as 2022 stood at 106 staff, of these 106 staff, 79 were male and 27 were female. The top seven officers who are the decision-makers of the organisation are 7 in numbers consisting of the General Manager and the heads of the six departments in the organization, namely the Manager, Administration; Manager, News, and Current Affairs; Manager, Production; Chief Accountant, Manager, Marketing and Chief Engineer. Therefore, a purposive sampling technique was employed in this study. Purposive sampling is a sampling method based on the researcher's judgment.

In view of this, interviewees were selected after dividing the employees based on hierarchy: top-level, mid-level, and lower-level management. Four respondents were drawn from each level to make a total of 12, and two were further drawn from non-management staff and a leader of the Radio Television Theatre and Art Workers Union of Nigeria (RATTAWU), NTA, and Kano branch. This brings the total number of interviewees to fifteen (15). The respondents, while presenting and analyzing the data obtained from them, are represented with codes as follows:

Top-level management staff

Respondent 1	-	Manager, Production
Respondent 2	-	Manager, News & Current Affairs
Respondent 3	-	Assistant Manager, Admin
Respondent 4	-	Assistant Technical Officer

Mid-level management staff

Respondent 5	-	Senior Admin Officer
Respondent 6	-	Principal Reporter
Respondent 7	-	Senior Accountant
Respondent 8	-	Principal Marketing Manager

Low-level management staff

Respondent 9	-	Admin Officer 1
Respondent 10	-	Reporter 1
Respondent 11	-	Producer 1
Respondent 12	-	Engineer 2

Non-management staff

Respondent 13	-	News Assistant 2
Respondent 14	-	Confidential Secretary

Employee Union

Respondent 15	-	Chairman, RATTAWU (NTA Kano chapter)

A thematic analysis strategy was used in the data analysis. The data gathered were organized and presented based on specific themes that emerged during the interviews. For this strategy, comments or responses were grouped together with regard to specific themes, which were predetermined and emerged in the course of the interview, regardless of the question they related to (Boyce & Neale, 2016).

RESULTS AND DISCUSSION

Thematic analysis was employed to present and analyze the data gathered based on specific themes that emerged in the course of the interviews. These themes were used to address the research questions postulated in this study.

RQ1: What factors are responsible for the adoption of Information Technology in NTA Kano?

To address the question on factors responsible for the adoption of information technology in NTA Kano, the researcher asked the respondents several related questions, and their responses when put together and triangulated fall under the following themes: understanding of information technology, the nature of information technology in NTA Kano, the changing role of technology in NTA Kano, and reasons for these changes.

The interviews revealed that many factors were responsible for the adoption of information technology in NTA Kano. The reasons put forward by the respondents include quality information dissemination, good visualization, easy access to information, ease of manpower input, and quick spread of information to the target audience. Participant one states that,

> With the growing demand for quality information from viewers, NTA Kano has been striving to meet this demand in terms of quality information dissemination. She maintains that we are living in a "jet age" where information is beaming. Today, information is very important in contemporary society; thus, to perform the social responsibility of the media, NTA Kano strives to ensure that quality information remains a key priority by the station (IDI with participants in the News Room, February 2022).

Participant three also corroborates this by saying that "with the growing level of technology, NTA Kano is doing everything possible to break the cycle of quality information dissemination." He maintains that, with this new trend, NTA Kano is changing from a more advanced way of news presentation and dissemination using the available technology within its disposal.

Understanding of Information Technology

From the interviews, it appears that all respondents had a general understanding of information technology. They demonstrated some level of understanding as far as information technology is a concern. One interviewee, participant five states that:

> Information technology is the use of computers to store, retrieve, transmit, and manipulate data or information. It involves adopting technological equipment to disseminate information to the target audience, which also creates a process that secures the exchange of all forms of electronic data. It facilitates easy access to information, clear content, and visualization in broadcast, electronic, and print media (IDI with Participant, chief operator in NTA, February 2022).

Another perspective of information technology was also captured by participant seven thus, "the term is commonly used synonymous with computers and computer

networks but it also encompasses other information distribution technologies, such as television and telephones." All participants agreed that information technology has transformed the world compared to what has been obtained in previous years. The implication is that with the advent of information technology, information is at a doorstep of everyone who has access to such facilities, and NTA Kano needs to operate in this direction to ensure proper reporting in the 21st century.

Nature of Information Technology in NTA Kano

The pervasive opinion is that regardless of the type of organization, information technology is a new evolutionary trend that is taking place in almost all media houses. As such, the nature of information technology in NTA Kano is crucial. Participant four articulates that:

> The nature of information technology in NTA Kano is unique. He maintains that if one takes a critical look at NTA Kano, one will observe that the nature of information dissemination is gradually changing, which is more of migrating from the old format of news presentation to a more advanced one. Thus, technology plays a central role in information distribution. NTA Kano responds positively to new information technology that makes easy access to information (IDI with Participant in the News and Current Affairs, February 2022).

> Another reason put forward by participant six is that "the nature of information technology in NTA Kano is remarkable. That NTA Kano is doing everything possible to subscribe to information technology in all areas." He points out that today, all the staff in NTA Kano are computer literate, which enhances effective information gathering and dissemination. He maintains that with the advent of the computer, news stories are edited via a computer, including picture editing. All the respondents agree that NTA Kano is emerging as far as information technology is concerned.

The Changing Role of Technology in NTA Kano

When asked about the changing role of technology in NTA Kano, participant ten establishes that "by and large, NTA Kano has made an impressive move in the changing role of technology." Participant eight also collaborates by saying that "NTA Kano is improving compared to what was obtained in the previous years. NTA Kano is well equipped with a technological apparatus that makes information dissemination more unique. Participant 11 emphasized the following:

> The changing role of technology in NTA Kano has increased, and it has made the supply of information effective and has an impact on the organization as it helps employees to run their day-to-day routines in the organization. He identifies three changes through which information technology affects the organization: technological determinism, the organizational imperative, and the emergent

perspective of organizational change. For example, in NTA Kano, these changes are the core value of the station (IDI with participants in the news and current affairs, February 2022).

All participants agreed that there was a shift in broadcast media as a result of the changing role of technology. This is taking place in almost all broadcasts, such as television and radio stations, and NTA Kano is no exception. However, participant four points out that "even though these changes are imperative but adopting this technological advancement is somewhat difficult especially in developing countries like Nigeria. He added that, on a general note, the changing role of technology in NTA Kano is moving the organization forward'. Participant two also put forward some of the reasons that brought about these changes like "the desire to serve the society better in terms of information dissemination, a wide range of coverage, enhancement of quality visualization and easy access to information."

This explains why Williams (2005) maintains that information and communication technologies has transformed the world in all spheres of life in the past. He further elucidates that the potential of ICT in reducing manual operations in fostering growth in the media has increased rapidly. Therefore, ICT bridges the constraints of distance and time by possibly bringing news sources closer than ever before to news gatherers and reporters. Sambe (2007) believes that the telephone has bridged the time between the reporter and the source, reporter, and editor, saving costs such as travel logistics.

RQ2: What are the implications of the present level of Information Technology on NTA, Kano?

Research question two is an attempt to understand the implications of the present level of information technology in NTA Kano. Participant 12 agreed that one of the implications of the present level of information technology was as follows:

The labor involved in fostering productivity in the information system of production, by this, I mean the status quo of professionalism is declining as a result of the unwillingness of the staff to be up and doing in terms of information gathering and dissemination. Most employees now depend on sourcing information using these technological instruments rather than performing real fieldwork, as obtained in the past. Today, many broadcast media, including NTA Kano, depend on information coming from other channels through the manipulation of information technology. Hardly do you see a reporter doing their job without the use of information technology? (IDI with Participant in the News Room, February 2022).

Another reason put forward by Participant 13 was fake news. He states that, with the increasing level of information technology all over the world, it becomes difficult to differentiate between real and fake news". Participant 14 also added that "especially with the advent of citizen journalism and online media, championed by information

technology make this possible. All participants agreed that the implication of the present level of information technology is enormous, apart from the ones enumerated here.

Significance of Information Technology and Staff Operations in NTA Kano

The prevalent feeling was that the significance of information technology and staff operations in NTA Kano is an essential component. Naturally, broadcast media can be a source of education or information or even to all those linked to computer networks, thereby employing the traditional roles of imparting knowledge, informing, and externalizing audiences, which has also helped reduce the social distance between communicators and receivers. Therefore, information technology is an avenue for providing media organizations with new vistas and opportunities to share information or reach a mass audience. For example, respondent 14 stated that another impact of information technology is the use of satellites. According to him, "satellite has brought to our homes, the world out there. The role of the satellite is never more evident as the audience sits in their homes viewing events even as they unfold live in NTA Kano." Corroborating this, participant 15 cited an example that "in the African Cup of Nations, Nigerian audience was able to view and listen at home the same time matches took place." Participant four added that "today, with the advent of information technology, internet for example has helped in conducting research in media organisations."

Participants' responses suggested that information technology plays a pivotal role in NTA Kano. NTA Kano now employs these new communication technologies, including computer internet, satellite cable systems, electronic mail, and fax systems. All participants agreed that information technology helped the audience to observe and report more immediately than traditional media outlets. All the participants agreed that for the organization to be able to move forward, there is a need for information technology to be effective, as it reduces manpower in terms of work.

When asked about staff operation in NTA Kano, participant one states that "it is difficult to say that none of the staff in NTA Kano don't know how to operate a computer and other technological equipment present in the station. The participants collectively agreed that virtually everyone in NTA Kano had little knowledge of how to operate the equipment. Participant ten concluded by saying that "most of the reporters file in their report via email using internet sites. Some presenters also make use of software in editing their programmes in the station."

Moments when Information Technology has helped Solve Some Situations in NTA Kano

When asked whether there are moments when information technology has helped solve some situations in NTA Kano? Participant eight said that "there was time I was

working on a story; unfortunately, my system developed a problem. But before then, I sent the story to my editor via email for him to cross-check and I was able to retrieve the story through my sent items on my Gmail account." Participant five also share her experiences:

> While covering an event in a government house, my camera suddenly developed a technical fault; unfortunately, none of the technical crew was at the event. I have to use my cell phone to complete coverage. The videos and pictures taken by my cellphone were clear and amazing. Nobody at the event knew that my camera was facing an issue because I did not miss out on any side of the event. Apart from the technical person in the station that fixed the camera after the event, no one has an idea of what happened during the event (IDI with Participant in the News Room, February 2022).

Participant seven also states that "information technology has also helped the station in conducting research whereby questionnaires are normally mailed to the audience to access the performance of the station." Participant three also corroborates this by saying "around April last year, I almost lost all my programmes because my system crashed but luckily, I have all my programmes on my hard disk as backup." All the participants agreed that, on several occasions, information technology helped resolve some problems in NTA Kano apart from the one listed here.

Rodman (2011) also describes it as the act of a citizen, or group of citizens, playing an active role in the process of collecting, reporting, analyzing, and uploading news and information. He stated that with the advent of citizen journalism, credit goes to open-source, user-friendly software. Nowadays, the technology needed to become a citizen journalist is electricity, a computer or mobile phone that can access the Internet, broadband, upload pictures and videos, and a digital camera or mobile phone with a camera. Software to set up a blog is freely available on wordpress.org or blogger.com, and pictures and videos can be uploaded to specialized websites, such as YouTube, within minutes. For this content to be found, readers need access to a search engine, and pictures must be tagged.

RQ3: What are the Challenges faced by NTA Kano in the adoption of New Information Technology?

Research question three is an attempt to identify some of the challenges facing NTA Kano in adopting new information technology. According to the responses generated by the participants, there faces many challenges in adopting new information technology. Indicators from the responses from the interview sessions show that despite some of the merits of information technology, there are also some challenges NTA Kano is still strong enough to overcome as far as information technology is a

concern. Aside from the identification of major problems hindering NTA Kano in adopting new information technology, the researcher was still able to generate from the respondents some tenable solutions to these problems so that NTA Kano can overcome these challenges. The responses of the participants to research question three are presented and analyzed under problems and the level of adoption themes as follows:

Problems or Challenges Hindering the Adoption of Information Technology in NTA Kano

Some problems or challenges were put forward as confronted the adoption of information technology in NTA Kano. Participant three states that "some of the problems can be attributed to financial difficulties and lack of constant training and retraining of staff in handling such technological equipment". Participant six also mentioned that "the challenges are many but few among them are: the poor state of equipment or lack of maintenance and lack of adequate funding for running this information technology in the station". Participant two added that "lack of commitment on the part of some subordinate staff including poor remuneration and motivation make some staff feel discouraged in showcasing their talent in operating these information technologies." All the participants agreed that the problems highlighted constitute some of the major challenges in adopting adequate information technology in NTA Kano.

Level of Adoption of Information Technology in NTA Kano

When asked about the level of adoption of information technology in NTA Kano, all respondents agreed that NTA Kano has made appreciable progress with regard to information technology. Participant three categorically states that "NTA Kano is trying in terms of adopting information technology, especially in this economic period of hardship." Despite this, the station is attempting to meet this demand.

As Chukwunalu et al. (2022) note, computers and the modern, with many other ICT hardware and software innovations and services, have placed us at a high point of a very significant stage of development in the history of human communication, often called, "the information society, or "information superhighway," and have transformed the way many men and women work in the media and entertainment industries.

RQ4: What are the ways to improve the adoption of IT by NTA Kano?

Research question four is an attempt to provide solutions that can improve the adoption of information technology in NTA Kano. In trying to identify some of these solutions, the following feasible solutions to problems or challenges were put into cognizance:

Feasible Solutions to the Problems or Challenges

Participants from the NTA Kano established some of the possible ways that can be used to solve the challenges, including adequate funding for proper operation, provision of more adequate information technology to meet contemporary challenges, and good take-home packages for staff in the form of salaries and allowances, which in turn will stimulate them to showcasing their talent in operating these information technologies. Participant ten put forward that regular training and re-training of personnel, commitment, and dedication to work by staff and adequate security will also go a long way to address the situation. The interviewees concluded that we have been complaining to our superiors, but nothing has yet been done.

One suggestion that was made by respondent eight was that "there is need for NTA Kano management to be given chance to make certain managerial decisions as knowledge is versatile and thus, it will help in moving forward the station especially in the area of information technology." All the participants contended that it would not be out of place if the state government could be giving a loan to some of the broadcast stations, which in a way could rekindle the straights of the stations in the course of running these information technologies. They averred that, with the availability of resources, the issue of information technology will also be addressed.

CONCLUSION

The study concludes that quality information dissemination, good visualization, easy access to information, and quick spread of information to target audiences should remain top priorities in NTA Kano. The implication is that there is a need for an increasing level of information technology, especially in NTA Kano, to enhance adequate information dissemination. There is also a need to address financial difficulties, lack of constant training and retraining of staff, poor state of equipment or lack of maintenance, and lack of adequate funding to ensure the proper and smooth running of modern technologies in NTA Kano.

Adequate funding, provision of more adequate information technology to meet contemporary challenges, and good take-home packages for staff in the form of salaries and allowances are among the factors that will stimulate staff to showcase their talent in operating these information technologies. Furthermore, the level of adoption of information technology in NTA Kano is more than average, as the station is making appreciable progress as far as information technology is concerned. Thus, staff should be well built with these information technologies for the proper dissemination of information.

Author Contributions

Institutional Review Board Statement

This study was approved by the Department of Mass Communication, Caleb University, Lagos, Nigeria.

Informed Consent Statement

Informed consent was not required for this study.

Data Availability Statement

The data presented in this study are available upon request from the corresponding author. The data are not publicly available because of the institution's policies.

Acknowledgments

Conflicts of Interest

The authors declare that they have no conflicts of interest.

REFERENCES

Abegunde, O., & Fajimbola, O. (2018). Media and democratic governance in Nigeria. *International Journal of Research -Granthaalayah*, *6*(11), 94–108. https://doi.org/10.29121/granthaalayah.v6.i11.2018.1093

Adamu, A. U. (2022). Media, post-truth and information disorder in political communication. *Journal of Communication and Media Research*, *14*(1 (Special Issue 2)), 12–18. https://www.jcmrjournal.org/article/media--post-truth-and-information-disorder-in-political-communication_481

Adeyanju, A. M. (2022). One village, many voices, few controls: World disinformation order in perspective. *Journal of Communication and Media Research*, *14*(1 (Special Issue 2)), 19–25.

https://www.jcmrjournal.org/article/one-village--many-voices--few-controls--world-disinformation-order-in-perspectiv_482

Adigwe, I. (2012). The impact of information and communication technology (ICT) on news processing, reporting and dissemination on broadcast stations in Lagos, Nigeria. *Library Philosophy and Practice (E-Journal)*, 861. https://digitalcommons.unl.edu/libphilprac/861

Ahmed, M. O., & Aondover, E. M. (2022). Assessment of the spread of fake news of Covid-19 amongst social media users in Kano State, Nigeria. *Computers in Human Behavior Reports*, *6*, 100189. https://doi.org/10.1016/j.chbr.2022.100189

Anderson, R., & Ross, V. (2001). *Questions of communication: A practical introduction to theory* (Third edition). Bedford/St. Martin's.

Aondover, E. M., Maradun, L. U., & Yar'Adua, S. M. (2022). Mediatization of the net and internetization of the print media in Northern Nigeria. *Unisia*, *40*(2), 335–356. https://doi.org/10.20885/unisia.vol40.iss2.art5

Aondover, P. O., Aondover, E. M., & Abubakar Mohammed Babale. (2022). Two nations, same technology, different outcomes: Analysis of technology application in Africa and America. *Journal of Educational Research and Review*, *1*(1), 1–8. https://doi.org/10.5281/ZENODO.7488568

Ayotunde, A. (2012). Changing technologies and the Nigerian mass media. *Kuwait Chapter of Arabian Journal of Business and Management Review*, *2*(3), 94. https://platform.almanhal.com/Pages/38212/8/1/false/1/2/false/null

Bowden, M., & Teague, M. (2022). *The steal: The attempt to overturn the 2020 election and the people who stopped it* (Audible audio edition). Audible Studios. https://www.amazon.com/Steal-Attempt-Overturn-Election-Stopped/dp/B09N9XP2L8/ref=sr_1_7?keywords=Mark+Bowden&qid=1688012565&s=audible&sr=1-7

Boyce, C., & Neale, P. (2016). *Conducting in-depth interview: A guide for designing and conducting in-depth interviews for evaluation input*. Pathfinder International Tool Series. http://www.pathfind.org/site/DocServer/m_e_tool_series_indepth_interviews.pdf?docID=6301

Bruns, A. (2003). Gatewatching, Not Gatekeeping: Collaborative Online News. *Media International Australia*, *107*(1), 31–44. https://doi.org/10.1177/1329878X0310700106

Chimezie, U. R. (2022). New media technology and its application to broadcasting: A mini-ethnographic study. *Open Access Library Journal*, *9*(8), 1–13. https://doi.org/10.4236/oalib.1109059

Chukwunalu, Y. P., Nwankwere, A. U. N., Orji, D. A., & Shah, M. (2022). A study of language use impact in radio broadcasting: A linguistic and big data integration approach. *Journal of Sensors*, *2022*, Article ID 1440935. https://doi.org/10.1155/2022/1440935

Cobley, P., & Schulz, P. J. (Eds.). (2013). *Theories and models of communication*. De Gruyter. https://doi.org/10.1515/9783110240450

de la Cruz Paragas, F., & Lin, T. T. (2016). Organizing and reframing technological determinism. *New Media & Society*, *18*(8), 1528–1546. https://doi.org/10.1177/1461444814562156

Dervin, B. (1999). On studying information seeking methodologically: The implications of connecting metatheory to method. *Information Processing & Management*, *35*(6), 727–750. https://doi.org/10.1016/S0306-4573(99)00023-0

Drew, R. (2016). Technological determinism. In G. Burns (Ed.), *A companion to popular culture* (pp. 165–183). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118883341.ch10

Fayoyin, A. (2021). Understanding the knowledge society, artificial intelligence and media nexus. In A. Fayoyin & I. Ademosu (Eds.), *Knowledge societies: Artificial intelligence and the media*. UNESCO/ACSPN.

Fox, S. (2018). Domesticating artificial intelligence: Expanding human self-expression through applications of artificial intelligence in prosumption. *Journal of Consumer Culture*, *18*(1), 169–183. https://doi.org/10.1177/1469540516659126

Habib, L. (2005). Domesticating learning technologies in a higher education institution: A tale of two virtual learning environments. In V. Bjarnø (Ed.), *New teaching and learning practices: Experiences with e-learning projects at Oslo University College 1998–2005* (pp. 79–87). Oslo University College.

Harwood, S. A. (2011). The domestication of online technologies by smaller businesses and the 'busy day.' *Information and Organization*, *21*(2), 84–106. https://doi.org/10.1016/j.infoandorg.2011.03.002

Hirsch, E., & Silverstone, R. (Eds.). (1992). The meaning of domestic technologies. In *Consuming technologies: Media and information in domestic spaces*. Routledge.

Hirst, M. (2012). One tweet does not a revolution make: Technological determinism, media and social change. *Global Media Journal: Australian Edition*, *6*(2). https://www.hca.westernsydney.edu.au/gmjau/archive/v6_2012_2/martin_hirst_RA.html

Idemili, S. O., & Sambe, S. A. (2007). The Nigerian media and ICTs: Implication and challenges. In I. E. Nwosu & O. E. Soola (Eds.), *Communication in global, ICTs and ecosystem perspectives: Insight from nigeria*. Precision Publishers Ltd.

Igyuve, A., Inobemhe, K., Udeh, N. S., & Ugber, F. (2020). A discourse on the use of new media technologies in Nigerian television newsrooms. *International Journal of Social Sciences and Management Review*, *3*(6), 248–265. https://doi.org/10.37602/IJSSMR.2020.3529

Jackson, D. (1982). UNESCO's MacBride Commission Report and the Editorial Reactions of Four Major Communications Trade Publications [Master's thesis, University of Tennessee]. https://trace.tennessee.edu/utk_gradthes/3010

Kadiri, K. kadijat, Muhammed, Y. A., Raji, A., & Sulaiman, A.-R. L. (2015). Constraints and challenges of the media in the development of Nigeria. *Journal of Sustainable Development in Africa*, *17*(1), 44–60.

Kurfi, M. Y., & Aondover, E. M. (2021). A semiological study of internet memes of men dance competition on Tiv popular culture in Benue State, Nigeria. *International Social Science and Humanities Studies*, *1*(1), 18–28. http://www.stslpress.org/journal/journalArticle?id=10

Kurfi, M. Y., Aondover, M. E., & Mohamed, I. (2021). Digital images on social media and proliferation of fake news on Covid-19 in Kano, Nigeria. *Galactica Media: Journal of Media Studies*, *3*(1), 103–124. https://doi.org/10.46539/gmd.v3i1.111

Lie, M., & Sørensen, K. (1996). Making technology our own? Domesticating technology into everyday life. Scandinavian University Press.

Maida, W. (1996). New technology and the transformation of the communication process: Challenges for the Nigerian media in the 21 st century. In *The media and the twenty-first century*. Abuja Council.

McLuhan, M. (1962). *The Gutenberg galaxy: The making of typograhic man*. University of Toronto Press.

McLuhan, M. (1994). *Understanding media: The extensions of man* (Reprint edition). The MIT Press. (Original work published 1964)

Mergui, R. (1981). UNESCO: The state and the media. *Index on Censorship*, *10*(1), 23–26. https://doi.org/10.1080/03064228108533157

Mojaye, E. M., & Ogunyombo, O. E. (2022). Online media and global communication research in Nigeria. *Online Media and Global Communication*, *1*(3), 626–647. https://doi.org/10.1515/omgc-2022-0048

Moore, P., & Pham, H. (2020). *Informatics and the challenge of determinism* (No. 2020070530). Preprints. https://doi.org/10.20944/preprints202007.0530.v1

Ogah, I. A. (2007). Re-appraisal of the development media theory and its implications to the Nigerian broadcast media in the globalizing world. In I. E. Nwosu & E. O. Soola (Eds.), *Communication in global, ICTs and ecosystem perspectives: Insights from Nigeria*. African Council for Communication Education (Nigeria Chapter), Office of the Director/Editor-in-Chief, Institute for Development Studies, University of Nigeria.

Palmer, M. (2012). NWICO: Reuters' Gerald Long versus UNESCO's Seán MacBride. In D. Frau-Meigs, J. Nicey, M. Palmer, J. Pohle, & P. Tupper (Eds.), *From NWICO to WSIS: 30 years of communication geopolitics—Actors and flows, structures and divides*. Intellect Books.

Parker, L. D. (2003). Qualitative research in accounting and management: The emerging agenda. *Journal of Accounting and Finance*, *2*, 15–30. https://digital.library.adelaide.edu.au/dspace/handle/2440/1216

Pate, A. U. (2021). Forward. In A. Fayoyin & I. Ademosu (Eds.), *Knowledge societies: Artificial intelligence and the media*. UNESCO/ACSPN.

Rodman, G. (2011). Mass media in a changing world: History - industry -controversy (4th edition). McGraw-Hill Education.

Samadar, R. (1995). New technology at the ship flow level: (New technology and workers response to micro-electronics – labour and society). SAGE Publication India.

Sambe, B. (2007). *Basic dimensions in mass communication*. HdX Communications, Ltd.

Schwarzenegger, C. (2017). Technological determinism and social change: Communication in a tech-mad world. *New Media & Society*, *19*(5), 797–799. https://doi.org/10.1177/1461444817690515a

Ugwu, K. E., Emerole, I., Duru, E. E., & Kekeocha, M. (2021). Demographic factor, adoption of technology and competitive advantage in Nigeria. *International Journal of Innovative Science & Technology*, *8*(8), 191–212. https://papers.ssrn.com/abstract=3913458

Vuojärvi, H., Isomäki, H., & Hynes, D. (2010). Domestication of a laptop on a wireless university campus: A case study. *Australasian Journal of Educational Technology*, *26*(2), 250–267. https://doi.org/10.14742/ajet.1094

Weber, P. (2014). Discussions in the comments section: Factors influencing participation and interactivity in online newspapers' reader comments. *New Media & Society*, *16*(6), 941–957. https://doi.org/10.1177/1461444813495165

Williams, R., Stewart, J., & Slack, R. (2005). *Social learning in technological innovation: Experimenting with information and communication technologies*. Edward Elgar Pub.

This page intentionally left blank.