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Chapter Eleven



Robots for News Gathering: A look at Nigeria's 2023 General Elections

Terwanger Daniel Aliough,

Abstract

Robots have in recent years become tools that can be utilised for journalism practice across the globe. This research examines the application of robotics for news gathering in the 2023 general elections. The study was carried out to underscore the Nigerian media rapid transformation in utilising robots for electioneering coverage (-ascertaining that robots were deployed by the select media houses and the types of robots they used as well as identifying factors that affected the utilisation of robotics during the electioneering period). The

technological determinism theory was used as a theoretical framework for the study. In-depth interview was adopted as the method for data collection. The study found that broadcast stations utilised robots for news gathering. Findings also reveal that drone was the robotic technology used during the electioneering period. The research showed that robots are effective in enhancing news gathering. Furthermore, one of the major factors that affected the use of robots was inadequate knowledge of some journalists to operate drones. The research concludes that the use of robotics is inevitable in the Nigerian media sphere as drones had enabled a better coverage of the elections, aiding in capturing overhead video and pictures. Therefore the study recommends that, broadcast stations yet to adopt the application of robotics in news coverage should do so to enhance news gathering.

Keywords: Robotics, News gathering, Elections, Media, Journalists

Introduction

The media in Nigeria have been performing incredibly in the dissemination of information during electioneering to cater for the masses that have the right to know what transpires in the political space (Najeem & Agboluaje, 2019). It is also part of the media functions to mediate between the people and the government as Fourth Estate of the Realm, which is why information before, during and after elections are disseminated to audiences who are spread all over the world.

Information gathered for mass media audiences is not complete unless events covered are processed, disseminated

and consumed by the audiences (Owuamalam, 2016). News gathering during election is a herculean task that requires paying attention to details and acting as and when due. This further shows that, reporters ought to perform their roles with utmost decorum to be able to keep up with the demands of their media organisations. Electioneering events take place across locations and it is the responsibility of media houses to assign journalists to the beat to gather necessary information to be processed and disseminated for public consumption. Thus, in the process of news gathering, reporters or journalists use different gadgets to ensure that events are covered accordingly. As a result of this, the gadgets used for news gathering in the 21st Century following the advancement in Information and Communication Technologies (ICT's) have become sophisticated. These gadgets include smart devices such as digital camcorders, digital cameras and smartphones, Artificial Intelligence tools among other devices.

Before the advent of ICTs, equipments that were used for covering elections were not digitally operated, such as video tape camcorder, audio midget and photo camera (Odozi 2008). Journalists collect raw data for news production using the available gadgets that were largely analogue.

However, several breakthroughs in the 21st Century have brought about the use of robotics technology for news coverage, such as Quakebot, used to cover the earthquake which occurred in California in 2014 (Okocha and Ola-Akuma, 2022), similarly, BuzzBot an Artificial Intelligence technology was utilised for gathering information from the national convention of the Republican and Democratic parties in the United States of America (Noam, 2018). These robotics technologies have continued to find expression in the

coverage of important national events such as the elections. Nigeria media are not left out in the deployment of these technologies. It is more noticeable in the electronic media outlets (Adelabu & Wilson, 2022). Like other electioneering event in other climes, the 2023 general elections in Nigeria noticeably got an extensive media coverage, from the party primaries to the elections and as is the practice in recent times in media coverage, digital technologies were deployed, particularly robotics technology. However, it is unclear which of these robotics technologies were deployed during Nigeria's 2023 general elections. Therefore, this study examines how the Nigerian media utilised robotics for news gathering in the 2023 general elections. The research focused on three broadcast media organisations: Nigerian Television Authority (NTA) Abuja, Nasarawa Broadcasting Service (NBS) Lafia and Africa Independent Television (AIT) Abuja.

Objectives of the Study

The objectives of this research were to:

- i. Find out whether the select media houses deployed robots for news gathering in the 2023 general elections in Nigeria;
- ii. Find out the types of robots media houses used for news gathering in the 2023 general elections in Nigeria; and
- iii. identify the factors that affected media houses in utilising robotics for news gathering during the 2023 general elections in Nigeria.

Literature Review

Robotics in the context of this research according to Noam (2018, p. 30), denotes “robot agents” or “virtual assistants” that are able to “converse” with human journalists, mediating between them and data silos.” Noam further stated that robotic journalism “is viewed by some journalists as a tool that will

release them from the necessity to conduct costly and at times, dangerous investigations” (p.30). The submission by Noam simply means that, robotics are technological devices built and controlled by human beings to assist in getting pictures or videos to enhance believability of news coverage.

The term *robotic news gathering* according to Noam (2018), was coined by Lee and Kim in 1998. They created the news service “News on Demand” (NOD) which used a robot to gather daily news information and deliver integrated newsfeed to users (Lee & Kim, 1998 in Noam, 2018) as subscribers to the service registered their information and received stories via email. Robotic journalism, according to the author, “is viewed by some journalists as a tool that will release them from the necessity to conduct costly and at times, dangerous investigations” (p. 29-30).

According to Nsude (2022) “robot is a powered machine capable of executing set of actions by direct human control, computer control or a combination of both”(para.23). This means that robots used for journalistic purposes are handled by humans in order to achieve results as the technology can be utilised in extremely high or low temperature environments with a very high degree of accuracy. Nsude (2020) also posited that there are types of robots which include drones, driverless cars, exoskeleton, agricultural robots for field operations, medical and healthcare robots and artificial assistants. However, this research is focused on robots used in the media. (drone technologies). The author further explains that drones are robots with flying capabilities which can be flown anywhere without the support of a pilot. Fabiyi, Abdulmalik and Falede (2016) cited in Nsude (2020) add that these drones are also referred to as auto pilot or Unmanned Arial Vehicles (UAV) with capabilities to take pictures and record videos.

Media and Elections

Democracy thrives only when elections remain free and fair, when information dissemination is accurate, extensive and available for the electorate (UNESCO, 2022). This becomes possible when the media perform their role of bridging the gap between the political actors and the electorate. The media are very essential during elections as they organise political debates for candidates to air their manifesto to their followers in order to win their votes (-the case of Donald Trump a Democrat and Joe Biden of Republican Party in the U.S campaigning for Presidency is a good example).

The mass media play an important role in the society as the fourth estate of the realm (Ugondo and Ugba 2015) by setting the political climate and serving as the antenna of the people at all times; the media informs the people in the society to keep them abreast and up-to-date about happenings. The media does not fail to educate the masses about electoral processes, thus, since the mass media perform the role of information and education, election is an important element in a democratic setting which ought to be given attention.

According to Odozi (2008) the electoral process is one of the fundamental aspects of modern democratic political system. As such participation by the electorates is paramount to the survival of democracy, which is the best way to express choice by voters. This participation cannot exclude timely information disseminated by the media to the masses. This is why the media provides forum for the discussion of public opinion on important issues and allows exchange of influence between leaders and the electorate. The foregoing statement therefore captures the relevant function of the broadcast media in elections.

The broadcast media serves as a mobilising channel of all the different people in the society and at the same time give voters the opportunity to express their views about candidates who are contesting for political positions. Through broadcast media programmes such as Radio Link on FRCN, people are also informed about activities that unfold (Odubote, 2014). The broadcast media are established for the purpose of disseminating information, thus, the information aired to the public on political issues can stimulate the electorate to act accordingly during elections based on the messages spread by the media. The media also plays its role in the packaging of political information via commentaries, news stories and live broadcast in order to satisfy their audience's needs and remain socially responsible (Shawai 2021) as well as holding government accountable, thereby bridging the gap between the political ruling class and the electorates.

The above is also reiterated in the Electoral Act which spells out the role of mass media in ensuring that the public is adequately informed and educated on election matters. Shawai (2021, p.1) captured that, “electoral Act (2015 as amended in 2022) is clear on the place of the broadcast media, in section 100, 101 and 105. It states the place of radio and television in voter education and stipulates some guidelines for media involvement in elections and electoral campaigns”.

Robotics in the Media

Robots are used all over the world for news gathering. Some examples of robots used across the globe include BuzzBots, which is an algorithm used for collection of information at news events (Noam, 2018). The BuzzBot was designed to crowdsource reporting from the Republican and Democratic National Conventions in United States of America and it is still being used for gathering information from on-the-ground sources at news events in the US, says Noam. Another robot

journalists include is Wibbits, employed by *USA Today* to create short videos with narratives and News Tracer, used by Reuters whose algorithmic prediction tool helps journalist gauge the integrity of a tweet. The News Tracer's robot scores emerging stories based on credibility and newsworthiness by evaluating who is tweeting about the story, how it is spreading across the network, and if nearby users has taken to Twitter to confirm or deny breaking developments (Keohane, 2017).

Heliograf is also an Artificial Intelligence (AI) algorithm that *The Washington Post* employed in 2016 to make the newsroom an efficient environment for their journalists. It was designed as a complimentary service aimed at freeing up reporters and editors to cover more nuanced stories (Mullin, 2016). China also developed a robot called Dreamwriter which was used for covering events at the Brazil 2016 Olympics. Dreamwriter was equipped with high speed calculating and information searching ability which enabled the robot journalist to cover Chinese participants and report few minutes after the event had ended (Okocha & Ola-Akuma 2022).

In the second decade of the 21st Century, robots were sent to cover the Afghanistan war in Aliough, (2023, p. 5) citing Noam (2018), "Afghan Explorer" was used as a means of gathering information in the Afghanistan region during the war, because, such areas were too dangerous to fly to." Furthermore, an Artificial Intelligence innovation in the U.S, (Quakebot) was used to cover the earthquake that hit California in 2014 (Okocha & Ola-Akuma, 2022). The latter can also be linked to the use of drones in contemporary times to cover a large crowd at an event, political rally or campaign. The 2023 election campaign in Nigeria saw the surge in the use of drones to capture video footage and take pictures. Security operatives also used the drones to spy on criminals hideout, these drones travel distances to cover the surrounding while being

controlled by humans using a remote. A drone device can only perform accurately when it is connected to an Android phone which records the images or video intended to be captured, while the operator navigates it with a remote control. Therefore, during the elections, the drone could be used for livestreaming to the public.

It is on record that Matsumoto, Nakayama, Harada and Kuniyoshi (2007) designed a 3D robot journalist that was able to mingle with the crowd in a similar fashion to a human journalist. The algorithm developed by Matsumoto group was programmed for “autonomous exploration, recording of news and generation of articles” (The Matsumoto group was from the department of Mechano-Informatics at the Graduate School of Information Science and Technology, University of Tokyo). The Matsumoto robot was constructed on Segway wheels that provided mobility in a building or a street; the robot was designed to explore the real world, take photos, transfer the information to a news classifier that calculated a news score based on the items relevance. As such, if the score was high the article generator produced an article.

Nigerian Media and Robotics

The most widely used robot for news gathering by journalists working for media houses in Nigeria, according to Ogunboyowa and Arikenbi (2022), are drones. Drones are relevant in the coverage of protests, demonstration and political rallies because they are able to capture the true size and calculate the population of participants thereby contributing to the visual value of the event (Okocha, Terhile & Ola-Akuma, 2021). The drone technology is vital for investigative reports as it can be used to film illegal activities and contribute to whistleblowing. “The drone technology can also be used for obtaining photos or footage of places that are difficult to reach, either because of the lie of the land (caves,

forests, deserts etc.) or because of the consequences of natural (flood) or man made (forest fires) disasters” (Okocha et al, 2021, p. 9).

Furthermore, Okocha and Ola-Akuma (2022) citing Beebeejaun, et al (2021) stress that Nigeria saw an internet data mining tool that was launched by the Nigerian Centre for Disease Control and prevention (NCDC) in 2016 which was established as an Event-Based Surveillance (EBS) system for data generation. While in 2020 the NCDC in partnership with UNICEF designed and released another AI that provided citizens with timely and accurate information on COVID-19 through an SMS-based interactive chatbot (Okocha & Ola-Akuma, 2022).

Challenges of Robotic Deployment in the Media

All over the world, there are concerns over the deployment of robotics in the media. Salazar (2018) posits that

despite the unquestionable advantages that new technologies bring not only to the field of journalism, but to other areas, there are also important risks that are under debate derived from the ethics of AI programmes and in the near future from AI itself and from the privacy of user data (p.310).

Furthermore, the author points out that, it is for the above reasons that there is a need to control; set some rules and standards to regulate the use of robotics. Thus, Salazar (2018) citing European Parliament (2017) avers that the European Parliament (EP) “has approved a report on robotics which establishes an Ethical Code of Conduct” (p.310).

There are also challenges that affect the smooth utilisation of robots in Nigeria such as social economic barriers, inadequate

infrastructure (Nsude, 2020) as well as lack of technical knowledge and safety concerns (Okocha, Ola-Akuma & Terhide, 2021). Besides social economic barriers, according to Nsude (2020), “most Nigerians are sceptical about complicated artificial intelligence related to science and algorithms. They believe that artificial intelligence can only be understood by technical people and as such totally lose interest”(para.44).

Inadequate infrastructure to a great extent affects the creation of innovative tools with artificial intelligence in Nigeria because power, cost of internet and lack of government political will limit the progress and usage of artificial intelligence.” Lack of technical knowledge on the part of journalists is also an impediment in the use of robots for news gathering (Okocha, Ola-Akuma & Terhide 2021). The authors aver that “most media practitioners are not familiar with the operation of the technology; this is quite challenging because lack of operational know-how is a major hindrance for the use of drone technology by media organisations. Safety concerns are another downside of the utilisation of robots. In populated areas, drones can crash down on the very citizens it is sent up to look down on (Ejiga, 2019), furthermore, with the activities of terrorists, banditry and other security issues on the rise in Nigeria, robots could be used to survey military operations, as a result flying of drones is restricted in some areas (Okocha, Ola-Akuma & Terhide 2021).

Theoretical Framework

In order to explain the phenomenon of robotics and news gathering, the technological determinism theory was used to anchor the paper. Technological Determinism Theory was propounded by Marshall McLuhan a Canadian philosopher (Ijwo and Omula, 2014). The theory according to Anaeto, Onabajo and Osifeso (2008, p.179) has some four basic

points:

- i. An overly optimistic view shares the conviction that the development and application of technology can resolve all varied problems of mankind.
- ii. That technology is the source of much that is evil in society.
- iii. That technology is the proponent factor in development.
- iv. That technology is an inexorable, irresistible, and overwhelming force, which is a message in its own right (p.179).

The above assertion explain how important technology is to news gathering in the sense that, robotics (drones, ChatGPT and other Artificial Intelligence tools) are advancements in technology that aid coverage of events where humans are unable to get to. The height which only helicopters could enable humans to be able to get overhead video and or pictures conveniently have been eroded with the development of drones. Therefore, technology has become irresistible and overwhelming to enable wide coverage of political campaign rallies as well as turn out of voters on the day of election and recordings of how voters stay put to guard their votes to be counted after voting had ended.

Method and Materials

The study adopted in-depth interview method. Journalists from three (3) broadcast stations were selected particularly from the newsroom and interviewed. The study focused on broadcast media stations in Nigeria because of their noticeable deployment of these technologies in their information gathering. Hence this study purposively selected Nigerian Television Authority (NTA) Abuja, Nasarawa Broadcasting Service (NBS) Lafia and Africa Independent Television (AIT) Abuja in order to have views from federal, state and private

stations respectively. The study therefore used thematic analysis as an approach for data analysis.

Results and Discussion

Deployment of robots for news gathering in the 2023 general elections in Nigeria

The study found that robotic technology was deployed by Nigerian media for the 2023 general elections. One of the interviewees from NTA Abuja, Wada Ibrahim affirmed that “NTA has bought drones to assist in news gathering.” Williams Ekemini who is a reporter with AIT also asserted that, “Artificial Intelligence (AI) powered drone cameras, video editing apps and graphics generation are available for news gathering in my place of work.” However, a reporter with Nasarawa Broadcasting Service (NBS) who pleaded anonymity stated that “NBS is yet to acquire any robotic technology for news gathering.”. Although, the state media organisation did not deploy robotics technology during the general elections in 2023, other respondents affirmed that robotics technology was deployed by some of the Nigerian broadcast media organisations. This finding aligns with the position of Adelabu and Wilson (2022) that, all over the world, the acquisition and utilisation of robotics for news gathering had become the order of the day, which in this case includes Nigerian broadcast media industry.

Types of robots media houses used for news gathering in the 2023 general elections in Nigeria

The study further found that the media (NTA and AIT) used different types of robotics technology such as Unmanned Aerial Vehicles (drones), video editing apps and graphics generation applications for the purpose of news gathering during the 2023 elections as opined by reporters from both NTA and AIT, while NBS used none according to some of their

reporters. Thus, the findings are in line with the assertion of Adelabu and Wilson (2022) that few stations in Nigeria use drone technology for news gathering. In addition to the foregoing, the use of BuzzBot to cover the Republican and Democratic Party national convention by CNN in the U.S gives credence to the utilisation of robotics in Nigeria for coverage of elections.

Factors that affected media houses from utilising robots for news gathering in the 2023 general elections in Nigeria

The study further found in respect of factors that affected utilisation of robotics in news gathering during elections to include inadequate skills by some journalists to operate drones as well as limited available radius for flying drones due to perceived security concerns. Corroborating the former, Okocha, Ola-Akuma and Terhide, (2021) captured that lack of knowledge on the part of Journalists in operating robotic tools such as drones, is another constraint of using robot technological effectively. Adelabu and Wilson (2022) notes in line with the findings of this research that, security reasons are threatening to anyone who flew drones beyond the defined areas, which is a hindrance to the smooth coverage of news. The research also found that another factor which stalled the comprehensive use of robotics was poor supply of electricity to power the drone cameras as and when due in an event where the battery went off while at the scene of an event.

Conclusion

The use of robots tools for news gathering during electioneering has become necessary following sophistication of news coverage in the 21st Century. Nigerian media like its counterparts in other parts of the world have keyed into the robotics technology. This study concludes that the 2023 electioneering period witnessed the use of robotics technology

by the Nigeria media, in this case the broadcast media. Although, there were challenges and some media are yet to; could not key into the use of these technologies during the 2023 general elections in Nigeria, those that keyed in used drones which resulted in use of drone cameras for news coverage: getting shots (video and pictures) that were usually difficult to obtain using hand held camcorders. In spite of the challenges, such as the limited radius of flying drones due to security reasons and the inadequate skills of some journalists to fully utilise the drones, they were useful in the news gathering process during the 2023 general elections in Nigeria.

Recommendations

State governments provide fund to ensure that their broadcast media stations are equipped with state of the art Artificial Intelligence tools to enable journalists gain access to areas where humans may not be able to access. This will enhance performance of journalists who are saddled with the responsibility of covering events and file in stories that are disseminated for public consumption within and outside the state. Finally, There is need for broadcast stations to train their journalists on how to utilise robotics (drones and other AI tools) for news gathering, so as to access places where hitherto Journalists could not access; because robots are capable of assisting journalists to get good overhead pictures and videos as well as wider coverage which only a helicopter could have been used for doing so.

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