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DRONE AND TELEVISION BROADCASTING IN NIGERIA: THE PATHWAY TO IMPROVE PROFESSIONALISM

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Abstract
Broadcasting has always thrived on technology and innovation to deliver its content and be at the top of the profession. Drone technology was built mainly for warfare, and it was a weapon on the battlefield for over a decade, including the ongoing warbetween Russia and Ukraine. In today's world*, drone or Unmanned Aerial Vehicle (UAV) is gradually becoming a trend in the newsroom. The novel use of drones for broadcasting and news gathering, most especially in the United Kingdom, with BBC News being among the first TV stations to use the drone as a 'flying camera' in 2013. What sets drones apart as a unique newsgathering tool is the ability to go where journalists cannot and capture stories from the air, using the bird's eye angle to get relevant information. Based on observations and extant literature, the use ofdrones for newsgathering in most developed countries and equally banned by a few, e.g., Nepal in 2015, Kenya in 2015, Thailand in 2015, and Sweden in 2016. The study concludes that drone is a welcome development in the Nigerian broadcast industry, Drone as a creative and innovative technology that can be used for newsgathering for local TV stations. The study recommends that journalists should learn the technical know-how on the usage of drones, follow strictly the NCAA's rules and regulations and other UAV professional bodies in Africa to help eradicate drone technology's scanty use for information gathering in local TV stations.*

Keywords: Drone, Newsgathering, Professionalism, Television broadcasting.

INTRODUCTION

In the 19th century, intrepid correspondents and photographers ascended in hot air balloons to cover the American Civil War and other significant events. In the mid-20th century, media organisations began using fixed-wing aircraft and later helicopters to cover wars,

fires, protests, and myriad other high-risk assignments' (Goldberg, Corcoran & Picard 2013).

Drones are a new tool for newsgathering used by citizen journalists and established media organisations. The birth of the digital age brought with it a rapidly evolving news gathering and distribution process. Drone Journalism refers to the utilisation of drones to gather news in a wide range of journalism and mass communication services. Several studies revealed that there had been a tremendous increase in the use of drone technology over the years. Thus, drone journalism has been established to represent news gathered using this tool. Whitaker (2016); and Ntalakas et al. (2017) provided a simple definition by Matt Waite, who leads the Drone Journalism Lab, where he described drone journalism as "using a small crew-less aircraft to gather photo, video, and data for journalism.

According to Goldberg, et.al. (2021) drones as an emerging technology in the news media industry are fast changing the narrative of journalism practice in the 21st century, particularly the newsgathering process in restive or hazardous environments via drone use or Unmanned Aerial Vehicles (UAVs). An Unmanned Aerial Vehicle (UAV), as the name implies, is an aircraft without a human pilot aboard. The aircraft is not the typical one as it is much smaller and manipulated from outside with remote control. Often described as a small aerial acrobat, this gadget comes in different forms are popularly known as drones; they are equipped with a different state of the art technology such as infrared cameras, Global Positioning Systems (GPS), GPS guided missiles, sensors, e.t.c. It is used mainly for surveillance, monitoring and mapping data (Flynt; 2017).
The capability to fly cameras and capture the world from a bird's eye view using drones has ignited the interest of news outlets that have seen tremendous opportunities for journalism through this miniature aircraft. This remarkable advancement in technology is quickly changing how news agencies and the media operate, and like other fields, have put drone technology to good use. For instance, cable news networks (CNN) use drones to augment traditional television coverage and improve vantage points. The news network has also launched a team to fly and operate drones as a part of expanded news coverage to provide the benefits of planes and helicopters for a fraction of the cost (Business Insider Intelligence, 2017).

As Oyekola (2021) reported, Buki Ponle, the Managing Director of News Agency of Nigerian (NAN), supports the notion that drone as an enhanced technology is relevant to newsgathering. For more effective coverage of events and activities, declared that drones should be deployed in six (6) primary areas of the country to get news information from areas that are difficult to penetrate, like a crowd, demonstration, including peaceful or violent protest. Drones can get there to cover and get the story. NAN's desire to improve news coverage and align with advanced technology is on the high side.

The rise of the reliance on drones by the media worldwide has become a subject of research by professionals and students of Journalism and Media Studies. Drone journalism has been the subject of a remarkable number of academic publications since 2013. With the rapidly evolving drone technology, many media platforms started experimenting with drones,

leading to increased drone users worldwide. A lot had changed between 2015 when the article: "News Drones: An Auxiliary Perspective" was published by Postema and now. According to Tremayne and Clark (2014), "the implications for the field of journalism and mass communication are numerous, with practical, theoretical and ethical dimensions" (p.232).

Drones have been deployed for multidisciplinary functions they can be used to carry a multitude of data-gathering devices, including geographic information systems to map the extent of wildfires, or sensors to measure radiation levels, wind speeds, or thermal images (Bellows, 2013; Schroyer, 2013; Culver, 2014;). The ability to gather this type of data opens up the possibility of an entirely "new form of reporting, offering to the UAS operator a completely new way to discover, investigate, and track a story" (Bellows, 2013, p. 612).

According to Bellows (2013), drones "stand poised to revolutionise the media in much the same way the internet has changed the print media" (p. 596). Media revolution can be attributed to the fact that drones are relatively inexpensive and can be deployed to humanly inaccessible areas with minimal risk and exposure to danger- new site for construction, forest survey, and the war zone. Goldberg, Corcoran & Picard (2013) asserted that "drone journalism has a great potential to obtain footage without journalists being observed or in places to which it is unadvisable to send reporters because of the risks involved. Goldberg et al., 2021 pointed out that "reporters could obtain images with certain guarantees for their safety since they would not have to run the risk of being caught in unpredictable situations like the lingering insecurity problems in Nigeria and the Lekki Tollgate killings during the END SARS protests in 2020" (P. 3)

In addition, the quality of videos and images obtained from drones has continually endeared them to media organisations. Roug (2014) asserted that some drone videos have had "a vivid, eyewitness feel that far surpassed the quality of shots from cameramen behind yellow police tape" (p. 29).
Hence, this study wants to look at how the use of drone for television broadcasting in Nigeria can improve professionalism.

Statement of Problem
Before now, journalists lost their lives in the line of duty while covering civic demonstrations, protests and wars. Drones have been attributed with the power to modify the way we look at things. The act of gathering news utilizing drone technology is known as drone journalism. Unmanned Aerial Vehicles (UAV), often known as drones, became mainstream and has brought a revolutionaryexperience into the world of journalism and news reporting.It is an innovative technology that will bring a magnificent difference to journalism and signal new value networks Nevertheless, there has been a gap inthe scholarly exploration of how a drone can be used particularly in journalism for newsgathering in Nigerian television broadcasting.
Several studies have revealed a tremendous increase in the use of this tool over the years, such as (Klauser and Pedrozo, 2015; Rothstein, 2015). However, a survey held among 74

journalism students of a British and a Dutch University, revealed that a minority (44 per cent) knows that drones can be used in journalism.

In Nigeria, the utilisation of drones by local television stations in newsgathering is not a popular practice; the Nigerian Civil Aviation Authority initially banned drones because of its invasion of privacy and the possibility of it-drone being used for spying. If government agencies, organisations, and individuals are discouraged from using and experimenting with drone technology, it is most likely because the government did not know its importance from the onset.

The fight against terrorism in the country's North East and North West and the attendant humanitarian crises has not received adequate media attention due to the challenges to human and resources posed by the security threats of sending reporters to those places for investigative journalism, a problem that can be easily resolved with the use of drone to gather on-site information. In most cases, they have had to rely on government-sanctioned footage and reports which may not necessarily convey an actual state of the war. Therefore, this paper explores the impact, the use of drones on newsgathering by broadcast stations will have in the quality of journalism and how drone technology increases professional journalism practices by broadcast stations in Nigeria.

Objectives of the Study

This study sets to investigate the use of drone in television broadcasting and how it can improve professionalism in Nigeria

1. Examine the opportunities and challenges in the use of drone for television broadcast and how it can improve professionalism.
2. Find out the security dangers of using drone for newsgathering in television broadcasting.

CONCEPTUAL REVIEW

Drone and Television Broadcasting in Nigeria

The idea of Television broadcasting in Nigeria is credited to the first Western Region Premier, the late Chief Obafemi Awolowo. He launched television broadcasting at Ibadan, the headquarters of the region, on 31st October 1959 after he was denied permission to air his views through the national radio service in response to the alleged false accusation levelled against his party by the Governor, Sir John Stuart MacPherson. (Daramola, 2003; Okigbo, 1998:237 as cited by Alao, et al. 2013).Television later became a tool to promote education and interpersonal communication (Fisher, et al. 2020).

According to Kusamotu & Kusamotu (2017), as cited by Komolafe (2018) stated that drones were reported to have been found in Nigeria around 2015 and in May 2016, the Nigerian Civil Aviation Authority (NCAA) issued some safety regulations and conditions for ownership and usage. A few television stations in Nigeria-TVC, Channels, Arise TV use drone to gather news for the people to view live broadcast.

Russo (2016) they stated that while some journalists report being reluctant to use drones, others agree to the use of the technology to report on matters of public interest. Russo also opines that journalistic drone use is so successful, this opens talks for partnership between technology and research organisations with journalists and publishers to incorporate drones into modern journalism education.

What sets drones apart as a unique newsgathering tool is its ability to go where journalists cannot. The drone can tell scary and spectacular stories in remote, sensitive, and inaccessible areas that neither ground crew nor helicopters can capture, especially in the case of natural disasters such as earthquakes, floods, and war like the one going on between Russia and Ukraine.

Drone journalism: Opportunities and Challenges

Since World War II, drone camera quality and its ability to fly cannot be matched with any other device. The opportunities created by drone technology in newsgathering and reportage includes;

Extended options for storytelling: Drone technology has become a new set of tools that journalists have at their disposal when it comes to storytelling. It can tell any story that happens outdoors, from traffic monitoring to riots, protests, natural disasters, war. There is almost no limit to what these drones can do when it comes to storytelling.

Affordable: Drone-eye in the sky is cheaper and more affordable than using a helicopter and crew members to get an overhead view of an event or situation (Cassimally 2013, Barrero (2017).

Improved journalists' working conditions: Drone technology has reduced journalists' on-the-scene reportage, especially if the environment is not conducive or favourable, which could be in the case of a protest, natural disasters, and the ongoing unprovoked Russian invasion of Ukraine. Having an above-the-ground view may give journalists a better perspective of the extent of a disaster without putting the journalist in harm's way, like it did to Brent Renaud, an American photojournalist who on March 13 was killed and another wounded by Russian forces in the town of Irpin, outside the capital of Kyiv, at the ongoing Russian invasion of Ukraine (Becket,2022; VOA news, 2022; Aljazeera, 2022; News Editor,2022).

Improved news quality and credibility: Content with high documentary value can be better achieved with the use of drone. Despite, all the benefits and opportunities created by drone, it has a down-side, especially in the areas of rights, regulations, safety and privacy. which limits television stations in Nigeria for gathering certain information with the use of drones.

SECURITY DANGERS OF DRONE USAGE

Although drones are used a surveillance and security device, it is equally a security threat and challenge on its own, especially when in the wrong hands. As useful as drones have been, safety and privacy, among others, has been a major concern since it took to the skies for other purposes other than warfare.

One of the greatest risks associated with drone usage according to Kardasz1, Doskocz, & Hejduk (2016) is the fall of a drone from great heights. Although the world has witnessed the benefits of drones in different fields, it has also witnessed a number of security incidents in the following;

Invasion of privacy and trespassing: One of the major concerns of flying drones is that of privacy and trespassing Butler (2019). In the research titled 'drones and invasions of privacy: an international comparison of legal responses', describes the various invasion of privacy issue perpetrated with the use of drones.

Loss of Eye: As reported by Hilton (2017), in 2015, a toddler in England sustained a serious injury to his eyes when it was sliced open by a drone propeller after the operator lost control of the drone.

Airspace Threats: The crewless aircraft with no pilot or passengers can pose a serious threat to any flying machine with people and goods on board which is why flying drones in an airport or even close to it is restricted. In the UAE, for instance, a recreational UAV hovering around the plane's airspace brought all flights to a halt for 55 minutes, and although no damage was done, the disruption had economic consequences (Solodov, Williams, Hanaeim & Goddard, 2017).

Vehicles for weapons: Before drone technology became a gadget for all, it had a solid military background and is still very much used for warfare. As it can be seen in the ongoing Russian invasion of Ukraine. Drone in the hands of terrorists, for instance, will cause destruction of properties and lives. Aside from using drone for shooting missiles and dropping explosives, small drones can be used to deliver chemical or biological agents in an attack. According to News24, the terrorist groups use the drone technology for surveillance in the northeast of the country causing an increase in death toll and causalities.

Criminal Activity/Smuggling: Drones have been used to commit burglaries, smuggle contraband to prison inmates, delivering lethal weapons and so on.

Accident in the air: Faulty drone to a reckless pilot can cause collision in the air. However, this has proven dangerous on several occasions, one of which involved crashing into a 5th floor of a building in Cape Town, South Africa, with the drone colliding into the resident's head in 2016 (Forrest, 2018).

Hacking: Drone Hacking as stated by Pro Technologies (2016) is ranked high among the host of drone-related security risks. Drones store many data, with some holding more sensitive data than others, especially if it is a government-owned drone. Hacking does not only involve getting access to stored data but also tapping into the GPS coordinates to alter the flight plans of the drone, which can be done even when the drone is in the air. Confidential information could be leaked or used to the hacker's advantage which may cause damage to the parties involved.

Using drone technology, whether as a hobby or for work purposes has its risk, which can lead to severe complications if not cautious. The above reasons put a great responsibility on every drone pilot including journalist using drone for newsgathering working at any media outlets to be professional and ethical in the delivery of news gathered through drone.

General Drone Laws in Nigeria

Earthofdrone.com (2021) in its website listed the following regulations guiding the use of drone in Nigeria.

- Authorisation must be obtained from the Nigerian Civil Aviation Authority (NCAA) before flying a drone, and the flight plans must be submitted to the NCAA.
- Drones weighing above 250 grams must be registered with the NCAA.
- The drone pilot must not be less than 16 years old.

- A Remotely Piloted Aircraft Systems Certificate must be obtained by the pilot before flying a drone in Nigeria.
- Avoid flying drone near the border or around the airport.
- Drone must not be flying over high seas without proper permission from the NCAA.

EMPIRICAL REVIEW

Drones were expected to be 'game-changers' for media and society (Hamilton, 2015; Roug, 2014), a disruptive innovative technology (Belair-Gagnon et.al, 2017) that would transform journalism and markets (Levine, 2014) and signal new value networks (Gynnild, 2014).

A multiple case study of audio-visual news and feature items from several different countries (Adams, 2018) identified thirteen hypothetical perspectives or 'narratives' in aerial filming which potentially affect journalism. These included a diagnostic view, a sense of global connection, drama through movement, a feeling of (unrealistic) power, suggestion of surveillance, beauty or art, unnecessary gloss and occasionally the immersion of the viewer.

The patterns of diffusion identified by Rogers (1995) were evident: the spread of drone journalism went from the ground up, from small to large, from periphery to center, and from online news sites to mainstream television. The BBC News was among the first TV stations. They debuted with their first "flying camera" in October 2013, but actually more than three years after the first successful uses of drones by paparazzi.

An increasing number of TV stations are using drones for news; there is a dearth of research about this topic from a diffusion standpoint. A survey conducted in 2016 by RTDNA and Hofstra University found that fewer than 20% of TV stations in the United States were using drones for news, although more than 20% indicated they were planning to implement the devices (Papper, 2017). Stations in the largest 50 markets had the highest percentage of drones. A similar study from the previous year showed that stations with more staff tended more to use the aerial vehicles (Papper, 2016).

A survey of local TV stations in the United States indicated that, although half of the stations owned drones, these were only used moderately, and the study found no evidence that drones were used because of their importance for news stories (Ferguson & Greer, 2019).

By providing images from a different perspective, one is able to tell a more complete story. Each perspective (ground, tripod, slider, and drone) provides a different way to tell a story. It uses "triangulation method" by providing various reference points to figure out and clearly identify image. (Schroyer, 2014). Areas that were once considered too dangerous, too remote or inaccessible in other ways now lay open for journalistic conquering. Furthermore, they opened up new cultures for individual learning, as proposed by Thomas and Brown (2011). According to the interviews conducted by Belair-Gagnon et al. (2017, p. 5) among early adopters of drone journalism in the US, the main reasons for using flying cameras were "low cost," "more precise visualisation for storytelling," and "safe access to uncharted reporting terrains."

Observers like Perritt and Sprague (2017b, p. 2) have argued that the barriers to the wider use of drones "are almost entirely political and regulatory, not technological." Regulation seems to play an essential role in terms of drone journalism. Compared with other countries, for example, Sweden and the US, Finland received its own drone act quite early; the Finnish drone rules came into effect in 2015 (Finnish Aviation Act, 2014), in Sweden in 2017, and in the US in 2018. Without a permissive legal environment, many news organisations are hesitant to adopt drones. The environment particularly affects the late majority and the laggards because these groups are reluctant to spend their relatively scarce resources on an innovation if there is any uncertainty about the benefits of doing so (Rogers, 1962). So far, about 40 countries have either declared a total ban on or have heavily restricted the use of camera drones. For example, the US and Sweden have temporarily banned the use of camera drones. In the US, drone journalism education was halted by the authorities from 2013 to 2016. In Sweden, a total ban on using drones for journalism lasted from autumn 2016 to summer 2017 (Gynnild & Uskali, 2018). Finland has never heavily restricted or banned the use of drones in journalism, which has enabled their diffusion.

Based on previous research on drone journalism, we can list several cases where only one incident or simply the threat of an incident has triggered a nationwide ban on the use of camera drones: Nepal in 2015, Kenya in 2015, Thailand in 2015, and Sweden in 2016. For example, in the Nepalese case, in the aftermath of a devastating earthquake, as powerful drone videos of the ruins of old buildings in Kathmandu began circulating online, the authorities instituted a nationwide drone ban, mainly to safeguard their country's image and tourism industry (Uskali & Gynnild, 2018).

THEORETICAL FRAMEWORK

This research was anchored on Diffusion of Innovation Theory and Social Responsibility Theory including Technological Acceptance Model (TAM).

Diffusion of innovation theory

Diffusion of innovation theory tends to come with techno-optimism baggage, implying that innovations replace or supersede previous technology, and journalism research has been criticised for being too technology-centred (Zelizer, 2019).

Rogers' (1962) diffusion of innovations theory has been among the most influential theories for predicting how new technologies are communicated and adopted in societies, and it has contributed significantly to the field of communication studies (Srivastava & Moreland, 2012).

Edgerton (1999) has placed innovation discourse in a larger societal context and provided a historically grounded approach for analysis. The key point is that innovation discourse in itself is an important part of modern society, which makes objects that can be linked to notions of the 'new' or 'groundbreaking' inherently important and interesting.

Edgerton argues that rather than adoption, which he suggests can be rather swift and easily traceable, analysis of technological changes should focus on the extent and forms of the uses of technology. On the other hand, Rogers (1995) argued that the implementation of innovation requires knowledge of its compatibility with existing practices.

Müller & Tworek (2016) have proposed the idea of 'imagined use' as a fruitful category of analysis. In an innovation-centric society such as ours, optimistic projections of the potential of new technologies into the future can often serve to guide and influence practical choices in the present. Their analysis highlights the importance of the contents of what can be called the 'hype' phase.

Social Responsibility Theory

Due to the aforementioned reason behind why countries invoke ban on the use of drones for newsgathering and live broadcast of news report on television, the researcher will base this research on Social Responsibility Theory. Social Responsibility Media Theory was propounded in 1956 by F. S. Siebert, T. B. Peterson and W. Schramm. The major premise of the theory is that freedom carries affiliated obligations, and the press, which enjoys a privileged position under the government, is obliged to be responsible to society for carrying out certain essential functions of mass communication. Ineji et al. (2014) noted that, Social Responsibility theory of mass media is a new concept that started in the mid-20th century and is used mostly by developing and least developed countries. The theory started from Europe and took shape with the Commission of the Freedom of Press that was commissioned in the United States in 1947.

The theory emphasises the importance of media freedom to scrutinise power and to provide accurate information as the Fourth Estate of the Realm. It suggests that media content should be filtered thoroughly by self-regulation- voluntary efforts of the media owners and practitioners before disseminating same to the public (Donsbach, 2007, p. 16). Social Responsibility theory replaced libertarian theory with the view that libertarianism totally supports the freedom of thoughts and right to privately owned opinion without the fear of censorship from the government, who holds the power to control and suppress media.

After the emergence of this theory, professionalism in the media started to be taken seriously. The Hutchins Commission on Freedom of the Press was set up to re-examine the concept of press freedom as enunciated in the Libertarian or Free Press Theory

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was propounded by Davis in (1989). Technology acceptance model is one of the most influential models of technology acceptance. This model assumed that two primary factors influence an individual's intention to use a new technology is the perceived ease of use and perceived usefulness. According to Kalayou et.al, 2020, technology acceptance model is concerned with factors that determine the behavioural intention of an individual to use new technologies from the end user's perspective. Technology acceptance model comprises of core variables of user motivation such as perceived ease of use, perceived usefulness, and attitudes towards new technology.

Summary

The summation in all that has been written is the fact that drone is an innovative creative work of art that has the ability to deliver products for the sales and marketing industry, and be used as a weapon of war-the primary aim for its invention since World War II. Additionally, it can be used in the media for information gathering to be transmitted live

on TV in Nigeria or online streaming for the world to see. Though, Unmanned Aerial Vehicle (UAV) has a few challenges despite its almost perfect nature and functions. Using drones for newsgathering can invade people's privacy, hack vital information, cause serious air accidents when mishandled and can also be used as a spy in and outside countries.

However, drones in newsgathering for television broadcast assist to facilitate quick access to information, penetrates volatile areas without a record of casualty of journalists during protest or war, it also presents high-tech visuals and pictures to depict professionalism.
Therefore, the study's position is that drone is a good fit for television broadcasting but the code of ethics for journalist must be strictly adhered to, to avoid litigation(s) from aggrieved organisations or persons.

Conclusion/Recommendation

Based on the use of extant studies on drone and television broadcasting, the following conclusion and recommendation were made.
Drone technology is a disruptive technology to the media industry and will be adopted more by several media companies for newsgathering due to several benefits that can be achieved at the expense of the investment in acquiring this technology and enough skilled journalist to use it.
Studies revealed that enough researchers are not considering drone journalism in Africa presently because there are very few articles that are available on this topic. Despite evidences showing the increase in the adoption of the technology in North America and Europe; there are still challenges regarding regulations, ethics, laws and technical know-how, especially in Africa.
There is no controversy to the benefits and contributions of drones in newsgathering for local TV stations based on the findings of researchers over the years. However, there are challenges regarding regulations, ethics, laws and technical know-how.
Local television stations should overcome the challenges and embrace the use of drones for newsgathering as they strictly uphold the tenets and ethical rules that guides journalism.

REFERENCES

Adams, C. (2018). Tinker, Tailor, Soldier, Thief: An Investigation into the Role of Drones in Journalism. *Digital Journalism*.http://DOI: 10.1080/21670811.2018.1533789

Alao, D., Uwom, O., & Alao, A. (2013). Theory and practice of international communication. *GrailGraphiX*.

Aljazeera, (2022, March 13). Brent Renaud: US Journalist killed in Ukraine. *Aljazeera.* https://www.aljazeera.com/news/2022/3/13/brent-renaud-us-journalist-killed-in-ukraine

Becket, S. (2022, March 14). American Journalist Brent Renaud shot and killed by Russian forces in Ukraine. *CBS News* https://www.cbsnews.com/news/brent-renaud-ukraine-russia-american-journalist-killed/

Belair-Gagnon, V., Owen, T., and Holton, A. E. (2017). Unmanned aerial vehicles and journalistic disruption.*Digital Journalism*. http://DOI:10. 1080/21670811.2017.1279019.

Bellows, B. (2013). Floating toward a sky near you: Unmanned aircraft systems and the implications of the FAA modernization and reform act of 2012. *Journalism of Air Law and Commerce*

Business Insider Intelligence (2017). Here's how drones are transforming news media. www.businessinsider.com/heres-how-drones-are-transforming-news-media-2017-1

Butler, D. (2019). Drones and invasions of privacy: An international comparison of legal responses. *UNSW Law Journal 42(3)* 1039-1074

Chamayou, G. (2014).A Theory of the Drone. Trans. Janet Lloyd. New York: The New Press, pp.304

Clarke, R. (2014). The regulation of civilian drones' impacts on behavioural privacy.*Computer Law & Security Review*, 30, 286– 305,

Corcoran, M. (2012): 'Drone journalism takes off'.*ABC News.* http://www.abc.net.au/news/2012-02-21/drone-journalism-takes-off/3840616

Culver, K. *(2014).*From battle to newsroom: Ethical implications of drone technology in journalism.*Journal of Mass Media Ethics*.http://doi:10.1080/08900523.2013.829679

Daramola, I. (2003). Introduction to Mass Communication (2nd ed.). Rothan Press Ltd.

Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology.*MIS Quarterly* 13:319–40.

Davis, L.M. (2015). *Not Without a Pilot: Navigating the Space Between the First Amendment and State and Federal Directives Affecting Drone Journalism*, 49 Ga. L. Rev. 1159

Earthofdrones, (2021). Drone Regulation Nigeria. https://earthofdrones.com/drone-regulations-in-nigeria/Retrieved March 12, 2022

Edgerton, D. (1999*).* From innovation to use: Ten eclectic theses on the historiography of technology. *History and Technology, an International Journal*, 16(2), 111–136.

Finnish Aviation Act, 864 & 9, 57 and 70 (2014). https://arkisto.trafi.fi/filebank/a/1444223591/7ded5988558660d38599203de96117fe/18706- OPS_M1-32_RPAS_eng.pdf

Fisher, D. E., Fink, D. G., Fisher, M. J. & Noll, A. M. (2020). Television. *Encyclopedia Britannica*. https://www.britannica.com/technology/television-technology. Accessed 12 March 2022.

Flynt, J. (2017). Beginners Guide to drones. https://3dinsider.com/drone-guide/

Greer, C. F., & Ferguson, D. A. (2014). Tablet computers and traditional television (TV) ViewingConvergence.*The International Journal of Research into New Media Technologies, 21(2), 244– 256.* http://doi:10.1177/1354856514541928

Goldberg, D. Corcoran, M. and Picard, R. (2013). Remote Piloted Aircraft Systems and Journalism: Opportunities and Challenges of Drones in Newsgathering.*Reuters Institute for the Study of Journalism*

Gynnild, A., & Uskali, T. (Eds.). (2018). Responsible Drone Journalism (1st ed.). *Routledge*. https://doi.org/10.4324/9781315163659

Hamilton, J. F. (2020). Drone journalism as visual aggregation: Toward a critical history:*Media and Communication*, *8(3),* 64–74.

Hilton, L. M. (2017, July 17). Personal Injury and Property Damage with Drones. https://www.bfvlaw.com/personal-injury-and-property-damage-with-drones/

Ineji, P. U., Nkanu, E. A.,&Okoi, P. E. (n.d.). Social responsibility media theory and its implication for media professionalism in Nigeria.J*ournal of Media, Communication &Languages, 6(1),* 242-255

Kalayou, M. H., Endehabtu, B. F., and Tilahun, B. (2020). The applicability of the modified Technology Acceptance Model (TAM) on the sustainable adoption of eHealth systems in resource-limited settings. *Department of Health Informatics, Institute of Public Health, College of Medicine and Health Sciences, University of Gondar, Gondar, Ethiopia.*http://DOI: 10.2147/JMDH.S284973

Klauser, F. and Pedrozo, S. (2015). Power and space in the drone age: a literature review and politico-geographical research agenda.*Copernicus Publications for the Geographisch-Ethnographische Gesellschaft Zürich & Association Suisse de Géographie.* http://doi:10.5194/gh-70-285-2015

Komolafe, O. (2018). Drone technology and news gathering among selected staff in Channels television and Television Continental (TVC**)** [Unpublished master's dissertation]. *Redeemer's University,* Ede, Nigeria

Kusamotu & Kusamotu (2017). Drones in Nigeria? Retrieved from www.kusamotu.com/drones-in-nigeria/

Müller, S. M. and Tworek, H. J. S. (2016). Imagined use as a category of analysis: new approaches to the history of technology. Vol.32:2, 105-119. http://DOI: 10.1080/07341512.2016.1218957

News Editor (2022, March 14). Russia/Ukraine war: US filmaker killed in Irpin crossfire. *The Street Journal.*

Ntalakas, A., Charalampos, D., George K., and Andreas V. (2017).“Drone Journalism: Generating Immersive Experiences.” *Journal of Media Critiques[JMC]*. http://*DOI:10. 17349/jmc117317*

Okocha, D. O., Agaku, T. and Ola-Akuma, R. O. (2021). Drone journalism: the empirical arguments for its utilization in investigative journalism in Nigeria human discourse Vol. 1, No. 4, 2021. https://ssrn.com/abstract=3936487

Oyekola, T. (2021, December 23). NAN deploys drones in six states for news coverage. *Punch*

Newspaper

Papper, R. A. (2017). Broadcast news and writing stylebook, (6th Ed.). *Routledge* pp. 332. https://doi.org/10.4324/9781315545028

Perritt, H. H., and Sprague, E. O. (2017). Navigating cautiously: Tentative drone journalism. navigating cautiously tentative drone journalism

Rogers, E.M. (1962). Diffusion of innovations, Vol. 1, 79–134 New York, NY: *Free Press of Glencoe.*

Rogers, E. M. (1983) Diffusion of Innovations. Third ed. New York: *Free Press of Glencoe.*

Rothstein, A. (2015). Drone.*Bloomsbury*

Roug, L. *(2014).*Eye in the sky: Drones are cheap, simple, and potential game changers for newsrooms. *Columbia Journalism Review*

Russo, K.C. (2016). Media Technology: The Evolution of Journalism and the Constitutional Complications of drone reporting. https://www.google.com/amp/s/www.natlawreview.com/article/media-technology-the-evolution-of-journalism-and-constitutional-complications-drone%3famp

Schroyer, M. *(2013)*. "Seven more reasons why journalists should learn to fly unmanned aircraft".*The Mental Munition Factory*.http://www.mentalmunition.com/2013/03/seven-more-reasons-why-journalists.html

Srivastava, J. and Moreland, J. J. (2012). Diffusion of Innovations: communication evolution and influences. 294-312. https://doi.org/10.1080/10714421.2012.728420

Thomas and Brown, S. (2011). A new culture of learning: cultivating the imagination for a world of constant change

Tremayne, M., & Clark, A. (2014).New perspective from the sky: Unmanned aerial vehicles and journalism. *Digital Journalism*

VOA News. (2022, March 13). Award winning American Journalist killed in Ukraine. *VOANews.com*

Whitaker, N. (2016): An interview with Matt Waite about the future of drone Journalism, Medium. https://medium.com/google-news-lab/drone-journalism-aninterview-with-matt-waite-about-the-future-of-drones-in-journalism7b1811c661aa#.ua2mkwlzw

Zelizer, B. (2019). Why journalism is about more than digital technology. *Digital Journalism*, 7:3, 343-350. http://DOI: 10.1080/21670811.2019.1571932