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Disinformation: Exploring the nexus between politics and technology in Nigeria



WITS
UNIVERSITY

School of Literature, Language and Media

Department of Media Studies

A Thesis submitted to the Department of Media Studies, Faculty of Humanities, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for award of a Doctor of Philosophy degree in Media Studies, University of the Witwatersrand

by

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2022

Declaration

I declare that this thesis is my original unaided work, and it has not been previously submitted for a degree or diploma at any other university. Where other people's works have been used, this has been fully acknowledged. This thesis is submitted in fulfilment of the requirements of the award of the Degree of Doctor of Philosophy in the Faculty of Humanities at the University of the Witwatersrand, South Africa.

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..... 26/10/2022

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List of Abbreviations

AD	AD - Alliance for Democracy
AG	AG - Action Group
ANPP	ANPP - All Nigeria Peoples Party
APC	APC – All Progressives Congress
APGA	APGA – All Progressives
API	API – Application Programming Interface
APP	APP - All Peoples' Party
BMC	BMC – Buhari Media Centre
BNMC	BNMC – Buhari New Media Centre
CAN	CAN – Christian Association of Nigeria
CPC	CPC - Congress for Progressive Change
EMB	EMB – Election Management Body
GNPP	GNPP - Great Nigerian Peoples Party
ICT	ICT – Information and Communication Technology
INEC	INEC – Independent National Electoral Commission
IPOB	IPOB – Indigenous People of Biafra
MIT	MIT - Massachusetts Institute of Technology.
NCNC	NCNC - National Council for Nigerian Citizens
NPC	NPC - National Party of Nigeria
NPC	NPC - Northern Peoples' Congress
NPP	NPP - Nigeria Peoples Party
NRC	NRC - National Republican Convention
PDP	PDP - Peoples Democratic Party
PRP	PRP - Peoples Redemption Party
SCR	SCR – Smart Card Reader
SDP	SDP - Social Democratic Party
TSM	TSM - Twitter Sub-graph Manipulator
UPN	UPN - Unity Party of Nigeria

CHAPTER 1

1.1 Thesis statement

Why did a certain politician hire Cambridge Analytica to plant false information and destroy Muhammadu Buhari[1] in 2015? Fast-forward to 2019, why were the contracted PR consulting agencies used to spread harmful content about Atiku Abubakar[2]? How did the whole narrative of the role of the Internet swing from an empowering multiplier of social opportunities to the scary space where we can only be attacked by malicious users? Instead of encouraging community dialogue and engagement, how did social media make it easier to target voters and deliver messages that were relevant to them? How did it become possible for politicians to identify and influence voters in ways that were unthinkable just a few years ago? Who should we vote for: "Jubril from Sudan?" The "real president Muhammadu Buhari" seeking a second term or the Atiku Abubakar who is a "thief?"

These inquiries frequently came up in the discussions I had with people about the toxic messaging that spread during Nigeria's 2019 presidential election. Concerned about the prevalence of disinformation during elections in the country, political parties, digital media and political communication researchers, experts, and private individuals asked me these questions in the belief that I could address this urgent social issue with workable answers. Interest in this topic increased when the argument moved from specialized, tiny political forums into the public realm in 2018 when the (body-double) rumour seized the media spectrum.

These are not value-free questions, as I will show in this thesis. Their tone and phrasing frequently imply that the solution to this social phenomenon is already known: those who spread purposefully altered messages bear responsibility for the proliferation of damaging content. "*These* people: *others*, who are not like *us"* (Grodzicka, 2021, p. 1).

In this thesis, I argue that disinformation is a *social phenomenon* that avoids the binary of truth vs falsehood by demonstrating that instigators of disinformation are not always (necessarily) malicious. Disinformation is embedded in a broader set of social practices cohering around Internet media with digital technologies contributing to its spread It aims to affect people's perceptions of politics and democracy by focusing on the same data that voters use to make their decisions during elections. Manipulated information influences voting behaviour, "imposes issues on political agenda, changes public perception and ultimately distorts social reality" (Toma, 2021, p. 4). In this research I embrace a different approach: rather than normatively seeing disinformation as 'harmful to democracy', I propose disinformation as a form of *participatory culture*. Agents who design and amplify harmful content are not always (necessarily) malicious. They are "ordinary" Twitter users who want to share their thoughts on a wide range of issues like

[1] Retired Army Major General and military Head of State from 1983 to 1985 after taking power in a military coup d'état. He was elected President of the Federal Republic of Nigeria in 2015 after defeating incumbent President Goodluck Ebele Jonathan. He was re-elected in 2019 for a second term.

[2] Nigerian politician and businessman who served as vice president of Nigeria from 1999 to 2007. Atiku Abubakar has unsuccessfully contested five times for the Office of President of Nigeria in 1993, 2007, 2011, 2015 and 2019.

politics and interact with other (build a community of friends). But their online engagements put them on a pedestal (becoming influencers for instance) which creates an opportunity, one they seize in unique ways.

In the next section, I connect pre-digital media era rumouring to modern day disinformation campaigns to trace how political campaigns have evolved from the traditional door-to-door campaign format to incorporation of social media into their strategic plans. The section also analyses the role of social media as an enabler of the virality of manipulated messages and microtargeting of voters, reflecting on the Cambridge Analytica influence operation of 2015.

1.2 Introduction

Academics and observers were captivated by the part social media played in facilitating uprisings by the people in the Middle East and North Africa in 2011. Social media was hailed as a brand-new, open commons that would let democracy flourish (Howard & Hussain, 2011). With 2016, the euphoria had subsided and been replaced by worries about how social media could affect election integrity and how public confidence in traditional media and democratic institutions was declining (Woolley & Howard, 2016a; Ong & Cabanes, 2018). These worries have increased the focus on how social media and search algorithms rank, sort, and present political content to users. Due to their financial strategies and algorithmic framework, social media corporations have essentially become de facto institutions for democracy (Kreiss & Barrett, 2019). However, there is still a lack of monitoring, accountability, and transparency regarding how these sophisticated technical systems make judgments that have an impact on democratic processes. To reduce online damages and misinformation, governments across the world are attempting to regulate social media networks (Bradshaw et al., 2018). The digital platforms, meanwhile, have proposed self-regulatory measures with the same goals, with a primary focus on changes to their algorithms and artificial intelligence (AI) that rank and deliver material to consumers (Taylor et al., 2018). By algorithmically boosting "meaningful engagement" and decreasing the reach of "low quality media" and "spam," the platforms assert that they can combat misinformation (Taylor et al., 2018). Trade secrecy, however, obscures the operation of the algorithms and AI, as well as the code behind them and even the changes that have been made (Pasquale, 2015). Independent researchers continue to struggle to get factual data on how algorithmic changes affect the spread of misinformation and other types of low-quality internet content.

Fake news is also a widespread issue that affects how we share information and view the world. Politicians and voters are alarmed and concerned by evidence of domestic and international cyber influence operations (Cordey, 2019)[3]. “There are fears that democratic institutions and national elections are under threat from mis-, dis-, and malinformation shared on a huge scale online and on social media platforms” (Wardle, 2018). Fake news has become a crisis due to mob lynching and other acts of violence based on unfounded rumours, costing lives and causing

[3] Illegitimate (sometimes illegal) activities that are run in cyberspace that leverage the distributed vulnerabilities of cyberspace and rely on cyber-related tools and techniques to affect an audience’s choices, ideas, opinions, emotions or motivations, and interfere with its decision-making processes.

significant problems for the Nigerian society (Best & Rakodi, 2011). The government has attempted to implement many steps to stop the spread of misinformation, including legislation and legal action, media literacy initiatives, and public awareness campaigns. Additionally, there is growing international pressure on major digital and social media companies to take swift action to stop the spread of misleading and harmful information on their platforms or risk penalties or regulation (Taylor, Walsh & Bradshaw, 2018; Marwick & Lewis, 2017; Kreiss & Barrett, 2019; Kreiss & McGregor, 2018). However, human rights groups claim that the fight against misleading information and "fake news" has been used to carry out illegal detentions or pass repressive legislation that primarily intends to stifle political dissent and restrict freedom of speech and expression. The contingent impact of Web 2.0 technologies on campaign process and election outcome is still being investigated. Using social media for predicting political elections is controversial just as researchers argue that it should not be considered as a valid indicator of electoral success (Stieglitz & Dang-Xuan, 2012; Metaxas & Mustafaraj, 2012). Campaigners organize their volunteers with digital media to get the word out and alter the face of election with a greater reach.

Cambridge Analytica scandal in 2015 brought issues around digital campaigning to the fore in Nigeria, “particularly issues concerning how such campaigning should be regulated” (Cadwalladr, 2018, p. 3). The episode also demonstrated how Nigeria's electoral law, which regulates digital campaigning, has not evolved in tandem with the proliferation of such campaigning, raising real concerns about undue influence on democratic processes (Cadwalladr, 2018). Digital political campaigning is not subject to a single regulator, and the need for a single regulator is still debatable (Lapowsky, 2016; Naik, 2019). The current state of Nigeria's electoral law is described in this thesis, along with its underlying politics and recent developments. Political campaigning in the internet age has drawn a lot of criticism. Recent scandals such as the Israeli disinformation campaign by *Archimedes* alleged to have targeted the 2019 presidential election, dispute over INEC’s server and electronic collation of results and large scale distribution of intentionally generated false and harmful information on social media, have significantly dented public trust (Debre, 2019; Apuke & Tunca, 2018). When there is a politically charged atmosphere, which is frequently fuelled by social media, protecting the functioning of free and fair elections is much more difficult. (Benkler, Faris, & Roberts, 2018; boyd, 2017; Bruns, 2019).

I acknowledge that using the internet to campaign can reach people who might not otherwise participate in the democratic process, but there needs to be a balance between the need for regulation to safeguard the democratic process and avoiding doing more harm than good by impinging on free speech and other fundamental rights.

While some may argue that technology increases the level of political participation, it has proven critical in guaranteeing engagement with harder to reach groups. As social media gets embedded in political communication in Nigeria, there has been a corresponding upsurge in the spread of disinformation. In this thesis, I will be investigating the form, motivation and distribution of digital disinformation and analysing a range of technical and human elements with a nuanced geopolitical context. I will rely on expert interviews and a collection of tweets on the 2019 presidential election to provide an understanding of disinformation as a networked activity.

1.3 Background to the study

The production and spread of false information in the digital media spectrum has gained scholarly attention in the last few years and with advancements in information and communication technology, new terminologies like disinformation and misinformation have been added to the lexicon (Born & Edgington, 2017; Tucker, Theocharis, Roberts, & Barberá, 2017; Turenne, 2018; Wardle, 2017; Wardle & Derakhshan, 2017). With this in mind, this study looks at the production and spread of false information, and how the rather recent practice of using bots (Giachanou et al., 2022; Mazza et al., 2022)[4], Internet trolls (MacKinnon & Zuckerman, 2012)[5], sock puppets (Cook et al., 2014)[6] and the affordances of social media to manipulate online content and democratic process is becoming commonplace in African politics. I argue that the current culture of disinformation and machine amplification of false and harmful information is not new in that they are new articulations of pre-existing phenomena, including rumour, the exploitation of networks based on clientele patronage something that predates the digital media era. While others have argued that the use of digital technologies to influence people's actions and inactions, with particular reference to elections, is new or emerging, this study locates this trend in the old habit of spreading rumour. Social media provides a platform to amplify the reach and impact of disinformation. In as much as disinformation is not a new phenomenon, the techniques of this cultural material production remain largely understudied in sub-Saharan Africa.

The sophistication of means of information production and dissemination is raising questions about the objectivity of seeking, disseminating and verifying information. It is argued that users/audiences/people are prone to formulating and circulating rumour (Oyewo, 2009). People have lied to one another for roughly as long as verbal communication has existed (Southwell, Thorson, & Sheble, 2017). Deliberately promoted and accidentally shared, disinformation is perhaps an inevitable part of today's world where deceiving others offers strategic advantage to either motivate others to action or protect interpersonal bonds (Jimoh & Stephen, 2018).

Rumours bear "topical relevance for persons actively involved in its dissemination" (Rosnow & Kimmel, 2000, p. 122), and Allport and Postman's 1946 seminal work point that there are two preconditions for rumouring: ambiguity and importance. They argue that for a rumour to occur and spread widely, "the situation must be uncertain, and people must care about the content." Like spreading disinformation, Shibutani (1966) ties rumour behaviour to meaning-making, supposing that participating in rumouring reflects participants efforts at collective sense-making. During periods of uncertainty, "people may create theories, introduce evidence, and process evidence. Narratives are supported and debunked, and gain and lose popularity over time" (Kraftt & Donovan, 2020). Other studies by Arif et al. (2017), Dailey and Starbird (2015), Heverin and Zach (2012), and Maddock et al. (2015) have documented this and went further to analyse how social media platforms aid in content creation and user activity.

[4] Automated information spreaders, accounts prone to fake dissemination or accounts prone to one-sided ("half-true") information dissemination.

[5] Trolls attempt to hijack a discussion through harassment or inflammatory content, hoping to provoke an emotional response.

[6] a fake identity created to promote someone or something through blogs, wikis, forums, or social networking sites such as Facebook or Twitter.

Krafft et al. (2017) suggest examining the conversational settings surrounding deception and focusing on the supplementary actors in talks where disinformation appears. When researchers look at rumours, they frequently expect to find a lot of scepticism in highly ambiguous and contentious situations. As a result, rather than disinformation flows including a large number of people who either believe or disregard disinformation content, participants who question or oppose disinformation flows should be taken into account when researching disinformation campaigns (Krafft & Donovan, 2020).

Governments and individuals leverage the existence of multiple conflicting narratives to spread falsities while directing public attention and galvanizing political support (Nyabola, 2018). Sharing disinformation with impunity, as well as monetizing such online behaviour has increased with the enormous influence of social media and the growing distrust in social institutions and mainstream media (BBC, 12 November, 2018). Despite this, use of the Internet and social media continues to rise (Edogor, Jonah, & Ojo, 2015). Although they have brought many benefits, "social media platforms and search engines have proven vulnerable to political disinformation – false or misleading "facts" intentionally spread to promote deception and discord" (European Commission. Directorate-General for Communication Networks & Technology, 2018, p. 1). Also, given the plethora of information available to users, it is no surprise the struggle to assess every piece of information on its merit (Lewandowsky, Ecker, & Cook, 2017).

We are witnessing the weaponization of information as powerful new technologies make content alteration and fabrication easier. Disinformation spread by governments, populist politicians, and dishonest corporations is amplified by social networks and spread by uncritical publics. Through its affordances of content creation and sharing, social media has become fertile ground for 'computational propaganda (Woolley & Howard, 2016a; Neudert & Howard, 2019)[7], 'trolling' and 'troll armies' 'sock-puppet'; networks', and 'spoofers'. Then, there is the arrival of profiteering 'troll farms' around elections (Ireton & Posetti, 2018, p. 15). This has however run into difficulty in recent years such that certain individuals, organizations and governments prey on the innocence of unsuspecting members of the public to spread disinformation in order to sway opinions (Gu, Kropotov, & Yarochkin, 2017) in certain directions thereby gaining advantages with serious implications for democracy, security, the economy and social cohesion (Shu, Wang, & Liu, 2019; Zhou & Zafarani, 2018).

Social media, and largely, the Internet, are dominated by "an attention economy where the most valued content is that which is most likely to attract attention. Information overload makes attention an extremely valuable resource, and using the power of networked collaboration and the reach of influencers, media manipulators are able to trade stories "up the chain" of media outlets" (Marwick & Lewis, 2017, p. 38).

Politicians are becoming more than simply candidates; they are now brands, supported by sophisticated merchandising and advertising infrastructures intended to boost their public perception. Political organizations also invest a lot of money in data analytics and data mining

[7] The malicious application of automation, algorithms, and big-data analytics to influence public opinion (Woolley & Howard, 2016a; Neudert & Howard, 2019).

companies that are experts at absorbing, digesting, and repurposing internet user behaviour into political messaging (Nyabola, 2018; 2019). With intricate, attention-grabbing infographics and chyrons, media businesses from all over the world compete for readers', listeners', and viewers' attention outside of the main tug of war (Marwick & Lewis, 2017).

In a shocking exposé, British Journalist Carole Cadwalladr and others revealed how UK-based public relations company, Cambridge Analytica, used similar strategies in pivotal elections like the 2015 presidential election in Nigeria, Brexit referendum, and the 2016 United States general election (Cadwalladr, 2018). The governing Jubilee Party in Kenya used Cambridge Analytica to improve its electoral chances during the 2017 general elections. Later, the firm was charged with utilizing social media to spread disinformation and using bots to do it (Nyabola, 2018). Similar to this, it has been reported that during the 2018 municipal elections in South Africa, both the opposition Democratic Alliance and the ruling African National Congress used social media to discredit their rivals (ANCIR, 2017). Likewise, Bell Pottinger, a UK public relations company, was exposed as a key actor in what was described as a "large-scale fake news propaganda war in South Africa"[8]. In order to undermine critics of the then-South African president, Jacob Zuma, and the Gupta business family, who paid the (expensive) bills[9],[10], the corporation, along with an Indian marketing firm, participated in a lengthy and covert operation to incite racial polarization. The disinformation was disseminated via websites, tweets (which bots amplified), deceptive online advertisements, covert use of Facebook and Wikipedia, hacks, and harmful disclosures.

According to Howard and Bradshaw (2017), online manipulation and disinformation strategies have been used extensively over the past ten years in at least 18 nations, particularly the United States. China and Russia were the forerunners in the use of paid commenters and political bots to disseminate government propaganda, but it is now widespread worldwide. These rapidly spreading techniques portend danger for public trust in media, public institutions, and science. Despite initiatives to stop computational propaganda, the issue is significantly worsening. Much of this rise is the result of election-related disinformation campaigns by political parties (Mare, Mabweazara, and Moyo (2019). Voter polarization and manipulation are becoming more common in campaigns utilizing technical devices and human agents. Online commenters and fictitious profiles are used to disseminate pro-party messaging, share information strategically, or publish using keywords to trick algorithms and make specific content trend. Additionally, they are being widely utilized to report legitimate posts and accounts, leading to their temporary removal. These demonstrate how pervasive false information has become.

Weaponizing information to hurt an opponent has become a common practice (Jones, 2020; Maweu, 2017; Robbins & Corps, 2019), whether it be to increase support, split the electorate, or reduce support for a rival. A 55-minute documentary called "The Real Buhari," which was full of lies and misinformation, aired on television before becoming viral on social media in the run-up to the 2015 elections (Cadwalladr, 2018; Ibrahim, 2018). Similarly, subtle and wild scale distorted stories swirled on social media about President Muhammadu Buhari and main opposition

[8] https://www.timeslive.co.za/news/south-africa/2017-09-04-the-guptas-bell-pottinger-and-the-fake-news-propaganda-machine/

[9] https://www.nytimes.com/2018/02/04/business/bell-pottinger-guptas-zuma-south-africa.html

[10] https://www.dailymaverick.co.za/article/2018-12-12-how-the-eff-dominates-the-disinformation-market/

candidate, Atiku Abubakar[11] (Lawal, 2018; BBC Africa, Feb. 14, 2019; Hitchen, Fisher, Cheeseman, & Hassan, 2019; Wexler, 2019; Ritzen, 2019). Many of these stories went on to take on lives of their own.

1.4 Rationale

Prior to the 2011 general elections, social media use in Nigerian elections first came to light. It is presently the subject of extensive media coverage due to its function in educating, motivating, and empowering Nigerians (Opeibi, 2019; Bartlett et al., 2015). There were tremendous changes observed during the 2015 general elections as the use of Internet increased exponentially especially among the young population who use the medium for different purposes (Akubor, 2020). The about 13.6 million social media users of 2015 have grown rapidly to 24 million users, with an Internet penetration of 50 percent of population (98.39 million) in 2019 (WeAreSocial, 2019). Social media can be used as a weapon in information-age conflict today. It is built around analysis of three separate topics: social networking, propaganda, and the dissemination of news and information. Social media technology is utilized by both state and nonstate actors to carry out tried-and-true voter manipulation strategies through the use of propaganda. By leveraging pre-existing narratives and amplifying them through a network of automated ("bot") accounts that force the platform algorithm to perceive them as trending topics, online propaganda dissemination in 2015 was made possible (Prier, 2020).

Although there is evidence that bots, sock puppets and Internet trolls influenced voting results in countries such as the United States and Britain (Howard, Kollanyi, & Woolley, 2016; Narayanan, Howard, Kollanyi, & Elswah, 2017), it is still unclear how the debates and the outcomes of the elections were exactly influenced. Non-human actors agitate primarily by spreading unfavourable narratives about important issues, candidates, and alleged irregularities in electoral processes. Politicians and political institutions are collaborating with technical artefacts in manipulating public conversations that aim to amplify specific debates on social media with widely spread photos, videos and unreliable information. Non-human actors are not just used to spread disinformation; sometimes, they just amplify hyperpartisan claims which are aggressively pushed to gain wider reach and benefit whoever is pushing them (Tucker et al., 2018). They have increasingly played an important role in the online political discourse not so much because of what they contribute but that they amplify certain aspects of an ongoing conversation favourable to the inclinations of their client. Only a small percentage of automated accounts can be found by looking at how frequently an account tweets spam-like stuff or acts like a "robot." The fact that people are paid to post messages in these bot accounts holds the key to locating many of the remaining ones. Troll farms are run by people, not computers or artificial intelligence (Keller, Schoch, Stier, & Yang, 2019).

Too often, disinformation is portrayed as a “content” problem (ex. Fake news, deepfakes). Content is an important dimension, but the “actors” behind the campaigns and behaviours employed to manipulate audiences are underappreciated yet crucial vectors in disinformation (Giglietto & Marino, 2019). There are “actors” who manipulate, there is “behaviour” designed to

[11] https://www.africanews.com/2018/12/03/buhari-tells-nigerians-to-ignore-rumours-of-his-death-and-replacement//

deceive, and there is “content” crafted to harm (Francois, 2019). In short, actors and behaviours are harder dimensions to analyse given the huge information asymmetry between platforms versus others. This in turn raises the question of developing security and privacy-assured platforms that provide academic researchers, civil society organizations, and human rights investigators to have access to the material they require to combat the problem of disinformation. The 2015 Cambridge Analytica campaign in Nigeria illustrates how far we are from that and how much is still missing from public view. Despite available evidence on the activities and roles of technical artefacts in Nigerian elections, the ease with which they penetrate traditional media and influence political conversations in ways not merely casual calls for further research. Furthermore, as traditional media take more cues from social media, the influence of technical artefacts is multiplied in a magnitude that transcends the social media habitat. Thus, with the footprints of machine-controlled activity trailing elections across the world, it is imperative to study how technical artefacts influenced and shaped political conversations around elections in Nigeria.

Similarly, there is growing scholarship about Internet trolls and sock puppets in the global north (Ong & Cabanes, 2018) and some new studies have emerged in the global south. Literature on Africa is still very scant and has come from communications companies rather than academic institutions. My study therefore is of significance to theoretical and conceptual understandings of disinformation, propaganda, digital political campaigns, the paradox of a key digital affordance such as interactivity in digital presidential campaign, how human and technical actors boost distribution of content and coordinate in their online behaviour (through retweets, sharing a link, etc). My research framework could thus help citizens, platform owners, election management bodies, civil society organisations and other researchers identify coordinated campaigns more efficiently in areas that have so far received limited attention in the scholarly community.

1.4.1 Why is this research important?

Disinformation is becoming more prevalent and intricate thanks to recently created deception techniques. It undermines several crucial tenets of excellent democracy and human rights (although counter-disinformation measures may also have a negative effect on both). These dynamics have been heightened by elections, which have also given rise to fresh waves of disinformation connected to electoral failings. The impact of this phenomenon on Nigeria's democratic ideals and human rights is substantial. It puts the “freedom of speech, the right to privacy, and the right to democratic participation” at jeopardy, along with a host of other economic, social, and cultural rights. Additionally, by undermining free and fair elections and promoting online violence and harassment, it undermines “other democratic quality indicators, causing voters to lose” confidence in political structures.

Disinformation spreads rapidly with the rise of social media. It can mislead and influence people, sow scepticism in important circumstances like elections or foster mistrust of institutions, norms, and democratically approved strategies. This has exacerbated political divisiveness and boosted foreign meddling. This study explores this phenomenon domestically, highlighting its multi-dimensionality and the need to address both the content dimension and tactics of manipulative

influence that accompany disinformation. In order to combat the causes of disinformation, it is equally crucial to comprehend them.

The dissemination of disinformation has substantially grown since Nigeria's general elections in 2015 The Internet has given rise to new technological vulnerabilities as well as a diversity of viewpoints, democratized access to information, and a potent tool for activism. Falsehoods are "70% more likely to be retweeted than the truth," according to MIT Media Lab, and they "disseminate farther, quicker, deeper, and more broadly than the truth" (Vosoughi et al., 2018). The functioning of democracy could be negatively affected by false content. Disinformation can be used to mislead or manipulate the public, sow discord among citizens, undermine democratically chosen policies and institutions, sabotage elections, and generate scepticism about important issues.

Huge numbers of individuals worldwide have access to unprecedented volumes of knowledge because to the internet. False, pointless, and decontextualized information has also been spread, though, at the same time. To enable more direct access to content, less mediated by professional journalists, digital platforms have replaced editorial judgments with engagement-optimizing algorithms that favour clickbait content (Colomina et al., 2021). Our individual access to knowledge, persuasion, and all types of expressive images has changed as a result of social networks. However, opinions on how organized organizations use the Internet to coordinate their campaigns across various social media platforms and the structural dangers this poses to political processes are divided.

Therefore, it is important to comprehend that disinformation is embedded inside a vast array of information manipulation techniques. This is a result of the development of deep-fake technology, the sophistication of ever finely tuned micro-targeted disinformation efforts, and the diversification of influence operations. In examining how disinformation is propagated on social media, motivation becomes a key focus. In order to understand how and why disinformation spreads on social media, this study investigates who the instigators (producers of false information) and agents ('influencers', people, and groups, responsible for disseminating false and misleading information) are.

1.5 Aims of the study

1. This research aims to contribute empirical data emerging from Africa on the phenomenon of disinformation, how online platforms enable the spread of disinformation and its impact on democracy and politics.
2. Analyse the complexity between politics and technology and the role of disinformation in the information ecology of Nigerian communities.
3. Contribute to debates on how political campaigns in Nigeria are employing technology to gather personal data, micro-target, and communicate with potential voters.
4. Provide an understanding of who the instigators and agents of disinformation are, and what are their driving incentives.

5. Show how measured characteristics of online communities and networks can improve our understanding of information pathways and of diffusion of political disinformation on social media.

1.6 Research questions

To achieve the aims of this study, an overarching research question is posed, supported by four sub-questions.

Main research question: What is the nexus between human actors and technical artefacts in political campaigns and how they intervene/contribute to spread of disinformation in Nigeria?

Sub research questions:

1. Who are the instigators of disinformation in Nigeria?
2. What are the techniques political campaign organisations employed during the 2019 Nigerian presidential election?
3. What are the political or technological characteristics that enable the spread of disinformation in Nigeria?
4. What are the motivations for creating (by instigators) and sharing (by agents) disinformation?

1.7 Contextualising digital disinformation campaigns

Disinformation campaigns didn't start with social media. Before the proliferation of social media, propaganda was spread via radio, street leaflets, and newspapers. Disinformation tactics played a part, to put it in historical perspective, in the Nigerian civil war of 1967-1970. Abubakar Tafawa Balewa, the first prime minister of Nigeria, is claimed to have taken part in an international conference of heads of state where his only participation was being served tea. However, due to his Hausa heritage, low level of education, and poor sense of etiquette, Balewa kept his teacup upright. He allegedly always had his cup filled, which caused him to praise the kindness of the "whiteman" (Ngwu, 2014). Former military ruler Murtala Ramat Mohammed is rumoured to have covertly ratified Nigeria's membership in the Organization of Islamic Countries (OIC) before his death. It was generally reported that he intended to convert Nigeria to a Muslim country. This was allegedly the cause of his untimely passing. Olusegun Obasanjo, a former president, is alleged to have kept a prison facility at his property in Ota, planned Bola Ige's murder for personal gain, and ritualistically killed his wife Stella to prolong his rule past 2007. General Sani Abacha was said to have perished after consuming apples from three women of Indian heritage in another example of this ludicrous lie. The "78 days (November 23, 2009 to February 9, 2010) of late President Umaru Musa Yar'Adua's incapacitation due to ill-health recorded the longest and most dynamic propaganda circulated in Nigeria's pre-Internet era" (Oyewo, 2009; Chimdubem & Okwudiri, 2015).

"Modern disinformation has its origin in the black propaganda" (Lukito, 2020, p. 6) that rocked the 2015 general election. The opposition All Progressives Congress (APC) ran disinformation campaigns to influence the opinion that the ruling Peoples Democratic Party (PDP) was corrupt and looting the national treasury of the country. The PDP also rolled out its propaganda that the

APC was a party of strange bed-fellows made of aggrieved politicians who lacked a common political ideology and credibility. “The goal of disinformation is sinisterly simple: it is the ability to increase trust in one party and erode trust in another. Diminish the public’s belief in an idea, an institution or principle” (Leon, 2019).

The black propaganda that shook the 2015 general election is where modern disinformation began (Lukito, 2020). To spread the false narrative that the incumbent Peoples Democratic Party (PDP) was dishonest and plundering the nation's treasury, the opposition All Progressives Congress (APC) engaged in deceitful propaganda efforts. The PDP also spread the misconception that the APC was a group of odd bedfellows made up of disgruntled politicians who lacked a coherent political philosophy and legitimacy. Disinformation's sinisterly straightforward objective is to make one party's credibility soar while damaging another's. It reduces popular support for a concept, organization, or guiding philosophy.

Disinformation operations frequently target political, social, or commercial landscapes. The best advertisements are successful because their creator has thoroughly researched the environment and done their due diligence (Lewis & Marwick, 2017; Freelon, 2017). The operatives hoped to undermine confidence in the election's outcome by using Cambridge Analytica's meddling in voting in Nigeria as an example. This particular disinformation campaign's crafty objective was to incite racial and religious animosity and take advantage of actual or imagined differences in the nation, which unintentionally targeted the entire institution. Attackers use both art and science to propagate disinformation through situational awareness-based campaigns. Other crucial accelerators for a great campaign include context, tone, and timeliness. The effectiveness of dark ops is ensured by the propagators of disinformation campaigns by using their knowledge of the "rhythm" [of] when to say something or when not to (Wardle & Derakhshan, 2017).

Relationships and power networks are integrated in digital political information. For instance, George's (2016) research of case studies of "hate spin"—manufactured vilification or outrage—used as a political tactic to enlist supporters and intimidate opponents (George, 2016). According to Dutta (2019), George (2016) discovers that propagating hate is a common political tactic employed by governing governments. The study is centred on power, paying attention to the influential groups that benefit politically from the creation and dissemination of false information (Dutta & Gangopadhyay, 2019). Udupa (2018) noted some combination of the following elements in situations where disinformation appears to have had a significant impact: democratic structures are weak; democratic institutions have been depleted; instruments of the state sponsor and circulate disinformation; mainstream political parties/actors support the disinformation campaign; and audiences perceive a climate crisis.

Disinformation is used as a political weapon alongside other tactics such the repression of opposing viewpoints, the erasing of accurate accounts, and the use of physical force (Dutta, 2019). For instance, when political disinformation that exploits majoritarian politics is spread in Nigeria by networks and organizations affiliated with the country's political party in power, it is swiftly propagated through digital media (Twitter, WhatsApp, and Facebook) with collaboration from offline networks. Ruling parties are often accused of funding violent incidents while simultaneously undermining democratic outlets for alternative voice.

Africa and other parts of the world are experiencing an increase in communication monocultures, where a small but connected power elite has increasingly more control over the dissemination of information (McChesney, 2013). There are few possibilities for voices to be heard in meaningful ways, which should be contrasted with the impression that there are many voices on digital platforms (Couldry, 2010). Neoliberal policies, which on the one hand have solidified "political and economic power and on the other, have systematically" (Dutta, 2019) eliminated chances for deliberate democratic engagement, are to blame for the rising feeling of disenfranchisement among people around the world (Calhoun, 2015). The destruction of public spaces for active involvement is the current problem for democracy. This larger context and the literature that describes the democratizing function of digital platforms must be balanced while conducting a systematic research of the consequences of disinformation in Nigeria.

1.8 Popular disinformation platforms in Nigeria

Oftentimes, political campaigns use a combination of platforms in designing their messages. The four platforms that have gained traction within the last decade are Facebook, Nairaland, Twitter, and WhatsApp. As of January 2022, Nigeria had 32.9 million active social media users (it's important to note that social media users may **not** represent unique individuals). WhatsApp is the most popular platform used in the country, with over 90 million users. Facebook, YouTube, and Instagram followed as the most used social media platforms (Statista, 2022).



Figure 1 Screenshot showing home page of Nairaland

Considered the smallest of the four, Nairaland operates somewhat outside other contemporary social media platforms in Nigeria. "Founded by Nigerian Internet entrepreneur, Seun Osewa in 2005 as a platform for Nigerian content to be easily projected and engaged by Nigerians themselves" (Campbell, 2015), Nairaland is the oldest online forum and one of the most popular and well-recognised online communities for Nigerian-related discussions and engagements (Dike, 2018). Propaganda and 'fake news' are common features in its politics thread. In separate

random reviews, user *nathandrake2008* commented: "The politics section is vile. That is where you see most tribal warlords. Other section can be informative and interesting." Another user, *XxdapsxX*, made a similar observation that: "It's too Toxic, too many trolls. You can't really have a serious civil discussion on the website. I avoid at all cost."[12]

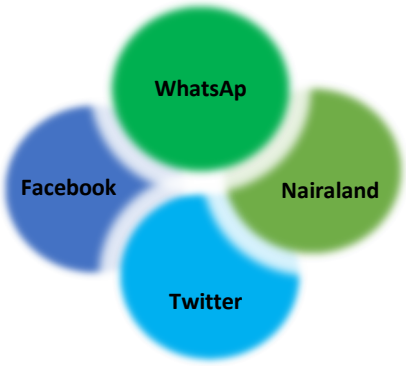


Figure 2 Popular disinformation platforms in Nigeria

Nairaland is viewed as a major actor in the disinformation ecosystem (Ogbodo, 2021). Its unique structure allows complete anonymity, simple to use, and operates a data-lite interface which endears it to non-smartphone users. The long-form forwarded text messages on WhatsApp and thread-form posts on Facebook and Twitter have their origins on Nairaland. Like the US-based social news aggregation, web content rating, and discussion website, Reddit, Nairaland does not have a comprehensive top-down content moderation policy (Uwalaka, 2015). Both websites operate using a high-level set of content guidelines that are enforced by a team of moderators (known as admins). Registered members submit content (links, text posts, images, and videos) which are then voted up or down by other members. This localized approach to content moderation has permitted a number of niche communities and groups to flourish on the platform (Singh & Bagchi, 2020).

Evaluating Nairaland's mode of operation, Hundeyin (2021) asserted that:

> A little over a decade ago, before Twitter became ubiquitous, the best known platform for all-access public discourse in the Nigerian online space was a web forum called Nairaland. Nairaland was what would happen if you took Reddit and forced it to have an antichrist baby with the offspring of 4Chan and an anonymous Telegram group chat. It had useful information. It had copious amounts of utter nonsense. It had interesting and colourful characters. It had epic flame wars, some of which have continued to rage for over a decade, even as the participants change over the years. It had fun - lots of fun. It had the very worst of Nigerian humanity.[13]

The platform has been criticized for not having clear community standards, terms of service, no indicated team responsible for policy, trust and safety, fraud, and mis/disinformation. Although

[12] https://www.nairaland.com/5941850/what-some-redditors-think-nairaland
[13] https://westafricaweekly.substack.com/p/how-to-spoof-an-entire-career-the?s=r

there are strict warnings[14] prohibiting harassment, like on Reddit, its structure has been criticized for creating conditions that can enable misinformation and disinformation to spread easily across the service. *HoxHound*, a user on Nairaland, captured this situation thus:

> The politics and news sections are garbage. Other sections can be quite useful, depending on your interests. It's very unfortunate that Nairaland is most Nigerians gateway to the Internet. Seun's refusal to crack down on tribalism in the early days has permanently set the tone for the website.[15]

Twitter has a strong appeal for the more tech and Internet-savvy group of users. Messages are short, provocative and sensationalist with the additional multimedia feature of videos and pictures. Bringing a far more intimate feel to messages, WhatsApp lets users exchange direct messages (with an end-to-end encryption) and in closed group settings. With Facebook, the nature of its groups fosters echo chambers that amplify one-sided narratives. It is a key shared space boasting the most users in the country. Politicians leverage the unique affordances of each to ensure a cross-platform presence.

Engagement on social media platforms like Twitter and Facebook has become a key component of political discourse, particularly around crucial elections. Social media have recently challenged media logics across the globe as politicians have been able to communicate with voters directly and even convey their mainstream media interactions through social media. Although scholarly research on political use of social media has its empirical roots in Western trends, social media usage is now a worldwide phenomenon (Pal & Gonawela, 2016). Despite assertions to the contrary, there is scant proof that social media influences election results. Kenya's 2020 election, Nigeria's 2015 and 2019 elections, and Rwanda's 2021 election suggest that online popularity can be deeply misleading in predicting results. Since then, commentary on social media and elections has tended to be cautious (Chitanana & Mutsvairo, 2019), pointing out that it serves as a tool for media appropriation by established institutions and authorities. This trajectory calls for a different lens to approach the motivations of political actors for whom social media use is not only a means to winning elections but is nonetheless an important media. This is evidenced in "three recurrent themes in politicians' social media messaging": (i) signalling – what social media as a brand "suggests about the kind of politician behind it"; (ii) elite access – how social media is used in "reaching out to elite populations in a country" who respond to the platforms; and (iii) media logic – how social media creates "channels to circumvent the mainstream media to reach citizens directly" (Pal & Gonawela, 2016, p. 4).

In recent years, the disinformation crisis has increased calls to regulate social media platforms. The effects of disinformation campaigns have included tragic outcomes as well as meddling in

[14] https://www.nairaland.com/2057425/reddit-rules-vs-nairaland-rules
[15] https://www.nairaland.com/5941850/what-some-redditors-think-nairaland

elections and political discourse. While the companies (Twitter and Meta[16] - formerly known as Facebook) claim they respond to such false accusations and hate effectively, this is not the reality in many developing countries. Their inactions or delayed actions in the Global South and number of Internet users who access the web through them have made their platforms become outlets for threats, deceits, mis- and disinformation. Their facilitation of the chaos is no surprise. After all, one of Facebook's primary goals, like other social media platforms, has been to promote engagement and increase time spent on the platform.

1.9 Thesis structure

The thesis will cover disinformation but also relevant dynamic which play a role without necessarily carrying false or misleading information. It is structured in eleven chapters, starting with a chapter that introduces the topic of disinformation but in a reflective manner that roots the phenomena in pre-digital media era of rumour mongering.

Chapter two sets the tone of the context (Nigeria) and explores the unique developments that characterize Nigeria's political and information ecosystem. The chapter walks through relevant developments in the country's democratic journey and how political campaigns have metamorphosed through the time from traditional rallies to the adoption of digital campaigns.

Chapter three appreciates how Twitter has grown from a fringe platform to one that plays a central role in political communication. It traces how political parties, governments and politicians continue to weave social media into the main strategic planning of campaigns. The chapter discusses the Twitter ban occasioned by the deletion of President Buhari's tweet, an incidence that sparked outrage from Nigerians and exposed latent desire to regulate social media and restrict free speech.

Chapter four introduces the critical topic of opinion manipulation by investigating the activities of technical artefacts and the potential of machines to upscale or approximate human conduct. It traces the global attention on the deployment of account automation and desire to meddle in local politics by foreign actors' accounts and behaviour to the U.K.'s Brexit referendum, the 2016 U.S presidential election. The chapter discusses the gradual introduction of information warfare in African politics is becoming standard practice.

Chapter five explores the theoretical lens through which the core arguments of this thesis is viewed. In this chapter I discuss a unique perspective to disinformation by approaching it as social phenomena, participatory culture, and an expression of technopolitics. This is then used to argue how a global framework of democracy and winning election could translate into different things in different societies.

[16] https://www.npr.org/2021/10/28/1049813246/facebook-new-name-meta-mark-zuckerberg [https://perma.cc/ZK54-6FBJ] (Oct. 28, 2021, 3:30 PM). In October 2021, Facebook changed its name to Meta. The social media platform called Facebook will keep its name. In this thesis, when "Facebook" is used, the specific platform is intended. The company is referred to as Meta throughout this thesis. Meta is the owner of Facebook, Instagram and WhatsApp.

In chapter six, I unpack a methodological approach that is both interesting and unique to a study of disinformation in Nigeria: one that combines qualitative frameworks with computational tools that aid the identification of manipulative actors, detection of coordinated inauthentic behaviour noticeable through working with big data. The chapter demonstrates the importance of applying computational tools to the study of social phenomena like disinformation in less studied spaces like Nigeria.

Chapter seven explores nodal influence through a cluster analysis of various networks and communities. In chapter 8, I trace behaviours geared toward amplifying propaganda and disinformation. I illustrate the significant efforts being made to detect patterns of activity that pertain to automation. I provide an example of the enormous efforts being made to identify behaviour patterns related to automation. The creation and redistribution of large amounts of partisan information via retweets, the co-tweeting of the same tweet by multiple accounts, and hashtag sequencing are all evidence to this impact. The chapter discusses nodes of influence within a network, how the action of one node can change the dynamics of what is said.

Chapter eight unpacks the methodology and methodological procedures that inform the study. It includes an overview of the methods research approach, the research paradigm, and the epistemological foundation. It further discusses data collection instruments; Population size and sampling technique; exploratory survey; focus group discussions and online and online/offline observations. Finally, it provides insights on the data analysis procedures informing the quantitative and qualitative phases of the study.

In the past few years, we got to a schizophrenic thinking that winning election or shaping opinion is mostly about disinformation but it's just a detour in the past years. In this chapter nine, I discuss an important component in election that is related to disinformation but is not disinformation. It ties to expectations of digital media as equalizers or normalizers but actually this old form of politics is capturing new media.

Chapter ten unpacks key social and economic factors that facilitate the spread of disinformation in Nigeria. It further discusses the costs and benefits of the activities of paid agents in the country and potential impact of these activities on their targets.

Chapter eleven makes a summary of key findings, highlights theoretical and methodological implication of the findings to different stakeholders.

CHAPTER 2

NIGERIAN POLITICS AND THE TRAJECTORY OF POLITICAL CAMPAIGNS

2.1 Evolution of the Nigerian state, political parties and voting behaviour

Prior to the merging of the Northern and Southern protectorates, Nigeria was a jumble of multi-ethnic nationalities with little in common in terms of social, political, and economic links (Ezirim et al., 2016). According to Salawu and Hassan (2011), cultural differences revealed themselves in disparities in language, dress, beliefs, and social structures. There were no grounds for the merger of numerous ethnic groups with competing interests because these variations are well-defined and virtually irreconcilable in many areas. Despite the obvious and irreconcilable differences, the many and mutually opposed ethnic nations were forcibly unified in a union that was ultimately named Nigeria in 1914. The unity of these multi-ethnic nationalities under the Nigerian state was driven to prosper for the sake of brief colonial expediency and maximising economic benefits on colonial treasury investments. Britain awarded Nigeria independence and erroneously but purposefully left intact the original arrangement, in which the various ethnic groups were left to live in distrust, acrimony, and hatred for one another, but were expected to be ruled indigenously as a separate state (Okolie et al., 2021).

Disinformation has not appeared for the first time with social media, it's been there all along. In Nigeria, it has been a means to spread ethnic and religious polarisation during elections. Ethnicity and religion have historically played a distinctive role in Nigeria's political system. From party politics to main elections, these factors have largely determined the fate of candidates, voting pattern, and spread of election results. It is always about "where" a politician comes from, what interests they represent, and conscious attempt to strike a balance with dominant groups at the centre of power. This has been a mainstay of political leadership since return to democratic governance in 1999: it is Christian-south and Muslim-north mixture. In 1999, it was a President Olusegun Obasanjo (Christian-south) and vice president Atiku Abubakar (Muslim-north); then president Umaru Musa Yar'Adua (Muslim-north) and Goodluck Ebele Jonathan (Christian-north) in 2007 – 2010. Upon Yar'Adua's death on May 5, 2010, Acting President, Goodluck Jonathan was sworn in to complete the tenure. Goodluck later won the 2011 presidential election with Namadi Sambo (Muslim-north) as his vice. President Muhammadu Buhari (Muslim-north) came into power in 2015 with a Christian-south vice president, Professor Yemi Osibanjo. They were re-elected in 2019 for a second term in office.

Elections are frequently considered as a unifying factor in a multifaceted setting where democratic government is prioritized, bringing various groups together under the platform of two or more political parties. The historical antecedents of electoral politics, however, contradict the preceding assumptions. The British colonial authorities formed three regional domains, north, east, and west, during 1914 and 1915. The Hausa/Fulani dominated the northern territory, the Igbo ruled the eastern region, and the Yoruba ruled the western zone. The groundwork for today's divided politics and ethno-regional tensions was created by this ethnic separation (Adebanwi & Obadare, 2013). According to Ebegbulem (2011), the colonial tripodal fragmentation of Nigeria hindered a Nigerian patriotic movement. Instead, it shifted geographical

boundaries to exacerbate ethnic divisions and changed ethnicity into a tool for gaining political power through identity politics. This colonial structure, as well as other administrative policies, emphasized ethnic nationalism and regional politics, which resulted from imbalanced development within each region (Ebegbulem, 2011, p. 77). The divisive politics organized by colonial administrators against the emerging Nigerian state, according to Ezirim et al. (2016), promoted ethno-political consciousness among rival ethnic groupings (Okolie et al., 2021).

As a result of this growth, political parties were formed along ethnic and regional lines. According to some researchers, this meant that the British administration purposefully stifled Nigerian nationalism's emergence and success, sowing seeds of strife and acrimony among rival ethnic groups and promoting ethnic chauvinism and nationalism as a method of political dominance (Ebegbulem, 2011). In Nigeria's first and succeeding republics, ethnic-based political parties arose as a result of this evolution. The three major political parties that competed in the 1959 General Elections, according to Ayatse and Iorhen (2013), were created along ethnic lines, with the Northern Peoples' Congress (NPC) representing the north and the National Council for Nigerian Citizens (NCNC) consolidating in the east and the Action Group (AG) emerging as a Pan-Yoruba Organization. Five political parties actively participated in the election during the Second Republic, with three of them - the National Party of Nigeria (NPCP), the Peoples Redemption Party (PRP), and the Great Nigerian Peoples Party (GNPP) - establishing and maintaining a large following in the northern region. At the same time, the Nigeria Peoples Party (NPP) dominated the Eastern political landscape, while the Unity Party of Nigeria (UPN) held sway in the Western region.

As a result, General Ibrahim Babangida's attempts to foster national unity among important political players through the recognition of two national parties failed. This was due to the ethnic leanings of the Social Democratic Party (SDP), which was more oriented toward the Southern province, and the National Republican Convention (NRC), which was more oriented toward the Northern province (Danjibo & Ashindorbe, 2018). The Peoples Democratic Party (PDP) drew the majority of its supporters from the South-East and South-South geopolitical zones under the Fourth Republic, particularly in the 1999 general elections, while the All Peoples' Party (APP) held power in some northern states. In the Western region, on the other hand, the Alliance for Democracy (AD) ruled. More recently, the results of Nigeria's 2015 and 2019 elections demonstrate that the incumbent President's party, the All Progressives Congress (APC), is pro-north and west, whilst the Peoples Democratic Party (PDP) has a plurality of its followers from the country's south-east and south-south zones.

Regardless of a political party's ethnic orientation, political actors have always attempted to either own or hijack the (mass) media (Iruonagbe, Imhonopi, & Ahmadu, 2013) as a vehicle for biased reporting and the dissemination of hate speech, fake news, and other types of falsehood. This approach has altered voting patterns in Nigeria, as voters have become accustomed to politicians and political parties' sophisticated media propaganda machinery promoting ethnic-based emotion-laden messaging.

Given the historical relevance and effectiveness of election campaign propaganda, political actors and parties have depended on traditional media channels (radio, television, newspaper, magazine, and books) to influence voter perceptions and behaviour over the years. However, recent advancements in Information Communication Technology (ICT) have compelled all social organizations to make a paradigm change in information transmission and social interaction (Dantani et al., 2017). Studies such as those by Boler and Davis (2018), Lanoszka (2019) and Ndlela (2020) have highlighted the impact of digital media in disseminating subjective information and reinforcing narratives in order to sway voter preferences.

The employment of propaganda in Nigeria stretches back to the pre-independence era, when political activists set up print media outlets to project the horrors of colonialism and, more crucially, to advocate for self-government. However, since Nigeria's independence in 1960, campaign propaganda has been an integral feature of the country's democratization efforts. After independence, the elite felt compelled to retreat to their separate regions in order to get popular support from their supporters (Adebanwi & Obadare, 2013). Most crucially, the Nigerian state's pluralistic and multicultural structure provided political actors with numerous opportunities to use ethno-religious propaganda to appeal to the sectarian sentiments of various ethnicities in order to intensify polarization during elections. To put it another way, political actors in Nigeria rely on misleading and prejudiced information with religious and ethnic overtones to maintain control over their political constituencies. Ethno-religious leaders used regionalised media outfits (such as the Western Nigeria Broadcasting Service, Eastern Nigeria Broadcasting Service, East Central Broadcasting Service, Mid-west State Broadcasting Service, Broadcasting Company of Northern Nigeria, Citizens, Nigerian Outlook, Nationalist, Nation and Concord) to disseminate subjective messages primarily to instil sentiment and attune the consciousness of voters along ethnic and religious lines (Okolie et al., 2021). This exacerbates the already strained relationship between competing ethnicities, allowing for the spread of hate and extremist discourse, as well as the rise of violence.

From the aforementioned, it is appropriate to deduce that the elites used propaganda to achieve their narrow political and economic goals when Nigeria was still a democracy. Although decades of military dictatorship in Nigeria disrupted democratic institutions, the change to civilian administration in 1999 repositioned the media's role in the country's subsequent elections in 2003, 2007 and 2011. (Okolie et al., 2021). In these elections, candidates and political parties used the media (as a tool of propaganda) to disseminate "fake news" and publicize dubious campaign promises. Additionally, the early adoption of social media in Nigeria's political sphere had an impact on the shaping and dissemination of information during the 2007 and 2011 general elections. Social media platforms have nonetheless evolved into genuine instruments for awakening and developing political consciousness given the exponential growth in the number of users in Nigeria from 200,000 in 2005 to 18 million in 2015 (Bartlett et al., 2015) and 33 million in 2021. They were employed in the 2015 elections to intensify defamation campaigns against candidates and supporters who hold opposing political views and objectives. This further divided the nation between the Muslim-North and Christian-South groups, which was reflected in the election results for 2019. The growing accessibility of smart phones with Internet connectivity

also made it possible for party representatives and supporters to spread propaganda during electioneering at the grassroots level (Apuke & Tunca, 2018).

Despite the fact that the 2015 presidential election has been dubbed historic, the controversy brought on by social media's role in changing political permutations and equations has taken centre stage in discourses and debates among intellectuals. Studies such as Egbunike[17], Ezeibe (2020), Hassan and Hitchen (2019), Dantani et al. (2017), Okoro and Santas (2017), and Olaniran and Williams (2020) demonstrate how Internet-induced propaganda influenced voting behaviour at different elections.

Examining how social media propelled ethnocentric disinformation and propaganda during Nigerian elections, Egbunike (2019) reported there was widespread dissemination of ethnic hate speech at the service of disinformation and propaganda on Twitter. With Nigeria's multi-ethnicity being a traditional source of conflict, disinformation becomes obvious during elections when politicians use these divisions to campaign for votes. Overtime, online conversations in Nigeria have not been devoid of ethnic-induced hate. Egbunike notes further that the ethnically charged political atmosphere in 2017, coupled with government's failure to manage the farmers-herdsmen conflict from 2015[18] created an enabling environment for distrust and disinformation to thrive on Twitter (and offline) during the 2019 election. Hate/extreme speech is mostly credited to political leaders and their ethnic, regional, or religious based supporters, Ezeibe (2020) pointed how political leaders neglect provocative tendencies of hate/extreme speech so long it enables them to capture and retain power. The study highlighted the ugly development of elevating hate/extreme speech to the status of political campaign strategy which accounted for the escalation of election-related violence in Nigeria.

Meanwhile, Okoro and Santas (2017) indicated that social media usage was a factor responsible for the change in voting pattern and choice of candidate in the 2011 presidential election. Findings from the study further identified religious affiliations and ethnicity as factors that influenced voting behaviour. Corroborating this position, Akomolede-Onafuwa (2017, p. 1) described the influence of propaganda on the 2015 election thus: "This was one Nigerian election that was decided largely on account of propaganda and messaging! The election also marked the coming of age of social media as a critical force in Nigerian politics, for good or bad!" The 2015 presidential election campaign witnessed a highly documented and controversial referendum via various social media outlets. The propaganda input via social media was the first of its kind, initiated by a group of political aspirants and supporters, willing and desperate to put their preferred candidate forward. Online information warfare became a hallmark of presidential election from this point. Nigerians (old, young, at home and in diaspora) are now always eager and enthusiastic to register their concerns and thoughts on social media.

[17] https://advox.globalvoices.org/2019/11/06/social-media-propelled-ethnocentric-disinformation-and-propaganda-during-the-nigerian-elections/#

[18] https://www.amnesty.org/en/latest/news/2018/12/nigeria-government-failures-fuel-escalating-conflict-between-farmers-and-herders-as-death-toll-nears-4000/

Examining the social contexts of the development and innovation of the Internet, Dantani et al (2017) showed how the Internet has influenced the outcomes of elections in Euro-American and sub-Saharan contexts. Their study argued that during the 2011 and 2015 elections in Nigeria, many campaign programs were developed and circulated on social media. They stressed that the use of social media platforms like Facebook and Twitter by both political candidates (Goodluck Jonathan and Muhammadu Buhari) and electorates promoted political participation in pre-election and post-election periods.

2.2 Personal data has always been a part of campaign strategy

The 1993 general election was the first election that literature associates with any form of audience research informing a political campaign strategy (Okolie et al., 2021). MKO Abiola, a candidate for president at the time, used movements like "Hope 93" and "Farewell to Poverty" to better understand what the public wanted (Amifor, 2015). It's unclear, though, just how the Abiola campaign came to comprehend the demands of the populace. However, it doesn't seem like Nigerian electoral campaigning changed throughout the 1993 campaign. The literature actually criticizes the recent focus on "electoral prophetism", or "religious leaders' pronouncements of who will win or lose without recourse to a systematic and scientific method of data collection and analysis" (Ikem, Ogbonna, & Ogunnubi, 2020).

There have been simpler techniques to forecast voting trends and formulate a campaign message for the majority of Nigeria's history than using individual residents' personal information. Some of the variables that predicted voting trends in previous elections included political control of the media, ethnicity, irregularities in the campaigns, and religious affiliation. The National Party of Nigeria, which received the most media coverage and won the election, followed by the Unity Party of Nigeria, which received the second-largest media coverage and the second-largest vote, and the Nigerian People's Party, which received the third-largest media coverage and the third-largest vote. Because many of the proprietors were either politicians or politically involved at the time, the media was quite partisan (Hassan & Segun, 2020). In 2007, an election marked by widespread rigging, the People's Democratic Party campaign "did not rely so much on advertising but relied on the ability to manipulate the election" (Hassan & Segun, 2020, p. 8).

It is now increasingly challenging to rely on these vote-prediction heuristics due to changes in the electoral environment during the past ten years. In order to mount a serious challenge to the incumbent PDP, five parties came together in 2013 to establish the All Progressives Congress (APC). A two-party system has been established as a result of its victory in the 2015 elections, when its candidate defeated the incumbent in Nigeria's sole election change to date. Furthermore, Independent National Electoral Commission's (INEC) introduction of technology into voter accreditation has minimized or eliminated some perennial problems such as impersonation, underage voting and multiple voting that have troubled the electoral process[19]. "These changes are gradually increasing the salience of policy preferences in shaping electoral outcomes among certain segments of voters" (Hassan & Segun, 2020, p. 8).

[19] https://qz.com/africa/1553505/nigeria-election-rigging-inec-card-readers-and-pvc-protect-polls/

Today, the way campaigns are executed and politics played has changed. Other than well-liked social media formats, Hassan and Segun (2020) "recognized various contemporary data-driven campaign tactics used to test for the resonance of campaign messages and target messages to specific geographic locations." To gather voter data, emphasis is now being placed on delivering mass texting, audio, and WhatsApp messaging, as well as polls. They discovered that there aren't many attempts made to connect the collected information or insights to campaign influence or intelligence. For instance, even when that was the app's stated goal, several political parties did not use mobile campaign applications to engage with their supporters. Hassan and Segun (2020) named voter files, geotargeting, digital listening, campaign applications, psychometric profiling, third-party tracking, and A/B testing as tools used to collect private data of voters.

Hassan and Segun (2020) argue that third party tracking involves the use of a tracker (website or other digital entity) to record a user's visit to a website other than its own. Such data is used to target advertisement according to a user's interests. Psychometric profiling entails usage of personality traits to predict voting preferences. Voters in target states were divided into opposition supporters, swing supporters, and client supporters by consultants using secret software (Hassan & Segun, 2020). Such 'undisclosed' software have the capacity to segment the voters in interest groups.

Finding out why a politician was unpopular with particular voters and then personalizing messaging to them in an effort to persuade them to "like" or vote for the candidate were both steps in this process. Data firms build off INEC's voter register, described by political analysts as the most accessible voter file. The voter file has the same amount of data (first name, last name, phone number, occupation and chosen candidate) on 84 million registered voters.[20] Data firms offer bespoke data collection services to candidates, collecting new data with each client. Nigeria's porous data protection policy makes it relatively easy to get information on the [top-ranked most active] voting demographics from a previous election. Perception audits that track dominant narratives over an election cycle are also covered by these firms which included Nextier Advisory, CMC Connect, Chain Reactions Nigeria, Datavision Limited, and the foreign political consulting firm, AKPD Message and Media.

Targeting messages and adverts to geolocation is also commonplace. Most popular example of geotargeting is Cambridge Analytica's 2015 graphic video which targeted "Buhari voters in Buhari regions". Described by Cadwalladr[21] as the "voter suppression of the most crude and basic kind," the video suggested that Muhammadu Buhari's (then APC presidential aspirant) Muslim leaning will lead him to install Sharia rule (Otto, 2008)[22] in Nigeria (Hassan & Segun, 2020) which would

[20] https://www.premiumtimesng.com/features-and-interviews/312054-for-the-record-2019-elections-inec-list-of-registered-voters-in-36-states-fct.html.

[21] https://www.theguardian.com/uk-news/2018/mar/21/cambridge-analyticas-ruthless-bid-to-sway-the-vote-in-nigeria

[22] Islam's legal system, derived from the Quran as well as the Sunnah and Hadith - the deeds and sayings of the Prophet Muhammad. In Arabic, it literally means "the clear, well-trodden path to water". It acts as a code for living that all Muslims should adhere to, including prayers, fasting and donations to the poor.

manifest in violence. A similar strategy was employed in 2019 with the "church of Christ is in danger" video[23]. The 55-second video, titled: "The Church of Christ in Nigeria in Danger", circulated on social media especially on WhatsApp and Facebook, claiming that the Buhari government had concluded plans to set up an agency to monitor churches across the country. It opened with pictures of Nasir El-Rufai, governor of Kaduna state, and President Muhammadu Buhari and unnamed inside sources claiming the plot against churches would be carried out through a new agency, National Faith Relations and Regulation Commission (NFRRC), to be established in August 2019 that would monitor and regulate church operations, scrutinize church account, restrict pastors from maintaining foreign accounts and regulate church messages to avoid hate speech. A fact-check conducted by the Centre for Democracy and Development (CDD) declared the claim in the video as fake[24]. Political campaigns also monitor interactions on social media platforms with a view to enhancing their campaigns. With the aid of digital listening software like *Keyhole* and *Meltwater*, private consulting firms monitored online interactions to gauge perception (or popularity) and test resonance of messages and suitable channels for their clients.

Political parties have also been endeared to developing mobile apps for the purpose of interacting with their supporters during campaigns. For example, *APC Member* and *APC Agent* apps were reported to have collected data like date of birth, email address, phone number, INEC voter card number from registered users. Both apps were downloaded over 5,500 times combined. Other apps such as *Nation Builder* (a one-stop campaign management software) and[25] were used to raise funds[26] for campaigns, community engagement and target potential voters based on data collected from INEC. Several digital marketing agencies created websites that ran social media campaigns for parties. A/B testing and split testing were two of their methods, which are both valuable for evaluating the efficacy of different variations of an advertisement's feature. It entails segmenting the target market into groups and presenting one form of the advertisement to each group. The method tested different website or social media post iterations using backend operations. These data-driven campaign strategies draw attention to different, still-practiced methods of state capture and clientelism that are rooted in local contexts. There are no signs digital techniques will phase them out; we will rather see a mixture of both.

[23] https://www.thecable.ng/cdd-fact-check-is-the-nigerian-government-planning-to-set-up-an-agency-to-monitor-churches.

[24] https://cddelibrary.org/2019/02/01/fact-check-is-the-nigerian-government-planning-to-set-up-an-agency-to-monitor-churches/

[25] https://secure.actblue.com/about

[26] https://secure.actblue.com/entity/fundraisers/66633

CHAPTER 3

TWITTERSPHERE AND POLITICAL COMMUNICATION

3.1 Introduction

Social media has opened new channels to calibrate political participation and civic engagement in emerging and advanced democracies. This technologically enhanced participation is creating alternative spaces for closer engagement between politicians and citizens in a manner that cuts across digital cultures. The platforms have been effective in facilitating direct communication, such that collapses status and communication gap (Opeibi, 2019). Gagliardone et al. (2016) note that they do not simply represent a space to occupy in order to prevent others from gaining prominence, but an unprecedented opportunity for politicians to communicate with the electorate where other media are unable to offer a better platform for political engagement. Cab (2017) also notes that a new platform for interaction and communication has emerged as a result of political parties, advocacy groups, and citizens using social media more frequently. According to others, these new media technologies have increased the interconnectedness of a number of people beyond temporal, physical, cultural, and political boundaries (Opeibi, 2015; Zappavigna, 2013). Recent developments in the use and spread of web-based media have been shown to have significant effects on the expansion and sustainability of democracy in Africa. By enabling direct citizen participation in governance, ICT, according to Batista (2003a), will reenergize political relations. Digital technologies are also expected to reduce pointless mediations, enhance the representative process, and strengthen democratic participation.

The role and successful deployment of Facebook and Twitter in "Occupy Nigeria" and "Bring Back Our Girls" protests in 2012 and 2014 respectively (Akpojivi, 2020) was influenced by the 2011 presidential election, an event that redefined appropriation of social media for socio-political communication. Then president, Goodluck Jonathan, had taken to Facebook to announce his presidential ambition, set the political agenda, and engage electorates. It was the first-time digital media formed a key part of campaign strategy. This critical shift in politics made the people realize not only was social media useful to promote their causes but they could use it to express how they felt about government. Goodluck Jonathan's Facebook campaign was significant for a couple of reasons. First, it was the first time Nigerians, especially young people, had the opportunity to engage directly with a president, freely. It introduced a political culture of having proxies run social media accounts for politicians. At the time, Reno Omokri (the president's special assistant on new media who had lived in the United States and was exposed to the American media culture that brought Barack Obama to power) was running Goodluck's Facebook page while they created a false impression the account was managed by the president himself. Second, it introduced the use of proxy of fake accounts to fight political opponents[27],[28],[29],[30]. Upon finding out how "sexy" Twitter was, Reno shifted attention and tactics away from Facebook. We

[27] https://www.premiumtimesng.com/news/top-news/174113-wendell-simlin-american-woman-accuses-reno-omokri-identity-theft.html
[28] https://www.thecable.ng/letter-wendell-simlin-aka-reno-omokri
[29] http://saharareporters.com/2015/01/18/bedfellows-reno-omokri-wendell-simlin-and-lies-'lakunle-jaiyesimi
[30] https://www.vanguardngr.com/2019/01/electioneering-and-partisanship-in-the-age-of-fake-news/

started to see more people use social media to antagonize government. The platforms have since grown to become major marketing/branding tools for political candidates who use it to broadcast campaign messages to a much wider audience. With a growing Internet access and mobile connection (Odusanya & Adetutu, 2020), cheaper mobile phones, and affordable data bundles, it has become easier to use social networking sites to generate online conversations and social networking based on political affiliations and relationships (Ayankoya et al., 2015; Bria, 2013; Boukes, 2019; Ahmad et al., 2019). It is now one of the most used tools to mobilize support for a political actor and woo voters (Ihebuzor & Egbunike, 2018).

The 2019 general election was the 6th quadrennial election to be held since the return to democracy in 1999. Ruling All Progressives Congress (APC) and main opposition, the Peoples Democratic Party (PDP) dominated political discourses online, incorporating digital technologies into their communication repertoire. President Muhammadu Buhari and Atiku Abubakar were two of the most popular political figures on Twitter in Nigeria, with social media being a critical part of their campaign strategy. Political interactions, mediated through web-based technologies, have continued to scale up national political narratives, campaign activities, political capital, and support (Hitchen et al., 2019). Significantly, the Internet has brought changes into the way people process political communication, paving the way for information manipulation, bots and troll activities (Bayer et al., 2019; Kelly et al., 2017; Martin-Rozumiłowicz & Kužel, 2019; Rhynard-Geil & Inks, 2020) that have been creatively crafted into a coordinated disinformation ecosystem in Nigeria (Hassan & Hitchen, 2020; Bradshaw & Howard, 2019; Kazeem, 2018).

Twitter has become a pervasive tool in election campaigns. Candidates, parties, journalists, and an increasing proportion of the population use Twitter to comment on, interact around, and research public reactions to politics. The episodic nature of its data (Zappavigna, 2013) that sees posts added to user's stream over time, often at frequent intervals, has now made the platform critical to political campaigns and civic engagement. Mernit (2011) and Marwick and boyd (2010, p. 116) see the near synchronous character of Twitter as "life streaming," suggesting that those micro-posts are an "ongoing sharing of personal information to a networked audience." Similarly, Cataldi et al. (2010, p. 2) observed the platform produces "time-sensitive text" which narrates and transmits news stories or information. These elements help to explain how Twitter has become an "important online space for political communication because it successfully connects ordinary people to the popular, powerful and influential" (Graham et al., 2016, p. 766). Others argue that its key affordances make it a potentially fruitful space for developing a more direct relationship between politicians and citizens in a networked environment (Bruns & Burgess, 2011; Graham, Broersma, & Hazelhoff, 2013).

There is a rapidly expanding amount of study on this subject due to the increased usage of Twitter in campaigns by candidates, parties, and the general public. Platform affordances are deployed for purposes beyond private communications and personal social networking. The use of Twitter in election campaigns is a topic being studied by academics from a variety of disciplines, including political science, communication studies, and computer science. According to Jungherr (2015), these studies take on the subject from many angles and employ wildly dissimilar methodologies, which causes the body of research examining the usage of Twitter in election campaigns to

become fragmented. This diversity has further led to the establishment of numerous methodological methods in the fields of data collecting and analysis: Research on Twitter's political applications is quickly developing. In the sections that follow, I provide an overview and a critical discourse of political uses of Twitter in elections.

3.2 The use of Twitter in elections

Research demonstrates that political discourse is significantly shaped by social media. "Applications of Web 2.0, particularly Twitter, are currently" changing how online participation works so that viewers actively contribute to and create the material rather than just passively reading it. (Kasmani et al., 2014, p. 1).

Twitter plays an important role in elections and other democratic conversations. Murthy (2018), Davis, Holtz-Bacha, and Just (2016), Mascaro et al. (2016), Gayo-Avello (2012), Buccoliero et al. (2020), Ndlela (2020), Best and Meng (2015), Alhassan (2018), Findlay and Janse van Rensburg (2018), Yoon et al. (2022) in their studies analysed the use of Twitter in elections. Early use by candidates showed that Twitter was best used to mobilize supporters – more like a broadcast medium. Candidates retained control of their message, posting information only on a small number of non-controversial topics (Mascaro et al., 2016). There was minimal direct interaction between users and candidates, a pattern described as one-sided conversation or controlled interaction which elicits no response (Stromer-Galley, 2019; Freelon, 2017). These studies commonly highlighted disparity between parties' interaction strategy and online responsiveness. One of the significant factors that influenced such type of interaction with voters was attributed to the risk of being exposed to negative online reputation and unfavourable media attention

However, Graham et al. (2016) in a comparative study of how British and Dutch parliamentary candidates used Twitter during the 2010 general election noted that there was evidence of interaction between candidates and voters. They showed that Dutch candidates interacted with others more significantly than British candidates. Jaidka and Ahmed's (2015) study of Twitter accounts of the top ten political parties in India's 2014 general election revealed it was used for self-promotion, mobilization of voters and posting real-time updates of their offline campaign activities. Smyth and Best (2013) found that Twitter was useful to report problems at polling units and provide updates about election processes in Liberia and Nigeria.

Similar impact was recorded in a couple of other countries (Effing et al., 2011; Kruikemeier, 2014) to show that politicians with higher social media engagement receive more votes within most political parties during national election. Politicians that have a higher Twitter engagement were found to receive more votes than those who do not. In a few countries where Twitter has been useful to predict election outcomes, it was discovered that online messages on Twitter closely mirror offline political sentiments (Tumasjan et al., 2010; DiGrazia et al., 2013). In Kagan et al. (2015), Ramadhan et al. (2014), Bello et al. (2019), Fagbola & Thakur, (2019) we see a demonstration of how user sentiments data were useful in forecasting election outcomes.

The argument for democracy is relevant to the discussion around Twitter's influence in encouraging or preventing exposure to different viewpoints. This has to do with how Internet-

based media could be able to foster a thriving public sphere, which is a crucial idea in modern political communication. A s Rasmussen (2013) observes, Habermas's (1989) conceptualization of the public sphere has been fundamentally altered by Internet-based media. In contrast to the conventional notion of a single place conceptualized by Habermas, the digital public sphere has the capability to democratize access to media and spread the structure of communication (Kasmani et al., 2014). Through political information they acquire from their networks, such as Twitter, young people's interest in politics may increase. As Baumgartner and Morris (2009) contend, this might lead to previously disengaged young people becoming involved and interested in politics (Kasmani et al., 2014). As comparable worldviews may be held within a group but may be incompatible with one another, it is impossible to identify a coherent worldview of this sort of social media communication (Sobkowicz & Sobkowicz, 2012).

3.3 Can social media determine election outcomes?

There is a popular narrative that Twitter played a decisive role in both the 2016 presidential election in the U.S. and the UK's Brexit referendum (Howard, Kollanyi, & Woolley, 2016). The leading candidates have argued that social media was instrumental in the 2016 election outcome[31]. As Brad Parscale, Trump's digital media director in 2016, puts it: "Facebook and Twitter were the reason we won this thing. Twitter for Mr. Trump. And Facebook for fundraising"[32]. Donald Trump himself declared in an interview: "I think I wouldn't be here if I didn't have social media"[33]. Many consider these statements as evidence of social media's broader influence on political polarisation and the recent re-emergence of populist politicians in many countries. Analysts argue that tech companies have no idea how seriously their platforms are negative. An alternative view held is that social media platforms are biased (Wall Street Journal, 2020) and politicians tend to rely on support that comes from voters with lower voter education in rural areas, who are among the least likely people to use social media actively. In the same way, the content on social media platforms - particularly on Twitter - is disproportionately left-leaning.[34]

This characteristic slant did not manifest itself in a pronounced fashion before the landmark 2016 presidential election in the United States because candidates were relatively moderate. Since then, however, Twitter has been turned into a vehicle for spreading criticism of presidents and opposition politicians (Van Kessel & Castelein, 2021). It is important to note that despite evidence to suggest that Twitter can affect election outcomes in America and European countries, not same can be said of its impact in sub-Saharan Africa where election results are determined less by technology. Global news agencies have beamed their spotlight on how elections in the U.S were victims of coordinated efforts to influence public opinion online (Stanzel, 2018; Gibaja, 2020; Thomas et al., 2020), but little attention has been given to the many African countries where same operations have taken place. In 2019, Nigeria, South Africa, and Tunisia, witnessed

[31] https://www.newyorker.com/magazine/2016/11/28/obama-reckons-with-a-trump-presidency
[32] https://www.wired.com/2016/11/facebook-won-trump-election-not-just-fake-news/
[33] https://www.theguardian.com/us-news/2020/oct/26/cbs-releases-footage-trump-walking-out-60-minutes-interview
[34] https://www.theguardian.com/business/2020/jan/09/twitter-left-leftwing-customers-small-business

political actors mounting digital influence operations to veer results of elections through coordinated efforts to inauthentically alter public opinion online (Carvin et al., 2020; Gibaja, 2020; Posard et al., 2020). These operations go beyond sheer disinformation to include doxing (Douglas, 2016)[35], astroturfing (Bienkov, 2012)[36] or coordinated smear-campaigns.

As users seek out the voices they trust, bots and automated accounts displaying machine-like behaviour make the search for verified, accurate information even more complicated[37]. Disinformation, which has become a mainstay of most campaigns, is peddled while governments and opposition try to pitch their policies, provide spin, and shape their images. The taxonomy of political bots showcases the growing impact of automated activities on African politics, mimicking trends from the West (Ndlela, 2020). The worrying difference with Africa though is the impact: how online manipulation could shape the events unfolding offline. While automated trolls in Euro-American countries might serve to inflate a fake message or flood a user or candidate's timeline with malicious tweets, those messages could mean a matter of life and death in Global South systems where ethnic and religious politics still dominate. This trend is especially critical in the post-Cambridge Analytica world - the data mining firm that ran disinformation campaign on for ruling parties in Kenya and Nigeria and collected data from millions of users in both countries to profile and micro-target with messages (Bradshaw & Howard, 2019; Ijere, 2020; Ndlela & Mano, 2020; Swart, 2020).

3.4 Digital campaign and the problem of transparency

In the runup to elections, voters often grapple with a familiar-surrounding problem: disinformation and a lack of transparency over who's providing the news they are getting. "Social media platforms are a powerful tool not" just to foreign entities but for government's dominance of narratives around election campaigns. It has also become an access point to information and to join political debates. Despite the increase in the number of hours Internet users spend on the Internet daily in Nigeria[38], there is growing unease about the darker side of social media in electioneering. Bax and Prinsloo[39] note "that online platforms have become yet another instrument for governments to tighten their grip - joining such traditional methods as controlling the content on state-run broadcasters and limiting the freedom of expression with draconian" laws[40] [41].

[35] Sometimes written as doxxing, it is the act of revealing identifying information about someone online, such as their real name, home address, workplace, phone, financial, and other personal information. That information is then circulated to the public — without the victim's permission.

[36] Astroturfing is the attempt to create an impression of widespread grassroots support for a policy, individual, or product, where little such support exists.

[37] https://qz.com/africa/1330494/twitter-bots-in-kenya-lesotho-senegal-equatorial-guinea-elections/

[38] https://datareportal.com/reports/digital-2021-nigeria

[39] https://www.bloomberg.com/news/articles/2020-10-13/disinformation-campaigns-on-facebook-twitter-google-undermine-african-election

[40] https://www.bbc.com/news/world-africa-47734843

[41] http://democracyinafrica.org/internet_shutdowns_in_africa/

While most African countries have laws in place to regulate political advertising on traditional media, there isn't enough accountability for online platforms (Nyabola, 2019). The "assumption that developing countries are blank slates onto which technological fantasies can be projected is dangerous" (Nyabola, 2019). Nyabola notes further that "what we're seeing as the consequences are usually far more grave than they are in countries that have robust legal and political frameworks." Another area of concern is the increasing cost of an already hugely expensive campaign in African countries, such that further strengthens the grip of wealthy politicians, whose *keyboard warriors* drown out the voices of smaller parties (Bradshaw & Howard, 2017). Critics have argued that the institutional knowledge and dynamics of American politics that come with the nationality of these companies does not provide the companies with same depth of knowledge or understanding of African countries to figure where misinformation enters the campaign process. Furthermore, there is a pattern of establishing a dedicated social media team that is active on Twitter and other social media platforms. Their job is to search the Internet for any negative news they can use to justify the excesses of the government (Solon, 2015; Bradshaw & Howard, 2017). They aim to shape public behaviour through the use of "dynamic narratives" to combat the political propaganda disseminated by opponents.

As political parties grow more sophisticated in their use of social media, there are fears political propaganda will become normalized (Dwyer & Molony, 2019). Added to this is the lack of accountability. For instance, as Bax and Prinsloo (2020) revealed, the ruling party in Ghana had a social media army of some 700 workers by mid-2019 for the December 7, 2019 election. It prompted the main opposition party to play catch up by recruiting its own "communicators". In Cote d'Ivoire, all the main parties deployed teams on social media for the contentious October 31, 2019 vote (Duhem, 2020). Tanzania pushed through a legislation in 2018 and 2020 that criminalizes some social media posts by journalists and suppresses the growth of online media, including radio and TV (Conroy-Krutz, 2020). It is becoming evident that digital politics is overwhelming underfunded grassroots political activists (Lanoszka, 2019). Its non-regulation excuses people to take money from state treasury to try and keep a ruling party in power.

Nigeria is one of many countries where funds are allocated to cyber troops to influence political discourses online. It is part of a larger phenomenon whereby governments are turning to Internet platforms to exert influence over information flows and communication channels to shape public opinion. Although the tech companies try to provide tools that sometimes enable people to better understand the accounts they follow, who is behind the messages they read, who is behind the information that shape their political views, and ultimately their votes to avoid "misleading experience", the legality of such "pro-government" accounts remains a subject of academic and industry debate, especially in sub-Saharan Africa where Internet literacy is low.

More than two years after Nigeria's 2019 general election, there is still little idea how much money was spent in online campaigns. We may not fully grasp how and by whom voters were targeted when the data is eventually made public. Democracy is about giving citizens the power to actively participate in political processes and cast an educated vote. To make sure this is achievable, political campaigning must prioritize transparency, justice, and accountability.

However, despite the enormous prospects that technology presents for political participation, the existing setup resembles the unrestrained "Wild West."

The Independent National Electoral Commission (INEC), Nigeria's electoral management body, is still building up capacity (e.g. in data scrapping and analysis) to detect attempts to manipulate the information ecosystem in the country. The absence of such an important internal mechanism hampers efforts to protect the political process and voters from any form of manipulation. There is also the problem of regulation as most financial regulations fail to consider online activities by political parties and candidates. According to the political database of International Institute for Democracy & Electoral Assistance (IIDEA), only two countries (New Zealand and Tonga) in the world regulate how parties, candidates, and third parties can spend money on digital activities (Gibaja, 2020). Yet, it is unthinkable today that a party will not spend part of their campaign budget on online campaign. There is therefore the need to update the regulatory frameworks that guide how parties spend online to reduce the possible use of social media to manipulate public opinion in future elections.

3.5 Politics and Twitter revolution in Nigeria

Twitter has become one of the most utilized social media platforms for political communication in Nigeria (Ayih & Ngantem, 2018). Despite the recent growth in usage for political campaigns, its popularity among key political actors is on the rise. Led by Nigeria's dominant political duo, the All Progressives Congress and People's Democratic Party, there has been an unprecedented deployment of Twitter by parties and candidates for campaigns, citizen engagement, and propaganda since the 2011 general elections. Apart from these general uses, online misinformation and disinformation activities reached new heights around the 2015 general elections as politicians fought to build a strong online presence and lobby the Nigerian Twitter community for votes. Twitter accounts for state chapters were created (e.g. @apc_lagos, @officialapcimo, @apckano, @pdp_rivers_state, @pdpoyostate, etc) in addition to official party accounts (e.g. @officialapcng and @officialpdpnig) and support group accounts (e.g. @apcnigeria, @apcukingdom, @pdpvanguard, @pdp_2023). Attempting to reinvent and reposition as a dominant force, a position it lost in 2015, the PDP created four new official multilingual Twitter accounts in June 2016: @PDPHausa, @PDPIgbo, @PDPYoruba, and @PDPPidgin. The introduction of multilingual accounts reaffirms the importance of Twitter in soliciting for votes through what Giles and Smith (1979, p. 6) called "language accommodation strategy." What is evident is that politicians appreciate the complexity of a multilingual political setting like Nigeria and are harnessing this message strategy for improved political communication and participation. Advocates of this strategy argue that it can widen the party's support base and increase its online followership from the major ethnic groups in the country. Others are of the opinion that the accounts prove useful for engagement and sensitization of citizens on the state of the nation, campaign agendas, and the spread of disinformation about political opponents at grassroot level (Opeibi, 2019). Nigerian politicians now appropriate Twitter to set political agenda, rebrand their political identity, carry out special identity-laundering, voter education, voters identification strategy, crowdsourcing, crowdfunding, and broadcast messages to a much wider audience (Opeibi, 2019).

Hundreds of trending political hashtags were coined leading to the 2019 presidential election by frontline candidates and their supporters to transmit campaign messages (#NeverAgain, #NextLevel, #LetsGetNigeriaWorkingAgain, #BetterNigeria), provide updates on the election (#NigeriaDecides, #NigeriaDecides2019), party manifestos, and monitor results (#NigeriaDecides2019Result, #BuhariIsWinning, #AtikuIsWinning, #PMP4Plus4). There are suggestions that the growth in usage and number of users among a politically charged population in Nigeria is due to decline in freedom of speech. Serving as an alternative channel, it witnesses a high prevalence of politically-related hashtags. These hashtags are often used in relation to a multitude of events, the peak of which is a presidential election.

Political engagement on Twitter was very high during the campaigns. #NigeriaDecides2019, the hashtag that hosted the election debates was the most popular political hashtags in Nigeria with over 239,000 geolocated mentions. Major challenger, PDP's Atiku Abubakar (@atiku), received the most @mentions (202,471), while President Muhammadu Buhari (@mbuhari), received significantly fewer @mentions (103,680) (further breakdown and analysis of my dataset is presented in chapter 6). It is of interest to note that President Buhari's Twitter timeline is not the most robust, but he has a significant following of over 3.9 million (an exponential increase from half a million in 2015[42]. @atiku on the other hand, maintains an active profile, and has a high following of over 3.5 million. These statistics present another layer of argument about online popularity and election result – the candidate with the most @mentions lost. The volume of hashtags did not also tally with the outcome of the election. President Buhari was re-elected, but Twitter traffic did not predict it. The opposition hashtags #LetsGetNigeriaWorkingAgain and #Atikulated were popular, and even the equally popular #BuhariMustGo was overwhelmingly critical.

As the discussions in the findings show, while Twitter is promising in its potential to predict elections, it is far from being the most accurate – at least not in Nigeria. In looking at the limited demographics that the social media platform attracts and the often erratic influence of many other factors, this study found that Twitter is not representative of the voting population which puts the credibility of any such predictions or poll under the spotlight. On another scale, it can be tricky to establish the source of political tweets: they can originate from a vocal minority, which in some cases could be mistaken for a majority. While Twitter is a useful tool for involving voters in elections, top-line data alone cannot reliably forecast how a population will behave or cast a vote. It might take some time for Twitter to be able to accomplish that in Nigeria, so it will be interesting to observe what trends develop in the future.

3.6 The tweet that got Twitter banned: Evidence of a platform's centrifugal role in Nigerian politics

> Many of those misbehaving today are too young to be aware of the destruction and loss of lives that occurred during the Nigerian Civil War. Those of us in the fields for 30 months, who went through the war, will treat them in the language they understand.

[42] https://portland-communications.com/publications/how-africa-tweets-2018/

When President Buhari made the above tweet on Tuesday June 1, 2021 to express "concern about a situation," not many foresaw the power contest that ensued between Buhari's government and Twitter. Some users said the tweet was a threat of genocide against the Igbo ethnic group that is in the majority in Nigeria's southeast, which violated Twitter "abusive behaviour" policy. A Twitter spokesperson (according to a BBC report[43]) said the account owner of any such post "will be required to delete the violative tweet and spend 12 hours with their account in read-only mode." It acted and deleted the tweet, but while Buhari's account showed that the tweet was "no longer available", it had also retweeted a video from the president, along with the quote: "Whoever wants the destruction of the system will soon have the shock of their lives. We've given them enough time... we will treat them in the language they understand."

Twitter's move angered the Nigerian government which announced a suspension of the company's operation on Friday, June 4, 2021 cutting off access for millions of young Nigerian internetpreneurs. Information Minister Lai Mohammed stressed that "Twitter may have its own rules; it's not the universal rule", adding that if the president felt "concerned about a situation, he is free to express such views". [44] We would recall that former US President Donald Trump was probably the most high-profile figure to be suspended, over incitement of violence following the January 6, 2021 attacks on the US Capitol.

The government of the most populous country in Africa lifted the suspension on January 13, 2022, ending a seven-month prohibition on the microblogging service. However, it appears that the government's demands and the tech company's compliance resulted in a rollback of freedom of expression along with the restoration of access to the site. The reinstatement came after Twitter "agreed to meet all the conditions" made by the Nigerian government[45]. This included, among other things, Twitter's "legal registration in Nigeria, the payment of taxes", and the commitment to control illegal information in accordance with Nigerian law[46].

Twitter is yet to deny or confirm the deal that led to the lifting of the suspension, rather it "tweeted an evasive diplomatic statement stating that their mission in the country is to serve the public conversation." Even though they highlighted their dedication to Nigeria, their silence on the full length of the deal has only provoked more questions among industry experts, entrepreneurs, and users.

[43] https://www.bbc.com/news/world-africa-57336571
[44] https://twitter.com/FMICNigeria/status/1400843062641717249
[45] https://prnigeria.com/2022/01/12/buhari-twiiter-nigeria/
[46] https://mansamedia.africa/twitters-deal-with-nigerian-government-sacrifices-digital-rights/



Figure 3 Screenshot of user reacting to Twitter's statement

For tech enthusiasts (mostly government representatives like the group that negotiated with Twitter to lift the suspension imposed on the platform's operation in Nigeria in June 2022), it was about time governments started regulating all social media platforms in order to control their growing economic, social, and political power and influence. Nigeria's Minister of Information, Lai Mohammed accused Twitter of being anti-Nigeria – given how much leeway, in his opinion, Nnamdi Kanu, leader of the Indigenous People of Biafra, enjoys on the platform. Lai also pointed that Twitter encouraged and supported the #EndSARS protests by donating bitcoin to frontline protesters.

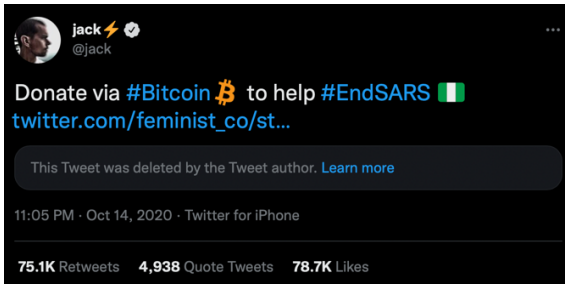


Figure 4 Screenshot of Jack Dorsey's tweet

A similar group, the Eastern Security Network (ESN), has been fundraising on Twitter[47]: In one of its recent activities, @simon_ekpa tweeted:

> "Last night we the Autopilot IPOB worldwide made another history in the Eastern Security Network fundraising. ESN must be funded to continue protecting our land, women and children against Fulani terrorists who have maimed, killed, pillaged, ethnic cleansed and sponsored by FG."

Adeyinka Grandson, recently jailed for 4.5 years for inciting racial hatred in social media posts encouraging violence in Nigeria through his organization, Young Yoruba for Freedom[48] had been

[47] https://twitter.com/simon_ekpa/status/1512859956965359616
[48] https://news.met.police.uk/news/man-jailed-for-inciting-racial-hatred-in-online-posts-445324

allowed to thrive on Twitter, Facebook and YouTube. He even crowdfunded and sold his books on social media.

The government's stance was further motivated by similar actions taken by leaders in Africa and around the world that resorted to minimum or complete Internet shutdowns between 2019 and 2021. The Information Minister accused Twitter of double standards for deleting president Buhari's tweet, implying that the US-based company could have a longstanding bias against the Nigerian government. Lai stressed:

> The mission of Twitter in Nigeria is very very suspect…. Has Twitter deleted the violent tweets that Nnamdi Kanu has been sending? The same Twitter was funding #EndSARS protesters… when people were burning Police stations and killing Policemen, for Twitter it was about the right to protest. But when a similar thing happened at the [US] Capitol, it became an insurrection[49].

Valid as the government's concerns are, there is the fear to avoid a replication of 'Indian squeeze' or 'Russia's throttling' of Twitter in Nigeria. Twitter has previously failed to effectively defend "the digital rights and freedom of speech of its users", particularly in nations where a type of digital dictatorship exists. For instance, "in India, even though Twitter promised to" defend[50] "freedom of speech, it took down accounts that belonged to media organizations, journalists, and activists. The tech company, at the request of the Indian government", removed[51] "more than 500 accounts, including accounts from journalists and media outlets"[52], "for protesting against the Indian Prime Minister's policies that affected Indian farmers. In Russia, it succumbed to requests from the government of Russia"[53] and "removed about 60 percent of specific tweets "banned" in Russia, after the government slowed down the speed of Twitter's services in the country[54]."

It is concerning that Twitter only obliquely agreed to the Nigerian government's request to use its Law Enforcement Platform to act against information that it believes breaches the nation's laws, endangers democratic ideals, and affects an equally poor human rights record. Owoyele (2022) in a report noted that "this deal grants the government a degree of access to Twitter, such that tweets that are deemed unpalatable or unfriendly to the government can be monitored and filtered. This would enable the government [to] track down Twitter users."[55] "The tech giant has not verified or denied the agreement that resulted in its unblocking in the nation. Instead, they

[49] https://www.premiumtimesng.com/news/headlines/465254-just-in-nigerian-govt-reacts-to-twitter-deleting-buharis-tweet.html
[50] https://blog.twitter.com/en_in/topics/company/2020/twitters-response-indian-government
[51] https://www.nytimes.com/2021/05/27/technology/india-twitter.html
[52] https://www.businessinsider.com/how-twitters-india-standoff-dragged-in-journalists-and-activists-2021-2?IR=T
[53] https://www.reuters.com/technology/russia-says-twitter-is-complying-with-demand-remove-banned-content-2021-04-30/
[54] https://www.bbc.com/news/world-europe-56344304
[55] https://fij.ng/article/five-things-learnt-from-fgs-statement-lifting-twitter-ban/

issued a vague diplomatic message in which they claimed their "mission was "to serve the public conversation" and that they were "deeply committed to Nigeria[56]."

In actuality, considering Twitter's compliance with the demands of the governments of India and Russia, a similar event in Nigeria looks most likely, even though the firm retains the last say on requests for account information and content removal. This current Buhari-led "government has consistently worked to stifle citizens' ability to use online platforms to participate in governance. A divisive Social Media Bill"[57] that makes Internet blackout permissible and makes it illegal to criticize the official narrative was put up in 2019. The fear is that such regulatory powers could make the government become the 'monster' it claims to want to fight. In addition to this, the government's emotional past[58] in a way validates fears that "violation of citizens' online freedom of expression will be much easier with Twitter now a company registered under Nigerian laws and taxable in the country. It gives the government enormous power to control the social media platform"[59].

Despite government's claim that the "shared national sacrifice" produced "immeasurable" gains (like extracting revenue from Twitter's operations and reducing cybercrime), the timing of the suspension highlighted Twitter's influence on Nigeria's democracy. In a statement, the government acknowledged: "Considering Twitter's influence on our democracy, our economy, and the very fabric of our corporate existence as a nation, our priority is to adapt, not ban, Twitter." Twitter provided a major space for Nigerians to organize civic movements like #BringBackOurGirls, the 2015 elections and #EndSARS protest in 2020[60].

During the period of the ban, individuals, civil society groups and even companies remained online by, in many cases, using VPNs. But as was predicted at the time of the ban, "there have been economic costs. A report on the cost of Internet shutdowns "estimates that Nigeria lost $1.45 billion as a result of the seven-month Twitter ban, making it the second worst hit country by an Internet shutdown"[61] in 2021. Nigeria's loss was three times more than those of Ethiopia, Sudan, and Uganda combined.

Citizens insist that the ban was a wrong move in the first place and the timing of lifting the ban could have been incentivised by the desire to use the platform to campaign ahead of the 2023 presidential election. A user @NaikeyOnuegbu captured this aptly that: "On this same Twitter that they banned, they're all coming to declare to run for the office of President…. The irony!"

[56] https://twitter.com/Policy/status/1481424622528643073
[57] https://www.okayafrica.com/say-no-to-social-media-bill-nigeria-protest-government-internet-blocking-law-censorship/
[58] https://globalvoices.org/2021/12/17/in-nigeria-the-government-weaponises-the-law-against-online-expression/
[59] https://fij.ng/article/five-things-learnt-from-fgs-statement-lifting-twitter-ban/
[60] https://qz.com/africa/1917507/nigeria-endsars-protests-use-twitter-whatsapp-to-beat-fake-news/
[61] https://www.top10vpn.com/research/cost-of-internet-shutdowns/

Amnesty International also agreed the ban was illegal and "an attack on the right to freedom of expression."[62]

62 https://twitter.com/AmnestyNigeria/status/1481411166328999936?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Etweet

CHAPTER 4

AUTOMATION AND CONTENT MANIPULATION ON TWITTER: NAVIGATING THE COMPLEX WEB OF ACTORS, BEHAVIOUR AND CONTENT

4.1 Twitter automation in electoral campaigns

Investigations into bot activity have historically focused on computer scripts that imitate human behaviour on social media (Bessi & Ferrara, 2016). These algorithms, often known as "social bots," have been proven to approximate and upscale human behaviour, frequently affecting communication exchanges on divisive themes (Woolley & Howard, 2016a; Bastos, Mercea, & Baronchelli, 2017; Howard & Kollanyi, 2016). Social bots can be used in many different circumstances, and there is a growing body of study in communication and political science that warns against the negative effects they may have on electoral politics, policy debates, and the discussion of sensitive issues. In fact, significant political events like the UK's Brexit referendum, the 2016 and 2020 U.S. presidential elections (Bessi & Ferrara, 2016; Bastos, Mercea, & Baronchelli, 2017; Ferrara et al., 2020), the 2015 presidential election in Nigeria (Fagbola & Thakur, 2019), Kenya's 2017 presidential elections (Mutsvairo, 2018) and others (see Bradshaw et al., 2020; Calderelli et al., 2020; Featherstone, 2019; Gagliardone et al., 2016; Gagliardone & Pothjonen, 2016; Ndlela, 2020; Ong & Cabanes, 2018; Portland, 2018; etc) were shown to have been vulnerable to this artificial meddling, particularly on Twitter

It has taken a lot of work to find activity patterns related to automation. Retweeting is the act of republishing a message already in circulation (Bullard, 2014), and evidence to this effect suggests that political content is produced in large quantities and retweeted to increase its visibility or, alternately, to stifle communication (Woolley, 2016), so as to create "a false sense of group consensus about a particular idea" (Ratkiewicz et al., 2011, p. 299). Lack of specific user data and the absence of geolocational metadata, which might be used to be detected by users or social media platforms, are additional indicators of account automation (Bessi & Ferrara, 2016). (Hwang, Pearce, & Nanis, 2012). However, bots can hold a powerful position in communication networks, frequently appearing at the centre of densely connected network subgraphs where information dissemination is centralized (Ratkiewicz et al., 2011).

In a study, Portland Communications (2018) estimated the employment of political bots during elections in 10 African nations by taking into account people who were incredibly active on the Twitter feed for the election. According to the survey, these users were responsible for 54% of tweets that originated from countries outside of Africa. While acknowledging that there is no definitive way of telling which accounts are actual bots, they inferred that politicians and political parties were not the main drivers in those countries. One section of the report showed that suspicious bots accounted for a quarter of the influential voices in Kenya's 2017 elections. One-third of the influential Twitter identities that tweeted on the election were journalists and news organizations (Maweu, 2020). Indeed, according to other studies, bot activity is constant, translating to "excessive volume of tweets" on Twitter (Bessi & Ferrara, 2016). However, user activity alone has been demonstrated to be a poor indicator of the employment of bots, as active

Twitter users are capable of sending out hundreds of tweets per day with little to no automation (Bastos & Mercea, 2016; Mercea & Bastos, 2016).

Twitterbots target accounts of interest identified by digital trace of previously expressed opinions about topics of interest. They are successful in getting users whose political views fit with the message's content to retweet it in cascades (Metaxas & Mustafaraj, 2010). Furthermore, bots appeared incapable of communicating with people, primarily responding to other bots by quoting their Twitter handles followed by the @ symbol. Another indication that humans and bots function in largely separate subgraphs is the fact that throughout their turn, humans were responding to humans more frequently than to bots. These findings are at odds with the political botnet that Metaxas and Mustafaraj (2010) investigated, which sent automated messages to recipients who were specifically chosen for their partisan interest in an election. A quarter of these recipients then retweeted the automated message they had received (Mustafaraj & Metaxas, 2017). Depending on the political goal intended for the botnet, bot masters are likely using a variety of different techniques, as evidenced by the variation in @mentioning and retweeting practices.

Despite this, bots have been shown to be incredibly powerful information distributors, equally adept as humans at retweeting and publishing a comparable amount of content (Bastos, Mercea, & Baronchelli, 2017). Bessi and Ferrara (2016) warned that bots could have a crippling impact on human communication because of their ability to disseminate content among human users, despite recent studies conceding that human agents could achieve comparable levels of activity if they restricted themselves to retweeting only. There is the argument that bots can be programmed to take sides and consistently provide more supportive content for a politician, altering public perceptions of support for the candidate (Bessi & Ferrara, 2016).

According to Woolley (2016), Twitter "bombs" are torrents of tweets that rush into hashtags used by opponents and are shared by bots in order to disrupt the organization and communication of the opposing side sometimes include accounts with a high level of bot activity. This is close to what recorded in various elections in Kenya, Nigeria, South Africa, Uganda, and the United States. Despite the vast literature on political bots (Abokhodair et al., 2015; Ferrara, et al., 2016; Ratkiewicz et al., 2011), a lot unknown about the individuals in control of such accounts, the decisions made on whether tweets should be retweeted, and the nature of the content shared by such accounts (Nied et al., 2017).

4.2 Political bots and normative models of the public sphere

A growing number of political actors and governments worldwide are employing both human and machine elements to shape political conversation (Forelle et al., 2015; Howard & Kollanyi, 2016). Bots are able to quickly deploy messages, reproduce themselves, and pose as real users on social media sites, in addition to doing duties like distributing news and information and engaging in destructive activities (Kollanyi et al., 2016). They have integrated themselves into many countries' political communication systems as a result of their prevalence on Twitter. Basic account details like meaningful screen names or profile images are missing from the simpler bot profiles. These accounts acquired the nickname "Twitter eggs" since the default profile picture

on Twitter is an egg. Specifically using the open application programming interface (API) of the website, which permits real-time publishing and information parsing, bots infiltrate social media sites directly through a code-to-code link. Social media users access these sites through front-end websites. Different countries have different overt political activities and political bot usage (Portland Communications, 2018). They are used by political actors and governments all over the world to sway public opinion, stifle debate, and muddle political issues. Political bots are frequently created and used at delicate political occasions (such as presidential/state elections) when the public is divided (Marwick & Lewis, 2017; Ferrara, 2017).

Political discussion, discourse, and the articulation and aggregation of political interests have all become routine in digital public spaces like social media platforms. Participants' interactions are likely to be influenced by bots and their goals, whether or not they are aware of it. As Mitter et al. (2014, p. 1) put it: “without a deep understanding of the impact of such attacks, the potential of online social networks as an instrument for facilitating discourse or democratic processes is in jeopardy.”

What this means for the development of social relationships and society in general, and particularly the public domain, is a common question. Zeifman (2015) argues that there are a variety of helpful jobs for bots in political communication, including matching voters' political preferences with parties and candidates in a manner similar to how outfit-choosing bots assist consumers choose new clothes (Keller & Klinger, 2019). On the other hand, issues arise when bots behave covertly and communicate with stakeholders, voters, and individuals without their knowledge. They are capable of orchestrating campaigns to glorify a government or politician, skew public perceptions of political reality by disseminating propaganda (Abokhodair et al., 2015; Boshmaf et al., 2011), obstruct political and government communication (Woolley & Howard, 2016a), pretend to have popular support (Rathnayake & Buente, 2017), disseminate false and harmful information (Shao (Ferrara et al., 2016). This could imply that a growing amount of online communication is inauthentic but nevertheless meant to have real-world effects (Keller & Klinger, 2019).

Bots can make performers seem more well-liked and popular in ways that entice people to follow them or "like" them, even when in some cases they are essentially passive, connecting with a number of profiles to improve the followers metric without adding material (the so-called bandwagon effect - Sundar et al., 2008). They could also be engaged, participating in discussions and debates, like, sharing, retweeting, commenting, and broadcasting information. They not only endanger elections and cause public spheres to be disrupted (Bennett & Pfetsch, 2018), but they also heavily rely on the normative perspective (Ferree et al., 2002). According to Ferree et al. (2002), the public sphere is an elite-dominated, open, and transparent forum where citizens can elect (and remove) representatives on a regular basis in the representative-liberal tradition. However, coverage of political figures becomes out of proportion to their de facto following because bots covertly inflate the popularity of some ideas and actors (Keller & Klinger, 2019). Because of this, it is impossible for citizens to use political actors' popularity signals in social networks as a proxy for public opinion and peer acceptance. When bots skew political competition, interfere with campaigns, and affect election results, it can occasionally lead to a

disagreement between online and offline popularity cues (likes, retweets, and surveys). One lesson to be learned from Portland Communications' (2018) research is that if bots increase the influence metrics of political parties or candidates, it means that they endanger the efficiency of crucial democratic processes.

The public sphere, which serves as a forum for dialogue aimed at maximizing popular inclusion, suggests that voices should not be tied to proportionality but rather to plurality: all actors and groups with stakes in a community should be represented and heard (Ferree et al., 2002). Genuine stakes and interests in a subject or society serve as the foundation for the plurality concept. However, when computers masquerading as "community" members join and contaminate the open marketplace of ideas, society is unable to check itself due to the insertion of fake and manipulative interests (made to distort plurality). Due to their propensity to produce quantitative misrepresentations and their ability to make parties or candidates appear more popular than they actually are, bots offer a dilemma since they could give voice to ideas and socio-political issues that do not exist.

An even more problematic aspect is discussion not limited to actors central to a political system. One argument is that both actors from the centre and the periphery should be present in a healthy public sphere (Ferree et al., 2002). In this sense, the introduction of automated, deceptive, and interest-driven bots renders obsolete Habermas' division between autonomous and power-regulated agents (Keller & Klinger, 2019). Participation of bots in political discourse merely highlights their developers' lack of regard for deliberative procedures because they have no intention of understanding or taking into account other people's opinions. Political bots cannot reconcile the notion that choices are made collectively and disagreements are settled according to the merits of an argument rather than the number of people who support it. They make conversation difficult and argument into a farce.

From a constructionist perspective, the public sphere's normative orientation should include both diversity and inclusion as well as difference and mutual respect (Ferree et al., 2002). Since everything in this context is political, the normative goal is to offer the voiceless a platform while challenging and erasing the boundaries between the public and private spheres of discourse. Because it tries to include fringe groups and their political demands, elevate previously silenced voices, and promotes story forms over reasoned, unemotional debate, the idea of public dialogue and democratic procedures is considered as particularly vulnerable to bot participation. Bots have the ability to increase popularity cues and adopt the persona of a presumed marginalized minority (Howard et al., 2018). Further, Keller and Klinger (2019) contend that constructionist conceptions of public discourse rely on real people offering real viewpoints from their lives, which are vulnerable to hacking and bot interference. Therefore, not all bots are problematic and not all bots are bad for the same reasons. Theoretical consideration on normative assumptions regarding political communication and the public domain is therefore necessary for any assessment of their effects to take into account their empirical behaviour patterns (Keller & Klinger, 2019).

4.3 Computational propaganda and the illusion of democracy

The arguments for and against using technology in elections and political campaigns are nuanced and varied. Computational propaganda, which involves the malicious application of automation, algorithms, and big-data analytics to influence public opinion, is a significant area (Woolley & Howard, 2016a; Neudert & Howard, 2019). However, there are other problems that are inextricably linked to the use of contemporary technology and how it has permeated political campaigns. A wide range of issues pertaining to the digital public sphere are covered by policy concerns on the democratic use of contemporary technology. They consist of the dissemination of false information and disinformation, micro-profiling and illegal data collection, misleading advertising techniques, inadequate consent, and the use of social media platforms for influence operations. Other issues include the spread of political disinformation using phony accounts and bots, concerns about algorithmic "black boxes," and regulatory frameworks that are no longer capable of enforcing ethical conduct and transparency.

Woolley and Howard (2016a) define computational propaganda as “the assemblage of social media platforms, autonomous agents, and big data tasked with the manipulation of public opinion”. The social sciences and computer sciences are both involved in research on computational propaganda. The research from Ferrara et al. (2016), Metaxas and Mustafaraj (2012), Ratkiewicz et al. (2011), and others laid the groundwork for the initial understanding of how bots affected the informational and computational systems that enable social media, despite the fact that the Computational Propaganda Project at the University of Oxford's Oxford Internet Institute defined the term and carried out early social scientific work on the subject.

Computational propaganda has been fuelled, by a larger-scale normalization of social media as a weapon for control by those interested in digital political communication (Karpf, 2012). As Chadwick (2013, p. 10) points out, “even the most radical changes to communications systems must be channelled through structural constraints in order to impact traditional political outcomes.” Around the world, many old guard members of the political elite are still in place, while newly powerful people and groups have risen to exploit digital tools to win and maintain power (Howard, 2015). These actors have adapted to and used the altered status of political communication tools as they are available online, as Karpf (2012) noted. Digital democracy hasn't quite worked out the way cyber-optimists had envisioned in some ways. Online discourse follows winner-take-all tendencies because the Internet's elite continue to be elite (Hindman, 2008).

Social media encompasses a multimedia landscape that is always evolving, both for the elite and for the general public, thanks to sociotechnical innovation (Treem & Leonardi, 2013). In addition to changing how politics are spoken, the rise of "networked society" and hybridized technology has also changed how campaigns are run, elections are conducted, and how power is exercised (Benkler, 2006). Political systems have altered, new political organizations have emerged, and politicians have risen and fallen. However, some elements of political communication never change. One method and tactic for enabling control among well-resourced and strong groups is computational propaganda.

Researchers have argued that social media companies must take greater responsibility for the social and political consequences of the tools they build and design in order to "defeat" broader manipulations carried out online via algorithms and automation. This is because platforms themselves have politics, as do the algorithms that power them (Gillespie, 2010; 2014). Social media sites like Twitter and Facebook, according to political communication experts, are increasingly essential international communication channels for political communication (Segerberg & Bennett, 2011; Tufekci & Wilson, 2012). That is, its usage in this context is not necessarily constrained by state borders, at least in the majority of situations across the globe. As a result, individuals from all over the world utilize them to interact with one another regarding political matters. The research in this thesis explains how computational propaganda is a global phenomenon. It spans multiple social media platforms like a tangled web, not just one.

Other studies have suggested that computational propaganda is at an all-time high during key moments of presidential elections (Bradshaw, Bailey, & Howard, 2020; Bessi & Ferrara, 2016; Ferrara et al., 2016; Howard et al., 2016). This strategy is employed by candidates' supporters to influence trends on social media, plant ideas in the news cycle, and convey the appearance to voters that the campaigns have widespread online grassroots support. Regular individuals are persuaded and tricked into utilizing bots, coordinated hashtag sequencing, and other techniques to support trending subjects that are advantageous to candidates and campaigns by fringe partisans. People get manipulated and consent for political policies or ideologies is “manufactured” in the public mind due to propaganda by disinformation-for-hire agents and partisan media. They use social media to sell us the idea that we have political agency thereby creating the illusion of democracy.

One of the main strategies of actors who employ computational propaganda is "manufacturing consent" (Herman and Chomsky, 1988). Not only does it happen when automation technologies are used to inflate social media metrics, but it also happens when the news media encourages false conceptions of candidate popularity as a result of the same artificial number inflation. The idea of "manufacturing consent" was inspired by a variety of parallel usage in numerous nations going back to 2007 in similarly to the ways that bots and computational propaganda were utilized during the 2019 election (Robb, 2007; Gorwa, 2019). Similar tactics, such as following, likes, retweets, mentions, shares, and comments, have been used by political actors in South Africa (van Niekerk, 2018; Mudhai, 2017), Kenya and Nigeria (Mudhai, 2017), the United States (Woolley, 2018), Mexico (Verkamp & Gupta, 2013), Ecuador (Williams et al., 2020; Bradshaw & Howard, 2017), Venezuela (Forelle et al., 2015), and Brazil (Arnaudo, 2017) to strengthen the credibility of politicians and campaigns through higher metrics.

Another online political manipulation technique known as "state-sponsored trolling" is focused on government-driven computational propaganda efforts that target political opposition on social media (Monaco and Nyss, 2018; Zannettou et al., 2019). Analysis from Monaco and Nyss (2018, p. 4) on this phenomenon shows that the now global trend of disinformation is often only “one element of a broader politically motivated attack on the credibility and courage of dissenting voices: journalists, opposition politicians and activists.” This study also demonstrated that astroturf political campaigns and computational propaganda are used by entities that are

not directly affiliated with governments (such as the Internet Research Agency in Russia). Some countries' official governmental infrastructure includes politically motivated trolling squads, some of which are armed with legions of political bots (Bradshaw & Howard, 2017).

The use of political bots and computational propaganda to sway internet discussion is expanding beyond politics and into other relevant areas. Twitter bots have been used in the healthcare industry to spread information, control online vaccine debates, amp up anti-vaccine content, and, more worrisomely, spread false information and rumours during social protests. There is still much study to be done in order to develop a comprehensive knowledge of computational propaganda, which shows no indications of slowing down.

4.4 Trolls and manipulation of political debates on Twitter

A novel problem that has emerged from the popularity of Twitter is the prevalence and influence of online trolls. Predominantly human or hybrid, these are accounts that behave in a deceptive, destructive, and/or disruptive manner (Buckels et al., 2014). Troll and bot accounts are not necessarily mutually exclusive, and recent studies reveal that foreign influence operations adopt a combination of both types of accounts (Badawy et al., 2019; Bradshaw et al., 2020a) to weaponize social media, to spread state-sponsored propaganda and to destabilise foreign politics (Broniatowski et al., 2018; Flores-Saviaga et al., 2018).

Several challenges arise when studying the actions of malicious actors such as trolls. To comprehend their approach, the first difficulty is to differentiate between their various types (or roles) (Kim et al., 2019). The current algorithms construct a lot of features, recognize known account characteristics using supervised machine learning techniques (Yang et al., 2019), and identify online trolls using text mining and supervised classification techniques (Mihaylov et al., 2015). However, these methods have a number of limitations, including the need for access to (sometimes private) user characteristics and the need for regular model retraining to keep knowledge current. Can the competition in identifying the many types of internet trolls be avoided? Is it possible to create social theory-based methodologies that don't rely too heavily on machine learning algorithms? The second difficulty is analysing and comprehending the trolls' plan (Kim et al., 2019). While earlier research concentrated on detecting trolls, more current investigations have revealed the presence of sub-types of trolls that simulate various political viewpoints (Badawy et al., 2018; Boatwright et al., 2018; Stewart et al., 2018; Zannettou et al., 2018). This shows a sophisticated and well-coordinated interplay between the various troll behaviour patterns to successfully sway public opinion.

The question is now how to analyse the interactions between various troll sub-roles and comprehend the motivations and behaviour of trolls. Actor-Network Theory (ANT), a new breakthrough in social theory, and Gabriel Tarde's 19th-century work are combined to answer the first challenge (Latour et al., 2012; Latour, 2002; Tarde, 2011). According to Latour et al. (2012), actors in a network—both human and non-human—are defined by the digital traces they leave behind. This means that we can define entities instead of social roles and identities in terms of personal characteristics like ideology, gender, religion, age, ethnicity, and location. The order of a person's authored tweets is a trace of them on Twitter (Kim et al., 2019). Kim et al. (2019)

operationalized ANT and Tarde's theory of monadology (Tarde, 2011) to compare the similarities between the sequence of texts that trolls produce over time against a reference set in order to address the difficulty of differentiating the roles and identities of trolls on Twitter. The second problem can be solved by using a specially created two-dimensional representation to integrate traces of Twitter trolls and their similarities (see Maaten & Hinton, 2008). These methods show that, while playing distinct and distinct roles, trolls collaborate to impersonate one another, play off one another, have many agendas and sub-roles, and change their tactics both before and after an election.

There has been a lot of scholarly discussion about online trolls. They often consist of either human users who act as "sock puppets" under the direction of other users (Kumar et al., 2017) or accounts that are semi-automated and used to occupy users' attention while amplifying certain messages and influencing debates (Badawy et al., 2018; Broniatowski et al., 2018). Bessi and Ferrara (2016) investigated the impact on political discussions and suggested that their presence can negatively affect democratic political discussion rather than improving it, which in turn can alter public opinion and endanger the integrity of elections. A similar finding by Shao et al (2017) suggests that understanding online trolls may be an effective strategy for mitigating the spread of harmful information. In a political context, evidence from Boatwright et al. (2018) and Zannettou et al. (2018) shows that online trolls that mobilise support for presidential campaigns are weaponised as tools of foreign and domestic interference.

In Africa, the problem of social media manipulation cannot be understood outside transformations in digital technology and news media ecosystem. The scale of production and amplification of disinformation and computational propaganda has been increased by the low barriers to media and artistic expression associated with the Internet and its ancillary digital technologies (Maré et al., 2019). Nearly everyone is vulnerable to the perverse and potent use of cyber warriors to propagate disinformation. We are all potential propagandists thanks to social media and digital technologies. Disinformation and propaganda primarily succeed by reinforcing societal assumptions and stereotypes that are so firmly ingrained in a population that it is frequently challenging to distinguish the message as merely propaganda (Maweu, 2020).

Although it is undeniable that the growth of digital media has a significant democratization potential that can enhance access to information, it also reduces the barrier to regular audiences participating in public debates. Social media offers equally significant risks to the integrity of elections, as recent years have shown. By disseminating false information, harassing participants, and stifling free expression, a number of state and non-state actors have taken advantage of these low participation hurdles to undermine electoral integrity. The Cambridge Analytica leaks in 2018[63] revealed that its parent company, Strategic Communication Laboratories (SCL) Elections Ltd. Interfered in two Nigerian elections[64], [65]. Christopher Wylie admitted that the company had helped with a “rumour campaign” in the 2007 election, spreading fears that the “election could

[63] https://www.businessinsider.com/cambridge-analytica-duterte-tough-guy-image-for-presidential-election-2018-4?IR=T
[64] https://www.bbc.com/news/world-43476762
[65] https://mg.co.za/article/2018-04-03-nigeria-to-launch-probe-into-two-elections-over-cambridge-analytica/

be rigged" (George, 2018). With the encouragement and backing of religious authorities, it staged anti-election protests to discourage supporters of the opposition from casting ballots in 2007. In December 2014, according to the 2018 leaks, an unidentified Nigerian oil billionaire hired SCL Elections to work on incumbent President Goodluck Jonathan's campaign for the 2015 election in an effort to retain him in office. Jonathan was challenged by Muhammadu Buhari, who employed former Barack Obama strategist David Axelrod of AKPD to help in his online campaign (Cadwalladr, 2018; George, 2018). Bradshaw and Howard (2018) claim that SCL utilized data from 16 million Facebook users in Nigeria to "orchestrate a ferocious campaign" that targeted Buhari with fear and disinformation.

The 2015 disinformation campaign involved spreading anti-Islamic videos on Twitter (including Facebook and WhatsApp), threatening to implement Sharia law under Buhari. The anti-Buhari movies showed individuals being mutilated and dying in ditches in an effort to portray Buhari's Islamic faith as a violent threat to the country. These videos were made with the intention of making Nigerian voters fearful. Buhari's education and health were also the subject of rumours, which raised questions about his suitability for government (see also Kazeem, 2018). According to Bradshaw and Howard (2018), SCL employed the Israeli intelligence agency Black Cube to hack Buhari's emails. While SCL acknowledges that Black Cube was contracted for "advertising and marketing services," it denies using information that was obtained through hacking. Black Cube has called the accusations a "flagrant falsehood." Observers feared that the 2019 presidential election was at risk of more computational propaganda. Their fears were confirmed by the large-scale unprecedented propaganda spread on Twitter and in mainstream media.

Hate/extreme speech flooded Nigerians and played a central role in the 2019 election (Debre, 2019; Hassan & Hitchen, 2020a; Mail & Guardian, 2019[66]; Okoro & Emmanuel, 2018). Buhari was forced to publicly state in 2018 that he had not passed away and been replaced by a clone because the rumours had grown so ridiculous and fevered. While government leaders realized that fake news might be lethal in a nation with numerous ethnic and religious fault lines, media outlets banded together before the election for a fact-checking initiative. As election day drew near, Atiku Abubakar, the opposition candidate, and President Muhammadu Buhari, who ran on promises to end government corruption, were neck and neck in the polls. Buhari's victory has remained shrouded in mystery, with both sides claiming that the other rigged the election. Additionally, violence on election day prevented ballots from being counted and spread false information.

Hundreds of fake Facebook and Instagram pages, groups, and accounts run by the Israeli company, Archimedes Group were removed by Facebook. The company was reported to have spent more than $800,000 running Facebook ads and their accounts had almost 3 million followers." O'Sullivan and Gold (2019) acknowledged that fake accounts were used and the company "represented themselves as locals, including organizations, and published allegedly leaked information about politicians." This was supported by a statement from Facebook's Head

[66] https://mg.co.za/article/2019-02-21-nigerian-political-parties-are-weaponising-fake-news/

of Cybersecurity Policy, Nathaniel Gleicher[67] that "the people behind this network used fake accounts to run pages, disseminate their content and artificially increase engagement." The Tel Aviv-based political consulting and lobbying firm frequently posted about political news, including topics like elections in various countries, candidate views and criticism of political opponents. According to Facebook's statement, Archimedes targeted elections in Nigeria, Senegal, Togo, Angola, Niger, and Tunisia. The influence operation is acclaimed to have played significant roles in many political and public campaigns, among them presidential elections and other social media projects all over the world. Some of its operations included "mass social media campaign management and automation tools, large scale platform creation, and unlimited online accounts operation" (Digital Forensic Research Lab, 2019). On its sparse website of African stock images, Archimedes advertises its deliberate efforts to conduct disinformation campaigns, boasting that it takes "every advantage in order to change reality according to our client's wishes" through "unlimited online accounts operation" (Digital Forensic Research Lab, 2019). Despite its overt political messaging, no clear ideological motive has been assigned to the campaigns. Rather, the fact that a for-profit company carried out such influence operation is a troubling sign that highly partisan disinformation is turning into a capital enterprise.

In another report by the Oxford Internet Institute (OII) that tracked the manipulation of public opinion online, Kenya, South Africa and Nigeria have featured on a growing list of countries where social media is used to spread disinformation and computational propaganda since 2018. Its 2020 report identified Twitter as a prominent platform for social media manipulation in twelve African countries. On a broader scale, they identified 77 countries where government or political party actors used disinformation on to manipulate public opinion (Bradshaw et al., 2020a).

Actors behind digital disinformation exploit an information ecosystem that prioritises what is popular over what is true (Pretorius & Africa Check, 2021) to cause widespread harm. The root of the problem is that political conversations take place on platforms built for viral advertising[68]. Social media algorithms are designed to show users what they want to see, but they lack value judgment which fuels issues like hate/extreme speech and radicalisation because the recommendation engine of the algorithm does not actually understand what it is suggesting[69].

Externally orchestrated influence operations loom large in discussions about digital disinformation[70]. Social media allow ordinary people, civic groups, and journalists to reach a vast audience at minimal cost, but they also provide an extremely useful and inexpensive platform for malign influence operations by foreign actors. However, as Bradshaw et al. (2020a) argue, operations to manipulate the online environment and influence political outcomes are mostly now run within a country, making the threat of domestic actors more real. For instance, in South Africa, government agencies, politicians and political parties, private contractors, citizens and influencers were involved in social media manipulation. Their activities ranged from attacking the

[67] https://about.fb.com/news/2019/05/removing-coordinated-inauthentic-behavior-from-israel/
[68] https://www.youtube.com/watch?t=81&v=baPF-sOXP24&feature=youtu.be
[69] https://www.theatlantic.com/ideas/archive/2020/09/future-propaganda-will-be-computer-generated/616400/
[70] https://freedomhouse.org/report/freedom-net/2019/crisis-social-media

opposition to trolling those who disagree into silence (Pretorius & Africa Check, 2021). Amelie Henle contends that the Gupta-backed online influence operation in which the now defunct British public relations firm, Bell Pottinger had a hand was the biggest example of disinformation identifiable in South Africa in recent years[71] (see also Fischer & Klazar, 2020). In Nigeria, influencers, citizens and politicians have been the major actors used to amplify false narratives or drown out political dissent. Largely human-run accounts, their activities ranged from attacking the opposition or mounting smear campaign to suppressing participation through personal attacks, trolling, doxing, or harassment (Bradshaw et al., 2020). Failure to update transparency and financing rules that are vital to free and fair elections, emboldens malicious domestic actors who are employed by politicians to apply these strategies effectively to the online sphere. They build large audiences around similar interests, lace their political messaging with false or inflammatory content, and coordinate its dissemination across multiple platforms.

In information warfare, manipulative actors often start with the distribution of "neutral" or "empowering" content. This kind of feel-good content is purposed to amass followers and create an audience around the account(s). Once achieved, the account is weaponised and used for more divisive and more political content (François, 2019). Mikhailov (2020), describes this as "the investment of time capital to acquire social capital, as people follow your content." This causes search engines and social media algorithms to amplify the content, earning cultural capital or recognition that is then used to influence communities (offline and online). Wardle and Derakhshan (2018) however observe that actors in a disinformation campaign do not necessarily share motives, creating a principal-agent problem. They stressed that "the motivations of the mastermind who 'creates' a state-sponsored disinformation campaign are very different from those of the low-paid 'trolls' tasked with turning the campaign's themes into specific posts" (Wardle & Derakhshan, 2018). The motives listed in the study include money (e.g. pushing traffic to false-news websites for advertising income), the desire to connect with an online "tribe" (fellow supporters of a political party or a cause), and wanting to influence public opinion (one such way is to discredit a political opponent).

Furthermore, a clear goal of the (deceptive) behaviour of manipulative actors is to give the illusion that the content they are sharing resonates with a wider group. Twitter (and Facebook) removed accounts that used deceptive behaviour to benefit Ugandan president Yoweri Museveni ahead of the January 2021 election.[72] They included accounts found to have used "fake and duplicate accounts to manage pages (trading up the chain), comment on other people's content (gaming an algorithm/butterfly attack), impersonate users (astroturfing) [and] re-share posts in groups to make them appear more popular than they were"[73],[74],[75]. The harmful content could

[71] https://www.timeslive.co.za/news/south-africa/2017-09-04-the-guptas-bell-pottinger-and-the-fake-news-propaganda-machine/
[72] https://www.dailymaverick.co.za/article/2021-02-10-facebook-removed-planted-content-linked-to-ugandan-government-following-an-investigation/
[73] https://sg.news.yahoo.com/facebook-shuts-uganda-accounts-ahead-110022678.html
[74] https://mediamanipulation.org/sites/default/files/media-files/code-book-v1-26Oct20.pdf
[75] https://www.washingtonpost.com/education/2020/10/28/new-media-manipulation-casebook-harvard-teaches-how-detect-misinformation-campaigns/

be one taken out of its original context and recirculated, one creating the impression it was created by an official source, or one making something up. As digital platforms continue to shape the flow of information and political messaging on the Internet, they not only become essential tools of those seeking to disrupt the democratic transfer of power through elections but the new battleground for election.

4.5 Social media as a source of political disinformation

There are several reasons why social media platforms may be most conducive for political disinformation. First, the fixed costs of entering the market and producing content are small (Allcott & Gentzkow, 2017). This increases the relative profitability of the small-scale, short-term strategies often adopted by producers of digital disinformation, and reduces the relative importance of trust and long-term integrity. Second, the architecture of social media – thin slices of information viewed on phones or news feed windows – makes it difficult for users to authenticate an article's veracity. Third, the networks of social media friends are ideologically segregated – among networks of people who share ideological affiliations in their profiles, with lesser connection to those with opposite or conservative ideologies (Allcott & Gentzkow, 2017). This suggests a higher chance that users get news from sources mostly in alignment with their ideological orientations. To the extent that digital disinformation is socially costly and prevalent on social media calls for concern considering the number of Nigerians that get news from them (Ojebode, 2012).

Tech companies maintain no real interest in asserting editorial control over the content they distribute. It should come as no surprise that disinformation is finding its stride on social media. They provide an unprecedented pulpit for the digital dissemination of disinformation. The Internet is becoming an important alternative site to congregate and discuss issues of common concern in Nigeria. Online spaces are now viewed as constituting an alternative 'public sphere' in the Habermasian sense. The democratic potential of digital forums has shown that social media discussions can become acrimonious in the push for political change. This played out in cases such as the #OccupyNigeria, #EndSARS and the #BringBackOurGirls protests where calls for change which started on social media metamorphosed into street protests.

Furthermore, the capacity of digital media to convene publics is increasingly gaining acceptance among scholars (Karekwaivanane, 2019). While the corporations are busy 'monetizing people's connectedness', governments are taking advantage of the technology to effect surveillance and manipulate public opinion during elections. There was a failed attempt by the Buhari administration to censor social media in 2017. The "2015 Cybercrime Act has been weaponized to arrest online content producers who post content critical of the government. The 2015 Frivolous Petitions Prohibition Bill, which punished critical expression on social media, was withdrawn in 2016" (Samantha & Howard, 2018). Attempts to sneak in a similar bill, the Prohibition from Internet Falsehood and Manipulation Bill aka Social Media Hate Speech Bill failed in 2019 and 2020. Government has been accused severally of illegally monitoring social media activities of Nigerians by some critics. Users are fast fleshing out online connections by establishing some form of 'fictive kinship' who can quickly form alliance to taunt others in favour of a preferred government. The anonymity and privacy that the Internet provides to users has

excessively enhanced the degree of fluidity and structural complexity of disinformation in Nigeria. It becomes easy for individuals to create false identities on social media and spread falsities either for the fun of it, to upset people or divert attention from serious critical issues of public concern. This goes to show that although social media has brought many benefits, it is equally vulnerable to political disinformation.

Social media increasingly shapes people's view of the world and has gone from keeping users up to date on current events to communicating political and social activity (Opeibi, 2019). Governments and politicians now deploy army of trolls to spew inflammatory messages with the intent to spark online conflict with swarms of accounts automated to mimic the actions of people. This is another way they are exploiting the web's echo-chamber effect to amplify acrimonious messages (Barrett et al., 2018). Political actors also leverage on social media's reach, along with the difficulties policing it, to reach vast audiences with strategic 'information operation' aimed at distorting domestic or foreign sentiments (Hameleers & Powell, 2020). News channels are susceptible to unintentionally promoting narratives promoted by state-run media sources because of the fragmentation of the present media landscape. By making it more difficult to discriminate between true and fraudulent information, this can help a government manipulate how important topics are seen (Tucker et al., 2017).

CHAPTER 5

APPROACHING DISINFORMATION AS SOCIAL PHENOMENON, PARTICIPATORY CULTURAL AND TECHNOPOLITICAL MANIFESTATION

This chapter explores the theoretical concepts that underpin this study. Rooted in centre/periphery dynamics, I emphasize that the systematic production, consumption, and amplification of disinformation by the technology of social media represents a universal form of online behaviour that is not common to a section of individuals.

5.1 Participatory culture: How election-related disinformation heightens centre/periphery power dynamics

Defining disinformation is more complicated than it first appears. Scholars, journalists, and policymakers use a broad variety of subtly different but equally laden terminology in the field of political communication, as correctly noted by Jack (2017), Wardle and Derakhshan (2017), and others. There is just a patchwork of approaches from diverse social scientific disciplines, claims Karlsen (2016), and no overarching theoretical framework for analyzing the concept of influence. Furthering this notion, Wardle and Derakhshan (2017) argued that this lack of consensus and definitional rigour in terminology led to an early stagnation in the field of disinformation studies. In their attempt to understand and mitigate these conditions, they interpreted the concept as “information that is false and deliberately created to harm a person, social group, organization or country” (2017, p.20). Disinformation is one of three types of content contributing to “information disorder” (see also Wardle, 2019). Other are misinformation – “information that is false, but not created with the intention of causing harm” and malinformation – “factual information released to discredit or harm a person or institution, such as doxing, leaks, and certain kinds of hate speech” (Wardle & Derakhshan, 2017, p. 20).

The issue of intent is what makes disinformation separate from related notions. Disinformation architects have made a deliberate choice to spread fabrications or downright lies. Contrarily, misinformation is disseminated without regard for its veracity or knowledge that it is wrong, even if it may start off as disinformation. Misinformation may be disseminated to amuse, inform, or provoke. As a result, depending on its many sources and how they perceive the truth or falsity of that story, a single false narrative or piece of material may transcend this hazy line from disinformation to misinformation and back again.

Using intent to distinguish between disinformation and misinformation, Floridi (2011), Hwang (2017), and Søe (2021) suggested other perspectives that include “intentional actions” in their definitions. Bennett and Livingston (2018, p. 124) likewise characterized disinformation as intentional but only in the context of “intentional falsehoods spread as news stories or simulated documentary formats to advance political goals.” While Jack (2017, p. 3) describes disinformation as "deliberately incorrect or misleading," which would suggest intent, they warned that an intention-based definition contributes to a power differential between those who spread disinformation and those who criticize it. According to Jack, professional norms and legal

restrictions prevent journalists and social scientists from making accusations of intent, while disinformation producers are not subject to these restrictions (Udupa, Gagliardone, & Hervik, 2021).

Today's media landscape has undergone a number of structural changes that make it simpler to communicate with other conspiracy theorists and increase the speed at which disinformation spreads. Politicians have long used deliberate falsehoods or distortions, frequently disseminated as news, to further political ends, such as undermining opponents, halting policy discussions, influencing voters, escalating already-existing social conflicts, or fostering a general atmosphere of confusion and informational paralysis. This practice predates the advent of the Internet. Therefore, deception as it exists now is a difference in degree rather than kind.

It is important to note here that, as Jenkins writes, the web is not sufficient alone for spreading disinformation, but it now leads the agenda for traditional media (Rojecki & Meraz, 2016). Even prior to the Internet, humans have proven to be gullible. While we are now more conscious of the biases of online information, the quick sharing of contents as small, digestible nuggets of information increases our exposure to disinformation in ways previously not possible. Suffice it to say that disinformation is now rife due to a series of structural adjustments to the media ecosystem as a whole (Egelhofer & Lecheler, 2019).

Nigerian politicians have discovered that they can tell brazen lies in campaign advertisements and on the legislative floor without fear of backlash from the public or the media. Meanwhile, online disinformation has consistently shown that the general public was not paying attention and that the myth of the well-informed public could be disproved with minimal immediate repercussion. The public's faith in the government and the media is declining, and technology is a factor in this. But changing media technology is more of an ensemble cast member than a headlining star in the narrative. The political ignorance of the populace as a result of online disinformation is not the challenge we currently confront. The biggest threat is that the current digital media ecosystem is dispelling the idea that the public is attentive, which is quickening the rate at which political elites come to understand that they may flout the rules of government without repercussions.

Twitter has evolved into an instrument for sustaining, motivating, organizing, and disseminating disinformation, rallying governments against opponents accused of propagating fake news and propaganda on the Internet. During presidential elections, Twitter not only provides a forum for resurrecting falsehoods about minorities and political “others,” but facilitated a “subterranean” culture of rumour mongering that injected new velocity into targeted polarization. Disinformation was practiced online by a large number of dispersed, structured, “ordinary” online users. Meanwhile, actors engaged in coordinated production of disinformation by employing a variety of methods around flexible, precarious, and outsourced labour. This sort of strategic enactment has been happening since 2015 but the difference is the mobilization power that different actors contended with considering the rise of Twitter as a political communication tool.

The growing centrality of Twitter to both everyday life and political communication has led to a frenzy of media attention. Much of this has focused on Twitter as a source for disinformation. In the last decade, Euro-America and periphery countries have witnessed varying degrees of Twitter-centric manipulation of voters with the dissemination of rumours, conjectures, misleading information, and micro-targeted distorted facts that undermine democratic processes.

Current debates (Keller et al., 2020; Smith et al., 2021) reflect changing perception about the impact of Twitter on digital disinformation. Commentators are growing in their scepticism about the potential of the platform and the focus of their scepticism has equally changed. The affordances of the technology have deepened participation as much as they have deepened polarisation and exclusion. Another string of debate has developed around the risk that Twitter poses election, especially when left in the hands of governments who are able to appropriate it for parochial political gains or even shut it down. It is commonplace to hear that platforms are lending themselves to the creation of "echo chambers" and the spread of disinformation. Concerns like this can become more accurate when it applies to Twitter, whose technical configuration encourages the spread of misleading messages and content that can stoke ethnic, political, and religious tensions. As a result, the platform has been accused of undermining public confidence in political systems while raising the risks of polarisation and instability. This leads to suggestions on the need to have greater control over the flow of information online.

The first wave of the use of digital technology in Africa had a mission of conception from the rational centre that digital technology will bring greater rationality into the emotional periphery (Thapa & Sæbø, 2014). In the framing of debate on digital technology there is the sense of the global south as the emotional periphery and Euro-America as the rational centre. The centre/periphery debate should not be considered only in geographic terms, pitching more powerful and connected countries against less resourced ones, but also in terms of power imbalances supposedly connecting producers and receivers of pieces of information related to political participation. Recent events in the Euro-America show that the distinction of the emotional periphery as fragile is falling apart. Technology is not appropriated in politics (and online behaviour) different from how influence operations are implemented in more advanced countries. Individuals apply the same strategies in doing specific things with disinformation campaigns relevant to local debates, not far from universal meanings, to advance specific political interests. Presidential elections are unique opportunities for testing new strategies or refining older forms of online manipulation. Digital disinformation is oftentimes deployed to criticize and even contest the legitimacy of the result, while other actors raise concerns about the need to protect electorates from informational paralysis and rid the information ecosystem of deceptive and manipulated messages in ways that reduce their exposure to disinformation.

5.2 Theorizing disinformation as social phenomenon, participatory cultural and technopolitical manifestation

Contemporary disinformation phenomena "emerged in a context in which emotions are considered a pivotal factor in persuasive political communication" (Toma, 2021, p. 6). The visual

imaginary that underpins mainstream and digital media supports a more individualized coverage of politics. Politicians that are personable and charismatic are the key characters in this spectacle of political discourse. Voters in this process are reduced to spectators rather than participants due to emotions as opposed to critical thinking or practical considerations (Garry, 2013). Visual and interactive media appeal to powerful themes that have an emotional impact on the viewer and can gain political capital (Toma, 2021.

Therefore, disinformation appeared in a setting where politics and policy are not connected. One of the pillars on which political power is dispersed in today's society is emotion rather than objective principles (Rochlin, 2017). The actual information ecology presents certain difficulties when it comes to choosing and spotting altered content. As digital media has altered what constitutes proof, expert opinions are becoming less credible and authoritative. The "facticity of statements that are" disassociated from underlying realities is the cornerstone of the rhetoric that developed in a post-truth world (Toma, 2021). Political platforms that play on people's anxieties and emotions have much more power than those that are based on grandiose government initiatives (Bakir & McStay, 2018). Furthermore, in a world where the political game is played with new rules and tactics, the ideological groups across these spectra are no longer useful for describing political orientations.

These developments might also be interpreted a global conjuncture of digital politics. However, there is need to ask how digitally enabled disinformation campaigns “come about in the wake of liberal euphoria around Internet-enabled participatory equity/politics? How did such a conjuncture emerge when optimistic predictions about” the liberation force of the Internet had buoyed a mood of hope and development? (Udupa, Gagliardone, & Hervik, 2021, p. 2)

Emerging scholarship “demonstrate that media practices cohering around the global” conjecture of disinformation “are powered by digital affordances of archiving, tracing, providing evidence and formats” (Udupa, Gagliardone, & Hervik, 2021, p. 14) of communities and incentives for participating in coordinated inauthentic behaviours. These affordances are the prerequisite for all digital mediation, even if they cannot be separated as technological entities (Manovich, 2001). Instead of being understood in terms of technological determinism or cultural imperialism—both models that are currently vigorously contested by critics of global culture—the resonance of digital features on a global scale is best understood as a shared set of practices made possible by the transnational circulation of tropes, formats, and discursive resources.

Connecting with Udupa, Gagliardone, and Hervik (2021), I contend that it is important to critically examine the creation, dissemination, and consumption of digital disinformation as a social phenomena, technopolitical expression, and participatory culture. My thinking in this research operates in the space of disinformation but it is not just that disinformation is information disorder. It resonates within other areas like hate/extreme speech and is therefore developed in conversation with such related debates.

By approaching it as a social phenomenon, I recognize that disinformation “cocreates relations of belonging and unbelonging. As such, it is embedded in a broader set of social practices

cohering around Internet media" (Udupa, Gagliardone, & Hervik, 2021, p. 2). It is "widespread across social and cultural contexts, with digital technologies contributing to the rapid dissemination of misleading content in public spaces." As a social phenomenon, "it has impact on social order: misleading information influences voting behaviour, causes social movements, imposes issues on political agenda, changes public perception and ultimately changes reality" (Udupa, Gagliardone, & Hervik, 2021, p. 2). It is a communal achievement that comes about as a result of multiple collective processes and practices, including not only the creation of false information but also its dissemination, consumption, and acceptance by the public. Political actors (be it domestic or foreign) alone cannot amplify the messages without the coordinated actions and technical artefacts that enable its spread. Disinformation is influential because voters rely on it to make voting decisions during elections. From this lens, disinformation is a social reality since it has a negative impact on how people see politics and democracy.

Technopolitical manifestation draws attention to the ways in which political and market power move through technology and the materialities of the Internet to shape and express political action. Technopolitics is described by Edwards and Hecht (2010, p. 1) as "hybrids of technical systems and political behaviors that develop new kinds of power and agency." This definition is helpful because it places a strong emphasis on power and agency, which means that it encompasses both what is done to humans and what they are capable of doing in response. The main challenge is how to theorize this great transformation in a way that distinguishes between politics that limit politics to the cyberspace itself, keeping a narrow focus on the politics of the technology of the Internet, and those that use digital technologies tactically and strategically to promote specific political goals and struggles.

In Hughes' definition (2006, p. 285), "human enhancement technologies" are specifically linked to technopolitics, and this definition projects these new technologies in connection to "changing conceptions of citizenship, rights, and the polity." Therefore, technopolitics considers that technical development and the resulting political power contingency are of utmost importance. Political actors take new technology and employ them as what they view as political instruments on these contested terrains (Kurban et al., 2017). A technopolitical map needs to look at collective and social issues pertaining to the logic of ownership and distribution of data, information, and knowledge, rather than just the physiology, psychology, and behavioural science of the individual in relation to cognitive efficiency and economic productivity. In this defence, the functioning of democracy and public news are highlighted and serve as a foundation for theories on the preservation of the public domain. A new level of interconnectedness and openness that is ripe for control and manipulation is represented by digital technology's non-territoriality in terms of networks and omnipresent lines of influence.

Disinformation is not just theoretical; it is also, and this is more serious, political. Political actors that are under pressure to "do something about falsity" utilize the term "fake news," sometimes using physical force against disagreeing voices, closing off the ambivalence regarding disinformation both historically and currently (Pohjonen, 2019). Ahead of the 2019 general elections, despite misusing propaganda to quash dissent or target opponents, the Nigerian government launched a campaign against fake news, which according to the Minister of

Information and Culture, Lai Mohammed, was meant "to sensitise all Nigerians on the dangers posed to the peace and security, and indeed the corporate existence of Nigeria by the phenomenon, and the fact that each and every Nigerian has a role to play in curtailing the spread of fake news"[76].

By emphasizing participatory culture, in light of broader cultural conflicts over the definitions of political engagement, I highlight situated creative cultures of customized media use. The concept of participation is naturally concerned with justice and power, as seen by discussions of full and partial engagement in democracy and contrasts between "false" and "genuine" or "channelled" and "autonomous" participation (Udupa, Gagliardone, & Hervik, 2021). Banaji (2008, 2018) and Schlosberg (2003) nuance the connections between power and participation by delineating the complex ways in which defining the 'common good' in inclusive or exclusive ways can lead to mass participation in networked disinformation. Drawing on the case of Nigeria, where non-state actors (domestic and foreign) claimed the mantel of civic organizations with covert backing from the ruling All Progressives Congress (APC), it was possible for the party to seize power from the Peoples Democratic Party (PDP) in 2015 through a combination of populist rhetoric, propaganda, and ostensibly democratic elections. Sidestepping such cautions about the quality of participation and its connections to power, authors such as Benkler (2006), Bruns (2007), Jenkins (2006; 2018) valorise the role of collaboration, co-creation of media content, sharing, remixing, and prod-usage in initiating participatory culture and civic participation.

Any discussion of creative participation online must also tackle the vexed concept of culture. In discussing this, I like to refer to Williams' (1983) formulation of its broader meaning as "a particular way of life, whether of a people, a period, a group, or humanity in general" (p. 90). Williams (1983) continues by saying that we must think of "culture" as a system of both material production and symbolic meaning. "Culture" and the meanings that are attached to it are shaped by the forces of political and economic power (Schudson, 1989), but they are also productive and influence or produce forms of power. Therefore, the networks of political economy, social capital, and neoliberal modes of production that Fuchs and others (Banaji & Buckingham, 2013; Couldry, 2015; Terranova, 2010) identified as being equally important to new and emerging media are frequently delinked from the involvement of users and audiences in the creation of culture and content (Fuchs, 2014b). A major corpus of research in this field views digital platforms as key centres for participatory culture with little concern for socioeconomic class (Jenkins, 2006). According to this perspective, participatory actions like the spread of disinformation by Twitter users and its production facilitate transcultural organizing, mobilizing, distributing, and networking, which in turn promotes civic involvement. Pre-existing political mobilizations and confluences are enablers of participation of paid influencers and trolls in many contexts. Although politicized uses of digital media cut across continents, low Internet quality and lack of access means that participation would not be of the same scale across the globe. Users might end up channelling their involvement through 'brokers' such as micro/macro-influencers. A populist president may be elected as a result of extensive expertise and experimentation with

[76] https://www.premiumtimesng.com/news/more-news/275846-nigerian-govt-launches-campaign-against-fake-news.html

the pollution of the information ecosystem, as demonstrated by the growing political significance of disinformation operations. Researchers still face a lot of difficulty establishing a direct link between paid trolling by micro-influencers and a disinformation campaign; nonetheless, links between new online forms of engagement and their wider societal effects are starting to become more obvious.

5.3 Democracy and the global framework of 'correctness'

The 2019 general elections exposed the awkwardness and inconsistency of Nigerian elections and once again demonstrated that elections, particularly presidential elections, and their results involve far more than the right to vote and democratic choices made by voters to determine who will lead their country. According to some disclosures, elections in the nation are stage-managed, with results not determined by how voters cast their ballots but rather by manipulation, concoction, and even predetermination. This raises the possibility that elections may be absurd and far different from what they should be. Due to this, some observers came to the long-ago exasperating conclusion that Nigerian electoral results defy (logical) explanations and must be accepted as final (Osaghae, 2020).

Democracy and democratic governance are built around elections. By providing people the right to choose who governs them, they not only provide chances for inclusive involvement but also set the stage for accountability and legitimacy and give popular sovereignty significance. Elections became the cornerstone of democracy, serving as the primary instruments of democratic transition, adoption, and consolidation after the democratization "revolution" that spread neoliberal democracy to numerous nations throughout the world. As rightly argued by Karl (1995, 2000; also Diamond, 1996), "the tendency to focus on elections as the most important aspects of democracy and equate successful" (Osaghae, 2020) elections, especially those in which incumbents lost, with democratic growth, was an exaggeration of the relationship between elections and democracy (Przeworski et al, 1996). However, this did not stop the expansion of viewpoints that saw elections as the core of representative democracy.

Technical concerns with logistics, distribution, and use of electoral materials and technologies, voter education, and registration procedures would typically be on a checklist for elections that entails studying, imitating, and implementing accepted global best practices. Other factors include the efficient use of voter identification cards and card readers, as well as results collation that is transparent and reliable, impartiality of security services, and independence of the election management body. Credible elections are those that perform well on the prescribed metrics. Another conundrum is how the conduct and results of elections powerfully convey the fragility of statehood and of national cohesion, with the nature of elections (peaceful, violent, or disruptive) quickly appearing as a sign of state fragility or failure (Osaghae, 2020).

Such conundrums imply that the fundamental elements of elections go beyond the formal frameworks and processes connected to free and fair elections. Additionally, there are the concrete, arguably more fundamental factors that link elections to state politics and societal structure. These are a part of the less evident and informal engagement spaces that extend

beyond elections and include frantic and covert behind-the-scenes actions that involve activities like disinformation campaigns that mostly undermine formal structures and processes.

Elections may therefore be held in accordance with the essential template requirements while still having flaws and problems, indicating that while the regulatory and 'technical' aspects of elections may be significant, they are frequently not the primary determinants of their flaws, outcomes, and consequences. For these, we must take into account the complex social, historical, and economic factors that are inherent in the "fat" understanding of the relationship between elections and democracy. For example, ideological interests represented by political parties and candidates in most African states are key variables that shape electoral calculations, but they are underplayed by the focus on ICT tools and other technicalities like inauthentic online behaviours and disinformation.

Flawed democracy often associated with periphery nations has become a phenomenon in the Euro-American centre. Similar to South Africa's Guptabots or Uganda's fake SevoLution (Knight, 2021)[77] accounts and Nigeria's disinformation-for-hire influencers, the strategy by governments, interest groups, and regimes in the United States, Germany, Great Britain, Russia, and Ukraine to use digital propaganda to spread political agenda and push online armies – both real and fake – to attack their opponents showed that the centre is not insulated to activities that undermine formal structures and democratic processes.

It is in the light of these concepts that I will approach empirical data in ways that allow me develop a more nuanced and critical understanding of relationship between technology and democracy. There was the idea of presenting disinformation as a form of participation with its own characteristics which distances itself from the idea of the informed citizen that will use information to come after power. That is how I am going to use this concept to analyze the data. As such, I see the 2019 election not as a test for democracy but an instance in a long trajectory of example of power, trying to regain or keep control, and this army of influencers not necessarily as evil individual but this complicated communities that are not paid but they move between ethnic legions, belief in some forms of change, economic opportunities. So when I describe the paid influencers they wouldn't be pinned as the evil that is corrupting the institution of election but as part of a complex network of power giving and taking. These are the lenses through which I will read the data, both conceptual and normative.

[77] A group of accounts that regularly retweeted Museveni and his proponents during the 2021 presidential election. They used quotes that contained the hashtags #SecuringYourFuture and #SevoLution. "Securing Your Future" was Museveni's campaign motto, while "Sevo" is a nickname for the president. The accounts were some of the first to retweet Museveni's tweets, and often included the same text and hashtags when quoting his tweets.

CHAPTER 6

DATA AND METHODOLOGICAL APPROACH

6.1 Introduction

This section provides an overview of the research approach adopted in this study and its justification. It discusses the research philosophy upon which the study was framed, procedure, tools, and dataset in conformity with relevant ethical standards. The section also describes the methods adopted for analysing all datasets.

6.2 Research Design

This study adopted a mixed-method research approach (Creswell & Creswell, 2017). It combined in-depth interviews, observation (see Biemann et al., 2014) with computational analysis of publicly available datasets from Twitter. A mixed-method approach is characterized by the combination of at least one qualitative and one quantitative research component (Schoonenboom & Johnson, 2017). It uses quantitative and qualitative research methods, “either concurrently (i.e., independent of each other) or sequentially (e.g., findings from one approach inform the other), to understand a phenomenon of interest” (Johnson et al., 2007, p. 123). In this specific case, this research used computational method, interviews and digital ethnography to collect data about spread of online disinformation in Nigeria.

Mixed-method research can lead to a higher degree of objectivity (Schoonenboom, 2018) and provide informative, complete, balanced, and useful research results (Johnson et al., 2007). One essential aspect of mixed-method research, referred to as "integration," is the merging of results that have been obtained utilizing various research approaches or methods (Bazeley, 2012; Bazeley & Kemp, 2012; Fetters et al., 2013; Maxwell et al., 2015; O’Cathain et al., 2010). Integration is any point in a study where two or more research components are mixed or connected in some way (Guest, 2013). Quantitative and qualitative methods are combined in this research for three reasons (Johnson et al., 2007): to enable confirmation or corroboration of both methods through triangulation; to enable or to develop analysis in order to provide richer data on production and spread of digital disinformation; and to initiate new modes of thinking by attending to paradoxes that emerge from the two data sources. “Three outcomes may arise from this triangulation: convergence, inconsistency, and contradiction” (Denzin, 1978). Whichever of these outcomes prevails, the researcher can construct superior explanations of disinformation activities on digital media and the normative assumptions that have clouded the study of Internet technology, social media manipulation and digital politics and democracy within the African continent.

This study utilized sequential design (Morse, 1991; Schoonenboom & Johnson, 2017; Guest, 2013, Creswell & Plano Clark, 2011) where the data collected, and results of the computational data (mined tweets) were necessary for planning the interview and digital ethnography. Essentially, the tweets were used to map sources, layers, and perpetrators of disinformation. I first ran the Leiden Modularity Algorithm for community detection and then generated an interaction map to identify patterns and anomalies in the Twitter dataset. These were used as

'entry points' for more in-depth investigation of the data using qualitative approaches, expanding upon methods developed for the investigation of online disinformation in the context of elections (Ong & Cabanes, 2018; Starbird et al., 2015; Maddock et al., 2015) and the motivation of sockpuppets. Sockpuppets can be described as fake identities that malicious individuals use to deceive other people online. Sometimes referred to as trolls, a sockpuppet conceals the real-world identity of the human being controlling a fake account. A single puppet master can simultaneously manage five, ten, twenty, or more multiple identities depending on their motivation, aptitude, and available technology. When used by nefarious propagandists, they can be especially potent[78].

Mixed-method research can be effective at the research design, data collection, and data analysis stages in a research (Sieber, 1973; Johnson et al., 2007). In the context of this research, the interview questions, offline observation and selection of research participants relied upon the analysis of the tweets. Similarly, at the design stage, the qualitative tools helped with the conceptual and instrument development of the Twitter dataset. At the data collection stage, the tweets provided baseline information that helped to avoid "elite bias" (i.e., talking only to politicians and social media influencers) in the interviews and offline observation (Johnson et al., 2007).

On the data analysis end, the Twitter dataset facilitated assessment of generalizability of the qualitative data, giving room for a more nuanced interpretation of the findings. Furthermore, the qualitative data was useful in interpreting, clarifying, describing, and validating the quantitative results through grounding and modifying. This quantitatively driven mixed-method research took into perspective the clarification of assumptions attributed to the socio-economic roles of the Internet, varying degrees of Twitter use during elections, contextual debates of social media analysis, predictive capabilities of social media, political participation and apathy, and the ecosystem of disinformation in Nigeria. Similar studies acknowledged that qualitative study represents a "fruitful research and powerful means of obtaining insights, and making recommendations" (Yin, 2011, p. 7; Oates, 2005). This approach gave me a real-life situation experience while I explored the impact of technology on production and spread of disinformation and how its politicization affected trust in media and democratic institutions.

6.3 Why use computational tools for Social media analysis?

The ability of everyone to share information on the web, and to participate in networks that structure this information, are two key concepts of social media (Hegelich, 2017). Kaplan and Haenlein (2010) defined social media more precisely and suggested a differentiation between Web 2.0 as the platform for the evolution of social media and the different practices social media resulted in. From a data-science point of view, social media is extremely interesting as well as challenging because the interaction of multiple users creates big data with the three characteristics described by Mayer-Schönberger and Cukier (2013): *more, messy, good enough*. Twitter, for example, had 330 million monthly active users in the last quarter of 2019 (Ataman & Özgüner, 2021). However, data from social media is not nicely organized but messy: there are

[78] https://www.theguardian.com/books/2012/sep/04/sock-puppetry-publish-be-damned

hardly any rules about what kind of content is distributed by the users. Besides, data is not limited to the provided content: the network structure itself is a rich source of additional information that can be analysed on multiple levels. Finally, there is the idea that social media data can tell us a lot about real world phenomena outside the virtual realm. Many promises of predictive analytics may have overestimated the possibility to extrapolate from social media data (Ruths & Pfeffer, 2014). Nevertheless, it remains fascinating to combine social media analysis with additional data from 'the real world' (Hegelich, 2017) since people use Twitter to communicate about what is going on in their real lives. It is this complex nature of social media analysis that makes it a suitable environment for the application of computational tools like RStudio and *python*. Furthermore, *python and RStudio* provide fast-track access to Twitter API (Janetzko, 2017) and have the tools needed for text-mining, graph analysis and data manipulation useful to this study.

Features of this type of analysis offered new ways of understanding the nature of networks. It was useful in this research in showing the nature of interactions in each cluster based on how connected the nodes and weighted the edges were. We can better understand the channels and spread of political disinformation on Twitter by analysing cluster features and the networks in which they were embedded. Sadri et al (2020) also demonstrated how this method allows for the study of network structures, relationship features of networks, patterns of user communication, the activity of different network actors, and community detection. It is a typical tool helpful for investigating and visualizing nodes (political actors in this case) connected by a particular set of relationships. An analysis of nodal links "provides important individual & network-level metrics (such as number of nodes/links, density, degrees, diameter, strongly/weakly connected components, etc.) which enable us to draw further qualitative and quantitative interpretations" (Badmus, 2020).

Data science is not distinct from statistics. Statisticians survey data in a very careful way to come up with representative samples. Social media data on the other hand is not structured. It is just there somewhere on the Internet and the data have to be on a computer and transformed in a way suitable for an analysis. To achieve this, *tweepy* (a package in Python that provides various functions to link APIs to a request data) was used to mine the required data from Twitter's API (Burghardt, 2015). The cleaned data was used to generate an interaction network, analysing the role of human actors and technical artefacts in Nigerian politics and the digital spread of disinformation around the 2019 presidential election.

The Search API, which is part of Twitter's API, was used to mine tweets that matched a specified criterion (Burghardt, 2015) (keywords and hashtags related to the 2019 Nigerian presidential election). This API facilitates a pull-type of delivery of tweet data from defined endpoints related to timelines, tweets and search (Janetzko, 2017). It is important to state that Search Endpoint provides a broad offering of query operators for hashtags, persons, text, and makes a specific search among tweets possible. The sample tweets retrieved were used to answer some of the study's research questions.

6.4 Data collection

The data for this research was collected in two phases. The first phase involved scraping tweets from Twitter's REST API (see Pfeffer et al., 2018).

6.4.1 Overview of Twitter dataset

This research was centred around a Twitter dataset of English-language tweets about the Nigerian presidential election of February 23, 2019. Predominantly Nigerians tweet in English, with the inclusion of local words. Other languages represent less than 10% of the tweets, and are mostly insertions. The fact that the tweets are in English does not prevent me from capturing certain uses of other local languages. Each of the analyses presented in this thesis used a subset of this data, which vary in scope and measurement metrics. Table 2.1 provides a summary of the dataset. In the following section I describe how the Twitter data was collected and processed before discussing some limitations of the approach.

I created a search query made up of relevant hashtags and phrases. Tweets containing these hashtags and phrases were downloaded into a dataset: "Fake news", "corruption", "boko haram", "terrorism", "independent national electoral commission", "INEC", "INEC server", "smart card reader", "permanent voters card", "PVC", "electronic voters register", "third force", "coalition", "propaganda", "card reader failure", "trader moni", "Buhari", "herdsmen" "BuhariMustGo", "#NigeriaDecides2019", "NigeriaDecides", "#LetsGetNigeriaWorkingAgain", "#Atiku2019", "#Atikulated", "#PDP2019", "#AtikuObi2019", "NeverAgain", "#Buhari2019", "atiku is a thief", "atiku is corrupt", "#BuhariOsinbajo2019", "#APC2019", '#NextLevel', "Atiku Abubakar", "pdpnigeria", "peterobi", "Muhammadu Buhari", "apcnigeria", "Yemi Osinbajo", "dubai strategy", "Buhari is a clone", "BMC", "Jubril from sudan", #JubrilFromSudan".

These hashtags and search terms were chosen because they allowed the research to delimit an event-specific sample for Nigeria, which is normally challenging given the broad nature of Twitter conversations.

Considering that one of this study's aim is to contribute to research emerging from Africa on the networks of disinformation and digital political campaign through an analysis of connections between human and non-human actors in political campaigns, the analysis focused on the tweets and selected nodes. "Selecting tweets on the basis of hashtags has the advantage of capturing the content most likely to be about the important political event" (Howard et al., 2016). The streaming API produces tweets that contain "tweets which contain the (1) keyword or the hashtag; (2) tweets with links to web sources, such as news articles, where the URL or title of the web source includes the keyword or hashtag; (3) retweets that include a message's original text where the keyword or hashtag is used either in the retweet or in the original tweet;; and (4) mentions (or quote tweet) where the original text is not included but Twitter uses a URL to refer to the original tweet" (Howard et al., 2016). The mined tweets (Morstatter et al., 2013; Pfeffer et al., 2018) and the dataset workflow comprised of four stages: data scraping, data cleaning, pre-processing and output visualization, and analysis.

i. Data scraping: **By querying the Twitter Search API at an interval of 60 seconds, continuously** and without interruptions between October 1, 2018 and March 31, 2019 (183 days), I collected a dataset containing 3,950,169 tweets on the February 23, 2019 election. The months chosen

covered the peak periods of the campaigns, election day and post-election. All tweets were collected for academic purpose using the python module *tweepy* connecting to the Twitter API. Using the search API ensured that only tweets that contained the search query words were returned (Morstatter et al., 2013), rather than a sample of unfiltered tweets. Table 1 shows an aggregate statistic of the dataset. The data collection infrastructure ran inside a JSON script to ensure resilience and scalability and converted to Comma Separated Version (CSV) files using python. All tweets collected were those already in the public domain. Private accounts[79] and deleted tweets were excluded from the dataset and thus did not feature in the analysis.

Table 1 Statistics of tweets collected

Data collection period	Total tweets	Isolated Tweets	Retweets	Mentions
1 Oct 2018 – 31 Mar 2019	3,950,169	3,316,019	3,002,997	1,411,190

ii. Data cleaning: This was an important step to reduce the noise in the dataset (Malley et al., 2016). Duplicate user ids, hashtags, punctuations, tweets, retweet entities, upper to lower case conversion, hyperlinks, numbers, stopwords, emojis, empty spaces, special and repeated characters in a text and HTML Twitter handles were removed from the dataset.

iii. Data pre-processing and visualisation: This included tokenization, word stemming and part of speech tagging. The common hashtags used were visualized after being pre-processed (Grolemund, 2016). Here, keywords and hashtags that identified disinformation were filtered through word-tagging. I loaded the pre-processed csv file into Gephi and ran the Louvain Modularity Algorithm for community detection. This helped me generate an interaction map of the overall conversations on the election debate by different communities on Twitter. The visualizations are presented in relevant chapters and sections of this thesis.

iv. Tweet analytics engine: Analytics engine Python, RStudio, and Gephi were employed to detect coordinated inauthentic behaviour and perform a network analysis of the communities that featured in the interaction map. Using these tools, I was able to identify perpetrators of disinformation, patterns of behaviour and analyse how platform affordances were used to amplify the spread of disinformation during the presidential campaigns.

6.4.2 Twitter account coding

To protect and respect the anonymity of users whose involvement in disinformation-for-hire industry may put their safety at risk if made public, I anonymized all account names in this study, with the exception of media outlets (e.g., Premium Times, Radio Biafra, Channels Television, Sahara Reporters, TVC News, The Cable, Vanguard Newspaper) and public figures (politicians, personal assistants, social media aides, party spokespersons, directors of strategic

[79] Accounts whose tweets are only visible to their followers. Followers of such accounts are not able to use the retweet button or retweet with comment. The tweets are protected and do not appear in third-party search engines (like Google search) and are searchable on Twitter by only the owner and followers. More at https://help.twitter.com/en/safety-and-security/public-and-protected-tweets

communications for campaign organization). In lieu of account names, I have used account types to characterize the accounts, providing insight into the types of accounts that were involved in Nigeria's disinformation ecosystem. Due to their influence and significance within the information space, accounts that ranked high in the retweets network were assigned a pseudo handle denoting their position within the clusters. For other non-media organization accounts, the account type based upon their classification is provided for context. Some tweets have been paraphrased in ways that maintain the core meaning but prevent from easily identifying tweets through reverse searches.

6.4.3. Interview and observation

In the second phase of data collection, I interviewed (semi-structured) participants drawn from the computational data. Some of the accounts were also observed online.

The interviews sought to describe and understand the meaning of what interviewees said (Kvale, 1996). It was particularly a useful approach in getting the story behind a participant's experiences (Roulston, 2010). The interviews were conducted virtually via Zoom – a video conferencing platform - and WhatsApp. Poor internet connection necessitated the use of voice call (recorded) for some interviews. All Zoom-conducted interviews were audio recorded, with the consent of all participants. This was to validate the identity of each participant.

Two participants (one digital media consultant and one social media influencer) requested to email a written response to the questions. The initial face-to-face plan was redesigned due to the impact of the coronavirus (COVID-19) outbreak on such field exercise. All interviews held between March 2020 and September 2020.

Relying on snowball sampling technique (Van Meter, 1990; Goodman, 1961; Handcock & Gile, 2011), participants were selected based on technical and professional skills, and public participation in the 2019 presidential election campaigns on digital media. They were categorized into four groups:

- Group A: Digital media campaign consultants
- Group B: Social media influencers
- Group C: Individuals from organizations that monitored the campaign on social media
- Group D: Political party representatives

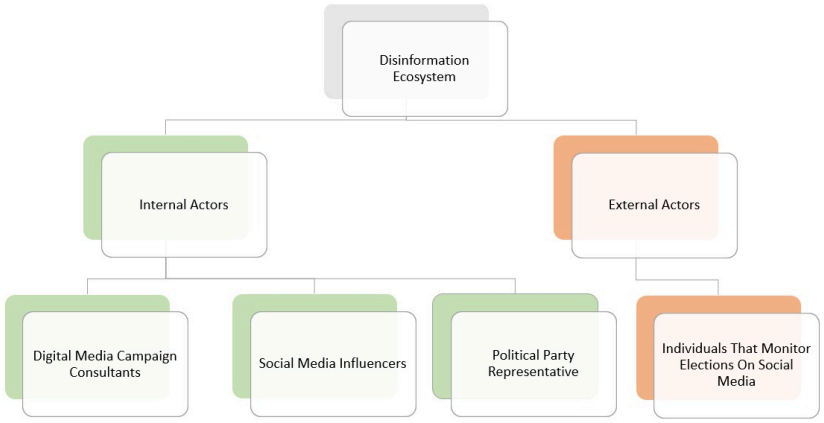


Figure 5: Diagram showing research participants

All participants were above 18 years and featured in the top 10 communities in the dataset. Relying on this technique, participants were requested to recommend other contacts who were conversant with the intersection of social media and politics in Nigeria and willing to participate in the research (Parker et al., 2019). This increased the number of participants to 28, from an initial 14. A unique taxonomy was developed and assigned to each interviewee according to the group they belonged. In the group, each interviewee is assigned a unique number that it carries through the thesis. On first usage, an interviewee is presented with their unique identifier and a brief description that provides context. Subsequently, interviewees are presented with just their unique identifiers, e.g., A1 or B5 or C2 or D3.

The top ten influencers identified in the interaction network map are not included in the final report. The list consisted of politicians like the President, Vice President, former Vice President, former Senate President, and social media aides to the President. After months of failed attempts to reach them, I resorted to contacting a different set of stakeholders, who possessed requisite knowledge relevant to the objectives of the study. During the interviews, I posed questions that probed the structure of disinformation factories, role of social media in the 2019 presidential election, and the type of communication strategy deployed by politicians (mainly from the All Progressives Congress (APC) and Peoples Democratic Party (PDP)), their agents and consultants in their digital media campaigns.

The interviews were supplemented with data from observation of selected accounts. The goal was to fill in missing pieces on the participatory activities that interviewees may have intentionally withheld or obscured during the interview exercise. Observation helped with understanding the dynamics that occurred in clusters and communities where accounts of interest featured. It formed a basis to compare interview responses with actual posts from digital footprints.

6.4.4 Interview coding

The interviews were conducted between March and September 2020. The strategy adopted here resonates with similar protocol adopted by other researchers like Ong and Cabanes (2018; 2019),

Madrid-Morales et al (2021), Wasserman and Madrid-Morales (2019), Wasserman (2022), Baldassaro (2019), and Tully et al (2021).

The process of generating qualitative data through in-depth interviews was not seamless despite efforts to familiarise with them and build confidence. Data generated was transcribed manually. Transcription is the process whereby recordings of research conversations (interviews) are turned into textual material which can then become the primary data for subsequent analysis (Flick, 2018). The recordings from Zoom were played back slowly and repeatedly until all words were captured, including fillers and repetitions. It is worth noting that words were not filtered at this level. After transcribing, the next stage was to re-familiarize with the data. According to Jwan and Ong'ondo (2011), re-familiarizing with the data involves "reading each transcript...for the purpose of forming a general idea of what the data is saying as well as the researcher's initial thoughts (interpretations) regarding the data" (p.109). At this stage, the transcriptions were all read and notes made.

Owing to the sensitive nature of influence operations and high stakes of elections, some participants requested to withdraw consent. Their wishes were respected in line with the ethical provision of this research. A few others, mid-way into the interview, requested to continue at a later date but follow-up calls, emails and instant messages were never returned. Their responses were excluded from the analysis for being incomplete. Two interviewees requested to email me a written response to the questions. One other answered the questions via voice notes sent on WhatsApp. The digital media consultant group was most difficult. They repeatedly passed me from one aide or assistant to another until I had to make a decision to exclude them.

In total, I conducted 28 virtual interviews and these were recorded and transcribed. Because of the networked nature of the disinformation-for-hire industry, I observed from the transcripts repetition of same points by different participants, just in different expressions. As a result, quotations that best captured the information were used in relevant portions of the analysis. Original names, location and any other identifiers were anonymized. The interviewees were coded using single alphabets – Interviewee A, Interviewee H, etc.

6.5 Methods of data analysis

There is no single procedure, no clear and acceptable agreement for analysing qualitative data (Yin, 2011; Saunders et al., 2007; Bryman, 2004). However, Yin (2011, p. 176) contends that most qualitative analysis (regardless of the particular qualitative orientation) "involve compilation of data, disassembling procedure, reassembling, interpreting and concluding (which means developing schemes to create well-grounded conclusions)." Oates (2005, p. 267) suggests further that "qualitative data analysis involves extracting from the research data, the verbal, visual or aural themes and patterns" important to the research topic. The goal of the analysis is to draw conclusions from the data collected and interpreted. In this study, I organized and categorized responses from the interviews into patterns that translated into themes (see Braun & Clarke, 2006).

In addition, the interview report was written in descriptive form based on the recorded data and corroborated with online ethnographic data (tweet texts and screen shots). Quotations were

used as excerpts in supporting thematic discussions to establish actuality and attain credibility in the analysis. I acknowledge that a significant portion of an participant's work should not be used in the form of quotations because doing so would compromise the originality of the research. (Gray, 2014). Some screenshots of disinformation-related posts on Twitter will be used to supplement the data. NVivo software was used to generate key terms and organize the data for the researcher's interpretation. Because it lacks the competence to do so, the software cannot take the position of the researcher in their job of data analysis and synthesis (Saldana, 2016, p. 32). Its purpose is to give some background information on the participant-generated data that will be beneficial for the analysis. Consistent with the notion by Sade-Beck (2004), additional information identified from the offline observation were incorporated in the analysis where appropriate. The analysis focused on identifying common and collective responses or differences which were categorized and discussed. A combination of analytical tools from python, RStudio and Gephi were used to statistically analyse, interpret and visualise the tweets. This study uniquely went a step further to add a qualitative analysis of the computational data in order to answer questions that computational tools are incapable of answering - such as 'why human agents participate in the production and spread of disinformation.

Within the context of this study, I used three levels for my analysis: To identify the participants in the conversation and their positions within the networks at the macro level, I employed network representations and community detection. As talks about the election developed, I moved to the meso level using a retweets network and explained how disinformation is packaged to generate narratives. I pinpointed precise behaviours taken by Twitter users while supporting or refuting narratives, or when engaging with others in the same information space, at the micro level. In the pertinent areas of my findings, I go into further depth regarding particular methodologies. These analyses were carried out iteratively, frequently shifting back and forth from one level to another as insights from one influenced new topics to study at another, even though they are presented in separate findings sections.

6.6 Reflecting on data limitations

The fact that social media data can only provide a limited perspective of the larger discourse surrounding the presidential election is a more general limitation of its usage. This discourse is also taking place elsewhere, for example on other websites like Nairaland Forum (https://www.nairaland.com), and other social media platforms (Facebook and WhatsApp), but also a multitude of other on- and offline locations that are not included in this thesis. In other words, the research presented here represents only a subset of the election discourse. Similar to this, Wilson (2021) and Tufekci (2014) remind us that human behaviour is made up of many different facets. Online interactions can have many meanings, some of which may be unclear or incoherent, and there is only so much that can be gleaned from social media data. Other notable restrictions include:

i. What we don't get is unknown to us. The platforms themselves set the rules for and frequently impose restrictions on the collection of social media data. Particularly, there is frequently a lack of openness surrounding the sampling techniques used to give the data, which means we don't always know how the data returned by the API was sampled from the bigger pool of data or what wasn't collected (Olteanu et al., 2019).

ii. We are aware that we do not receive everything: Platforms do not provide users with access to all of their data (Olteanu et al., 2019). While we may know who clicked (or shared or retweeted), Tufekci refers to this as the "missing denominator" because we don't know who saw but chose not to take action (i.e., not to share or retweet). Furthermore, we are not given information about how persons or content have been arranged or promoted, demoted, or elevated, and how that may have influenced online dialogue. Algorithms that rank and filter material on social media platforms can affect user behaviour by deciding what is presented and to whom (Olteanu et al., 2019), a phenomenon known as "algorithmic confounding" (Chaney, Stewart, and Engelhardt, 2018x). The data used in this thesis does not reveal information about how content was arranged or whether it was promoted or demoted, which would have had an impact on how many individuals saw the content because these algorithms are private.

iii. Infrastructure outage: Between October 1 2018 and March 31 2019, an interruption occurred in the collection infrastructure that was built to automatically gather tweets from the Twitter API by “listening” for particular keywords in the query list. The initial interval set at 30 seconds caused the script to timeout, causing some interruptions, which necessitated a modification of the interval time to 60 seconds. As a result, I am unable to explain any Twitter behaviour or content that occurred in this window.

Despite these issues, social media data can offer helpful insights into phenomena that have previously been challenging to study, such as influence operations and disinformation. This is especially true when social media data is examined using an iterative and mixed method approach that values contextualizing digital traces and aims to create richer descriptions.

6.7 Methodological limitations

The methodology I employed for this research has limitations, just like any other methodology. I was able to identify the temporal practices, behaviours, and coordination by collecting digital traces and examining them using a combination of quantitative and qualitative research methodologies. I could follow particular content in addition to the actors. My general perspective of disinformation tactics was, however, constrained by things I could not observe. However, by using computational method and conducting interviews, I was able to develop "thicker" descriptions and obtain a comprehensive understanding of the topic under investigation. For example, my engagement was not limited to the digital traces that were generated through online activities of participants. Since I had access to emic first-person accounts of the agents' intentions and motivations, I was able to gain a "insider's" understanding of the existence of a formal hierarchy or structure that might imply explicit coordination among actors and agents that is not evident through publicly available tweets and metadata.

6.8 Ethical consideration

Using social media log data that is generated as a by-product of online activities poses ethical questions (Breiter & Hepp 2018). Although this research utilized publicly available tweets (public meaning it was published in public channels as opposed to private channels), this does not imply that its usage in research is always ethical or that "participants" gave their explicit agreement to

take part in a study (boyd & Crawford, 2012). To this end, all participants were briefed that the exercise was empathetic and information traceable to individuals would be concealed. Twitter profiles set to private and deleted tweets were excluded from my pool of users and no private information was disclosed in my analysis. Twitter handles of participants examined in this study were anonymized, and pseudo handles used in places where it became necessary to refer to an account. I also considered the potential sensitivity of some of the tweets/posts examined in this study and anonymized the seeding accounts and strategies adopted by sockpuppets and troll armies.

In fact, using social data presents unique difficulties for the use of "informed consent" (boyd & Crawford, 2012). According to Olteanu et al. (2019), a crucial ethical standard is on the evaluation of benefits and minimal harm, or how helpful and not malicious the research is. To address this, the Human Research Ethics Committee (Non-Medical) at the University of the Witwatersrand received a protocol that was presented and evaluated as acceptable before being utilized in this thesis. Copies of the ethical clearance certificate, Participant Information Sheet, and Consent Form are attached as appendices.

The analyses presented in this thesis were not written with the intent to hold the participants' behaviour up to moral scrutiny or to pretend to be an intelligence operative in order to uncover such activities and implicate specific politicians.

CHAPTER 7

NODAL INFLUENCE, INTERACTION NETWORKS AND PLATFORM ENGAGEMENT

7.1 Introduction

The expectation of a heated political competition is to have two or more opposite distinct communities sit on opposing camps who don't talk to one another. But actually, the data shows something else: the presidential candidates are tied in the same community rather than be at the centre of two separate and distinct communities. In this chapter I will illustrate the diversity of communities and how they interact and contribute to election-disinformation spread on Twitter.

The data shows a mixture of communities of supporters both taking the place of the two candidates and speaking against each other, on behalf of the candidates. Communities are created when people talk to each other a lot (normally because they agree) but sometimes they debate and are pulled into the same community. "The idea behind most community detection algorithms is that they look for regions of the" network and "areas of relative density" where a group of accounts "interact with each other more than with other groups" (Findlay & Janse van Rensburg, 2018, p. 10). Another reason is that sometimes it's one community that is mentioning both presidential candidates a lot, and if the candidates do not respond, their names get stuck in that community.

The make-up of supporters is such that they are more influenced by ethnic and religious affiliations to pitch camps with candidates, less so by ideologies. Aside party appellation, the two major presidential candidates share same characteristic of Muslim-north which influenced the theme of debates. The campaigns were dominated by personality attacks and smear campaigns about ethnic/national identity. Some sections of Buhari's supporters claimed Atiku is not Nigerian; some Atiku's supporters accused Buhari of being a cloned Jubril from Sudan or having Chadian heritage. There was the debate about Atiku's secularity (not being "Muslim enough"). These debates and targeted attacks, coupled with the minimal reaction (if any) from the candidates meant they were only being talked about a lot but never leading a discussion or participating in the conversation.

Politics in Nigeria is often riddled with violence, fraud, and "tribalism." Whenever politicians lack "much in the way of real political program, rival parties and politicians fall back upon ethnic identity as the most reliable way of mobilizing electoral support" (Adebanwi & Obadare, 2013). It in turn breeds a kind of political polarization around ethnic identity that is not socially constructed and cynically mobilised with destructive consequences. In this chapter I illustrate the diversity of nodes and communities and how they interact and contribute to election-disinformation spread on Twitter. This illustration will be done under three dimensions: influencers, hashtags, and media partisanship.

A network analysis approach is used to unpack insights into hidden networks and communities that drove disinformation online and address the main research question as well as sub-questions

one and three. This is useful to identifying who is saying what, how they are tied to other users or communities which can lead to an exposure of coordination and inauthentic behaviours. It is relevant to understanding the motivations and strategies of paid influencers and campaigns, broadly explained within the framework of the A-B-C approach (harmful content, manipulative actors, and deceptive behaviour) (Giglietto et al., 2021).

This chapter analyses, in depth, the clusters (combining a mixture of quantitative and qualitative techniques) and is further articulated in the chapter that follows. I am going to describe the activities of the clusters using three emerging dynamics: communities, influencers, and hashtags. Each chapter provides a specific level of analysis focused on the exploration of the network map, the analysis of most ranked coordinated communities, the accounts involved and the content circulated.

7.2 Communities and interaction networks

In spite of the fact that there are multiple distinct communities visible in the data, the interaction network of the 2019 Nigerian presidential election (see Figure 1) exhibits many dense linkages between nodes (users) suggesting the density of talks between users across the communities. The colour of a node is used to indicate community membership. Coloured regions of the map represent groups of nodes clustered into a distinct community generated through application of Louvain Modularity detection algorithm (Blondel et al., 2008) in Gephi. Based on the amount of interactions a person had with other users (i.e., how frequently they inspired others to take action through @mentions and retweets), the node size is used to measure how influential they were. The community a node belongs to determines its colour. A single community is represented by a region with a single colour. The most important accounts and the different communities that make up the debate may therefore be observed quickly. To enhance reading and proper identification of the community being described, all visualizations of the communities are presented in full colour.

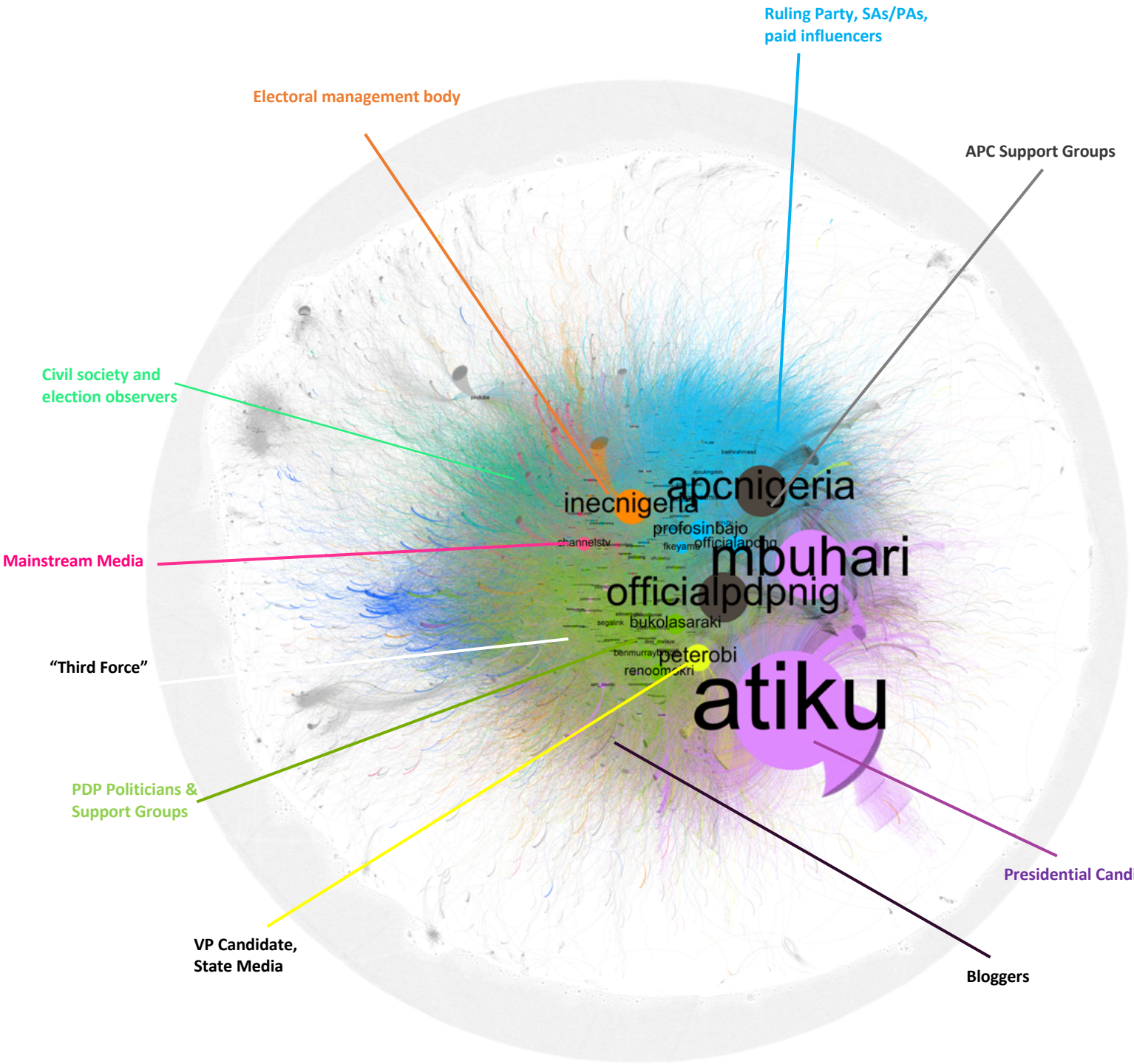


Figure 6: Overall interaction network map between nodes[80]

[80] The map exhibits many dense connections between nodes (users) pointing toward the density of conversations between users across the board even though several clear communities are apparent in the data.

Communities are centred around well-known Twitter accounts and are defined by the accounts that dominated conversations. Communities that are close together and overlap each other tend to interact more (Gagliardone et al., 2021).

In this section, the top communities (see figure 6) that emerged in the conversations around the 2019 Nigerian presidential election are profiled:
At the centre of the interaction map:

1. Official PDP accounts including the party handle, then-Senate President, politicians, lawmakers, presidential candidate's campaign spokesman, and partisan influencers
2. "Third Force" politicians including Omoyele Sowore, Oby Ezekwesili, Kingsley Moghalu and Donald Duke
3. Bloggers
4. Civil society organizations such as Situation Room and CDD (they also acted as election observers) and online media such as Premium Times, The Cable, and Sahara Reporters
5. State broadcaster, Nigerian Television Authority (NTA), PDP Vice Presidential candidate, and media debate anchor

What determines if a group/node is in the centre? Is it the number of tweets and or engagements? This is determined in a holistic manner: the more connected an account is (number of engagements) the more it would tend to the centre. However, the more connected to a wide distribution of other accounts pushes it to the middle, being highly connected to a concentrated group of accounts would push it to the side. Thus, the happy coincidence that middle/centre maps to the political concept of middle/centre.

Toward the outer right edges of the interaction map:

6. Incumbent President Buhari and major challenger, Atiku Abubakar
7. APC support groups - local and in diaspora
8. Official APC account, Vice President, social media aides to President Buhari, paid influencers, APC Governors, Director of Strategic Communication, Buhari Campaign Organization

Toward the outer left edges of the interaction map:

9. Nigeria's electoral commission, INEC
10. Mainstream media including Channels TV, Punch Newspaper, TVCNews Nigeria,

A slice of the interaction map is discussed in the next section, with deeper exploration of the communities.

One key point from the data is the influence of historical polarization, a prebendal and ethno-religious political system that is characteristic of Nigerian politics (Adebanwi & Obadare, 2013). It associates this with three political blocs: the APC bloc to the top right of the map, the PDP bloc at the bottom right and the Electoral Commission and news organizations to the top left. There is a fourth emerging bloc, a political unit with populist-like ideology that is fighting to break the

duopoly of PDP and APC. Occupying a less prominent position in the map, their ideological influence on political debates and citizens is on the rise in the country.

7.3 Cluster analysis

The volume and messiness of social media data so overwhelm us that we can't see the wood for the trees (Findlay & Janse van Rensburg, 2018). By mapping a topic such as Nigeria's 2019 presidential election using this methodology, this study demonstrated that key conversations are tractable. It shows how the method is useful in identifying specific constituencies and their concerns, so that political parties can more effectively surface hot-button disinformation campaigns and address them (or simply take cognizance of them) in the future. While Twitter is not representative of what really matters for people to make sense of an election, it's use in this thesis is within the understanding that certain arguments need unpacking and space here is limited. To flesh out the agenda within each community, I share insights such as descriptions of the main communities of interest that discussed the presidential election, the content of their discussions, media partisanship, and some of the influencers driving the conversations. The results should provide a better understanding of the actors involved in Nigeria's digital political landscape at the time of the election, their motivation, messaging strategy, and structure of disinformation factory.

S/N ▲	Community Label	Tweets	% Tweets	Nodes	Isolated	Mentions	Retweets	Top Influencers
1	PDP Politicians & Support Groups	648,947	16.4%	17,690	481,027	275,493	806,251	@bukolasaraki @renoomokri @benmurraybruce @segalink @youthsforatiku
2	Ruling Party, SAs/PAs, Paid Influencers	574,303	14.5%	16,474	440,820	244,156	701,269	@officialapcng @profosinbajo @fkeyamo @ogundamisi @ngrpresident
3	Presidential Candidates	284,596	7.2%	25,597	228,916	330,471	269,810	@atiku @mbuhari @iam_davido @buhari @peter_obi
4	Mainstream Media	156,906	4.0%	7,124	123,835	51,669	288,306	@channelstv @mobilepunch @saharareporters @tvcnewsng @vanguardngrnews
5	APC Support Groups	138,237	3.5%	9,573	106,726	167,147	127,897	@apcnigeria @officialpdpnig @govumarganduje @twitter @emekaihedioha
6	Online Media & CSOs	123,123	3.1%	4,485	92,955	48,508	114,170	@premiumtimesng @thecableng @nassnigeria @situationroomng @cddwestafrica
7	EMB	107,520	2.7%	7,723	85,146	53,292	120,268	@inecnigeria @gidi_traffic @bankyw @trafficchiefng @falzthebahdguy
8	Bloggers	180,404	4.6%	1,499	169,508	11,115	6,299	@isumunna @zinoly_ng @cashawoof @orientaltimes @praise18466215
9	"Third Force"	91,542	2.3%	4,025	73,941	26,078	47,824	@obyezeks @moghalukingsley @yelesowore @feladurotoye @donald_duke
10	State Media	72,912	1.8%	4,386	58,358	37,831	46,451	@peterobi @ntanewsnow @kadariaahmed @this_vid @naija_xpress
1		2,378,490	60.2%	98,576	1,861,232	1,245,760	2,528,545	

Table 2: Breakdown of top 10 communities by number of tweets, nodes, tweet type, and top influencers in each community

1. PDP politicians & support groups

A PDP support base community that featured then-Senate President, Bukola Saraki (@bukolasaraki), critic, political analyst and personal assistant to former President Goodluck Jonathan, Reno Omokri (@renoomokri), Senator and media mogul, Ben Murray Bruce (@benmurraybruce), and a youth support group for Atiku Abubakar (@youthsforatiku). Interactions were dominated by top-ranking PDP politicians who enjoyed some popularity on Twitter, a status that predated the election. Leveraging the growing use of Twitter as news source and hub for political communication, they canvassed for votes for their candidate while also spread disinformation targeted at @mbuhari. One interesting tactic was the use of @renoomokri's "#renosnuggets" and @benmurraybruce's "#Commonsense" to deliver strategic campaign messages to their followers. Some of the messages contained disinformation targeted

at winning over some of the President's supporters. Civil rights activist, Segun Awosanya (@segalink), featured prominently for his police reforms advocacy. @segalink used the election period to raise political awareness on other related issues such as socio-economic development, political literacy and national integration.

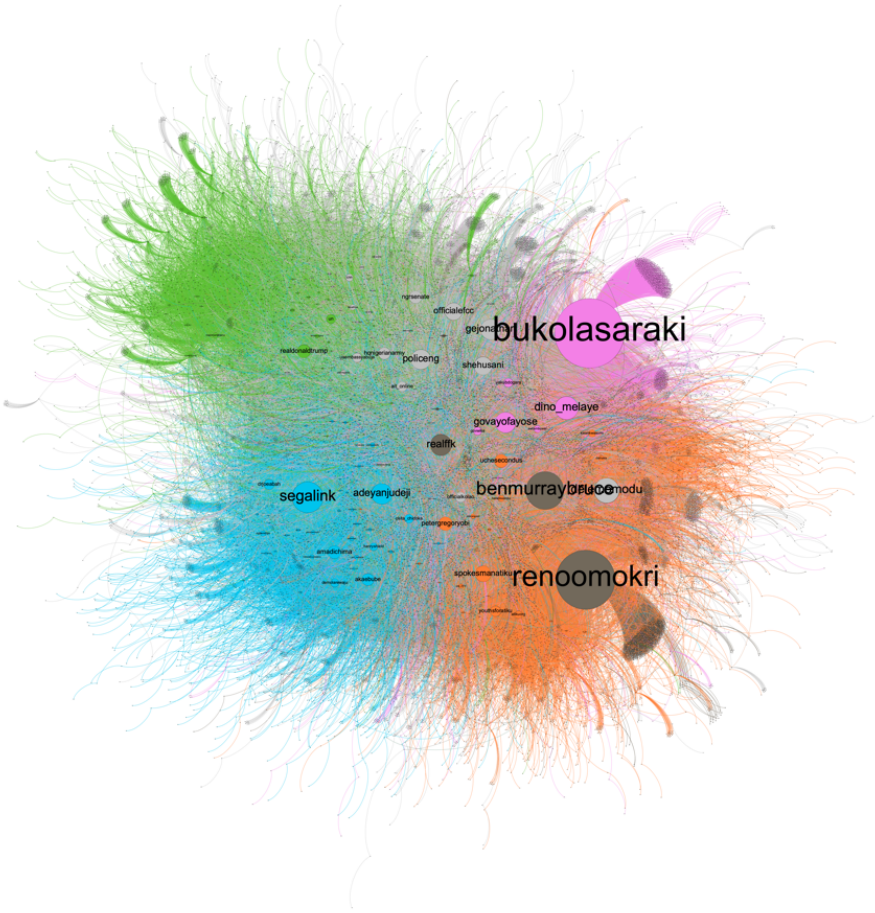


Figure 7: Community network of PDP politicians/supporters

2. Ruling party, SAs/PAs to Buhari, paid influencers, campaign director

Featured here were the official accounts of the Office of the Presidency of the Federal Republic of Nigeria (@ngrpresident) and the ruling party (@officialapcng). Vice President, Prof. Yemi Osinbajo (@profosinbajo), Director of Strategic Communications of President Buhari's campaign, Festus Keyamo (@fkeyamo) and pro-government activist/social commentator, Kayode

Ogundamisi (@ogundamisi) also featured in the community. Dominated by @fkeyamo and @ogundamisi, tweets generated by this community had one common theme: APC and Buhari. @fkeyamo was loudest around the election as he battled to counter disinformation about his principal - President Buhari. The disinformation messages were created around the integrity of his Buhari whose West African Examination Council (WEAC) certificate was in doubt, coupled with a medical record that was shrouded in secrecy, poor performance in economic development, security, employment creation, sectionalism, and politically-motivated anti-corruption campaign. To diffuse the damaging campaigns, @fkeyamo and @officialapcng spread counter pro-government propaganda, attacking opposition candidates with smear campaigns.

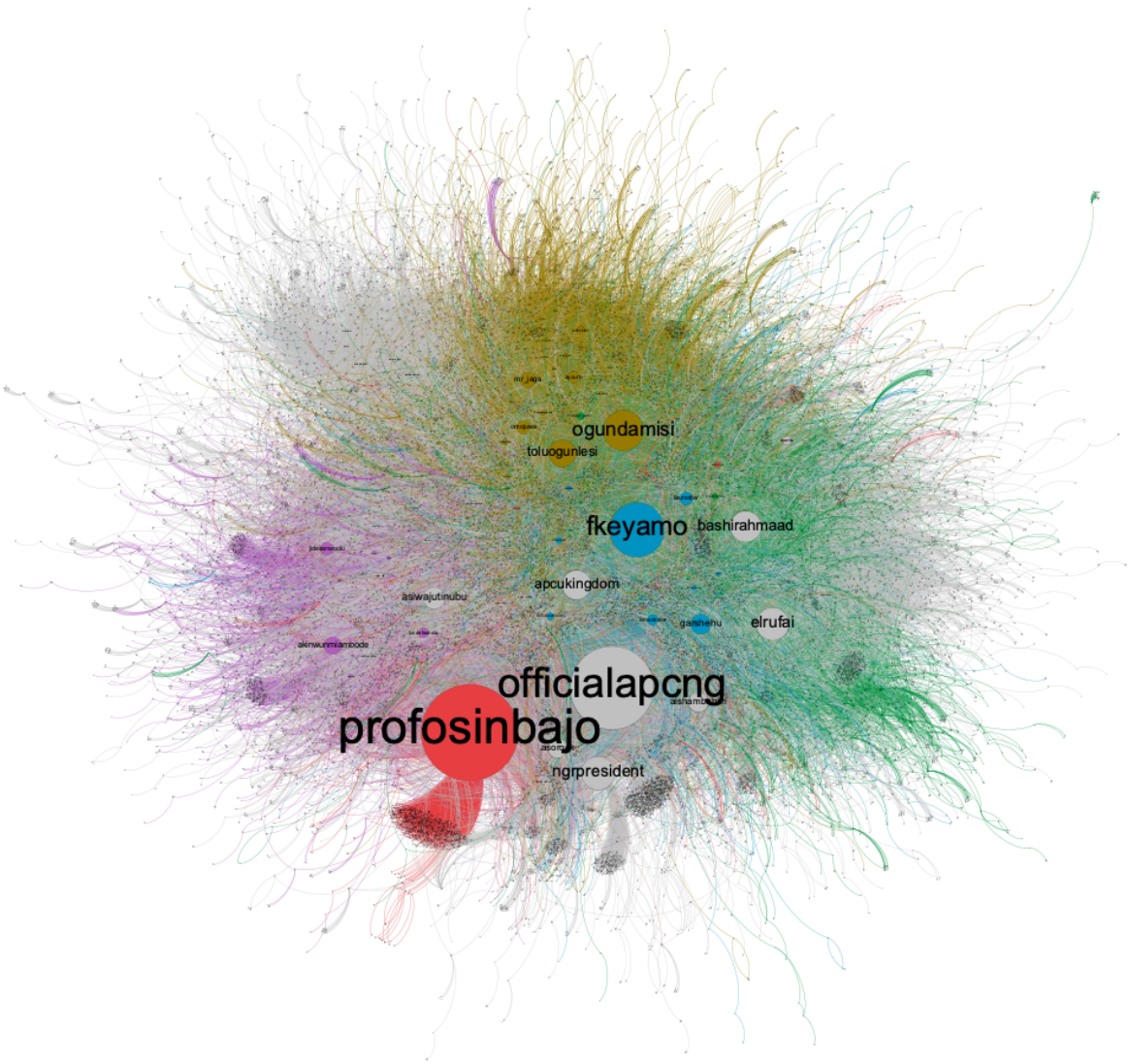


Figure 8: Community network of ruling party, SAs/PAs to Buhari, influencers

3. Presidential candidates

More of a puzzle, this community features the two leading presidential candidates: Muhammadu Buhari (@mbuhari) of the ruling All Progressives Congress (APC) and former Vice President, Atiku Abubakar (@atiku) of the People's Democratic Party (PDP). Other high performing accounts are @peter_obi (Peter Obi was Atiku's running mate and a former Governor of Anambra State in southeast Nigeria), hip-pop star, David Adeleke aka "Davido" (@iam_davido) was publicly associated with @atiku's campaign, leveraging his celebrity status and online popularity to canvass for votes for the PDP candidate on Twitter. His activity was instrumental to the escalation of a propaganda campaign that claimed the ruling party was planning to manipulate the election results. These accounts dominated interactions in this community (in tweets, retweets, and @mentions).

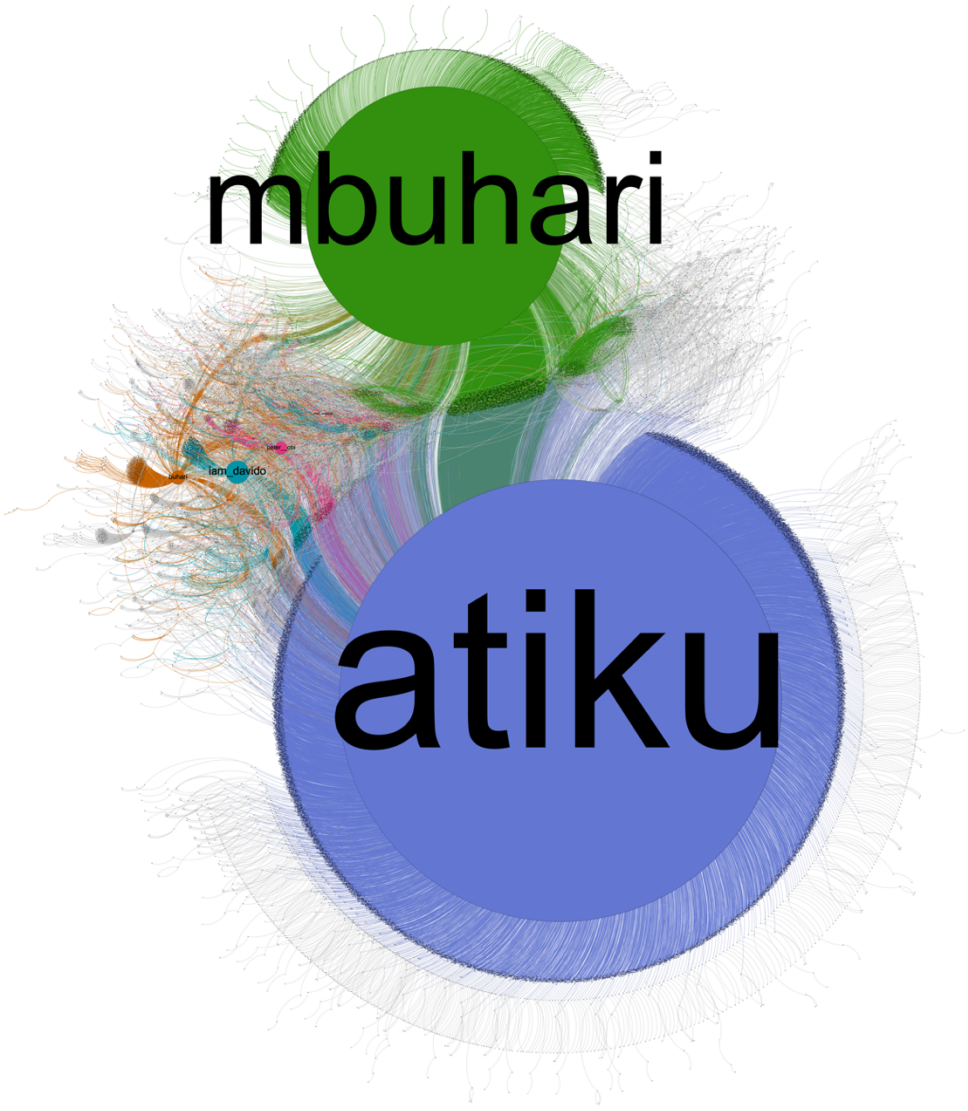


Figure 9: Community network of presidential candidates

4. Mainstream media

All independently owned media, these are some of the top multimedia compliant news organizations in the country known for portraying varying political ideologies. Channels Television (@channelstv) became the doyen of election coverage after an outstanding coverage of the 2015 general elections. It was therefore not surprising to see it leading a community of news media in the dataset. SaharaReporters (@saharareporters) is an investigative online news outlet owned by Omoyele Sowore, the presidential candidate of the African Action Congress (AAC) in the 2019 election. SaharaReporters became a source of disinformation targeted at political opponents of its owner. It was turned into a partisan media, serving the interest of its owner and his presidential aspiration. On a number of occasions, it was found to have published fake news and political disinformation. Punch Newspaper (@mobilepunch) and Vanguard Newspaper (@vanguardngrnews) are among the most widely read newspapers in Nigeria, with years of service in the industry.

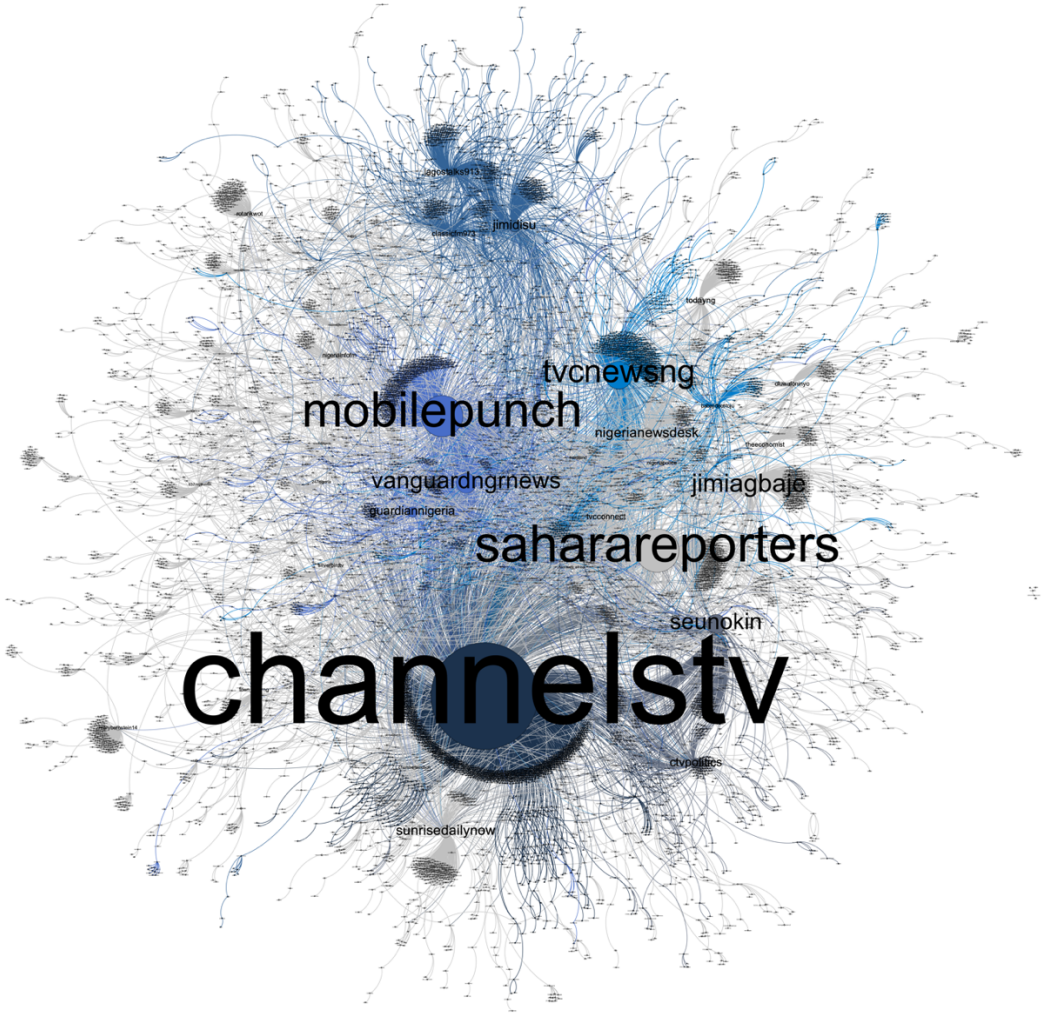


Figure 10: Cluster of professional news media outlets

5. APC support groups

First was a campaign support for the APC and Buhari's administration, @apcnigeria. The account was created in February 2013 before the 2015 general election to propagate favourable commentaries and online support for the opposition party. It gained traction in 2015 during Buhari's campaign to unseat then President Goodluck Jonathan and has remained a communication and propaganda medium. The All Progressives Congress (APC) in 2017 distanced itself from an opinion poll reportedly conducted by the party through this handle. It was the second time the party was distancing itself from the Twitter handle after the party disowned a February 21 2016 report credited to the party on the outcome of the Benue South Senatorial rerun election. The ownership or handling of the @apcnigeria handle has been a subject of controversy since 2015. It has become a pattern for the APC to deny any association with the handle and its content when what was tweeted is unfavourable to it. When the tweet works in the party's favour, it doesn't complain. Rosemary Ajayi, Lead, Digital Africa Research Lab, observed in a tweet that:

> APC HQ disowned the handle in 2016. Philip's unfavourable poll was in 2017. I also know the party tried to get the handle off him early 2015 and contacted Twitter. How is anyone meant to believe that @APCNigeria is a fake handle when Aso Rock, @BukolaSaraki and @YakubDogara continue to endorse the handle in 2018? cc @Bint_Moshood.

Pointing out similar problems involving same account in the past when a certain Philip Obin used the handle to famz Reno Omokri, Rosemary wrote:

> April 2018: Here's why APC HQ has disowned Philip Obin & @APCNigeria this time APCNigeria dragged Reno Omokri tweeting "Dear Pastor, here is why we don't reply you, Sir..." Reno responded by showing evidence that Philip Obin's been using the APCNigeria handle to famz him via DM

Philip Obin, now a new media aide to Osinbajo, has been fingered as the operator of @apcnigeria handle. Obin created it for personal reasons and took advantage of the APC's failure to set up social media accounts. The account was impersonating APC until February 2019. His appointment as an aide on new media to Vice President Yemi Osinbajo possibly wouldn't have been happened without the activities he perpetrated through @apcnigeria and can be interpreted as an endorsement of bad actors. This is a critical gap in Twitter content moderation policy and how the platform's failure empowers bad actors into positions of power. Cases like this serve as motivation for other users to monetize their account or trade off their tech skill for cash.

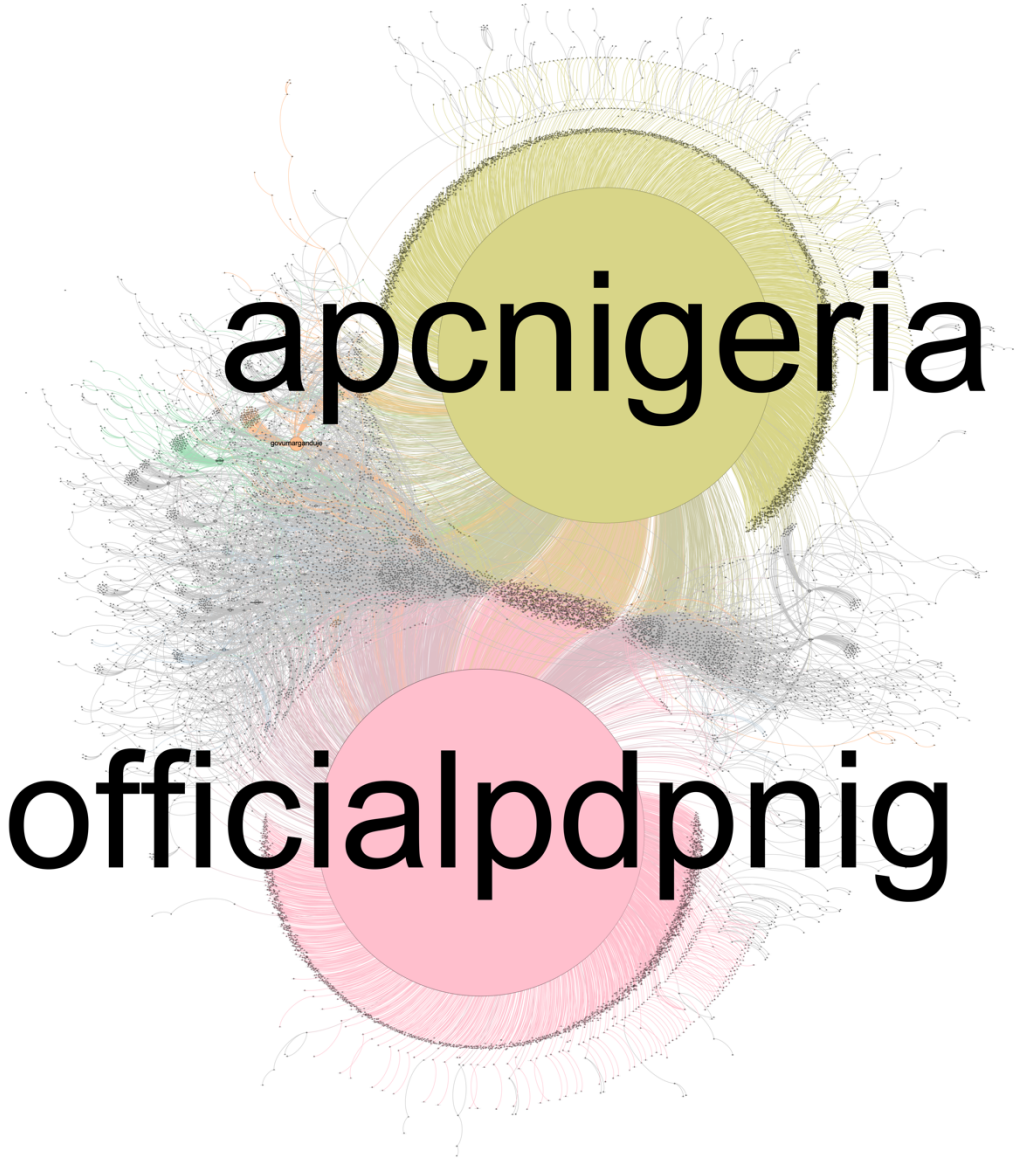


Figure 11: Showing official account of APC and support groups

One of the prominent accounts, @govumarganduje, belongs to Kano State Governor, Umar Ganduje. Ganduje was caught on camera stuffing bribe-dollars in his garment. Nicknamed "gandollar", @govumarganduje's case was a critical moment in Buhari's anti-corruption fight. Against popular expectations, Ganduje received Buhari's endorsement for a second tenure as Governor, a move that negatively impacted on the perception of the anti-corruption fight. It left many citizens with the conclusion that Buhari's anti-corruption mantra was mere greenwashing. Another revelation was @officialpdpnig featuring as the second highest ranked account in a community dominated by the ruling party. This was due to the level of smear campaigns

perpetuated by all parties and in particular, the “gandollar” scandal for which the PDP leveraged to attack the Buhari’s campaign.

6. Online media, Civil Society Organizations

This community was dominated by two online news media, Premium Times (@premiumtimesng) and The Cable (@thecableng), two civil society organizations, Situation Room (@situationroomng) and Centre for Democracy and Development (CDD) West Africa (@cddwestafrica) who observed, monitored, and evaluated events of the 2019 presidential elections. @cddwestafrica also fact-checked some of the viral disinformation messages that spread before, during and after the election. Conversations in this community (and similarly for the mainstream media community) appear more genuine compared to other communities where some nodes massively prevail - possibly with the support of various strategies to “drug” or boost popularity/visibility.

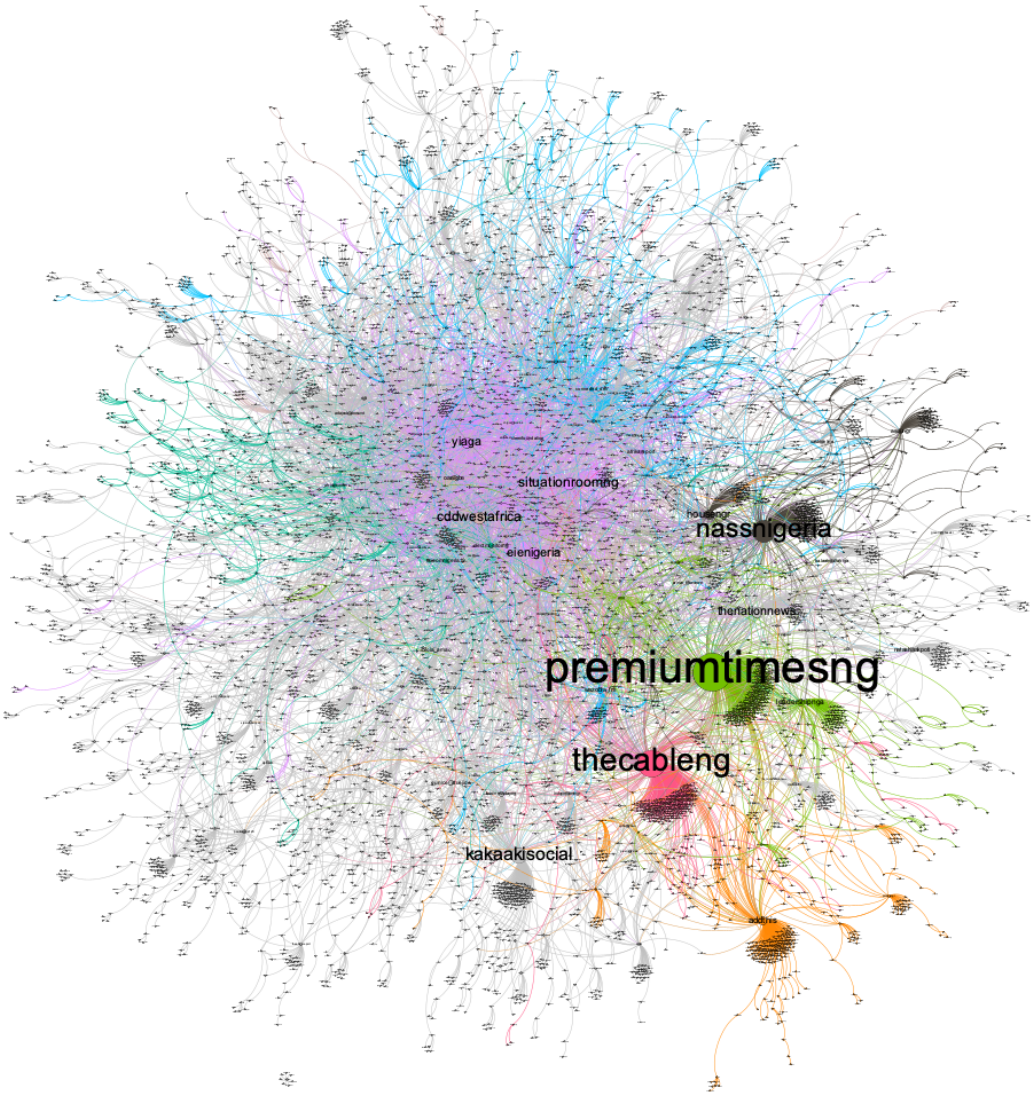


Figure 12: Cluster of online media & civil society organizations

7. Electoral management body

Independent National Electoral Commission, @inecnigeria, the constitutional body charged with organizing, undertaking and supervising elections in Nigeria dominated this community. Overtime, the Commission has steadily introduced technological tools into its conduct of elections. It made a significant shift in operations from 2015 with an increased social media presence. Other prominent accounts included real-time traffic update provider, GidiTraffic (@gidi_traffic), Lagos based traffic report platform, (@trafficchiefng), entertainer turned politician, Bankole Welington (@bankyw), and hip-hop star, Folarin Falana aka "Falz" (@falzthebahdguy). More than it did in previous elections, INEC used Twitter to educate voters on their electoral roles and responsibilities, sensitize and mobilize. voters, and monitor voting process (they allowed citizens post results of their polling units online). The risk that information can be manipulated on social media to serve political ends or instigate violence did not deter INEC from being Twitter-active and engaged. It was involved in countering/diffusing mis/disinformation capable of reducing voters' willingness to accept the declared outcome of the election or undermine the credibility and independence of the election management body. Its high online presence in 2019 was more reactive than proactive, spending most of its engagements to dismiss false claims targeted at it.

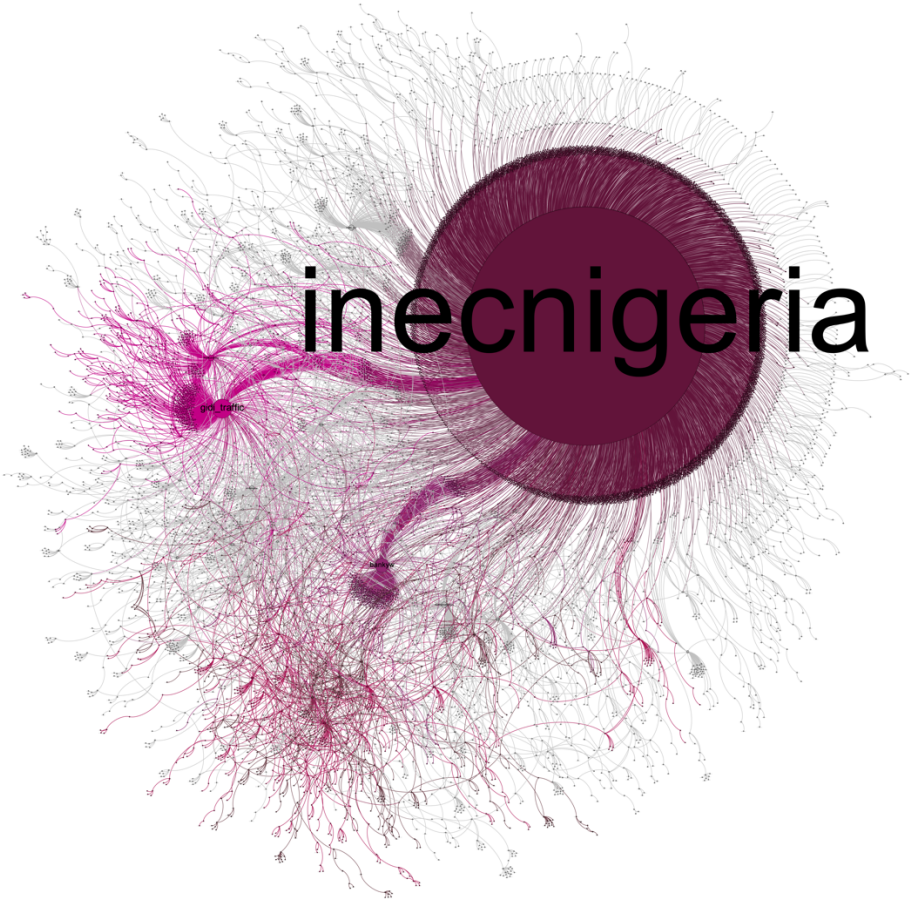


Figure 13: Electoral management body

Some actors targeted the electoral process, spreading claims the election was rigged even before official declaration of the result. In one of such cases, a user tweeted: “dear Nigerians, the elections were rigged. I laid out the facts in my series #INECNumbersDontAddUp. But right now, let us show @Atiku we love him and won’t abandon him.” In another tweet targeting the electoral commission, one user claimed to be in possession of “incontrovertible proof that INEC had a server in form of a “signed admission” by INEC’s spokesman.” The so-called proof turned out to be a circular from the Secretary to the Commission to all Resident Electoral Commissioners, requesting them to account for polling units without Smart Card Reader Accreditation Data for the 2019 presidential election. Then Chief of Staff, to Buhari, Abba Kyari, was accused of attempting to influence the results in another tweet: “Abba Kyari, Chief of Staff to @MBuhari, why are you pressurizing INEC Chairman to make you print the ballot papers???? What plans do you have??? We are watching like a bat!”

Mainstream media amplified this dramatically because outlets could not resist giving attention to the presidential race. Calling the actions of the ruling APC or PDP a disinformation campaign was near impossible for some journalists who were desperate to project balance as though it equals fairness. Being central to most disinformation campaigns, influencers relied on Twitter to wield their authority and influence as a tool to summon coverage and shape the agenda of mainstream media almost at will. As numerous actors and political activists cunningly plot to have their stories seen, heard, and believed by as many people as possible, media coverage of the tweets amplified the messages far beyond what the influential accounts could accomplish alone. In January 2019, major news outlets featured a report in which a presidential candidate alleged that INEC was distributing permanent voters cards (PVCs) to governors of a political party[81]. Another such report accused the Commission of setting up polling units in Niger Republic and Chad. It followed an earlier allegation that the Commission had perfected plans to establish 30,000 new polling units in a particular section of the country. A couple of other reports that featured in the reports claimed ballot papers had found their way to the hands of politicians who were thumb printing them in favour of party.

While elections and the peaceful transfer of power are regarded as prerequisites for democracy, it is becoming more and more obvious that a strong, informed public sphere is essential to the success of elections. It will be impossible for citizens to come to an agreement on what constitutes a legitimate election if they do not trust "the institutions that count ballots and the organizations that accurately and credibly report on those results, if they"[82] view political opponents as unworthy of being heard, if they consider other citizens' voices and votes to be fake or illegal.

[81] https://www.pulse.ng/news/politics/atiku-accuses-inec-of-giving-apc-governors-uncollected-pvcs-to-rig-2019-elections/1lrgpm9

[82] https://theconversation.com/trumps-lies-about-the-election-show-how-disinformation-erodes-democracy-150603

8. Bloggers

Top influencers in this community were independent bloggers, freelancers and content amplification platform (an account that advertises its ability to grow site traffic, engagement and revenue). Most of their activities in the dataset showed promotional messages in favour of politicians across party lines. They were used by celebrity entertainers to boost engagement with sponsored tweets. In periods of election, politicians get as many celebrities in the creative industry to support their candidacy. Adapting celebrity endorsement strategy in advertising to politics, celebrities also sign endorsement deals with politicians to run campaigns for them on social media (one approach was through giveaways. “Giveaway Twitter” is a growing trend in Nigeria’s Twittersphere).

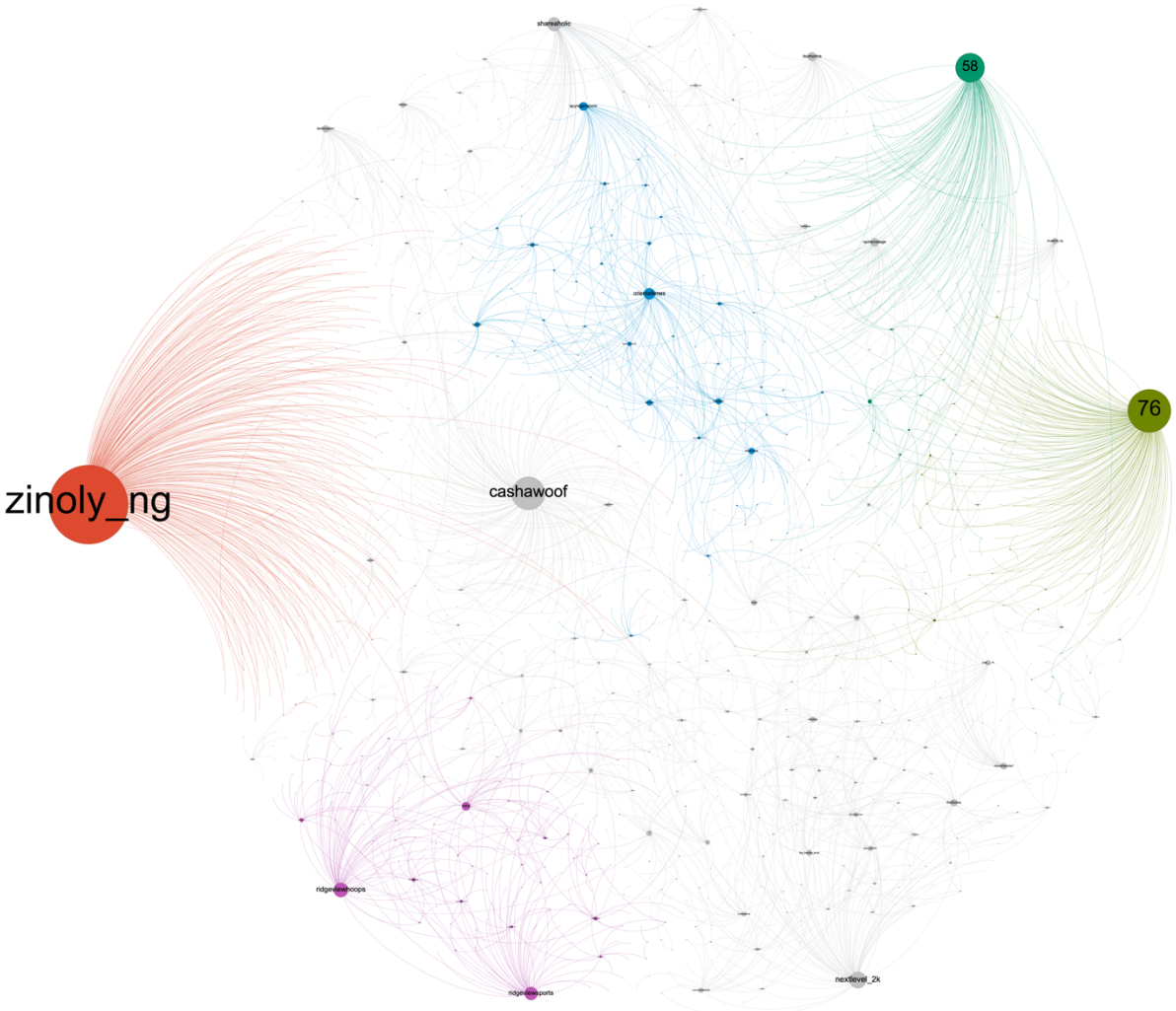


Figure 14: Network of bloggers

9. “Third Force” politicians

Popularly known as the “Third Force”, they were a group of politicians with a common goal of breaking the duopoly that the PDP and APC had enjoyed at the top level of governance since the return to democracy in 1999. Obiagheli Ezekwesili (@obyezeks), former Minister and Convener of the Bring Back Our Girls (BBOG) protest was flagbearer of Allied Congress Party of Nigeria (ACPN)**.** She stepped down from the presidential race owing to a divergence of values and visions with her political party. Kingsley Moghalu (@kingsleymoghalu) was former Deputy Governor of Nigeria’s Central Bank and candidate of Young Progressive Party (YPP). Revolutionary activist and media entrepreneur, Omoyele Sowore (@yelesowore) was the presidential candidate of the African Action Congress (AAC), Fela Durotoye (@feladurotoye), motivational speaker and businessman/life coach, was flagbearer of Alliance for New Nigeria (ANN). Former Governor of Cross River state, Donald Duke was presidential candidate of the Social Democratic Party (SDP). Their plot collapsed following a failure to agree on a consensus candidate for the presidential contest.

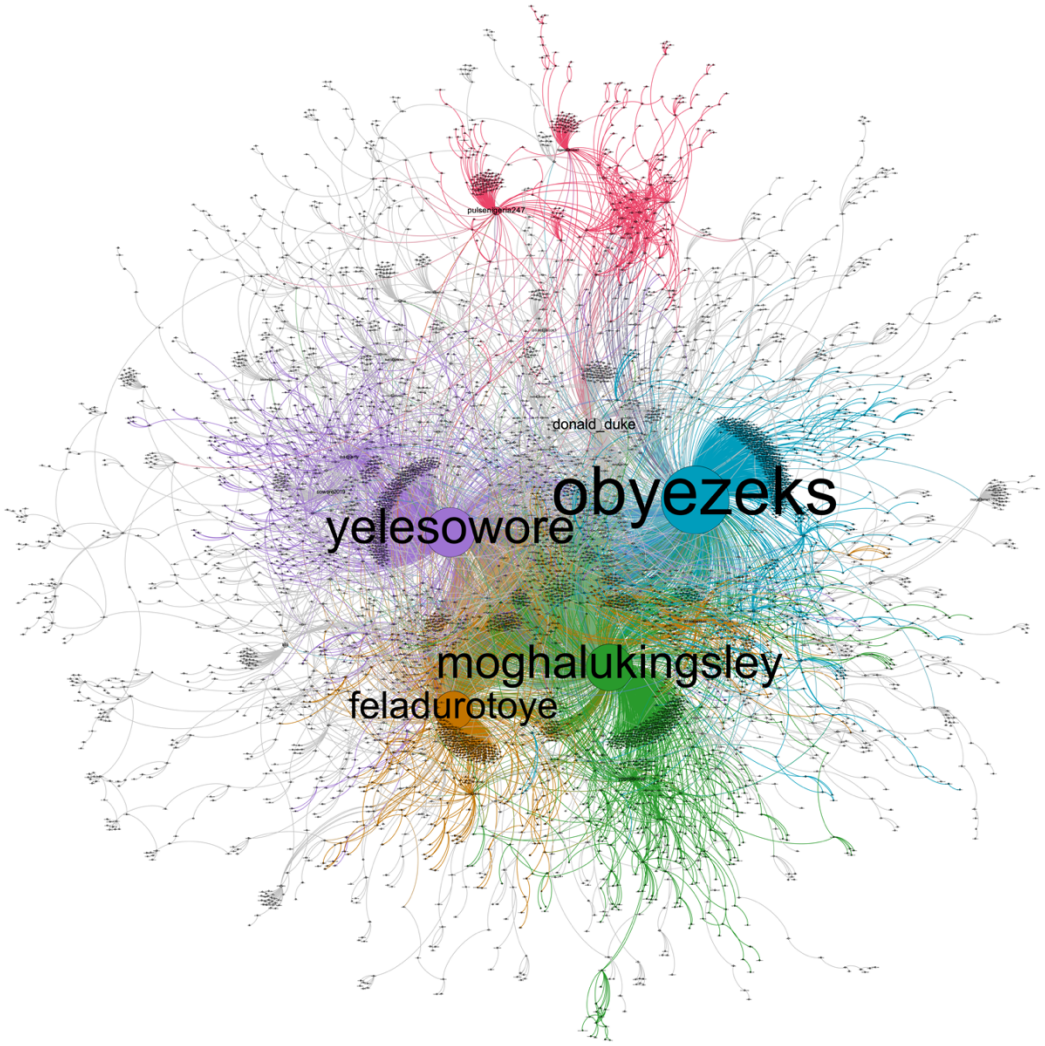


Figure 15: Network of "third-force" politicians

10. State media, Vice Presidential Candidate

Politician and businessman, Peter Obi (@peterobi) was vice presidential candidate of the PDP. The former Anambra State Governor's strong performance at the vice-presidential debate where he tackled the Buhari administration over employment and economic growth made him one of the most talked about political influencers leading to the election. This community was about the presidential and vice-presidential debates, and the top influencers were connected in unique ways. National broadcaster, Nigerian Television Authority (@ntanewsnow) was the official broadcaster of the show, and it was anchored by the only broadcaster that featured in any of the top 10 communities, Kadaria Ahmed (@kadariaahmed). As a state television, @ntanewsnow is reputed for being a state propaganda machine it used in defending President Buhari's avoidance of the presidential debate, and other critical issues raised against his administration by @peterobi. There were a number of moments in the debates that caught the eyes [for blunders, facts and topics raised] and were instantly made into memes and GIFs, and downloaded via Twitter's video/GIF download provider, DownLoadThisVideo (@this_vid). Some of the videos and GIF were remixed and reused in multiple formats, long after the election had ended.

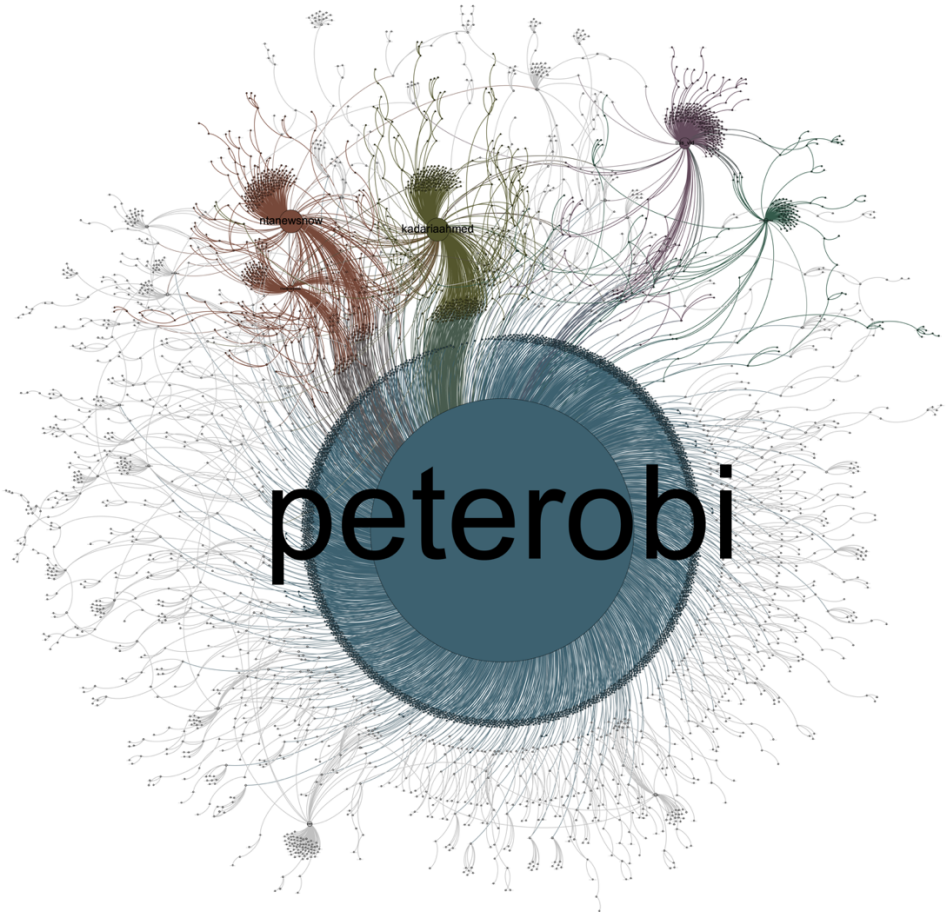


Figure 16: Network of vice-presidential candidates and state media

By evaluating the influencers and the content that most resonated (was most mentioned and retweeted) within each community, it was possible to qualitatively describe the communities with the most nodes (users) and highest tweets as seen in Figure 2. As shown in Table 2, the top 10 communities collectively produced 60.2% of all tweets about the election on Twitter. It revealed that communities tended to coalesce around specific users such as politicians, especially the presidential candidates, Atiku Abubakar @atiku and President Muhammadu Buhari @mbuhari. Other politicians who prominently featured include vice presidential candidate, Peter Obi @peter_obi, former Senate President, Bukola Saraki @bukolasaraki, Special Assistant to former President, Goodluck Jonathan, Reno Omokri @renoomokri, media mogul, Senator Ben Murray Bruce @benmurraybruce, Nigeria's Vice President, Prof Yemi Osinbajo @profosinbajo, Director of Strategic Communication to Buhari's campaign organization, Festus Keyamo @fkeyamo, and activist/social commentator on Nigerian and international affairs, Kayode Ogundamisi (@ogundamisi). There was the office of the Presidency, Federal Republic of Nigeria (@ngrpresident). Kano State Governor, Umar Ganduje (@govumarganduje) became popular after being caught on camera accepting bribe in dollars. The official party accounts of the All Progressives Congress (APC) - @officialapcng and the Peoples Democratic Party (PDP) - @officialpdpnig. Support groups for Atiku Abubakar (@youthsforatiku), and Muhammadu Buhari (@apcnigeria), as well as Nigeria's electoral umpire, the Independent National Electoral Commission (@inecnigeria) were equally prominent. Two 'outsiders' featured prominently, civil rights and institutional reforms advocate, Segun Awosanya (@segalink), and multi-award-winning hip-hop star, David Adeleke aka "Davido" (@davido - @iam_davido).

There were exceptions such as a community centred around "third force" politicians and presidential hopefuls: Oby Ezekwesili (@Obyezeks), Kingsley Moghalu (@moghalukingsley), Omoyele Sowore (@yelesowore, Fela Durotoye (@feladurotoye), and Donald Duke (@donald_duke), news outlets such as Gidi Traffic (@gidi_traffic), Traffic Chief (@trafficchiefng), ChannelsTV (@channelstv), Punch Newspaper (@mobilepunch), Sahara Reporters (@saharareporters), TVC News (@tvcnewsng), Premium Times (@premiumtimesng), The Cable Newspaper (@thecableng), Nigeria Television Authority (@ntanewsnow), City 105.1 FM (@city1051), and @naij_xpress. Two civil society organizations with sustained interest in good governance and election monitoring and evaluating, The Situation Room (@situationroomng) and the Centre for Democracy and Development (CDD) West Africa (@cddwestafrica) featured. A few celebrity entertainers also featured: Ayodeji Ibrahim Balogun aka "Wizkid" (@wizkidayo), Folarin Falana aka Falz (@falzthebadguy), Bankole Wellington (@bankyw) and Michael Collins Ajereh aka "Don Jazzy" (@donjazzy). Another exception was broadcaster, Kadaria Ahmed (@kadariaahmed). She anchored the presidential and vice presidential candidates' debates with a stellar performance. Africa's richest businessman, Aliko Dangote (@alikodangote) appeared in one of the communities. A particular account caught the eye for its high ranking in the dataset and account activities. Having the president's name in its handle, @buhari (username – "Shakirah") was among the top influencers in the first community but upon validation, it was discovered to have been suspended for violating Twitter's policy.

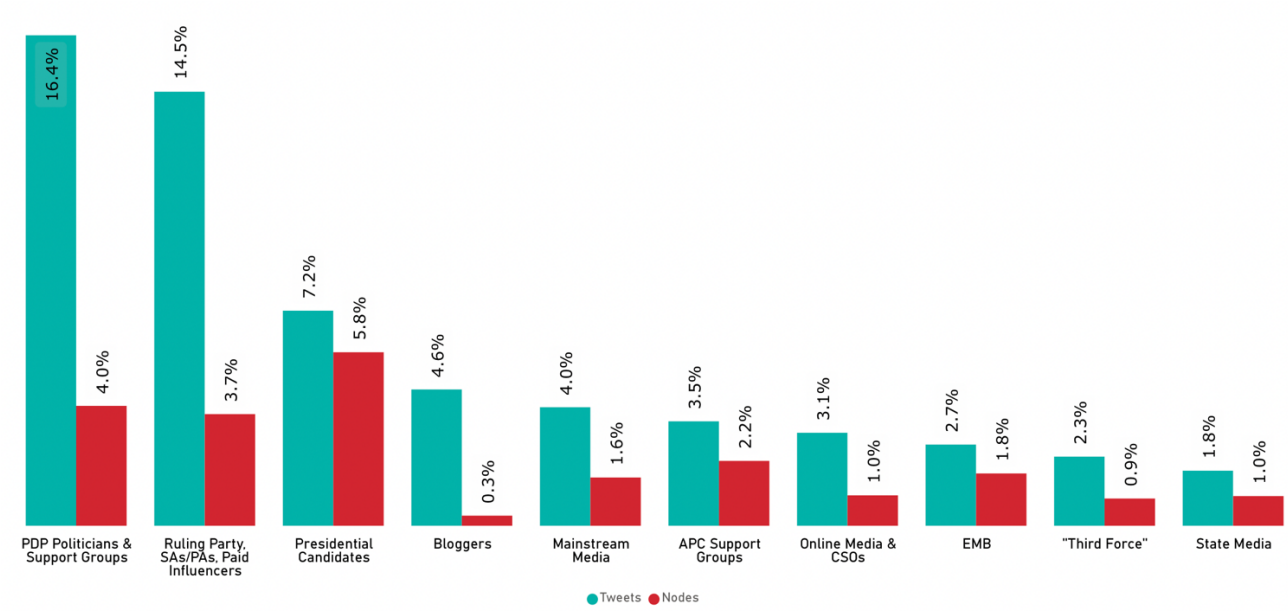


Figure 17: Breakdown of top communities in terms of number of nodes and proportion of tweets generated by each community

Comparing the number of unique users in each community versus the proportion of tweets generated by each community was revealing. Due to processing limitation, the research analyses focused on the top 10 communities. They account for more than half of the tweets in the dataset (60.2% - 2,378,490 tweets), and 98,576 unique users. First was the revelation that opposition candidate, @atiku emerged the most tweeted about (@mentioned) politician and user on Twitter in the presidential race. It was indicative of the features that characterized Atiku Abubakar and his campaign: he operated a digital media intensive campaign against incumbent @mbuhari whose re-election bid relied more on traditional approaches that guaranteed assured access to his larger supporters based in Northern Nigeria. @atiku held a number of Twitter livestreams where he interacted with his supporters and potential voters to discuss his campaign agenda and fielded questions. In the same vein, PDP politicians - @officialpdpnig, @peter_obi, @bukolasaraki, and @renoomokri – dominated the debates (see Table 3 – top 10 influencers) as they marshalled the disinformation campaign targeted at @mbuhari and the APC. Smear campaign was a prominent strategy in the election and for a party trying to unseat a ruling party, such dominance would be unsurprising. The failure of Atiku to win the election despite a dominant Twitter campaign presents another instance in the broader debate that a successful Twitter campaign does not translate to winning an election. As Pal and Gonawela (2018) observed, online popularity can be deeply misleading in predicting results. Bobi Wine lost the 2021 Ugandan presidential election to Yowerri Museveni despite a huge online popularity and successful social media campaign. Donald Trump's massive Twitter popularity and campaign was not enough to secure victory against Joe Biden in the 2020 presidential election.

Even though the user to tweet ratio was intriguing in and of itself, the question of what kind of conversations were taking place in these communities quickly emerged. Were popular articles or statements retweeted in the communities to dominate one-way broadcasting or quotes (Findlay & van Rensburg (2018), or, organic tweets by users in the form of either "isolated tweets" where

users spontaneously tweeted anything about the elections without mentioning any other users. Or "@mentions," which are user-generated tweets that specifically mention or "tag" another account or accounts and may be an indication of two-way interactions.? Aside isolated tweets, “retweets and @mentions serve distinct and complementary purposes, together acting as the primary mechanism for explicit, public user-to-user interaction on Twitter” (boyd, Golder, & Lotan, 2010; Conover et al., 2011; Honeycutt & Herring, 2008).

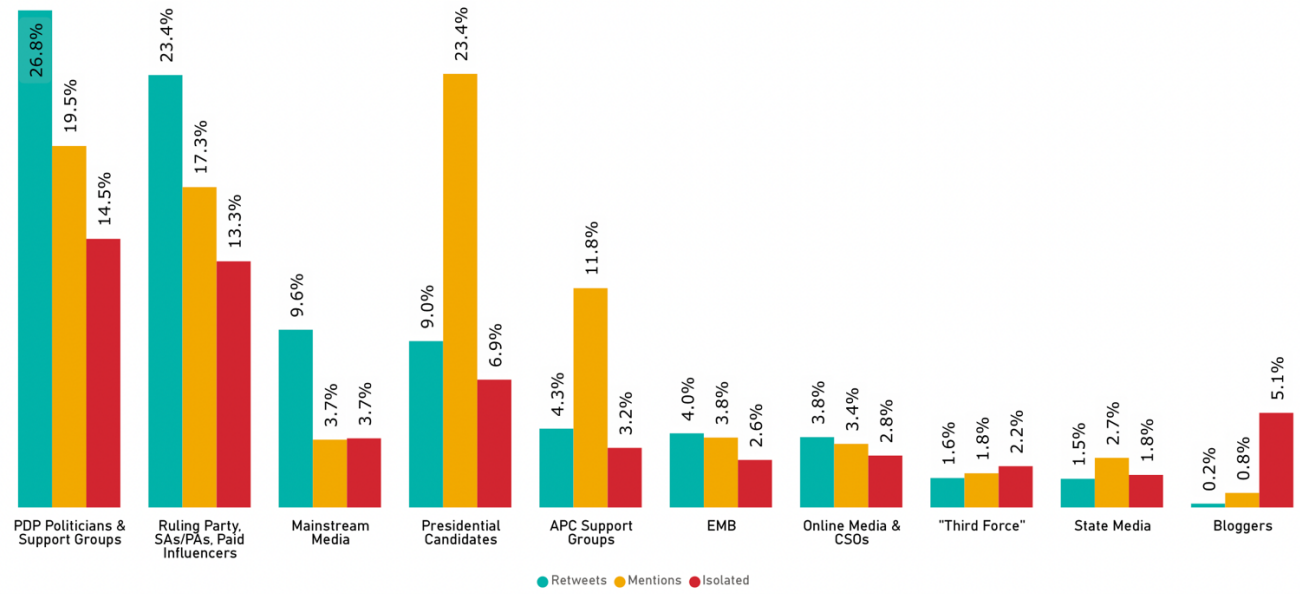


Figure 18: Breakdown of the tweets type generated by each community

Retweets were the most used form of communication among users, despite the high number of organic messages (isolated tweets) (see Table 2). This supports the popular nature of the Twitter communication that lends itself to information sharing, and not unidirectional discussions. The proportion of isolated tweets was particularly high in the community that featured PDP politicians as they battled to regain power at the centre. Their campaign messages took on issues such as President Buhari’s West African Secondary School certificate scandal[83] and uncertain medical fitness in a manner that allowed them to promote narratives for the political gain of their candidate and party. A high number of isolated tweets is a good sign of a healthy community with engaged members.

[83] Buhari’s failure to include his West African Secondary School Certificate in the list of documents submitted to INEC in October 2018 resuscitated the debates about his academic credentials which started in 2015. It left Buhari open to to verbal attacks from opposition politicians who accused him of not possessing the certificate in the first place. The West African Examination Council (WAEC) later issued him an “attestation certificate” to confirm the president obtained a secondary school certificate from the examination body in 1961. To fulfil the provisions of Section 131(d) of the 1999 Constitution of the Federal Republic of Nigeria (as amended), Buhari was required to include a document indicating he had obtained the Senior Secondary certificate to qualify to contest for election into the office of the president.

This PDP support base community recorded the highest proportion of isolated tweets (481,027) and received the most engagements in retweets (806,251) in the dataset. It had the second highest number of @mentions (275,493), only behind the presidential candidates' community which received 330,471 @mentions. Much of the disinformation messages that came from the PDP and Support Groups community were targeted at President Buhari's and tailored to his qualification credentials and state of health, rising unemployment figures, sectionalism, and poor economic indices. Buhari's campaign organization fought to counter viral falsehood related to these issues.

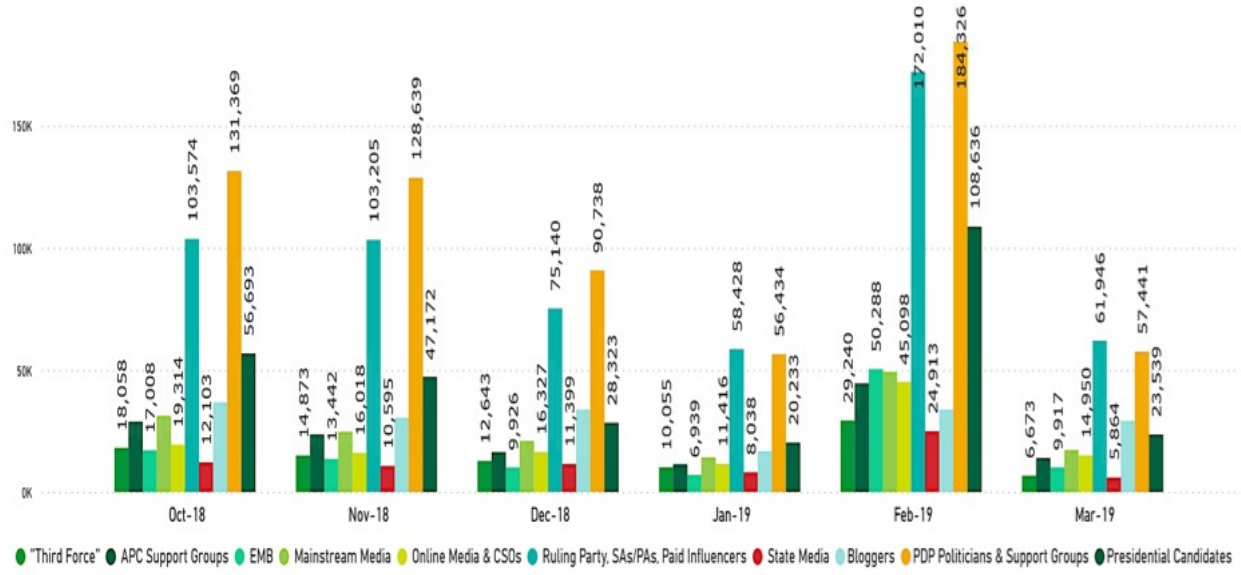


Figure 19: Timeline of tweets collected on the February 23 2019 presidential election and the volume of engagement by top 10 communities

Finally, I looked at the quantity of communication by each of the top communities (see Figure 4). The data showed that all top communities were active for the entire duration of the data collection period (1 October 2018 to 31 March 2019) at different volumes. This was an indication that the debates gained momentum months before the election and were sustained post-election. Tweets spiked in October in both APC and PDP communities following the conclusion of party primaries that produced the presidential candidates. Conversations peaked in the week ending February 2019, notably from the PDP support and APC support communities. @atiku's rejection of the election result over rigging claims and other electoral irregularities was responsible for the hike in February. Thereafter, engagements and conversations about the topic on Twitter began to nosedive across all communities. The two major political parties were the key actors and drivers of the debates even post-election.

7.3.1 Influencers

In unpacking the activities of the communities, I started by looking at influential accounts that "dominated" each community. Tweets from these accounts recorded the highest engagement as they tried to control the communication between other users within their various communities.

Within this interaction sphere, discussions coalesced around main challenger, @atiku, whose campaign was pre-occupied with defending and diffusing disinformation orchestrated by supporters of the ruling party centred on corruption, source of his wealth, and a purported United States travel ban linked to decade-old bribery scandals. It was widely circulated that the former vice president was banned from entering the United States after he figured prominently in two corruption cases. For Atiku's supporters, the January 17 & 18, 2020 visit to Washington without arrest was proof enough that the allegations were unsubstantiated. One user tweeted: "the only reason @atiku is able to enter the #US is because The Government & All Federal Agencies are currently shut down & the programme he is attending is from 2.30pm - 4pm…" to claim the travel ban was waived temporarily by the U.S. State Department after Atiku-paid lobbyists mounted a campaign among congressional lawmakers[84]. Mr. Atiku was repeatedly linked to his time in office as vice president from 1999 – 2007 with messages such as "dear Atiku, no insults meant, but what you did as a vice president of Nigeria back then, still speaks so loudly that I cannot hear what you are saying right now."

Incumbent @mbuhari was the second most influential account. Buhari was subject of a viral rumour that travelled through the data and later weaponised by his challengers: that Buhari is a clone. The rumour that Buhari had been replaced with a body double called 'Jubril' from Sudan surfaced after he returned from three months medical treatment in London for an undisclosed illness in 2017. First presented in a YouTube video by Nnamdi Kanu, leader of the Indigenous People of Biafra (IPOB), in September 2017, the body double claim became unprecedented to the extent the president was forced to publicly insist during an event in Poland "It's [the] real me, I assure you"[85]. The IPOB leader tweeted:

> If Buhari is not dead and replaced by Jubril from Sudan, why won't the Nigerian government sue Eric Joyce, a former British lawmaker for peddling lies? They can't because they know I am speaking the truth. @AsoRock @ericjoyce @NGRPresident @UKParliament @NGRSenate @WhiteHouse https://t.co/qqrKHPmtNy

The opposition saw an opportunity in Buhari's refusal to feature in a live presidential debate to turn the rumour into a political disinformation campaign. @renoomokri tweeted: "Dear President @MBuhari, Please #DontDodgeTheDebate. @Atiku Abubakar has told me that he is ready to debate you at any location you choose, including @AsoRock, Daura and Sudan." One user tweeted: "Jubril from Sudan cannot contest election in Nigeria in the name of dead and buried Buhari. https://t.co/E5ndKXmNgk." Another tweet read: Jubril from Sudan is the impostor of dead Buhari, #Nigeria's former president. #UnmaskJubril #BuhariForDNAtest @anticorruption @NGRSenate @NGRPresident @MaziNnamdiKanu https://t.co/ThO2VKZARz." Sound quite assured, one user said: "Take a good look at this two pictures. If you can spot out the differences then you will know that the man in aso rock is not buhari but jubril from sudan the real buhari is dead. https://t.co/FuvVxBoYqh."

[84] https://www.reuters.com/article/us-nigeria-election-atiku-exclusive-idUSKCN1PT0TR
[85] https://www.bbc.com/news/world-africa-46424562

Opposition politicians used the body double claim to mock the president's health and state of the country's healthcare system. Reno Omokri tweeted:

> @FKeyamo's lies of @MBuhari achievements claims they have improved healthcare. They improved healthcare so much that Buhari lived in London for half of 2017 and @AishaMBuhari complained of no paracetamol in @AsoRock clinic. Retweet if you know this is another big #NextLevelLies"

As a counter strategy, @fkeyamo, Director of Strategic Communication, Buhari Campaign Organization, and the campaign team circulated a counter campaign to divert attention from the negative narratives about the president. They posted some fake projects that mocked PDP's 16 years of governance, with claims about the party looting the country "dry" and the role @atiku played in it: "This is how trees grew in-between rail tracks between 1999 and 2015" - accusing the PDP government of "looting the country to its bones" in its 16 years at the helm of national affairs. This was a strategy to mislead the public into believing that the poor state of the nation was due to corruption perpetuated by the former government while absolving the Buhari administration of any responsibilities. The false claim received 1.8k likes (see Figure 20).



It turned out the picture in tweet was from far away Middle East. @keyamo later claimed he had used the picture as an "illustration".

Figure 20: Screenshot of Festus Keyamo's tweet

One supporter added that:

> I support the President's demand that the PDP should explain how they squandered $592 Billion. I advice the opposition party to recall all its past and present members (1999 to 2015), to prepare and present to Mr President and the nation a full report of such a monumental waste.

In another instance, they tinkered with imaginary consequences of electing an @atiku who would be incapable of discussing trade relations with a major diplomatic partner such as the United States and its impact on Nigeria's foreign policy. These controversial debates from all sides accounts for the emergence of Atiku Abubakar and Muhammadu Buhari as the most talked about influencers (see Table 3) on Twitter.

s/n	Influencer	Mentions
1	@atiku	202,418
2	@mbuhari	103,687
3	@apcnigeria	80,351
4	@officialpdpnig	73,806
5	@inecnigeria	36,642
6	@peterobi	29,441
7	@officialapcng	22,606
8	@bukolasaraki	22,171
9	@profosinbajo	21,740
10	@renoomokri	15,349

Table 3: Breakdown of top 10 influencers based on @mentions

Such harmful narratives have been part of Nigerian politics before now. Ihebuzor and Egbunike's (2018) study revealed a dominance of ethnocentric hate speech content among Twitter users in the 2015 presidential election. Their findings showed a prevalence of derision, taunting, derogation, mocking, and insulting content that targeted ethnic groups online. They noted that "although these tweets became predominant after the 2015 elections, they point to a deeper problem; the divisive ethnic fragmentation of Nigerian society. Ethnic political entrepreneurs are regular multipliers of online hate and the country has struggled to deal a resurgence of vile polarizing content that pitch one ethnic/religious group against another (Egbunike, 2017). In their quest for power and control, politicians use paid influencers as a pawn to manipulate debates and information, especially during elections.

Other accounts of influence like @apcnigeria and @youthsforatiku were used to distort facts during the campaign. For example, @apcnigeria was instrumental in spreading manipulated facts about @atiku's US-travel ban and an alleged involvement in corruption cases. On the other hand, @youthsforatiku spread distorted facts about @mbuhari's health status and amplified the issues about his West African Secondary School certificate.

Trended under the hashtag #LiesOfObi, "Obi China" disinformation campaign was initiated to discredit some of the facts @peterobi made during the vice-presidential media debate. Coordinated by one of APC top social media consultant, a presidential aide and Buhari Media Campaign members, they charged Peter Obi's statements with counter claims aimed at discrediting the statistics he shared. One way they did this was through @memecentralnig, an account that was created in October 2018 (about two months before the debate). It was an instance of deploying the distort and dismiss strategies of propaganda.

The data indicated that @apcnigeria was linked to smaller disinformation-for-hire agents, such as the Buhari Campaign Organization and Buhari Media Centre (BMC) (BMC is a social media propaganda machinery that recruits people who are commissioned to spread coordinated propaganda on Twitter and other social media platforms while also amplifying support for the government).

Electoral management body, @inecnigeria featured prominently in the dataset for its efforts to diffuse false information targeted at discrediting the electoral process and institution. It dealt with widespread mistrust of partisanship and credibility of the Smart Card Reader. One such case of false information turned into political disinformation was the appointment of Amina Zakari[86] to head of INEC's committee on collation centre. Rumoured to be President's niece, the opposition PDP made a meal of it, alleging such appointment meant the Electoral Commission could be compromised.

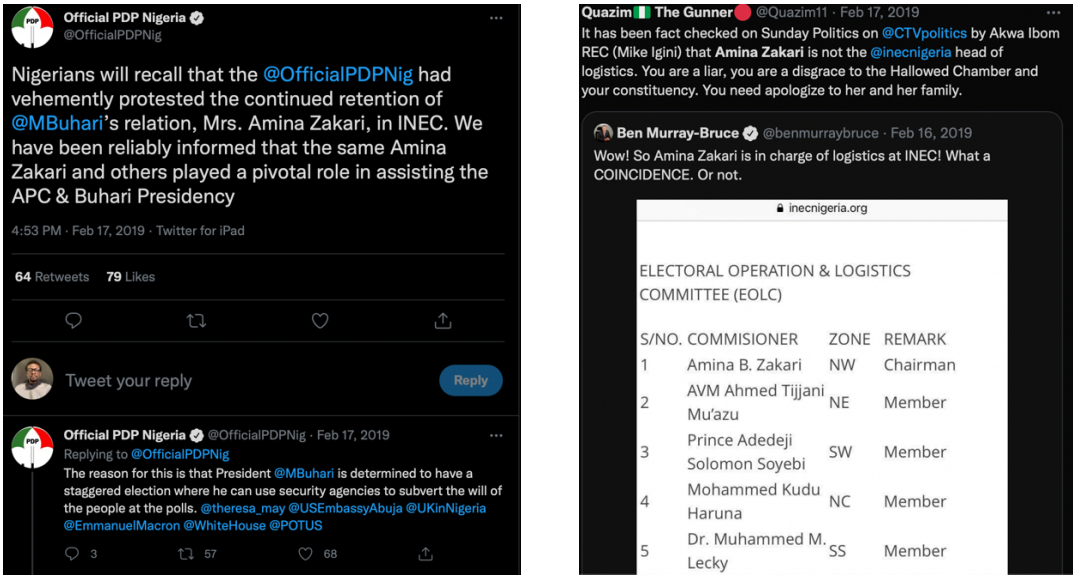


Figure 21: Screenshot of tweets by PDP alleging an INEC compromise

A related tweet read: "the issue with the appointment of Amina Zakari is not her competence but her relationship with the appointer it is not about PDP but about every other party and the whole democratic system." Another user questioned the opposition's allegation:

> Fayose and PDP said buhari has dead [died] that Nigeria government is controlled by jubril of Sudan, the question is how come the woman nominated in INEC is jubril nieces [Jubril's niece]. I mean jubril of Sudan and the Amina Zakari of Nigeria?

The Electoral Commission was also accused of planning to drop the use of the controversial smart card reader and had to respond to questions related to the supplier of the machine:

[86] Amina Zakari was a national commissioner at the Independent and National Electoral Commission (INEC). She was appointed to head the collation centre of the 2019 elections. The committee was responsible for the national collation centre – the International Conference Centre – from where results of the presidential election was announced.

> @inecnigeria just confirmed the questions and the allegations of conflict of interest by the supplier of PVC. This is Nigeria, Imagine if Atiku company is the one that supplied the PVC and the smart card readers ...You see that PDP have their facts.

INEC Chairman, Prof. Yakubu Mahmud, was quoted debunking the rumours: “No 3rd party is involved in the reconfiguration of Smart Card Readers. That is done solely by @inecnigeria officials. It is not true that any vendor is taking part in reconfiguration of SCRs - Prof. Yakubu Mahmud #NigeriaDecides2019.”

Seems both groups of supporters were just busy throwing claims and counter claims at each other. Without shifting focus away from the seriousness of the misleading claims, manipulation, and broader issues of election that fuel public debates, it raises the idea that disinformation could also be more of a performance, a histrionic thing. Just fun!

7.3.1.1 Role and significance of micro-influencers

Interviewee C1 observes that micro-influencers have less mainstream credibility, but they could

> Create more interactive field which now becomes the leverage they need to push issues, and I think … working with them is by far easier, because with them there is no ego and yeah working with them is quite easier because you have more spread, less cost.

The average age of micro-influencers became vital because of the high youth voting population. “Young people now tend to be relating more with people around their own age bracket. And some of these people around that age bracket have that media clout” (Interviewee C1) politicians desperately need for offline influence and grassroot penetration.

Describing the influence of disinformation-for-hire networks, Interviewee C2 has observed how the election played out both in the north and south of the country, especially at the grassroots, pointed that

> “Their sophistication is actually being underrated …. By 2023 elections, they will be much more active, dangerous, and much more useful. Big influencers that have followers in millions on social media who may be termed “online celebrities” actually don’t influence the political process so much. Do you know why? Often times, they don’t actually go to meet the people, they just inhabit that social [media] space.”

As an emerging political force, micro-influencers appeared successful in areas social media influencers failed. As someone who had interacted with this group since 2015, interviewee C2 (2020) pointed that:

> Some of these micro influencers are the people living with the majority of the people, so they have a way of targeting them. They live in the suburbs; they live in the neighbourhood, and they have their own network of influence …. They actually may reach out to ten people that they can convince and in turn those ten people can also convince

additional ten people because people can just read the mega influencers on social media, and it stops there.

Commenting on the cascading effect of micro-influencers, Interviewee C2 stated that

> Celebrity influencers often don't have a kind of physical relationship with the people, but these micro influencers have physical relationship with them, they go to the polling units, they also go to influence the canvassers in those polling units in the wards. They could get to the beer parlours, meet the key population, influence the community-based organizations that go further to influence other people. They were more strategic during the last 2019 elections than those big celebrities in the cities.

Similar to the pattern exhibited by the retweets networks (where a couple of accounts exhibited behaviours akin to agents who work for same clients within and across party lines), some micro-influencers were reported to:

> Collect money and instead of doing the job of which the money was paid for, they can even start working against you because the particular person that you may think is the owner of one particular account can also have other fake accounts that the other politician wouldn't know about. So he can collect money from you, work against you and come back to tell you that you are not actually receiving good reputation on social media, that many people are saying ugly things about you (Interviewee C2).

Corroborating this notion, Interviewee C3 who has worked closely with influencer networks and once offered his IT skills for money to manipulate debates on Nigeria's digital media space noted that:

> They operate a network of accounts, through proxies or pseudonyms that can sometimes be difficult to link to the main operator. This type of operation made it possible for an influencer to run social media campaigns for both Atiku and Buhari camps almost without a trace."

7.3.2 Hashtags

Twitter hashtags mark the ebb and flow of public conversations and events (Meraz & Papacharissi, 2013). People take over to Twitter to share their opinions on any issue. Used by many people to emphasize the theme of their Twitter content, hashtags make it easier for other users to find and follow the content related to such themes as highlighted by the tags. Some of the top hashtags that generated the most reactions are discussed below.

1. #NigeriaDecides2019 – This was the official hashtag and slogan for the general election. It was the most used hashtag in the election data, appearing in 239,503 tweets. Being the official slogan of the election, all other slogans and general conversation by individuals and groups on Twitter were built around it. It occurred highest in the community that coalesced around the APC support group (ruling party, social media aides and paid influencers community), appearing 34,812 times

in the community's tweets. Being the community that drove the President's re-election bid on Twitter, it was unsurprising that it used the hashtag the most.

2. #NextLevel – Official hashtag for President Buhari's re-election campaign. #NextLevel (occurred 108,796 times) was a slogan packaged to promise Nigerians better governance, leadership and national development by a President who was seeking a second term in office. The hashtag occurred the most (33,810) in the ruling party, social media aides and paid influencers community, one that featured the party's official handle (@officialapcng) and the campaign's Director of Strategic Communication, @fkeyamo. Reflective of the Buhari administration's first term, it was understandable that the ruling party, social media aides and paid influencers community 'owned' the hashtag in a way that greased their disinformation campaign on Twitter.

Hashtags	Total	Presidential candidates	PDP politicians & support groups	Ruling party, SM aides & paid influencers	APC support groups	EMB	Mainstream media	Online media & CSOs	"Third Force"	State media, PDP VP candidate	Bloggers
#nigeriadecides2019	239,503	14,881	29,417	34,812	7,741	20,549	15,243	28,991	11,957	4,619	1,561
#nextlevel	108,796	6,546	8,713	33,810	2,951	1,491	1,692	1,596	1,062	1,744	1,954
#nigeriadecides	63,537	3,664	6,849	9,142	1,926	4,943	4,628	5,959	3,243	1,147	1,364
#nigeria	34,718	1,370	3,746	2,366	537	1,105	4,326	3,790	1,347	225	3,651
#letsgetnigeriaworkingagain	28,588	3,305	14,283	2,556	1,610	489	678	410	320	831	91
#apc	26,875	1,242	2,013	2,597	703	910	931	708	697	228	1,555
#nigeriadecides2019result	20,366	2,098	1,476	2,703	810	2,506	1,244	1,158	914	430	89
#buhari	20,258	1,194	2,307	1,911	594	772	892	934	566	145	940
#pdp	20,041	1,305	2,005	1,556	722	1,037	810	588	466	226	1,142
#atikulated	19,513	2,662	5,969	1,540	1,184	804	682	289	353	616	52

Table 4: Breakdown of hashtags occurrence per community

3. #NigeriaDecides – This is a generic hashtag for general elections in Nigeria (covering presidential, gubernatorial, national assembly and state houses of assembly). The year is usually added to the hashtag to capture the timeline of the election, as in #NigeriaDecides2019 or #NigeriaDecides2015. It was dominated by the ruling party, social media aides and paid influencers community which accounted for 9,142 of the 63,537 times it occurred in the dataset.

4. #Nigeria – Geolocation based and country specific hashtag that was added to reflect the geolocation of the election by users. Conversations related to this hashtag coalesced around Channels Television (an independently owned television station, popular for its political news coverage. It is also a leader in multimedia and multiplatform broadcasting which appeals to a wide section of audiences). @channelstv had a robust live-coverage (online and mainstream) of the 2019 presidential election. The mainstream media community used the hashtag the most, 4,326 out of a total of 34,718 times in the data.

5. #LetsGetNigeriaWorkingAgain – Official campaign slogan for PDP's presidential candidate, and former Vice President, Atiku Abubakar. Conversations drawn to this hashtag coalesced around then-Senate President, Senator Bukola Saraki. The hashtag was a slogan crafted with a promise to salvage a dwindling economy under President Buhari, and restore hope. It was used mostly by

the PDP politicians and support groups community that featured a youth support wing and popular PDP politicians and lawmakers. Also used as a tool to spread manipulated information by some supporters, discussions around this hashtag amplified the low performance index of the Buhari administration, promoted its presidential candidate, and diffused disinformation targeted at @atiku. #LetsGetNigeriaWorkingAgain occurred 28,588 times, 14,283 of which was attributed to the PDP support community.

6. #APC – Hashtag linked to the ruling party. It captured conversations about the party's campaign for its presidential candidate. It featured most in tweets by the ruling party, social media aides and paid influencers community 2,597 times. Used as the party's disinformation tool, this hashtag largely targeted the opposition PDP, its 16years of leadership at the centre and poor performance. It featured highest in a total of 26,875 times.

7. #NigeriaDecides2019Result – Introduced at the vote count and collation stage of the election by Nigeria's Twitter community, this hashtag was used to monitor the progress of voting from polling units across the country. Electorates, candidates and political parties used it to share live updates in a manner that also enabled easy circulation of unverified results and figures on Twitter and elsewhere. Everyone had something to share. It turned out to be another disinformation hotspot whereby parties and supporters tweeted unverified (sometimes manipulated) result sheets to create a false sense of victory for their candidates. Lasting only until the votes count and declaration of result weeks, it couldn't have ranked any higher. It was featured 20,366, mostly by the ruling party and paid influencers community with 2,703 counts.

8. #Buhari – Hashtag linked to President Muhammadu Buhari. One revealing finding was that the hashtag was most mentioned by the community controlled by the PDP machinery rather than the ruling party's community as would be expected. This supported the findings in chapter 7 where smear campaign was noted as one of the communication strategies of disinformation agents. It pointed to intensity of the smear campaigns targeted at @mbuhari under topics such as "Buhari is a clone", "Jubril from Sudan", and the authenticity of his WAEC certificate. The hashtag was used 2,307 times.

9. #PDP – Hashtag linked to the main opposition party, the People's Democratic Party. The party was in the race to reclaim the presidential seat it lost in 2015 after more than 15 years in power. It occurred the most times (2,005) in the PDP politicians and support groups community out of its 20,041 occurrences.

10. #Atikulated – A second slogan coined from the name of the PDP presidential candidate, Atiku Abubakar by his supporters. Occurring 19,513 times, the hashtag was used the most by the same community as in (9), 5,969 times.

7.3.3 Media partisanship

There were some news outlets that resonated in the top 10 communities. This analysis does not imply that the said news outlets consciously shaped their content to appeal to a particular political party or partisan group. Rather It argues that their contents clearly resonated more with

one specific community than others since the appearance of a news outlet in a community meant it must have been retweeted and @mentioned more by members of that community than any other.

Twelve news media outlets featured in the dataset. Channels Television (@channelstv), Punch Newspaper (@mobilepunch), Sahara Reporters (@saharareporters), TVC News (@tvcnewsng), and Vanguard Newspaper (@vanguardngrnews) featured in a distinctively media community. Gidi Traffic (@gidi_traffic) and Traffic Chief (@trafficchiefng) featured in more diversified communities (electoral management body community) dominated by @inecnigeria, which also featured celebrity musician, @falzthebahdguy and musician-politician, @bankyw. @premiumtimeng and @thecableng featured in a community of civil society organizations and election observers. State-owned news outlet and broadcaster of the presidential debates, @ntanewsnow appeared in a community that featured the anchor of the media debates, Kadaria Ahmed (@kadariaahmed), and Twitter video/GIF provider, @this_vid (provided users access to video clips of moments from the debate that were turned into memes). Although the media outlets generally did not rank high in the list of influencers, it does not downplay the role of mainstream media in Nigeria's evolving digital politics. It will be of interest to disinformation studies if other research works look into investigating how journalists and their organizations use Twitter for their day-to-day journalism duties.

CHAPTER 8

MACHINE-CONTROLLED TRUTH AND FREE LIES: SURFACING PARTICIPATORY NATURE OF ONLINE DISINFORMATION

As political campaigning and technology evolve, it is increasingly necessary for campaigns to have a strong digital volunteer base and social media presence to reach voters. As a result, political campaigns around the world are developing new tools and tactics to campaign on social media and bring politics straight to voters' social media feeds, but some of those tactics are starting to blur the line between what we would consider good digital organizing (i.e., harnessing online volunteers) and disinformation (Otis, 2020).

Evidence presented in this chapter helps in answering the main research question and sub-questions 1 and 2 that border on identification of instigators and the techniques used in the spread of disinformation. The analysis shows how human actors leverage technical affordances of Twitter to amplify harmful content through inauthentic means. At the same time, the analysis of this evidence connects to broader debates on the phenomena of disinformation, the intersection of politics and technology, and how online influence operations are participatory activities which use social media users as "unwitting agents" to propagate designed narratives. It contributes to debates on the widespread use of social media for political communication and how the identity-obscuring nature of platforms have made them a prime target for politically-driven influence, both legitimate and illegitimate.

"Coordinated campaigns are used to influence and manipulate social media platforms and their users" and are "a critical challenge to the free exchange of information online" (Pacheco et al., 2020, p. 1). There are at least three ways to use coordinated behaviour on Twitter: The tweets from the involved accounts can be retweeted first. When diverse sets of followers follow different accounts, this helps to improve the overall reach. Second, many accounts can work together to spread messages that support a campaign's objective. Disinformation operations can increase the amount of messages that meet their objectives by co-retweeting the exact same message from a third party. Third, different accounts controlled by one person (or a team) can appear to tweet the same thing independently, a practice known as co-tweeting (Graham et al., 2020) or copypasta (Wilmot & Tveteraas, 2021). This type of coordination is probably most telling of a disinformation campaign because regular users are very unlikely to post the same message at the same time or on different days (Keller et al., 2019).

While President Muhammadu Buhari and Atiku Abubakar campaign teams sought to influence the presidential election, and Nigerian politics broadly, it was part of a burgeoning global "disinformation-for-hire" industry, in which paid actors, often connected to or contracted by political figures, are funnelled cash to spread propaganda and intimidate opponents on social media. The financial structures behind these schemes are often opaque. According to a participant who was responsible for recruiting other agents who create multiple accounts operated by a single user: "The money passes through many hands before it eventually gets to

the person who actually goes ahead to publish it [the content]. They don't know exactly who they are working for, but they know which side they're on" (interviewee B10).

It is less expensive "now that you don't need a lot of resources or a lot of money to be able to launch these kinds of campaigns anymore"[87]. Twitter is a particularly appealing platform for politicians seeking to save cost on disinformation campaigns. Unlike Facebook, which requires that users pay to promote content (Bossetta, 2018), hashtags can make it onto Twitter's trending section for free. Controlled by an algorithm, the feature identifies topics that are popular at a specific point in time (Zubiaga & Ji, 2014), sometimes even when that popularity may be manufactured.

During the election, monitoring and observer missions set up "situation room" to respond rapidly to misinformation and fake news that could influence voting. While most of their activities targeted offline content (e.g. non-partisan security agencies, voter register integrity, card reader function, transparency of results collation, etc.), disinformation orchestrated on social media went unmitigated. The "situation room" intervention is important to note because disinformation (online and offline) does not 'happen' on election day only. It is cyclical, has a life cycle and starts circulating months, sometimes even years, before an election. Conspiracies such as the one suggesting president Buhari was suffering from dementia or that his senior secondary certificate was not authentic or that Atiku Abubakar was a "thief" were in force since November 2018[88] .

8.1 Situating disinformation campaign as participatory culture

Online disinformation campaigns are participatory activities, which audiences use to magnify their intended narratives rather than just receiving them (Starbird et al., 2019). Social media is a prime target for political influence, both legitimate and illegitimate, due to the prevalence of its usage for political communication and its identity-obscuring features. Through what Weber and Neumann (2021) called "cyclical reporting (i.e. social media feeding stories and narratives to traditional news media, which then sparks more social media activity), social media users can unknowingly become" "unwitting agents" as "sincere activists" of concerted operations (Benkler et al., 2018; Wilson & Starbird, 2020). Political trolls and bots continue to be widely used to sway how problems are framed and discussed in professional media (Bessi & Ferrara, 2016; Woolley 2016; Woolley & Guilbeault, 2018; Rizoiu et al., 2018; Cresci, 2020). The "megaphone effect"— the employment of bots and sockpuppet accounts to amplify individual voices above the din (Nguyen & Dolbec, 2020) — requires coordinated action and a level of consistency that could leave traces in the digital record.

By adopting a participatory culture perspective, this study broadens the lens through which top-down, orchestrated activity is examined, together with other forms of explicit and tacit coordination. We can investigate and account for the participation that appears in scattered,

[87] https://restofworld.org/2021/kenya-disinformation-bbi-judiciary/

[88] https://situationroomng.org/wp-content/uploads/2019/09/Report-on-Nigerias-2019-General-Elections.pdf

online crowds thanks to this (Starbird, Arif, & Wilson, 2019; Nagar, 2012; Palen & Liu, 2007; Sarcevic et al., 2012; Starbird & Palen, 2011).

Debates on collaborative work has also adopted and further expanded sociotechnical theories - e.g., structuration (Giddens, 1984), sociomateriality (Gemeinboeck, 2021; Hutchins, 1995; Penny, 2017) - to assist in investigating how online environments facilitate and shape collective behaviour in the "crowd" (Starbird, 2013; Starbird & Palen, 2013; Vieweg et. al, 2010). We may make an effort to explain how social structures, technological affordances, and human behaviour are all shaped in tandem by using this sociotechnical lens. The characteristics of the user interfaces we employ (such as the ability to reply or "like" a tweet) as well as the algorithms that affect what we see of other people and their material and how others see our content are collectively referred to as technological affordances. The norms or standards that govern our behaviour within these platforms are considered social structures, as are the online communities that form around certain talks. These technical and social frameworks influence human agency, or the decisions we make, but those decisions also influence the structures themselves (Starbird, Arif, & Wilson, 2019). The technological affordances in these contexts, for instance, shape our networks of connections (our "social networks"); when we "follow" someone, their information appears in our "feed" (Bruns, 2019). We see the material of some people but not others because of these networks of connections, which both permit and constrain certain interactions and further influence our behaviour.

Similar to how our behaviours impact the technological infrastructure, it sometimes does so gradually (by adding new features) and sometimes dynamically (for example, when we "like" a post made by another user, the algorithm updates to send us more of their content). Additionally, the activities of other users within the ecosystem are governed by the norms that form through time as a result of the acts we take. We can highlight some of the second- and third-order effects of disinformation operations in online contexts thanks to this perspective on the mutual shaping of technology, social structure, and human activity.

Distinguishing between premeditated, intentionally coordinated, disinformation campaigns and the emergent, (in)authentic behaviours of an online population is a crucial challenge for researchers, platform designers, and policy makers, something that be addressed through this sociotechnical lens. Worthy of note is that some specific components of the theoretical framework of this thesis are of particular relevance to the analysis presented in this chapter as well as chapters seven and 10. They also contribute to answering sub-research questions one, two, and three.

8.2 "New elites" as emergent dynamic in Nigeria's disinformation ecosystem [89]

Participatory disinformation is the idea that links the actions of political leaders, media personalities, community activists, and online audiences to the disinformation that is distributed

[89] This is used in this thesis to mean users who reinvent themselves in the online space. People who mattered influencing others and make waves. They are not elites in the same category of users who have 10,000 followers or more.

during elections. Certain conditions allow participatory disinformation to take root and can lead to acts that threaten peace and security, belief in democracy, and breed mistrust in institutions. The illustration below serves as a starting point for understanding the numerous entities and forces that make up the larger participatory activity, one in conversation with the other, and how they take advantage of social media affordances and dynamics.

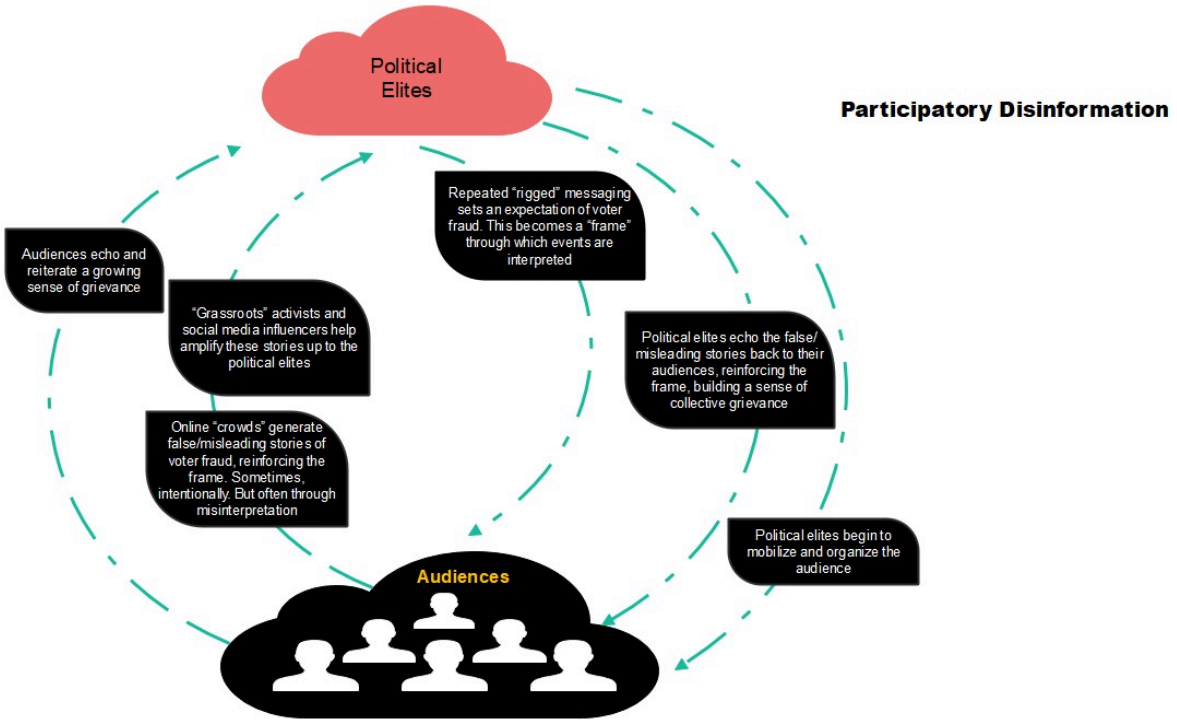


Figure 22: Bottom-up participatory disinformation

The visual above (adapted from Starbird, 2021) explains the dynamics of "participatory disinformation" and how that motivated some of the popular disinformation campaigns that resonated with the 2019 presidential election.

First is the "elites". This includes publicly elected officials, political commentators, partisan media outlets, and social media influencers—the majority of whom have utilized deception and other strategies to build their reputations and attract sizable online followers. We then have their target audiences: Followers and participants in their narratives on social media and in the general public. In the lead up to – and for several months after – the 2019 presidential election, political elites - the likes of Bukola Saraki (former Senate President), Reno Omokri (former media aide to Nigerian ex-President, Goodluck Jonathan), Femi Fani-Kayode (former Aviation Minister), Festus Keyamo (Minister of State for Labour and was Director of strategic communications of the 2019 re-election bid of President Buhari), Lai Mohammed (Minister of Information and Culture and former national publicity secretary of the All Progressives Congress), Dele Momodu (journalist/publisher of Ovation International, and one of the presidential aspirants), Tolu Ogunlesi (President Buhari's special assistant on digital/new media), Kayode Ogundamisi (public commentator), Bashir Ahmad (personal assistant to President Buhari on new media), Lauretta Onochie (personal assistant to President Buhari on new media), Dino Melaye (a former Senator)

– and their supporters repeatedly tweeted messages themed around corruption, academic certificates, rigging, nationality of candidates, lack of independence of the judiciary and electoral commission using the hashtags #IRememberPDP, #NeverAgain, #DubaiStrategy, #JubrilFromSudan, #LestWeForget, #Don'tDodgeTheDebate, #NigeriaDecides2019Result hashtags. For example, one user posted:

> The public should note that certain elements in the ruling APC are planning to frame top PDP chieftains with a stage managed branded vehicle loaded with arms. This may be a needed distraction based on the material evidence on the activation of APC thugs nationally. #NeverAgain.

A similarly toned tweet reads:

> PDP has seen the handwriting on the wall, which is why their campaign strategy right now is focused on shouting about rigging, publishing doctored polls, and destroying campaign materials belonging to the APC. #NigeriaDecides #PDPNeverAgain #PMBFourMoreYearsNaija.

This sets an expectation of distrust, electoral fraud, and atmosphere of division that became a "frame" through which events were interpreted. One of the popular reactions to the postponement of the February 14 election by INEC read:

> *6 months to #NigeriaDecides2019* INEC: We're ready for this *3 months* INEC: We're ready *1 month* INEC: We're ready *2 weeks* INEC: Trust us, we're ok *1 week* INEC: Ready *3 days* INEC: Ready *2 days* INEC: Ready *1 day* INEC: Wait! We're not ready! Sorry.

The original post received 8,027 likes, 463 retweets, and 6199 replies. Same tweet was tweeted by 14 other users. Reacting to the same postponement, another user targeted President Buhari's reaction to a similar issue in 2015 to suggest biases: "Less we forget, this was what Buhari said when election was postponed by INEC in 2015," adding a video of his damping remarks when the election was postponed over security concerns.

On election day, there were rumours circulated that "the latest from the #Dubaistrategyoflies is to quote spurious polls predicting an @atiku victory in a bid to claim rigging in the face of the impending annihilation by @mbuhari." Amplifying a similar narrative of a rigged election, one tweet suggested: "APC plans to tamper with card readers using telephone-like devices," and that "@officialapcng has brought in their professionals from China trained to slow down card readers in South-South, South East, and North Central and fasten that of South West and North West, and North East." It was widely circulated that "Atiku and PDP have no foreign backing. They only have contract with one American firm to promote propaganda and bring mischief in the country. #Dubaistrategy."

With the audience's perspective on the election shaped by this frame, the online "crowds" circulated false/misleading stories, echoing and reinforcing the frame. Sometimes these stories were produced intentionally, but often they were generated sincerely, misinterpreted. This was experienced with the disinformation campaign that targeted the PDP's 16 years of governance at the federal level while another focused on rigging and card reader (mal)functionality. Such technical failure is not peculiar to Nigeria. This is a case that is comparatively similar to elections in Kenya in 2013 where the biometric ID systems malfunctioned at most polling stations causing delays in voting. In some polling stations computers were not working and "in one polling station a voter had to come and show the presiding offer how to use the computer." The election day was marred by technical hitches caused by faulty biometric voting kits in some polling stations. The failure of the biometric voter ID systems forced electoral officials to resort to the manual voters register. This was a setback considering the computerised fingerprint and facial identification was introduced after the 2007 election to prevent fraud[90].

Initial stories about flaws in the system can raise concern about corruption, looting, and credibility of the electoral process but can soon become evident that such narratives are intended to distract and dissuade voters from participating in the election. "Grassroots" activists and social media influencers helped amplify these stories through inorganic means, passing the content up to the political elites. Some intentionally attempted to "trade-up" their contents to reach larger influencers (those with bigger audiences).

Political elites then echoed these false/misleading stories back to their audiences, reinforcing the frame, and building a sense of shared objective. The goal at this stage was to draw participation in the form of voting or taking other political actions. Below are a sample of tweets:

> @atiku @PeterObi All the results have been compromised... They are splitting PDP'S vote to other parties. Are they trying to say people actually went to the polls to vote for GDPN, MAJA, MMN, MPNand so on? #NigeriaDecides2019 #NigeriaDecides2019Result.
>
> @inecnigeria and @ChairmanINEC Shame on you all. Broad day light robbery. And to think that we had faith in Prof Yakubu Mahmood to do right is just a great regret in our recent times. This is not an election. #INECNumbersDontAddUp #NigeriaDecides2019 #NigeriaDecides2019Result.
>
> @MBuhari You won by rigging... you are the most shameless President, you know nothing about free and fair election. all the blood you shed just to win #NigeriaDecides2019 Will forever hunt you and your generations. #AtikuOurPresident #NigeriaDecides2019Result #vanguardnews.

Polling units in certain party strongholds were targeted with violence to suppress participation. In other instances, voters were encouraged to "stay back" after voting until results were announced. As audiences echoed and reiterated this growing sense of grievance and anxiety,

[90] https://www.bbc.com/news/world-africa-21652947

calls to action increased: unverified results were posted on several social media platforms, vote counting disrupted in polling units to prevent official announcement of result, etc. Political elites began to mobilize and organize the audience into a series of actions under the #defendyourvote, #nigeriadecides2019result, #electionday, #atikuiswinning, #buharihaswon hashtags which began circulating on election day proper. This encompassed several propaganda messages about voter fraud, rigging and interference by security agents:

> It is very clear that Buhari has seen no other way to win this election except he rigs! @MBuhari must know that Nigerians will prepare even more better than we did today to resist any form of rigging! We will #DefendOurVotes #Nigeriadecides2019 #AtikuOurPresident.
>
> INEC has no excuse. Let them speak their smelly big grammar, we dey wait for una on the 23rd. We will not allow you sell our children's future. Enough of this rubbish. #DefendYourVotes #NigeriaDecides2019.
>
> If you think this is a mere "coincidence" then your Mumu never do. We will defend our votes, our votes must count. We will not allow the incompetent people of INEC sell the future of our kids. #DefendYourVote #NigeriaDecides2019.

The disinformation campaigns, motivated by this participatory dynamic, were fired up in an attempt by people who, at least in part, falsely believed they were defending their candidate, party, or country's democracy from a "corrupt" group. Participatory disinformation makes for a powerful dynamic. These tight feedback loops between "elites" and their audiences (facilitated by social media) seem to make the system more responsive – and possibly more powerful and unwieldy. As political campaigns develop new tools and tactics to campaign on social media, some of those tactics blur the line between what we would consider good digital organizing and disinformation.

8.3 Driving engagement through less normative sources: The rise of new "elites"

One aspect of participatory disinformation dynamic is that it can produce new "elites" who manage to use the system to gain reputation (and followers). They are micro-influencers who are often more approachable and relatable, with a smaller, yet immensely dedicated following. On the surface, it appears that an influencer's total number of followers is the most important factor. Although the total number of followers does draw attention, engagement is the key to an influencer's long-term success in terms of commercial sustainability.

Politicians are focused on the interaction between influencers and their audiences and that is measured by likes, retweets, mentions, comments and the ultimate trust followers have in the influencers they follow. Politicians frequently overlook new "elites," who frequently have extremely high fan engagement, while creating and executing disinformation campaigns. Retweeting is the simplest way a coordinated account can amplify a campaign's message – it requires only one click. A sparse view of the retweets network gives a sense of who the "new elites" were and the role they played.

Coordinated campaigns are used to influence and manipulate platform algorithms and users, a critical challenge to the free exchange of information (Pacheco et al., 2020). There are various ways to implement coordinated behaviour on Twitter: The tweets from the involved accounts can be retweeted first. When diverse sets of followers follow different accounts, this helps to improve the overall reach. Second, messages that are consistent with the campaign goal can be amplified by all the accounts working together. Disinformation campaigns can increase the amount of messages that meet their campaign objectives by co-retweeting the exact same message from a third party. Third, a single person's (or team's) several accounts can appear to tweet the same thing independently by co-tweeting. Because regular users are unlikely to publish the same message at the same time or on various days, this type of coordination is perhaps the most revealing of a disinformation effort (Keller et al., 2019).

The starting point of coordination detection can be a conjecture about suspicious behaviour. Assuming that authentic users are somewhat independent of each other, a lack of independence is considered as evidence of coordination (Pacheco et al., 2020). This approach is guided by a choice of traces that capture such suspicious behaviour. The conjecture in this study that some accounts were controlled by an entity with the aim of amplifying disinformation campaigns was substantiated by shared tweets that were extracted as a trace. A broad categorization of suspicious traces was used to achieve this:

a. If the coordination is based on the *content* being shared – hashtags, words, retweets, and user mentions.

b. If the coordination is revealed by spatiotemporal patterns of *activity* such as timestamps.

A few disinformation campaigns were selected by instantiating the data-driven framework to detect different types of coordination: (i) sequential use of hashtags, (ii) co-retweets, and (iii) co-tweeting (repeated posting of same tweet by multiple accounts). By these, it became possible to detect coordinated behaviour based on what is written in text, retweeted, or when these actions are taken.

8.3.1 Exploring the structure of the information space

The data showed that a retweets network model enabled the discovery of a small yet highly coordinated network of users (“new elites”) that stood out from others. Reproducing the bussing crowd for political rallies, retweets network relies on inauthentic online engagement to generate the appearance of support (Evkoski et al., 2021; Guarino et al., 2020). As shown in Fig. 23 three clusters of coordinated users were significantly bigger than the others.

Retweeting is the simplest way a coordinated account can amplify a campaign’s message – it requires only one click. The network was analysed to identify accounts with the highest retweet count and their sphere of influence. An analysis of those actively engaging each other by way of retweets required the creation of network visualization. A retweets edge-list of nodes was

created using the Twitter Sub-graph Manipulator (TSM) algorithm (available on GitHub[91]; Badmus, 2020). The edge-list was fed into Gephi and analysed using Fruchterman Reingold layout. To ensure a clearer focus on important actors, the network was filtered using the giant components and degree range filtering functions to retain only principal actors with highest analytical values and only nodes who retweeted other nodes on at least two occasions. The retweets network is visualized in Figure 23**.** Node size represents the hub value, node colour represents modularity class, while the label size reflects the number of out-bound edges of a node (Blondel et al., 2008).

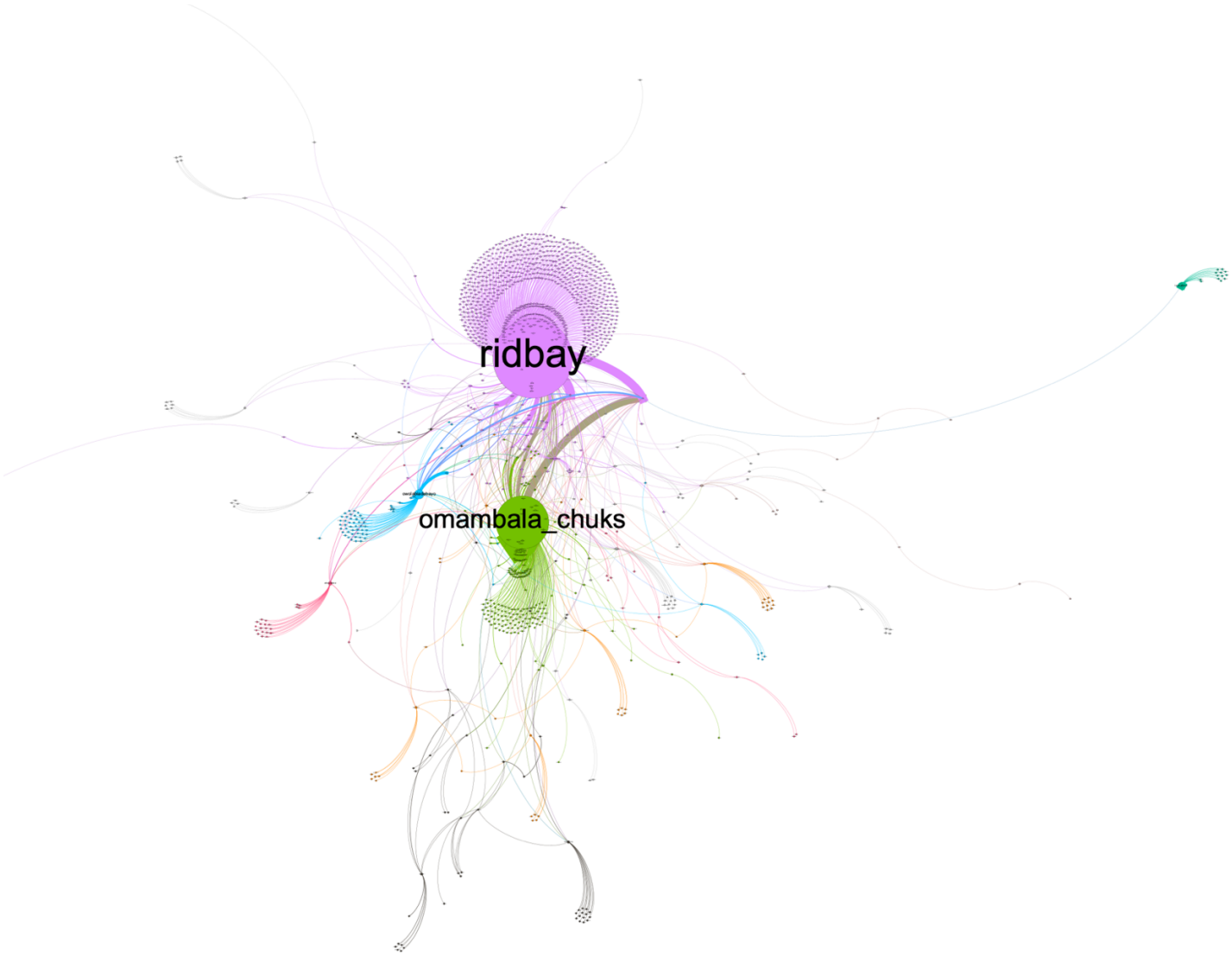


Figure 23: Retweets network - node colour is used to represent cluster membership

[91] https://github.com/dfreelon/TSM

To protect and respect the privacy of individuals whose security may be at risk if their content is made public, I have anonymized all account names in this study with the exception of media organizations (e.g., Premium Times, Radio Biafra, Channels Television, Sahara Reporters, TVC News, The Cable, Vanguard Newspaper) and public figures (politicians, personal assistants, media aides, party officials). In lieu of account names, I have used account types to characterize the accounts, providing insight into the types of accounts that were involved in Nigeria's disinformation ecosystem. Due to their influence and significance within the information space, accounts that rank high in retweeting other users were assigned a persistent handle denoting their account type and position within the clusters (e.g., Journalist; Keyboard Army). For other non-media organization accounts, the account type based upon their classification is provided (e.g., government official; information activist), for context.

The network of political retweets reveals a partisan community structure with three heterogenous clusters of users who share different political identities and preferentially propagate content within their own communities. This structural difference is of particular importance with respect to political communication because retweets can serve as a conduit through which users are exposed to information and opinions they might not choose in advance.

Such interactions may reinforce pre-existing in-group/out-group identities, exacerbating the problem of political polarization.

8.3.1.1 Purple cluster: Pro-Buhari partisan army of influencers

The retweets network graph revealed a large central cluster, in purple, that featured majority of the most highly retweeting accounts in the dataset. These influential purple accounts occasionally retweeted each other, but the cluster is primarily held together by a small account (less retweeted by others) who aggressively retweeted Buhari-related tweets, and several other influential accounts. This cluster was one of the most politically active in the election conversation, producing the second highest number of tweets (574,303 tweets). The contents shared within this cluster were supportive of the APC-led government and President Buhari and highly critical of opposition, especially the PDP and Atiku Abubakar. Accounts here produced and amplified many alternative narratives to stories of Buhari and his medical tourism, senior secondary school certificate, performance rating index for his first term, and the 'Buhari is a clone' conspiracy. Three of the ten most mentioned plus retweeted accounts featured in this cluster. Examining these accounts underscored both the diverse and multifaceted nature of Nigerian politics and the disinformation campaigns that resonated during the election. It also highlighted their convergence around a common set of themes.

Central to the cluster were a number of diverse political actors and "information activists" who were highly retweeted within the election conversation, each of which expressed a decisively pro-government stance. @ridbay - the account that retweeted other users the most in the dataset - consistently retweeted pro-Buhari and partisan tweets including commentaries that targeted opposition politicians. One of the highest tweeting accounts in the cluster, @adebanqie, accused the PDP and Atiku of diversion of state properties and looting the economy dry between 1999 and 2007: "Atiku stole monies belonging to you and me. Founded Schools and Businesses,

then employed Expatriates to run them These businesses and Schools now employ a privilege few Is this job creation? It is called ABRACADABRA JOB Creation."

A group of politics focused accounts, @toluogunlesi (special assistant on digital and new media to President Buhari), @ogundamisi (partisan social media consultant), @bashirahmaad (personal assistant on new media to President Buhari), @fkeyamo (Director of Strategic Communications of Buhari's 2019 re-election bid) and @laurester (personal assistant to President Buhari on new media) focused on spreading propaganda and pro-government narratives with tweets designed to counter notions that Buhari was dead and replaced with a clone, "Jubril from Sudan". Counter campaigns against the body double conspiracy were driven by @obeweh and @jeffphilips1, spreading misleading claims about the source of Atiku's wealth: "BREAKING: Foreign firm hired by the Atiku Campaign Organization headed by Bukola Saraki predicts loss for Atiku "The results of the poll are, to put it bluntly, very negative for us." Another tweet from @jeffphilips1 reads:

> A colleague just asked me why I always feel @atiku will loot Nig's money if elected president and I asked him why he always feel his cat will eat his fish if he left it on the kitchen cabinet. As I type this, his hands are still on his head.

Government's social media propaganda was designed as an alternative and competing narrative to what circulated offline. Targeting Atiku's presidential bid, another group of accounts coordinated by @toluogunlesi, @zahrahmusa, @ogundamisi, and @mr_jags were used circulate anti-Obi and anti-Atiku propaganda, anchored on two campaigns: #DubaiStrategy and #LiesOfObi. Some examples of the tweets are presented below:

> A US group: International Strategic Studies Association (ISSA) published a report full of innuendos and outright fables. that "Nigerian govt has lost control over boko haram..." Pic 1 shows why. -thats leader of ISSA Gregory Copley with PDP Secondus and Saraki #DubaiStrategy

> The #DubaiStrategyOfLies of spreading #FakeNews used by the #opposition of the @OfficialAPCNg as #NigeriaDecides2019 explained by a foreign journalist. . @DeeOneAyekooto For more Join APC Telegram Channel https://t.me/newspolitics



Figure 24: Screenshot showing samples of manipulated claims that targeted Peter Obi

> The latest from the #Dubaistrategyoflies is to quote spurious polls predicting an @atiku victory in a bid to claim rigging in the face of the impending annihilation by @MBuhari. Febuhari 16 the real voters will be @the polls.
>
> If not that we are in a Nation where lying is the order of the day, this man called Obi would have buried his head in shame. Obi is an unrepentant liars #LiesOfObi I'm craving #FeBuhari of #NextLevel already so we can have a break from Him Tu Lie.

8.3.1.2 Green cluster: IPOB activists

The second-biggest cluster, in green, was comprised of Indigenous People of Biafra (IPOB) activists. Users in this cluster shared many conspiracy theories that revealed strong connection to Nnamdi Kanu, the IPOB leader. Two of the highly tweeting accounts in the cluster (@amaka_ekwo and @nkemdimary) were frequently retweeted by the central account, @omambala_chuks. Sharing and tweeting the same message by multiple accounts (co-tweeting) was another strategy adopted to drive the "Buhari is a clone" conspiracy. Using #JubrilFromSudan, they drove the narrative up the mainstream media and political circles that president Buhari had died in a London hospital and the contesting candidate was rather a clone, "Jubril" from Sudan. Pro-Biafra news outlets, @orientaltimes and @radiobiafra were used to amplify this conspiracy initiated by @mazinnamdikanu. Tweets by users in this cluster promoted ideologies of marginalization, ethnic bias, voter apathy, while it downplayed on the need to strengthen the country's democracy. Using a slightly engaged audience, they retweeted accounts that favoured Biafra's secession activism. A few tweets of interest were integrated from other clusters.

8.3.1.3 Blue cluster: Pro-PDP

The third largest cluster, in blue, appeared the least concentrated. Although light-level engagement with the pro-Buhari community, it consisted of a few dedicated, politically active accounts similar to those in the Purple cluster. Election-related tweets from the accounts were highly critical of the Buhari government and primarily themed around diffusing stories wrapped around what happened in the 16 years of PDP-led government, Atiku's role in privatization of state assets and a rumoured US-travel ban.

> @atiku has a case to answer in the United States. Say No to someone with questionable character. @OfficialPDPNig has failed us before, they will fail again. #SayNoToPDP #PDPpartyOfThieves #AtikuNeverAgain #NigeriaDecides2019.

Appreciating how well a fake news story about a travel ban by the U.S. government could undermine any candidate, pro-Buhari "Twitter Army" spread rumours that the U.S. government had banned Atiku from entering the country over his link to decade-old bribery scandals[92]. Atiku's forced visit to Washington on January 17 and 18, 2019 to quash the rumour didn't stop the ruling APC from twisting the narrative to say the trip was a "whirlwind visit arranged by hired American lobbyists."

There are a few other peripheral clusters in the retweet network, characterized by a distinct audience (from other nodes in the graph) but also connected, via common retweets, to the three major clusters. Hundreds of other tiny clusters at the periphery of the graph were not featured in the analysis here. The largest of these are coloured orange, red, and black. Others have been excluded from the edges of the graph.

These unusual characteristics, revealed by the quantitative measurements, prompted a deep dive into the community's individual user profiles, the types of messages they promoted and the sources of the tweets they share most frequently. These graphs can be misleading, so a little context may help with the interpretation.

The retweets network showed a three-part structure. The largest cluster (purple) was controlled by a micro-influencer account, owned by a former employee of a popular public relations and branding company in Nigeria. Profile description reveals account owner is a software developer and open source contributor with experience in backend applications. It had less than 4,000 followers but interacted with influential nodes (see degree centrality graph in Fig. 25) that drove some key disinformation campaigns for the ruling party. Top was the "Dubai Strategy." #DubaiStrategy was designed to counter growing accusations that 9-Mobile (a telecommunications company) and Keystone Bank were bought by President Buhari's family members. Shortly after securing the PDP presidential ticket, Atiku Abubakar proceeded to hold a strategy session with over 400 members of his campaign team in Dubai. The Buhari campaign team interpreted the "Dubai Strategy" as a reminder of Atiku's extravagant lifestyle and elitist mindset to governance and a strategy to distract and distort extant debates. The campaign was

[92] https://www.reuters.com/article/us-nigeria-election-atiku-exclusive-idUSKCN1PT0TR

targeted at propagating a tendency to hand Nigeria over to foreign interests. Messages circulated questioned Atiku's intention to run a domestic-oriented economy in contrast to a lavish lifestyle of taking a strategy team to Dubai despite various exotic venues in Nigeria. For Nigeria's political elites, Dubai is reputed to be the perfect place to stash ill-gotten gains and enjoy luxury real estate worth millions (Page, 2020). The mention of any individual, company, organization, or entity in asset acquisition or financial transaction in Dubai is easily construed as involvement in siphoning monies in violation of domestic law or international agreements.

The conspiracy theory was that a vote for Atiku would signal a return to the era of importing essential commodities, one that conditioned Nigerians to believe only foreign goods are good. There was first the "PDP's 16 years of misrule" - "PDP destroyed Nigeria for 16 years …, we have seen how they destroyed, vandalized and looted this country. They are about to bury her before PMB came in. #NeverAgain." Atiku was constantly linked to the role he played:

> …"As long as there's no element of corruption" YEn Yen yEn YeN Like we're gullible to believe corruption will be missing from the process you'd use to enrich your friends or sell our National assets?? Like you guys did in the 16 years of PDP? #NeverAgain.

Other associated hashtags included #IRememberPDP, #NeverAgain, and #NextLevel. The most @mentioned accounts in this cluster were @atiku, @renoomokri, @officialpdpnig, @youthsforatiku, @pdpnyf, @farooqkperogi, @bukolasaraki, @spokesmanatiku, all PDP-affiliated.

Unlike the purple cluster, the central account in the blue cluster had a different outlook. It was more about promotional activities: tweeting and retweeting content coming from or related to members particular party. Highest engagements were with contents associated with Atiku Abubakar, the PDP, former Senate President, Bukola Saraki, and a former Member of Parliament and gubernatorial candidate under the PDP. Some of the popular tweets revealed a battle for the soul of the cluster dominated by #LetsGetNigeriaWorkingAgain (coordinated by @benjaminisiekwu, @nsa20, @nkfulatan, @mrdueprocess, @onile050) and #NeverAgain (used in a reverse manner to pollute conversations that favoured the hashtag) – coordinated by @laurestar, @therealhajara, @kingheakado, @fkeyamo.

The data revealed the tactics of posting same tweet multiple times by same account or simply copying and pasting through multiple accounts to escape unsuspecting eyes. At other instances, hashtag sequencing was employed in their bid to amplify the messages to the largest possible audience. A disinformation campaign is not just about selling a lie, it's about organizing people around a lie – it's a strategy to amass power. It therefore becomes important to get as many 'people' on the message as possible.

Profile of the central account in the green cluster described him/her as a "hardcore Biafran!" and had the IPOB flag as profile photo. The account drove the "body double" campaign. At an international news conference in December 2018, President Buhari sought to refute the bizarre claim that dominated his re-election bid: that he has been replaced by a clone. Death rumours

had trailed the president from 2017 and continued to swirl on social media that he had died in a London hospital. Rumours of his death were aided by unconvincing denials and vague explanations by the presidency on the true health status of the country's leader. When Eric Joyce (@ericjoyce), a United Kingdom politician, tweeted on May 19:

> very sad to learn [hear] of the death of President Buhari, whom I campaigned for. Thoughts with his wife @aishambuhari and family … the president of one of the world's largest and most sensitive countries died in London today.

President Buhari was last seen in public on May 7, 2017 before he left for London on an undisclosed medical treatment. @ericjoyce's tweet elicited more interest from Nigerians desperate to prevent a reoccurrence of the dangerous power vacuum that the death of a seating president created when President Umaru Yar'Adua died in 2010. Umaru Yar'Adua was rumoured to be on the brink of death after not being seen or heard in public for seven weeks. He had been absent since going to Saudi Arabia for heart treatment in November 2009. He died on 6 May, 2010, less than four months after he broke his silence in a telephone interview with the BBC[93] to quash the rumours at that time. Opposition politicians and activists leveraged the body double rumour to deflate the Buhari's re-election bid.

More than 50% of the isolated tweets from this cluster were authored by two accounts (@amakaekwo and @nkemdimary) (via co-tweeting) who claimed to be human rights and Biafra activists. Their tweets mobilized for a boycott of the election using #boycott2019election:

> Breaking news: The two people contestant for the Nigeria presidency are both foreigners from two different countries!! Atiku from Cameroon Jubril/Buhari from Sudan #Boycott2019Election sit-at-home.

> PDP are terrorists killing Biafra activists #Boycott2019NigeriaElections Atiku is a fraud! Obi is a slave!
> Buhari and Atiku boycotted presidential debate, IPOB and all Biafrans are boycotting the election. #SupportBiafraReferendum #StopBiafraKillings #SitAtHome.

In another instance, one user said: "there is no difference between @atiku and @mbuhari Fulani na Fulani We say no Nigeria fraudulent election." Expressing similar sentiment, another user said "if you like become Atikulated and Obinized. I put it to you, nothing can stop the restoration of Biafra. Not even an Igbo presidency can stop Biafra from coming. Biafra referendum in my mind."

Amplification of information sources was the most common form of manipulation identified by this study. Common with all clusters, we see a group of accounts amplifying the same tweets from the same set of accounts to signal coordination. One interesting finding was the revelation that the same source/firm was (un)intentionally contracted by multiple clients to amplify

[93] http://news.bbc.co.uk/1/hi/world/africa/8453409.stm

disinformation campaigns on Twitter. Agents and influencers worked for clients within the same party while doubling as agents to another client in an opposition party.

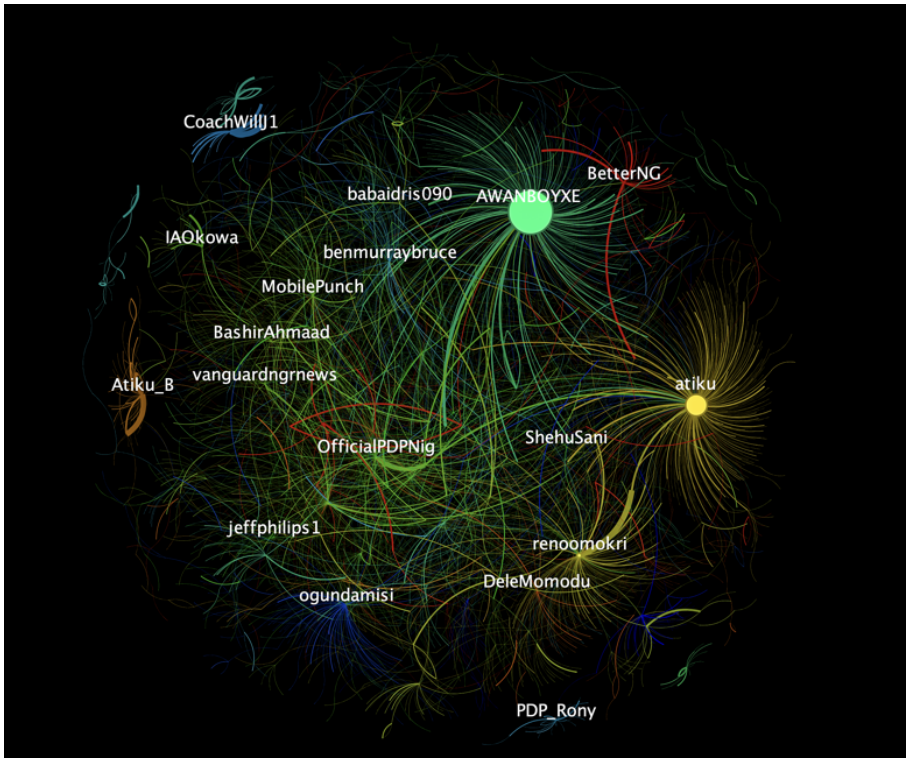


Figure 25: Degree centrality using Leiden modularity

The graph above shows "influencers" accounts. It showed authority accounts belonging to politicians (@iaokowa, @benmurraybruce, @atiku, @shehusani, @renoomokri, @delemomodu), government officials and pro-APC Twitter Army (@bashirahmaad, @ogundamisi, @jeffphilips1), pro-PDP Twitter army (@coachwillj1, @atiku_b, @babaidris090, @awanboyxe), and media outlets (@mobilepunch, @vanguardngrnews) that were retweeted the most by the three large clusters in the retweets network.

8.3.2 Suspicious accounts

Regular Twitter users in Nigeria tend to set up their profiles (bio description and profile photos) to advertise their skills. It can thus be leading to interpret such information as evidence of involvement in disinformation-for-hire industry. This escapes more popular classifiers used by Shu et al. (2019) and Espinosa (2020) that linked suspicious accounts to a disinformation campaign simply by profile characterization.

Pursing a different agenda, the pro-Biafra cluster retweeted content distant from the election. Where it did, it targeted 'megaphone accounts' of candidates, and digital media aides. It also integrated content from @orientaltimes, a media outlet sympathetic to its cause, to amplify its secessionist agenda while using the election to attract international attention to its cause.

This analysis revealed that unlike other traditional, hyper-partisan groups of users who used contrived means to amplify pro-Buhari or pro-Atiku disinformation in the run-up to the election, this cluster leveraged the campaign period to garner support for a political cause far removed from national interest and politics: the independence of Biafra, a former secessionist state that was reintegrated into Nigeria in 1970. Tweets that contained pro-independence messages alongside generic #NigeriaDecides2019-related hashtags and pro-Atiku hashtags such as #LetsGetNigeriaWorkingAgain and #NextLevelFailure were posted as a way to trade up Biafra specific hashtags (#IPOB, #MNK, #Biafra).

The communication strategy and messaging of the disinformation campaigns revealed a design to smear, attack personality, and suppress participation. Targets may have been different, but strategy was the same. From the dataset we see similarities in the activities of the central accounts in the purple community – retweeting same set of source accounts, co-tweeting and hashtag sequencing. For the disinformation-for-hire agents, it was about business and survival.

Commonly associated with other African political systems, Nigerian politics is less ideologically driven. Politicians "cross-carpet" in a manner that is now normalised. Take the case of Atiku Abubakar for example. He was a key member of the APC's presidential campaign team in 2015 (only lost the party primaries to President Buhari). This was after he had served as Vice President under the PDP for eight years. Then in 2018, he decamped to the PDP to run against his [now] former party, the APC. In the same vein, supporters share little ideological connection with political parties. Personal interest often overrides party loyalty, and in a classic style of patrimonialism, loyalty is to individual politician.

8.3.3 Co-tweeting network

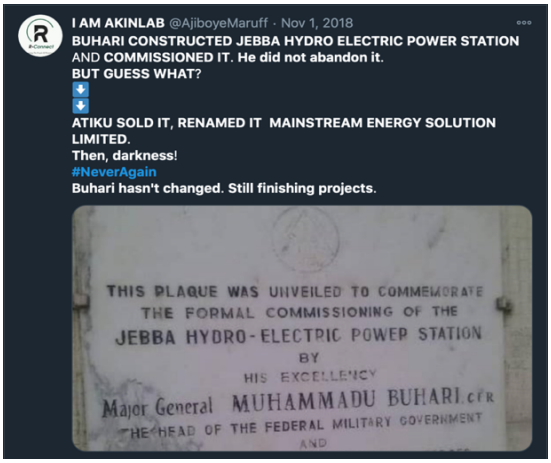
Coordinated accounts can also just post the same message instead of retweeting each other. This tactic makes it more difficult for a casual viewer to discern that a certain message was not generated by an account on its own. In contrast to retweeting, it is far easier for a casual viewer to miss the message's creator and other potential (re)posters. This pattern of coordinated behaviour is called "co-tweeting". This coordination pattern was a common feature in the dataset, and the analysis reveals how agents simply copied and pasted a message, using the same font, hashtag sequence, and photo illustration.

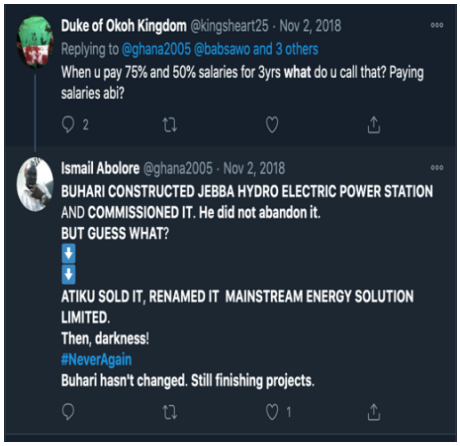
Lauretta Onoche (@laurestar), one of Buhari's aides on social media, targeted @atiku and his party in a tweet: "*BUHARI CONSTRUCTED JEBBA HYDRO ELECTRIC POWER STATION AND COMMISSIONED IT. He did not abandon it. BUT GUESS WHAT? ATIKU SOLD IT, RENAMED IT MAINSTREAM ENERGY SOLUTION LIMITED. Then, darkness! #NeverAgain Buhari hasn't changed. Still finishing projects.*" In the tweet, @laurestar accused @atiku of privatizing state property in the past and being a direct beneficiary of same process. It was boosted by 6 other users who simply co-tweeted her campaign message, with different date and time stamps. See screenshots below.

Sample 1:







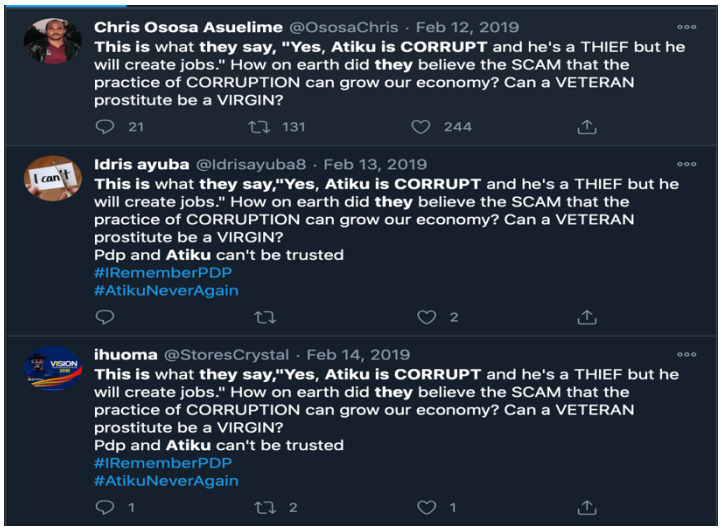




@speakerengine reposted the tweet twice: As an isolated tweet on Mon Feb 18 11:18:53, 2019, and as reply at 11:22:13 of same day

Figure 26: Example of copypasta tweets

Sample 2:



This tweet was repeated twice by @storescrystal on Tue, Feb 14, 2019

Figure 27: Screenshot showing co-tweeting by a set of accounts

Sample 3:

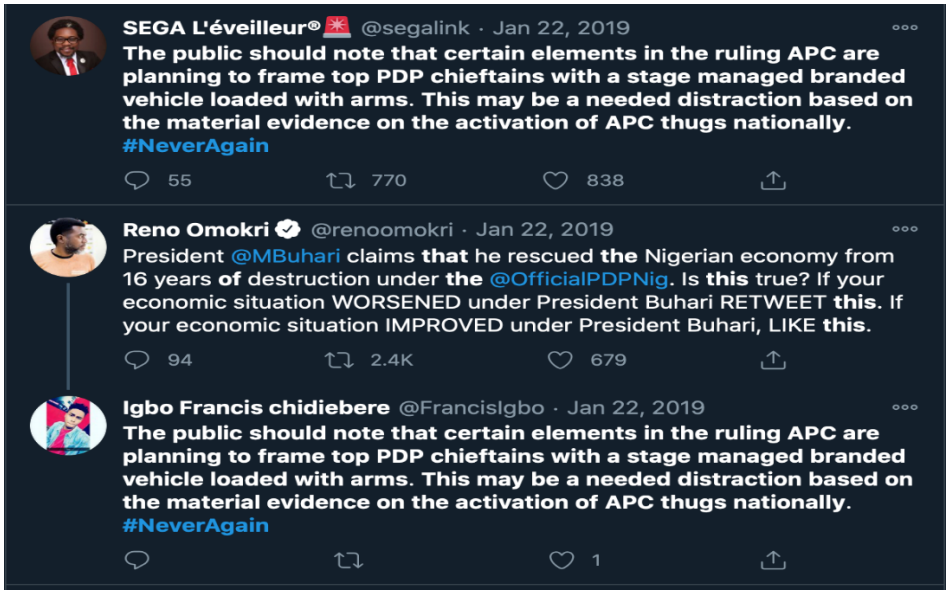


Figure 28: Screenshot showing co-tweeting by a set of accounts

Sample 4:



Above tweet targeted at Atiku Abubakar by spokesman of the Buhari Campaign Organization, Festus Keyamo was reposted by 11 other users in a coordinated manner.

@corruptconcern: 12:44 PM - Nov 11, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@imbdaura: 2:43 AM - Jan 10, 2019
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@mmsulimalieyu: 10:37 PM - Nov 11, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@hkmaza: 3:22 PM - Feb 8, 2019
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@generaleddy2k: 7:20 & 7:35PM - Nov 11, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@imujeebullah: 8:16 PM - Nov 11, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@jibrin_ballama: 7:58 PM - Nov 12, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@chrisaloysius: 2:10 PM - Nov 11, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@mrodexbash123: 12:03 PM - Nov 12, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@kenneth83883258: 11:05 PM - Nov 11, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

@asibashar: 11:33AM - Nov 11, 2018
"A person whose entire investments are based on monies looted from the public purse is called a lootocrat. But a man whose entire life has been dedicated to service of fatherland and saw no need to steal to establish a string of businesses is called President Muhammadu Buhari"

Figure 29: Example of co-tweeting by a set of accounts

Playing up ethnic sentiments, one APC influencer, @ogundamisi tweeted:

> "@PeterGregoryObi deported Northerners back home when he was Governor and that is a FACT! @PeterGregoryObi sacked none Anambra Igbos from Anambra civil service. That is undeniable. Is Peter Obi the only Nigerian Governor who deported fellow Nigerians? NO! Did he deport? YES!"

Such narrative represented a familiar pattern where ethnicity is exploited in Nigeria to win political support and cause further polarization. @ogundamisi's tweet coincided with a period when the Igbo people of the south-east and the Yorubas of the south-west were smarting for war over alleged maltreatment meted to some Igbos residing in Lagos. Four other users reposted the same tweet under 2 hours of @ogundamisi's original tweet. In influence operations, participants sometimes coordinate their messages based on top-down instructions from their principals. They coordinate to promote a party's or candidate's message, divert negative news away from their principal, denigrate opposing candidates/views, generate divisive topics, and pollute online spaces.

8.3.4 Hashtag sequencing

An extensive audience to influence is a crucial component of a disinformation campaign. A malicious actor can use hashtags to target other users who are interested in a topic and could look for similar tweets in order to propagate their message beyond their following. If several automated accounts published messages with the same text, it would appear suspicious and be quickly identified by the platform's anti-spam filters. However, malicious users frequently change strategy to minimize detection. One way is using paraphrased messages, or through legitimate apps or language models that enable publishing "paraphrased text on behalf of a user" (Pacheco et al., 2020, p. 7).

There is a conjecture that even paraphrased text is likely to include the same hashtags depending on the target of a coordinated campaign. Using filtered disinformation-related hashtags filtered associated with disinformation campaigns that lasted the campaign period, a manual inspection of the suspicious clusters and their content was carried out to provide validation of the detection method and evidence of similar sequences of hashtags across multiple tweets in the dataset. A sample is shown in figure 30.

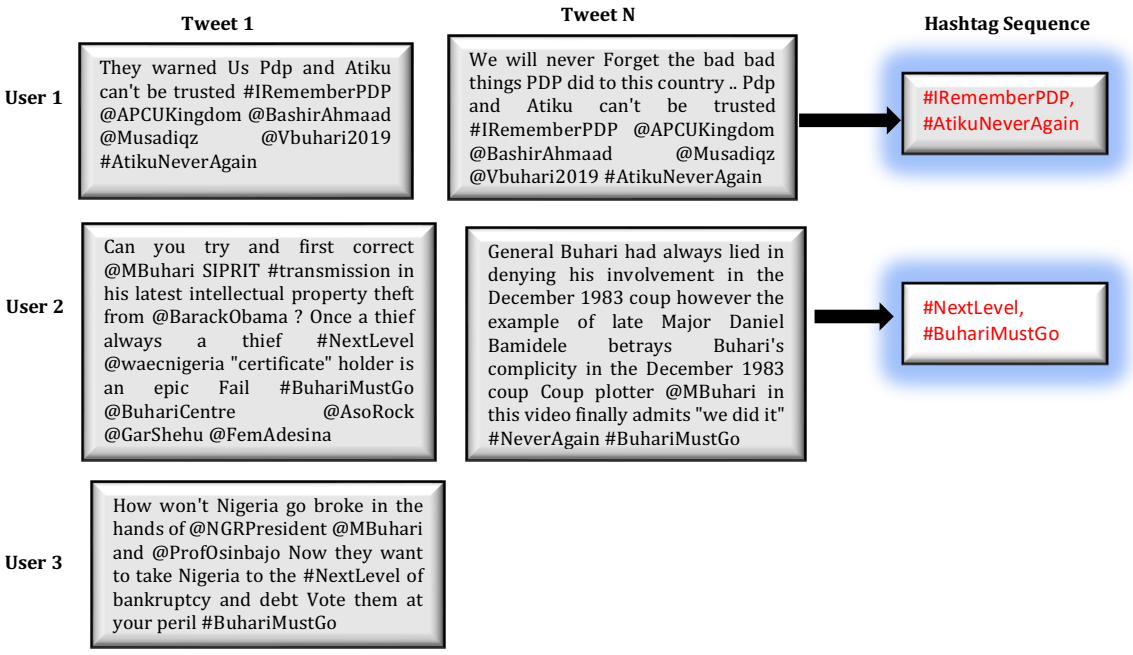


Figure 30: Tweets showing examples of hashtag sequencing

Hashtags and their positions are extracted from tweet metadata. Suspicious accounts tweeting the same sequence of hashtags can be easily identified as it is unlikely that many accounts post the same hashtag sequence by chance. The extracted hashtags aligned with the communities that had the most mentions of each hashtag: #NextLevel, #IRememberPDP, and #AtikuNeverAgain resonated most with the APC support group community led by accounts belonging to the office of the president (@ngrpresident), vice president (@profosinbajo), and campaign spokesman (@fkeyamo). #NeverAgain and #BuhariMustGo hashtags were used by opposition PDP to counter false narratives against its party and presidential candidate, while also amplifying its own disinformation campaigns on Twitter.

A clear indication that the suspected accounts are not just ordinary users who fell for the campaign messages is the status of the accounts at the time of writing this analysis. They remained in contact by engaging with each other and other accounts in their network despite the absence of a major election. They were also observed to maintain the same political inclination/affiliation since after the election.

Although behavioural traces may lead to a conclusion that large groups of accounts posting the same tweet have malicious intent, coordination can be deployed by inauthentic (human) users with benign intent. In 2014, the 'Bring Back Our Girls' campaigners used hashtags in a coordinated manner to raise awareness of their cause. Similar strategy was used by #UngaRevolution to lower food prices and #ResistHudumaNumber to refuse government's proposal to register for digital ID in Kenya (Chege, 2018; Kamau, 2017; Mwaura, 2017; Odote & Kanyinga, 2021). It is, however, important to minimize false positive errors — spontaneous, organic collective behaviours that may appear as coordinated. For instance, false positives would result by considering identical

messages generated by social media share buttons on news websites. Such content similarity alone does not constitute evidence of coordination.

8.4 Reimagining the propaganda model in a modern era

Propaganda is a term that has been around for a while to describe persuasive communication with a goal. It assumes that institutions, governments, and other authoritative individuals are indoctrinating the general populace with ideas from the top down. In Nigeria, where top and bottom interact and are influenced by one another, the situation is more complicated. The general people has evolved from being only a target to being actively involved in the creation and selective amplification of narratives that construct realities. Describing this emergent bottom-up dynamic, DiResta (2021) coined the phrase, “ampliganda”, adding to the corpus of words describing online disinformation. In the bottom-up dynamic, perception is shaped through amplification. It can originate from an online nobody or an onscreen celebrity in a way that does not place responsibility on any single entity for its transmission. Its effect on democracy and society is profound.

A few years ago, it was harder to take advantage of features like trending lists since social media companies had become aware of the manipulation. When evaluating what topics were trending in 2018, Twitter started to take postings from bot and sock-puppet accounts into play (Guilbeaut & Woolley, 2016). In order to check for "coordinated inauthentic behaviour", or questionable conduct by networks of accounts that, in many cases, consisted of false personas, Facebook launched integrity teams after kicking a notorious Russian troll factory off its platform (Calamur, 2016). It carried out a similar action Nigeria in 2019[94] (Kazeem, 2020). The problem was not related to the content of the messages shared, but with the behaviour of the accounts involved. It looked like a repeat of Cambridge Analytica’s 2015 attempt to rope fake news-related scandal in Nigerian politics. Allying with domestic actors, Cambridge Analytica orchestrated a fake-news campaign against then leading opposition candidate, Muhammadu Buhari.

For tech platforms, cracking down on fake accounts, bot networks, and institutional trolls was easy to justify; the public didn’t much care about the free-speech rights of fake people. But the rewards for successfully capturing public attention were still huge enough to keep authentic actors looking for creative ways to propel their message to the top of Twitter’s popularity charts. More and more ordinary people have stepped up to spread messages that, in the past, might have been amplified by bots or social media influencers.

A single tweet from @ericjoyce that “Buhari is dead” inspired several hundred replies and retweets. Some users endorsed the message, others questioned it, others discredited it. But every form of engagement - applause or scorn - with a tweet conveying manipulated information only tells Twitter algorithms to elevate it. Both pro- and anti-Buhari supporters followed closely, trying to reframe the conversation from a rumoured death, prove it was true, or proving the president was alive and not a clone of himself. But by contributing, users only amplified the

[94] https://www.timesofisrael.com/who-is-behind-israels-archimedes-group-banned-by-facebook-for-election-fakery/

messages of ideological differences on Buhari's state of health. Although it is tempting to argue that foreign bogeymen are sowing discord in distant countries, the reality is more of a tragedy: Even those who don't wish to tear apart the fabric of Nigerian society are nonetheless urged to follow these criteria in their attempt to draw attention to their cause. Outrage drives engagement, which algorithmically results in more engagement.

What we are witnessing is a transition from the earliest form of propaganda that describes the Church's fervid mission to disseminate its view far and wide, to a more secular meaning – information with an agenda, deliberately created to shape the audience's perception of reality (Jowett & O'Donnell, 2018). The term also took on an anti-democratic "connotation: intent to circumvent a citizen's reason, propel him via deceit or chicanery toward belief in a particular cause" (DiResta, 2021). Many Nigerians have historically been reluctant to admit disseminating or succumbing to such material, and throughout the 2015 and 2019 general elections, many Nigerians engaged in propaganda.

The notion that the powerful media could manipulate the masses from the top down took hold on the polity. At the zenith of mass media, television networks and radio stations communicated unidirectionally to the public. Similar to Herman & Chomsky's (1988) argument, the Nigerian government was "manufacturing consent" for its policies with the help of complicit news outlets, whose economic incentives and ties to elites led them to abdicate their responsibility to inform the public. "Social media has since ended the monopoly of mass-media propaganda" (Zhuravskaya, Petrova, & Enikolopov, 2020; Reisach, 2021). It has, however, also ushered in a new rival: a system that reallocates trust from authority figures and professional media to charismatic characters skilled at appealing to the values that their audiences hold most dear.

Of all the changes wrought by social networks, this ability of online "crowds" to influence one another is among the most important and underappreciated. Cambridge Analytica's 2015 "propaganda pipeline" saw marginal actors on Facebook and WhatsApp "pass stories to online influencers, who in turn draw the attention of traditional media." This applies to the term "participatory disinformation." We are now witnessing the erosion of the old top-down propaganda model, but the bottom-up version may be even more destructive.

Today, there is a rhetorical war pitting everyone against everyone. There is a deluge of trending hashtags fighting for attention and hopping from community to community. These hashtags are amplified by masses "of true believers for whom sharing and retweeting is akin to" (DiResta, 2021) having a religious duty, ev en if the narrative they are spreading is too conventional. Instead of feeding a single, overarching story to the entire populace, this bottom-up approach creates a constellation of arguments that reinforce each other and are directed towards and assimilated by specific specialist communities. It has aided in the reality's disintegration, which has important ramifications. Even though clicking or sharing may not seem like individual propagandistic activities, taken collectively, these actions change dialogues, views, and realities (DiResta, 2021). Meanwhile, the crowd, is motivated by the "camaraderie of participation and the potential for recognition: in their Twitter bios, many of the most committed" "Twitter Armies" boast of software development, digital marketing, and politician/party they support.

Once formerly derisively called “slacktivism,” “clicks and shares in service to a cause have evolved into a source of meaning for many, and what happens online doesn’t stay online” anymore (DiResta, 2021).

Political and civic norms in Nigeria have not changed to reflect these circumstances. Urgency and calls for action are always present around us. Although users may not fully understand why something appeared in their feeds, they still have the nagging sense that they should be paying closer attention. Users need to be educated on these topics in order to stop experiencing unintended consequences: understanding the motivations of influencers; recognizing the very common rhetorical techniques that elicit outrage; and developing awareness of how online crowds now participate in crystallizing public opinion. Disinformation will be amplified by factions, curated, and disseminated to the general public by algorithms that encourage more involvement. An enormous network of linked users, each with a purpose, yelling at the other to pay attention. It goes beyond disinformation. The propaganda of the information age permeates our political discourse.

CHAPTER 9

DUAL USE AND IMPLICATIONS OF THE INTERNET

9.1 Equalizing engagement or normalizing control

In the past few years, we got to a schizophrenic thinking that winning election or shaping opinion is mostly about disinformation but it's just a detour. The power of decentralized information is being returned to large corporations, platforms, and governments as a result of the way technological platforms have changed democratic participation during the past 10 years. Even worse, it has diminished people's ability to take action while holding onto the delusion that they are in charge.

A critical issue of the Internet's contribution to democratic systems is whether social media give challengers a fair chance to compete with incumbents or the general optimism about the potentials of digital media to empower ordinary citizens to influence political processes and interact with candidates during" campaigning, "thus promoting equalization rather than normalization" (Samuel-Arzan & Hayat, 2019). This chapter examines the ability of the two leading political candidates in Nigeria's 2019 presidential election to promote engagement to their campaigns on social media by measuring retweets and @mentions metrics on their Twitter posts during the election campaign in order to contribute to the current debate, whose evidence so far strongly supports the normalization hypothesis.

This chapter provides a new perspective to studies of controlled interactivity and message discipline on Twitter from Nigeria to complement other studies on the structure and feature of controlled spaces on Facebook (Freelon, 2017, Lilleker, 2016; Schneider & Foot, 2006; Schweitzer, 2011; Stromer-Galley, 2014). The design and implementation of digital campaign communication tools as contrasted to the internal interactive mechanisms of social media, are essentially the subject of current research on controlled interactivity and related ideas. Focus here is on the technical configurations of Twitter and how they are deployed by politicians in a way that limits the full interactive affordance of digital media, thus avoiding dialogue and deliberation. Results reveal a high degree of control of interaction on Twitter: candidates follow less than 5 per cent of their followers, have less replies and scarcely retweet other users. Using the technology only to the extent it boosts the chances of victory at the polls, rather than promoting dialogue, remains the goal. As Lim (2018) observed, this could be a pointer to the less democratic nature of politicians in the Global South, capable of hampering participation in democratic processes.

One of the main topics of contention today is election communication. The difficulties in the election arena are brought on by the changing methods of party campaigning. While targeting particular voter groups has always been a part of political campaigning (for example, through door-to-door canvassing), online data-intensive approaches greatly improve the ability to target campaign messages, and these are now at the heart of the political communication strategies used in many parts of the world (Bennett & Livingstone, 2018). Understanding these sociological

patterns, domestic and foreign players that wish to escalate tensions create content in the hopes of inciting the public to act as the messenger. The intention is for people to leverage their own social capital to support and validate that initial statement. Most of this information is meant to confuse, overwhelm, and weaken trust in democratic institutions rather than convince individuals in any specific way[95]. And although much is being made about preparing the electorate for future elections, misleading and conspiratorial content did not begin with the 2019 presidential race, and it will not end anytime soon. “As tools designed to manipulate and amplify content become more accessible, it will be even easier to weaponize users as unwitting agents of disinformation” (Wardle, 2019[96]).

As the candidates and their campaign organizations become invested in the use of social media, they experiment ways to use digital communication technologies to their advantage, transitioning “from the paradigm of mass media campaigning, to networked campaigning, and finally to mass-targeted campaigning” (Stromer-Galley, 2019, p. 172). Efforts “shifted from mass persuasion to networked persuasion by identifying and communicating with” “influential supporters” to give them the right digital tools and messages to take to their social network” (p. 172). They gradually mastered the art of "controlled interaction," as Stromer-Galley (2019) refers to it, or using Twitter's interactive features to interact with the public in a way that structures what supporters do for the campaign to maximum tactical gain. Classified into categories of likelihood to support the candidate (supporter, swing voter, opponent), the public are brought into the campaign via controlled interactivity.

Studies conducted in the past that examined the use of digital media by campaigns from the standpoint of controlled interactivity tended to focus on the characteristics of the technologies and the motives of the campaign staff members who develop and utilize them. In this chapter, I analyse “controlled interactivity directly by quantifying flows of information from” candidates to their commenters by incorporating the “concept of message discipline as an indicator of the success or level of controlled interactivity: the more the audience stays on-message, the greater the degree of control” (Freelon, 2017, p. 1). Tweets by incumbent, President Muhammadu Buhari, and main challenger, Atiku Abubakar were isolated from the election dataset as instances to quantify the level of message discipline and degree of correspondence between the candidates’ and their audiences’ policy issues on Twitter.

Timelines of @mbuhari and @atiku were scraped from October 1 2018 to February 28 2019, period covering from when both candidates clinched their respective party tickets to the month of the presidential election. Barie and Ho’s (2021) academictwitteR package was used to collect the tweets from v2 API endpoint for the Academic Research Product Track[97]. A summary of the tweets collected is presented in Table 1. The dataset was collected into a JSON file and exported as a CSV (comma separated values) format as shown Fig. 1. Each user timeline was stored differently and analysed in *python.*

[95] https://grassrootjournalist.org/2019/08/23/misinformation-has-created-a-new-world-disorder/
[96] https://www.scientificamerican.com/article/misinformation-has-created-a-new-world-disorder/
[97] https://github.com/cjbarrie/academictwitteR

Table 5: Summary of tweets

s/n	Candidate	Twitter handle	Tweets
1.	Muhammadu Buhari	@MBuhari	7,359
2.	Atiku Abubakar	@atiku	5,433

	index	tweet_id	user_username	text	author_id	source	possibly_sensitive	lang	created_at	conversation_id	...	quote_count	user_tweet_count
0	0	1,10E+18	MBuhari	Election is not war, and should never be seen ...	2936714848	Twitter for iPhone	False	en	2019-02-27 16:41:38+00:00	1,10E+18	...	135	5179
1	1	1,10E+18	MBuhari	I'd like to pay tribute to those who lost thei...	2936714848	Twitter for iPhone	False	en	2019-02-27 16:41:20+00:00	1,10E+18	...	83	5179
2	2	1,10E+18	MBuhari	The hard work to deliver a better Nigeria cont...	2936714848	Twitter for iPhone	False	en	2019-02-27 16:37:27+00:00	1,10E+18	...	2565	5179

	index	tweet_id	user_username	text	author_id	source	possibly_sensitive	lang	created_at	conversation_id	...	quote_count	user_twe
0	0	1,06E+18	atiku	RT @PeterGregoryObi: From all indicators, our ...	177583133	Twitter for iPhone	False	en	2018-11-09 15:12:24+00:00	1,06E+18	...	0	
1	1	1,06E+18	atiku	The most important question in this election i...	177583133	Twitter for iPhone	False	en	2018-11-09 07:47:35+00:00	1,06E+18	...	809	
2	2	1,06E+18	atiku	RT @PeterGregoryObi: It was my pleasure meetin...	177583133	Twitter for iPhone	False	en	2018-11-08 09:02:56+00:00	1,06E+18	...	0	

Figure 31: Screenshot sample of tweets

The analysis is restricted to the original tweets by the two candidates to focus on messages directly emanating from or resonating with the candidates. Tweets within the period studied are considered reflective of their political and ideological positions and as such their engagements with followers and semantics are considered useful to studying controlled interactivity and message discipline.

9.2 Political systems, communication technology and democracy

In establishing the link between technological innovations and democracy, there are instances where technology has helped in conducting free, fair and credible elections. In other cases, it has aided the manipulation of results in line with the vested interests of local and international political actors (Dantani, Wika, & Maigari, 2017). Perhaps, the most widely discussed possibility is "the potential for a foreign state to manipulate an election to advance its broad geopolitical interests" (Levin, 2016, p. 189). The effects of the Internet do not occur in a vacuum; rather, they depend on the functioning political and party systems, as well as the interaction of political actors, to "embrace and adopt the technology that could deepen democratic culture and produce" (Dantani, Wika, & Maigari, 2017) an election that would be accepted by all participants in the political contest, particularly in nations like Nigeria where election results are frequently challenged.

The introduction of Web 2.0 affordances and proliferation of mobile devices in Nigeria at the beginning of the millennium altered the old government-centric communication structure. We have seen the "top-down approach" shift to a polycentric communication system that positions the electorates with the power to participate in governance and to decide who becomes their leader (Windeck, 2010, p. 19; Mueni & Ndavula, 2014). Participation today is beyond a mere expression of will in the polls. Some argue that technology has elevated citizens' position to that of an equal partner in the power balance (Klinger, 2013; Samuel-Azran, Yarchi, & Wolfsfeld, 2015; Gibson, & McAllister, 2015). Conversely, it has led to Internet shutdown in Liberia, Sudan, Gabon, Ethiopia, Gambia, Tunisia, Zimbabwe, Egypt, Nigeria, Uganda, Ethiopia, and the Democratic Republic of Congo, at critical stages around elections by governments in desperation to keep certain information about the State secret, bully the opposition, silence the citizenry and cling on to power (De Gregorio & Stremlau, 2020). This development affirms the notion that the Internet and adoption of digital technologies can only have an appreciable impact on the democratic process to the extent the political system so desires. It is a notion that supports the theory that technology normalizes inequality when it comes to political participation. Political leaders are becoming more awake to the power of the Internet to alter or influence the perception and decision of the electorate, which explains the energy behind the crackdowns and attempts at control because you cannot censor or manipulate narratives about elections and as well control Internet users.

9.3 Weaponizing engagement as a tool for control

The premise that digital communication technologies could be or have been used by political campaigns to engage citizens more genuinely in the political process is a normative framing for what is essentially a functional process. Benoit (2007) reminds us that campaigns, first and foremost, exist to help candidates win. Necessary resources (time, money, online engagements, and people) are thus gathered to win an election by weaving promises to the people who can help them marshal those resources. The goal is not deliberative democracy or "strong democracy;" it is electoral victory.

Paradoxically, political campaigns in a democracy are not democratic. Although candidates might want to solicit a variety of perspectives and opinions to help them form their policy positions, the

activity is not structured for genuine involvement by the public in policy and strategy. As Table 6 shows, the candidates and their respective parties weaponised the technical affordances of Twitter only to boost the reach of their campaign agenda rather than engage with voters.

Table 6: Engagement metrics of candidates and political parties

s/n	User	Mentioned	Retweeted others	Tweets	Retweeted by other users
1	@atiku	202,418	124	7,359	141,591
2	@mbuhari	103,687	18	5,433	7,892
3	@apcnigeria	80,351	16	59.1k	56,744
4	@officialpdpnig	73,806	6	38.8k	15,992
5	@inecnigeria	36,642	17	17.1k	52,071
6	@peterobi	29,441	3	566	9,103
7	@officialapcng	22,606	0	3.7k	3,128
8	@bukolasaraki	22,171	6	22.9k	18,029
9	@profosinbajo	21,740	0	3.2k	7,152
10	@renoomokri	15,349	8	68.9k	53,103

Incumbent @mbuhari only retweeted 18 tweets, all from 2 users - his running mate (@profosinbajo) and the official handle of the President, @ngrpresident. This was despite @mbuhari's tweets receiving 7,892 retweets from his supporters. His running mate, Vice President, Yemi Osinbajo (@profosinbajo) did not retweet any post from any user before or after the election. Challenger, @atiku retweeted posts from less than 5% of his followers despite being the most talked about (@mentioned) candidate and politician on the platform. The general engagement ratio shown in Table 2 is an indicator that politicians considered Twitter best as a broadcast medium and not a forum for deliberation. Their inclusion of social media in campaign strategy is more of an assemblage, to use a concept from Actor Network Theory (Bruni & Teli, 2007), of hired specialists whose job it is to get the candidate elected. Through the agency of hired influencers, voters are brought into the campaign via controlled interactivity and manipulated to support a candidate: the telos is winning.

From a conceptual point, controlled interactivity describes the ways campaigns do not deploy the full interactive features inherent in the architecture of the Internet because of the challenges such freewheeling engagement would require. Interactivity can be thought of as a property of the communication channel that makes feedback possible, either feedback with the computer system or application (e.g., a click-poll or liking or retweeting a tweet), or feedback between people channelled through the Internet (e.g., @mentions, reply or quoted tweet) (Stromer-Galley, 2019). By engaging less with supporters as seen in Table 2, both candidates (indeed all politicians) avoid the full interactive affordances of the platform. They avoided dialogue and deliberation with the public and their supporters, even though Twitter supports such two-way interaction (Freelon, 2017). Instead, they actively use the features that allow them to attract supporters through strategic messaging and the broader, yet more targeted, reach of Twitter to mobilize the most impassioned to work on behalf of their campaign. All these happened while

their campaign teams (independent PR firms) collected data about online users and the general public used to further segment voters for targeted mobilization and paid advertising efforts.

9.4 Determining controlled interactivity

Controlled interactivity is one of the promotional concepts at work in the creation of networked disinformation: "the maintenance of message discipline throughout the digital campaign process" (Ong & Cabanes, 2018, p. 45). Politicians use this "digital two-step flow model of influence" (Stromer-Galley, 2014) to "disseminate a common script by carefully and strategically putting enthusiastic supporters to work as peer-to-peer conduits for organizational messages" (Ong & Cabanes, 2018, p. 45). This principle and design technique of using key campaign objectives and brand bibles (such as unique campaign hashtags) can be found in the participatory disinformation model discussed in chapter 8.

The more pertinent descriptive statistics of the data are first taken into consideration. In total, 969 of @atiku's 7,359 interactions were original tweets while 124 were retweets. On the other hand, @mbuhari tweeted 466 times of his 5,433 engagements and retweeted posts from his followers only 18 times. Relatively, this shows that Atiku Abubakar was proportionately more interactive and maintained a higher correspondence with followers than Buhari. The more Twitter-active Atiku also had 34 he frequently retweeted compared to Buhari's 4.

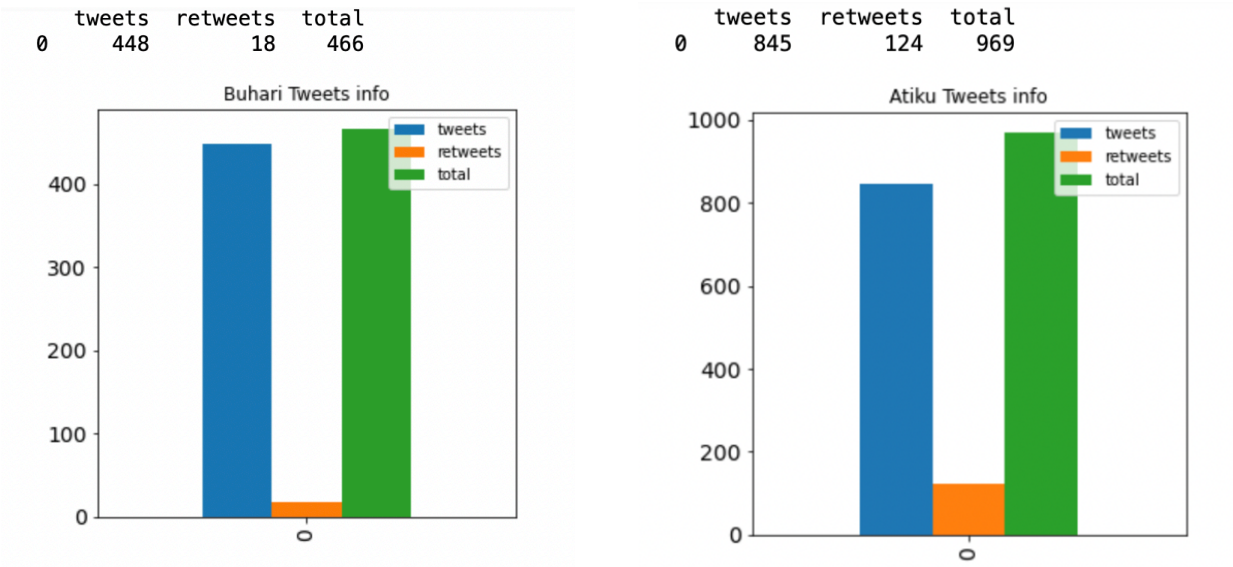


Figure 32: Summary of Buhari's tweets (L) and Atiku's tweets (R)

Table 7: Top 5 accounts engaged by @atiku

s/n	User	Retweet count
1	@spokesmanatiku	28
2	@arikoharry	28
3	@officialpdpnig	27
4	@betterwithatiku	15
5	@petergregoryobi	12

Table 8: Top 4 accounts engaged by @mbuhari

s/n	User	Retweet count
1	@profosinbajo	14
2	@buharicentre	11
3	@bashirahmaad	11
4	@ngrpresident	4

Theoretically, interactivity, according to proponents of new media technologies, may provide involvement and access that could undermine traditional structures of economic, political, and media power. In reality, though, the interactivity on offer frequently merely represents a revised control method. Creating methods for differentiating between these different forms of interactivity in order to support those that fulfill the promise of power sharing will be difficult in the era of networked interactivity. The attraction of interactivity as a tactic of control is important to note since it encourages identification with the goals of those who manage the means of interaction. An interactive campaign against a political other can incite participatory identification with the terms set by an actor. A participatory disinformation campaign, such as the "Atiku is a thief" propaganda urges electorates to view/define Atiku Abubakar in APC's campaign's manipulated terms, often amplified by paid agents and casual engagement. Resisting the simplistic association of democracy with participation is the challenge of the interactive era. Involvement is necessary for all democratic processes, but not all forms of participation are democratic.

9.5 Message discipline and the desire for control

Control of "the message," the thematically united collection of themes, frameworks, talking points, concepts, and images that identify the candidate, is one of the most crucial results for political campaigns. Because of this, campaigns have made remaining "on-message" a top priority long before the advent of the digital age (Benoit et al., 2011; Needham, 2005; Norris, Curtice, Sanders, Scammell, & Semetko, 1999). According to Freelon (2017), it's crucial that the political topics and terminology candidates use and those of their followers are closely related. More than what a candidate says, it is about consistently evoking the same symbols, the same core ideas, and same emotional response. Message discipline provides structure and order in a way that forces supporters to respond on the terms of candidates. After doing their groundwork, candidates make their core messages relevant to every issue. Atiku's "Let's Get Nigeria Working Again" spoke to the poor state of the economy with a promise to revamp it and get it and other

critical sectors back on track. “Next Level” was Buhari message of hope for a better Nigeria as he plotted his second term bid. It was designed as a plan to consolidate on the “Change” agenda which brought him into office in 2015 after PDP’s 16 years of governance.

The conflict that currently exists between what voters want candidates to talk about and what those candidates actually talk about is at the core of this analysis. The candidates can assert that they successfully managed supporters' interaction on digital media to the extent that the two match (i.e., that supporters stay on-message). Stromer-Galley (2014, p. 15) believes “this strategy empowers supporters to persuade others in their own social network through word of mouth online or offline.” Low levels of message discipline would suggest that supporters had altered the message, or that control had been lost. Such a result might raise concerns about the usefulness of loosely regulated spaces for an unwavering candidate seeking re-election, depending on the nature of the changes.

Table 9: Profile of presidential candidates[98]

Candidate	Twitter handle	Followers	Following	Total tweets since account creation
Muhammadu Buhari	@mbuhari	4,095,180	25	5,179
Atiku Abubakar	@atiku	3,800,527	136	6,911

9.6 Determining message discipline

In operationalizing the concept of message discipline, I divided the concept into two components: (i) the keywords representing campaign issues discussed by the candidates and their followers (in the retweets), and (ii) the presence of each keyword in the tweets of both candidates and that of their followers (in the retweets) to indicate the frequency of appearance. A high level of issue correspondence between candidates and supporters would suggest the latter are debating the topics that the former would prefer them to. A high level of keyword correspondence within a particular subject suggests that the candidate's supporters are using the same language on that issue, which is an important component of message discipline. Generally speaking, this issue-based strategy may replicate impression of how proportionately related the candidates and their followers were in discussing issues. Lastly, a list of hashtags used by each candidate was extracted and words pulled to create a list of most commonly used words.

Table 10: Top 5 hashtags used by Atiku

s/n	Hashtag	Frequency
1	#LetsGetNigeriaWorkingAgain	170
2	#SilverbirdMOTY	96
3	#TheAtikuPlan	78
4	#TheAtikuVision	68
5	#BetterNigeria	54

[98] Number of followers, accounts they follow, and tweets count as of June 2020.

Table 11: Top 5 hashtags used by Buhari

s/n	Hashtag	Frequency
1	#NextLevel	261
2	#Buhari	254
3	#NextLevelNigeria	109
4	#NigeriaDecides	2
5	#soyinka	71

The summaries of the top hashtags in the tables 10 and 11 revealed the campaigns focused on the candidates and framed less on issues. That way, supporters are forced to discuss the campaigns in line with the dictates of the candidates.

Both candidates demonstrated different degrees of message discipline and kept conversations within the focus of their campaign goals. As seen in Fig. 32(b), 277 of Atiku's tweets contained hyperlinks while 568 others had no link. On the other hand, Buhari (Fig. 32(b)) had 92 tweets linked to external sites while 356 others were without link. Link frequency reveals that Atiku had a lower link frequency of 67.22 percent which translates into low level of message discipline. By extension, this ratio means that Atiku had less control of the interactions because his supporters were able to introduce changes to his campaign messages (he held a couple of live Twitter sessions where he responded to questions from users). According to the data, Buhari had a more controlled space and thus high message discipline, with a link frequency of 79.46 percent. Unlike Atiku, Buhari had a more controlled space. His supporters "stayed" more on his messages, especially because he does not respond to reactions to his tweets nor contest/explain any issues raised.

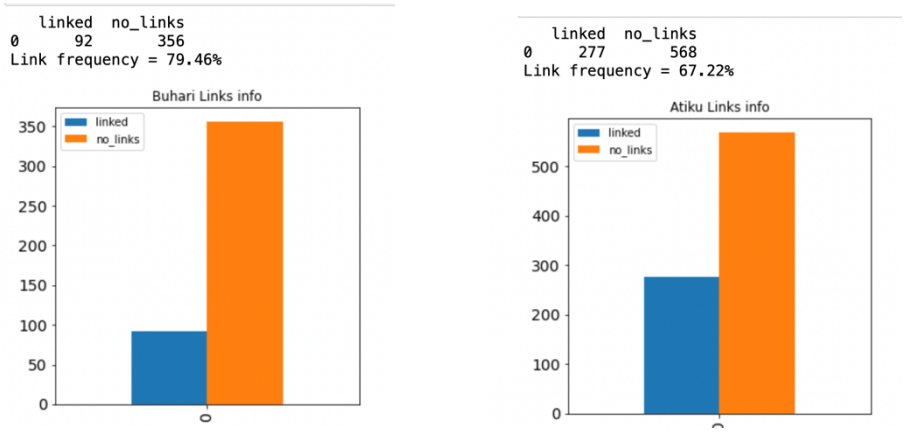


Figure 33: Buhari's use of hyperlinks (L) and Atiku's use of hyperlinks (R)

As a basis to analyse message discipline further, a set of most occurring words counts for each candidate was generated to ascertain their frequency of use by candidates and supporters. Political speech has been categorized in both online and offline situations by Freelon (2017),

Hawthorne et al. (2013), Pennebaker, Slatcher, and Chung (2005), and Simon and Jerit (2007). This categorization is a representation of words regarded as key political issues in both campaigns, relevant to the candidates and their audiences. In this study, controlled interactivity was tested by the degree to which the political issues of focus of the candidates corresponded to those of their audiences. Figure 34 shows the top 5 most occurring words in Buhari's tweets and his audience, and their frequency. Figure 35 shows the top 5 most occurring words in Atiku's tweets and his audience, and their frequency.

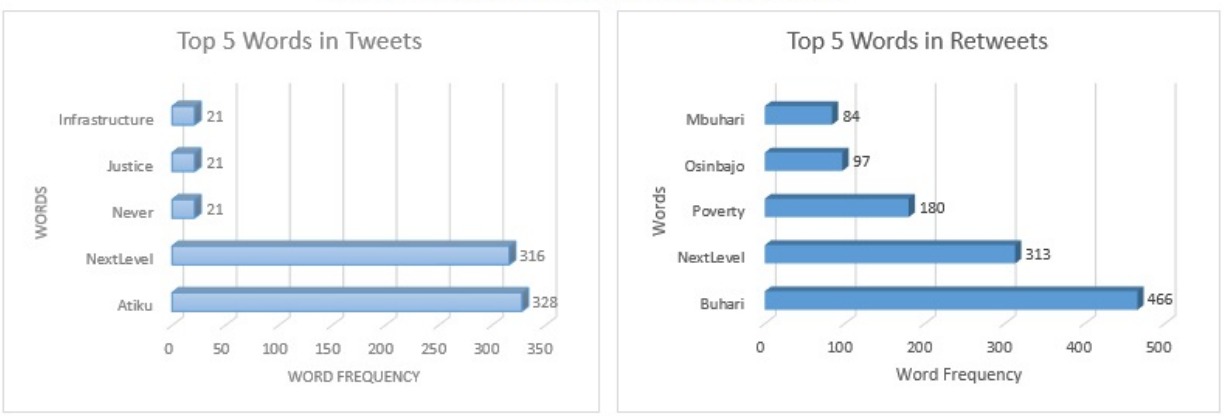


Figure 34: Five most occurring words used by Buhari and audience

These words reveal the political mood of the audience and candidates. First, it reveals the nature of Buhari's campaign: characterised by propaganda and smear attacks targeted at Atiku. Aside the official campaign slogan, "Next Level," social and economy-related issues such as justice, infrastructure and job creation received lesser importance. From the retweets, it is evident that audiences were most concerned about the personality of Muhammadu Buhari because of his handling of the fight against corruption, one that contradicted his "integrity" mantra. For instance, the (in)authenticity of Buhari's senior school certificate was one prominent controversy that dominated his campaign. This was supported by the high frequency of the president's name and handle, "Buhari" and "mbuhari" in the lexicon of the tweets. "Poverty" ranked prominently as a reflection of feel of disappointment his supporters share after having placed high hopes in his administration's capacity to transform the fortunes of the country. Nigeria's Vice President, (Yemi)Osinbajo was criticised for his role in the campaign: many felt the style to represent Buhari

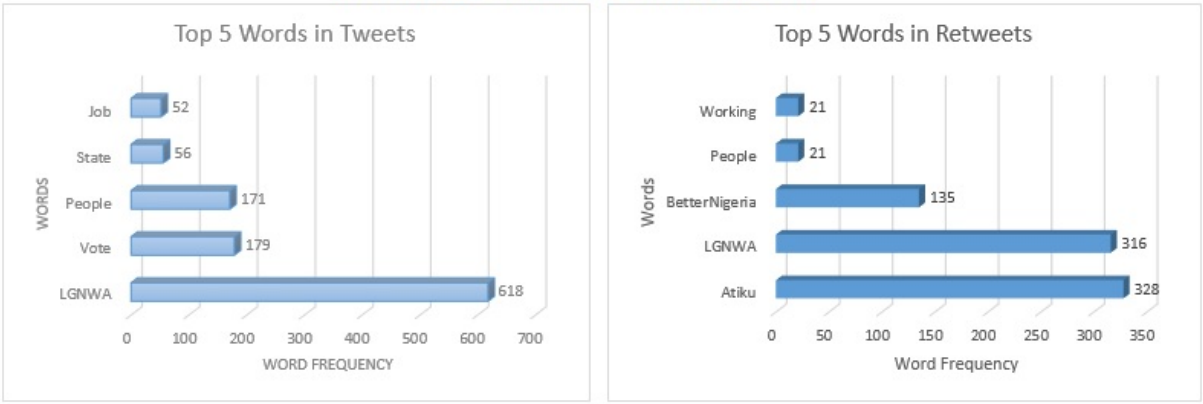


Figure 35: Five most occurring words used by Atiku and audience

at public discussion forums and debates was a ploy to prevent Nigerians from scrutinizing the president on critical issues of concern.

Atiku Abubakar's central message of "Let's Get Nigeria Working Again" (LGNWA), dominated the lexicon of words in his tweets. Other high-ranking words were reflective of the mainstay of his campaign. The result reveals a high degree of correspondence to indicate that the political concerns of the audience were proportionately related to his campaign focus. Supporters discussed Buhari's campaign issues proportionally less often than did Atiku's. It was a campaign that focused on policy issues such as job creation, revitalization of the economy and welfare of the people. His supporters tended to direct him in the direction of a better Nigeria, one that would work for all.

Understanding the problems that the politicians and their audiences debate disproportionately more and less frequently is crucial to analysing the message discipline of the two candidates' audiences. The relevant issue proportions for each candidate-audience pair were deducted from each other and collated to achieve this. The disparities in issue interest between each pair of subsets are strongly concentrated in a small number of issues, as seen in Table 12.

Table 12: Four most popular issues across candidate and audience data groups

Issue	Rank	Atiku	Commenters	Buhari	Commenters
Economy/job creation	1 2 3 4	Job creation Private sector investment Restructuring Human capital development	Better Nigeria Jobs Poverty Information technology	Better Nigeria Infrastructure Trader moni Restructure	Poverty Unemployment Inflation Currency devaluation
Corruption	1 2 3 4	Respect for rule of law Anti-corruption Judiciary Strong institutions	Police reform Independent judiciary Respect for rule of law Civil service reform	Justice Fight corruption Incorruptible judiciary Bribery	Nepotism Civil service reform Immunity clause Culture of impunity
Insecurity	1 2 3 4	Boko haram Terrorism Armed bandits Armed Forces	Boko haram Foreign Direct Investment (FDI) Fulani herdsmen Ethnic cleansing	Boko haram Armed Forces Foreign aid Boko haram	Boko haram Foreign Direct Investment (FDI) Islamization agenda Fulani herdsmen
Democratic process	1 2 3 4	Vote buying Militarization of election PVC INEC Server	PVC Defend your vote Electoral reform Electronic voting	Credible election INEC PVC Transparency	Electronic voting Vote buying Free & fair election Electoral reform

Buhari talks about his most-emphasized issue, anti-corruption, proportionally much more than his audience does. This is partly because he has a strong desire to purge the political system of widespread corruption. His commenters, on the other hand, are disproportionately more interested in matters of unemployment, growing poverty, and nepotism, which the president mentions less in tweets. Even though Atiku talks about poverty and unemployment more than Buhari does, Buhari's supporters care about it even more. Economic issues are mentioned by both Atiku and his audience more than any other category, but Buhari's supporters more interested in them.

Message discipline includes both the topics that are discussed and the manner in which they are discussed. The extent to which the candidates' audiences used particular terms differently is examined in this here. It does this by collating the variation in keyword usage across issue categories within the subsets. Four most frequently mentioned issues across all four subsets: economy, corruption, insecurity, and democratic process. Table 12 lists the top four terms for each subset for each issue. The great similarity of terms within most issue categories may be the pattern in this data that is easiest to spot. The most prominent example of this is arguably the relationship between the economy and security, where several of the same terms — such as "job creation," "poverty," "boko haram," "terrorism," and "herdsmen"—are repeated in slightly varying numbers throughout the subsets. When compared to terms that are repeated, those that are not repeated do not appear to consistently focus on fundamentally different issue attributes.

A small deviation from this pattern is represented by insecurity. The two candidates are in near-total lexical lockstep with one another, with the majority of phrases appearing either verbatim or as close near-synonyms on both sides. This is even though all four groups are primarily focused on economic matters – a clear evidence of message discipline. Although the commentators express a similar concern, they both deviate from the topic by talking about ethnic cleansing and foreign direct investment, two issues that neither candidate addresses at all. Although it is amusing to see commentators bring up topics the politicians would prefer to avoid, the current technique does not allow any assertions about which sides of each are most popular (for example, the pro- vs. the anti-ethnic cleansing side). The topic of economy is the one where this lapse in message discipline is most obvious. Buhari mentions it in passing while urging his supporters to accept the "better Nigeria" plan, which at best has a hazy economic connotation. Atiku uses the word "economy" more frequently, but he typically uses general words like "job creation" and "human capital development." In the meanwhile, commenters don't hold back when discussing the aspects of the economy that were contentious during the campaign, namely job losses and growing unemployment rates. Overall, these variations in the manner and intensity of audiences' and candidates' discussions of the economy tell volumes about the general lack of control both campaigns have over this particular issue.

In addition to providing a novel model of controlled interactivity, this chapter also lays out the empirical standards by which its effectiveness can be assessed. To put it another way, members staying on-message in an online discussion forum sponsored by a candidate is proof that the interaction in the area was successfully managed. The findings in this chapter show that both Buhari and Atiku's official Twitter hashtags have a high level of control. Atiku's audience was

significantly more on-message than Buhari's, but there were still significant discrepancies in the campaigns. Additionally, audiences prioritized specific themes disproportionately more than the candidates, such as the economy and insecurity, despite the general tendency toward message discipline.

9.7 Equalizing access or normalizing participation: Scaling power relations between users and candidates

Interest in the impact of digital communication technologies on political campaigns surged following the events around the 2015 presidential election. Initial expectations of the Internet's function were filled with exaggerated claims that a digital revolution would fundamentally alter how people experienced politics and their interactions with political elites (Adeiza, 2016). Events of the last decade triggered political communication scholars to question Castells' (1997; 2012) argument that digital media would fundamentally transform politics by flattening the communication power relations between political actors, and empower individual actors to be more consequential in national debate (Adeiza, 2016).

The majority of the literature on digital media and democracy in Africa focuses on how activists use the platforms to observe elections and stage protests (Bailard & Livingston, 2014). Additionally, the majority of the writings on how Nigeria's democracy is being "revolutionized" by the Internet rely heavily on anecdotes and pay little attention to the mechanics underlying the effects stated. Olabamiji (2014), Smyth and Best (2013), and Ugor (2009) developed more empirically supported studies about the use of digital media during election periods in an effort to reverse this trend. The growing interest in election periods by political communication scholars is not unconnected to the fact that political activities are heightened, making political attitudes and behaviours easily observable.

The role digital media plays in political communication can be categorised into "two opposing views: normalization and equalization. The normalization thesis is often traced to the seminal work of Margolis and Resnick (2000) who argued that digital technology (social media in this case) does not radically transform politics but their uses follow existing patterns of political relations "(that of "politics as usual") (Adeiza, 2016). Equalization hypothesis, as Margolis, Resnick, & Wolfe (1999) argued, "regards the Internet as a democratic technology that levels the political playing field by reducing the gaps in campaigning costs between minor and major parties" (Lileker & Jackson, 2010). Proponents of the web as an equalizing force insist that the Internet provides "an opportunity for minor political parties and candidates to gain extensive public exposure, get their message across, and attract increased support" (Samuel-Arzan & Hayat, 2019). Studies by Morozov (2012), Shirky (2009) have contested the Internet's capacity to transform relations between political elites and citizens. There is a related concern about its capacity to afford candidates and campaign organizations the opportunity to manipulate messages via personalised targeted campaigning. The viral nature of social media messages and the ability to use social networking sites for targeted messages are seen as important resources for weaker fringe players who may lack a communications infrastructure and access to mainstream news media.

Indeed, politicians have been leveraging the rising Internet penetration and proliferation of mobile devices and social networking sites to incorporate digital communication tools to promote engagement and popularity on social media. Consequently, the normalization/equalization hypothesis has become the topic of many debates. Although there is evidence of some equalization in the digital media era politics, such evidence is often specific and timebound phenomena, failing to show any dramatic equalization effect is taking place. There have been cases of such phenomena that came and went. For instance, there was the 5-star movement in Italy or the pirate parties in Northern Europe which started as grassroot movement that became political party (Diamanti, 2014). Once they became political party and got into government, the old politics dynamics started playing out again: become a phenomenon for about a year and then completely disappear. Other studies in the United States and United Kingdom (Williams & Gulati, 2008; Gulati & Williams, 2010; Gibson, 2013) found strong evidence of the normalization hypothesis. Their reports point that having better resources significantly influence the decision to campaign on social media during elections. Similar to Klinger's (2013) study of the Swiss 2011 elections, political parties used social media in 2015 and 2019 only as a complementary and secondary tool, leading to the conclusion that normalization is maintained.

Similarly, there is growing concern about the use of social media to manipulate opinions via micro-targeted campaigns in a way that affects political participation. Howard (2005, p. 168) noted that citizen participation increasingly takes place in "highly privatized and often covert space" where free exchange of ideas is difficult to achieve because of vested interests who own and manage the platforms. This form of exchange favours political campaigns who thrive on personalized messages. Buttressing this, Bimber (2014) argued that political campaign's use of analytical software to target voters is not aimed to engage voters but to win the election. He asserts further that differences in the use of social media do not matter as much as the specific strategies candidates adopt. Highlighting the importance of this turn, Stromer-Galley (2021) notes that these strategies are "undecidedly undemocratic" based on "controlled interactivity," progressively "data-driven" rather than "citizen-driven" (Gibson, Rommele, & Williamson, 2014).

For the purposes of this study, a different area of interest focuses on the precise methods political parties and candidates use to advertise to voters on social media. There is no agreed-upon definition of normalization and equalization, not even within this strand. The question of whether social media enables users, small or opposition parties to overcome visibility and resource limitations in order to compete with ruling parties is the focus of one community of researchers (Adeiza, 2016). For example, Vergeer, Hermans, and Sams (2011) and Marcinkowski and Metag (2014) in separate studies of the European Parliamentary elections in the Netherlands and German national election found that candidates already favoured to win were more likely to use Twitter extensively. In 2019, Atiku Abubakar was favoured by several opinion polls to win, and used Twitter more extensively than President Buhari. This confirms the hypothesis that links pattern of use to a candidate's confidence in their online popularity. These studies though could not determine how much Twitter contributed to the outcome of the election, Verger et al. (2011) found some interesting trend: progressive and opposition candidates use Twitter more (similar to this study's findings and the work of Graham et al (2014); politicians become less engaging as their followers increase (see Table 9 showing number of followers and followed); and given the

pattern of followership, it is more likely that Twitter use is more about reassuring supporters than winning new converts. Lilleker et al. (2011), Norris (2003), and Vaccari (2013) also found normalization as the main role of social media.

In the case of equalization, findings by Foot and Schneider (2006), Bimber (2014), and Kreiss (2012) indicated that where an opposition candidate uses social media more actively than the incumbent, there is no guarantee of victory (Atiku Abubakar did not win the 2019 presidential race despite a heavily social media-intensive campaign). Predictions by and many others of an Atiku victory did not match the eventual outcome of the election (in Nigeria, politicians have other means of winning elections outside of social media campaigning). They are further proof that online popularity does not translate to electoral victory. However, this thesis does not concern itself with the success or failure at the polls but with exploring platform use and strategy. Differences in access to technology become insignificant where two almost equally matched parties are involved in the election contest. This approach is even more important for a platform less studied in such social context and where little is known about politicians' use of Twitter for campaigning in Nigeria.

Presidential candidates and campaigns are embracing interactive digital media as integral elements of their strategy as it offers new channels to engage electorates. This, however, does not change the ultimate goal which is to win the election. While the possible effect of controlled interactivity and message discipline on Twitter is still unfolding, this thesis in this chapter has highlighted fundamental differences between what candidates focus on during campaigns and the policy interest of commenters. Facebook is still the most widely used controlled-interactivity platform in terms of political communication in the country. Recent updates have offered political actors tools to decide whether they want commenters to reply or retweet their tweets. None of the accounts studied here used such extensive technical configuration. Commenters had the freedom to post freestanding messages which amounts to "uncontrolled interactivity" and gave agency to unsavoury replies. Low reply count from candidates was another form of control identified in this study. Different interactive campaign environments and communication tools exert control to varying extents. Twitter accounts are less controlled than Facebook and email accounts, which only allow a limited set of user behaviours. Although users are free to @mention and reply to campaign messages, it is unlikely that these tweets would ever reach the candidates as they hardly ever directly manage their accounts.

CHAPTER 10

MAPPING NIGERIA'S DISINFORMATION ECOSYSTEM

10.1 Social dynamics of disinformation: Exploring Nigeria's disinformation ecosystem

There is interest of external actors to learn in unregulated environments, Africa, but at the same time these specific spaces are characterised by specific and complex patterns that one would expect they are difficult to understand for an external actor or expert, ethnicity being one of them. On the one end, Africa (or a conflict scenario) is seen as a learning ground where you are allowed to push your moral (or immoral strategies) further because of the goal to win population from an unusual group. However, when you need to get to the level of influencing, the complexity of ethnic belonging and behaviour, you wouldn't expect the Internet Research Agency (or Cambridge Analytica) to have a deep appreciation of Nigerian ethnic politics. On the other hand, there is all this complexity that needs to be accounted for.

This chapter analyses the growing prevalence of disinformation with research evidence that provides a granular understanding of disinformation's pathways and effects by connecting different dynamics that have characterized political contestations globally and have proven relevant in Nigeria as well. In a continent where most countries face a profound democratic regression and use multiple methods to stifle digital rights, disinformation further undermines democracy and the respect for human rights. Increasingly, several African countries are getting into the crosshairs of new disinformation schemes that undermine democracy and put the lives and operations of critical democracy actors at risk. Orchestrated by domestic and foreign actors, it hampers free expression, hands autocratic governments an excuse to crackdown on legitimate expression by critics and dissenters, and to generally muzzle an open and free Internet.

Instances of disinformation are growing and are particularly prevalent during elections. Research data indicate that foreign actors are increasingly involved in the disinformation factory in Nigeria and could also be using Africa, broadly, as a testing ground for new disinformation schemes that aim to, among others, manipulate and undermine political discourse. In May 2019, Meta removed 265 Facebook pages, Groups and events involved in "coordinated inauthentic behaviour" (CIB)[99]. Later in October, Facebook dismantled a Russian campaign that targeted Cameroon, Libya, Madagascar, Mozambique, South Africa, and Sudan and seemed to be testing new techniques for later deployment elsewhere. And in 2020, Meta and Twitter reported they had taken down dozens of accounts linked to a non-governmental organization in Ghana that were linked with Kremlin-based Lakhta Internet Research, which also reportedly outsourced its influence operations to companies in Ghana, Mexico, and Nigeria to try and influence the 2021

[99] https://about.fb.com/news/2019/05/removing-coordinated-inauthentic-behavior-from-israel/

U.S. elections[100],[101],[102].

Election campaigns have shown that false information can spread swiftly on social media and have negative consequences (Gruzd & Mai, 2020; Hameleers & Van der Meer, 2020). Both misinformation and disinformation are forms of false information that are spread with the intention of harming others (Wardle & Derakhshan, 2017). Disinformation is the deliberate manipulation, decontextualization, or production of false information with the intention of advancing a specific political objective (e.g., Bennett & Livingston, 2018; Freelon & Wells, 2020). Political actors utilize it, for instance, to promote conspiracies and alternate realities, foster scepticism against the mainstream media and the political system, and rally support for alternative agendas (Marwick & Lewis, 2017Particularly, the informational environment of social media combined with a high level of ambiguity might produce a discursive opportunity structure for deceitful individuals who wish to increase mistrust and animosity toward other groups (Guo & Vargo, 2020).

While there is presumably a great amount of disinformation in many countries, structural, economic, and political factors may cause individuals to disseminate it further (Humprecht et al., 2021). This research found that the political, media, economic environments in Nigeria played a major role in how and why citizens (referred to as agents in this research) spread disinformation.

10.2 Why does disinformation spread?

Recently, attention has shifted to how "a growing group of people – who are not uninformed but rather disinformed – hold inaccurate factual beliefs and use incorrect information to form their preferences (Humprecht et al., 2020). As a result, discussions across disciplines on the effects of disinformation on democracy and the dangers of strategic manipulation are being openly discussed in relation to the creation, consumption, and dissemination of online deception. How quickly disinformation can spread online is shown by the propensity for social media to present highly selective and even biased representations of public opinion (Guess et al., 2018; Shin & Thorson, 2017). This is also dependent on specific environmental factors that encourage the spread of false information in Nigeria. Understanding these fundamental factors can help us comprehend why this phenomenon develops to various degrees and what impacts it has on particular people as well as democracy (Humprecht et al., 2020).

Excerpts of the interviews used in this chapter are presented in line with the description stated in methodology chapter. First instance of an interviewee will be accompanied by a brief description. Subsequently, only the unique identifier is used.

10.2.1 Low trust in news media

How citizens and stakeholders interpret information and become aware of specific issues depends critically on media credibility. A broad political malaise is the cause of low levels of trust

[100] https://about.fb.com/news/2020/03/removing-coordinated-inauthentic-behavior-from-russia/
[101] https://edition.cnn.com/2020/03/12/world/russia-ghana-troll-farms-2020-ward/index.html
[102] https://graphika.com/reports/ira-in-ghana-double-deceit/

in the news media. For example, opposition politicians in Nigeria have little trust in state-owned news media and tend to perceive a "constructed bias" in their news content. Having served as a political analyst and commentator, and now an election observer with same organization, Interviewee C4 was able to capture instances of media manipulation enacted by political actors which affects how citizens perceive the media:

> Remember that Channels TV supported APC to a very large extent such that the anchors in most of the political debates always asked leading questions that would put the PDP on the spotlight, asking them questions about how some funds were handled during the 16 years of PDP reign. On the hand, they gave soft-landing to APC most of the time. You would also recall that AIT that is pro-PDP always had to have whatever event that PDP hosted…. There is always the use of the mass media owned by the government to malign the opposition and APC used this scheme so well during the build-up of the presidential election because all the debates indisputably favoured APC so much and most of the activities of APC were being aired across all the media platforms owned by the party. You'll also find out that Sahara Reporters, in 2015, showed much bias towards APC and didn't do same for PDP. Recall also that in the debate that featured the vice-presidential candidates, Peter Obi and Yemi Osinbajo, on NTA which is a government owned TV station. There was always the tendency of the anchor of that debate to disallow Peter Obi to exhaust all his points and discussions, and from time to time heckle Peter Obi being the PDP candidate.
>
> There was a time in the debate the vice-presidential candidate of the APC couldn't have enough information or was not armed with veritable information to actually describe the activities of his own party but at such times, when APC may not have genuinely had enough information to offer to the people, the anchor provided a kind of a prompt so that he was able to have enough information to give to the people.

Like C4, Interviewee C1 who has worked closely with micro influencers in past elections at national and state levels and experienced how paid actors mobilize for a campaign also narrated how the ruling party hijacked media spaces during the campaigns:

> Incumbents hijack state machineries and you don't see a balance in the use of state resources, including the media in the states, so that the opponents are pushed aside…. You also see them coming up with obnoxious laws to spite the opposition. For instance, they can say no mounting of billboards or TV and radio political adverts, but you see their own faces every day on the television and billboards. This happened in a lot of states. Where media access is granted to the opposition politicians, close to the election they come up with outrageous prices.

Because source credibility impacts how information is interpreted, mistrust of professional news media might result in selective exposure (Chung, Nam, & Stefanone, 2012; Turcotte et al., 2015; Swire et al., 2017; Turcotte, York, Irving, 2015). It also increases the use of alternative sources, such as online platforms like Twitter, Facebook, and WhatsApp that distribute disinformation.

Historical instances of governmental dishonesty have eroded some people's trust in institutions. Professional media, which serves as the conduit for government communications, suffered as a result of its unquestioning coverage of previous elections. For instance, prior to the 2012 #OccupyNigeria protest, the media should have added more critical reporting to its upbeat coverage of the removal of oil subsidies. The promotion of damaging messages that endanger public health and safety by business interest has also contributed to the spread of mis- and disinformation. Particularly egregious examples include the denial of scientific data regarding the coronavirus outbreak and vaccination safety in 2020.

While the legacy of deceptive communication may have reduced the public's trust in traditional, reliable information sources, political organizations and media outlets have been working more systematically lately to increase popular resentment and mistrust. The proliferation digital Internet technology as well as mobile internet has made it possible for citizens to create and distribute content as well as to consume it from a wider variety of dubious sources than ever before, which has further complicated these issues. Institutions that were formerly able to evaluate truth claims and institutions that once established a more unified public sphere have broken down, leaving an epistemological gap that is being filled by people who feel lost in a world that is spinning – and being spun – out of control. People are more likely to be exposed to various sources of political information and to be less critical of those in an environment where distrust in the news media is higher (Benkler et al., 2018).

If the media had been historically very trusted, they would have created less space for populism on social media because people would have tended to go back to 'official' mainstream media to find their news.

10.2.2 Populist communication

According to Bennett and Livingstone (2018) and Marwick and Lewis (2017), populism and partisan disinformation share a number of fundamental psychological principles (Hameleers, 2018). First, populism and misinformation are both concerned with the dissemination of partisan information that favours one party's point of view while disparaging that of the opposing party. Second, partisan disinformation creates a complete moral and causal separation between two camps: "we" are right and true, and "they" are wrong and phony, similar to the social identification process at the root of populism (Humprecht et al., 2020). Atiku Abubakar was painted the "poster boy of corruption" by the government, called thief, and labelled his party's time in power "PDP's 16 years of looting". The APC rode on a similar mantra in 2015. In the same vein, populist actors also frequently blamed the news media for spreading "fake news" that mislead ordinary people. Government blamed online media for spreading "fake news" about President Buhari, his fight against corruption, and projects. Third, populists claimed that evildoers in politics used mis- and disinformation to conspire against the ordinary public. However, populist actors disseminated misinformation themselves when it helped to strengthen their in-group/out-group narratives. Notably, campaign and party spokespersons, publicity secretaries and social media aides were exposed over false claims made about their candidates or projects.

Lauretta Onochie, President Buhari's social media adviser, tweeted in February 2019 that "12 million jobs have been created in the rice production industry". For this reason only, she said, Nigerians will vote Buhari "again and again and again", suggesting the jobs were created by his government. She made another false claim in January 2019:

> ONE MORE REASON TO EMBRACE CHANGE More children are now in School than before This year, more children will be back in School More parents too will be gainfully engaged in jobs It's better now than then Change is a process. Yours is on the way #PMBRunAgain.

Africa Check fact-checked both claims[103] reported above and found them inaccurate[104]. Another case was a reply to the tweet above which exposed Festus Keyamo's false claim implying grassroot popularity for president Buhari: "#bursted Elections will come & go, but many people will lose their integrity forever, imagine a once respected @fkeyamo posting Sheikh Inyass video claiming it's Buhari's rally in Kano." Screenshot of rally and @fkeyamo's tweet is presented below.

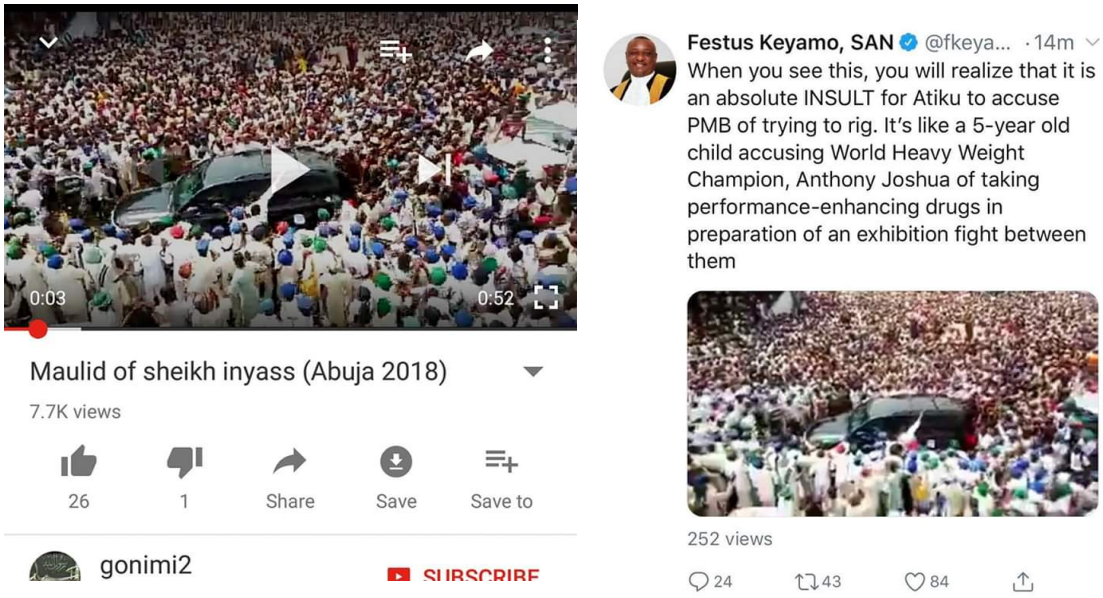


Figure 36: Screenshot of @fkeyamo's tweet posting Sheikh Inyass video claiming was Buhari's rally in Kano.

According to studies, being prone to populist politics strongly correlates with believing in distorted information. In essence, conspiracy theories, anti-elitism, and a binary worldview are all shared by populism and partisan disinformation (Humprecht, 2020). Citizens may have false impressions of reality as a result of these interrelated forces (Pennycook & Rand, 2018). Online

[103] https://africacheck.org/fact-checks/spotchecks/number-out-school-children-nigeria-didnt-drop-87-million-under-buhari
[104] https://africacheck.org/fact-checks/reports/no-proof-12-million-jobs-nigerias-rice-industry-presidential-aide-claimed

users are therefore exposed to more disinformation in settings with high amounts of populist communication.

Long-running discussions regarding the applicability and effects of online behaviours in offline environments gain new insight from this. At the outset of anthropological investigations into the Internet, Miller, and Slater (2000) highlighted how several forms of online behaviour that emerged – including fake news—tended to be viewed as being of little significance or impact. These distinct categories of factual distortion persisted online without being addressed in spoken discussions. Long-term practice and experimenting with information ecosystem pollution may in fact have very substantial implications, including helping to elect a populist president, as demonstrated by the growing political significance of disinformation. In other cases, the Internet has given attackers of ideology and dissident groups new grounds for argument and networked resources. The links between new forms of participation that emerged online and their wider ramifications for society are becoming more obvious, even though it is still difficult for researchers to determine direct causation between political disinformation and paid trolling by social media and micro-influencers.

10.2.3 Political polarization

Although majoritarian systems with only two parties and a winner-takes-all system are seen as a breeding ground for political polarization, Nigeria's multi-party system and deep historical partisan divisions is strongly polarized. Suffice it to say that citizens' ties to the political world are often more emotional than ideological. As someone who had observed how the election played out both in the north and south, Interviewee C2 noted, "in Nigeria for instance, there is no strong political ideology which is why people keep running from one political party to the other provided they are given tickets and retain power." Growing polarization is a key factor in the spread of digital disinformation. Difficult to measure and conceptualized in different ways, political polarization is understood "as the separation of partisans or elites on issues or policy spectrums" (Dalton, 2008; Hetherington, 2001).

People are highly hostile to those on the other side of the political spectrum and are consequently more likely to believe only reports that support their own opinions (activating confirming bias). The potential is then to share only content that is favourable to candidates from their own political party and ignore verifying messages supporting opponents. Reflecting on close knowledge of the political and civic space, Interviewee C5 commented that:

> People usually listen to their close networks, … and you engage within your network that you have grown with, that you have trusted over time, that you are used to, and that can give you the insight into things that you probably would not want to trouble yourself understanding by yourself.

This opened the space for partisans to spread disinformation, distrust other sources or users and accuse them of bias. Polarization was also a result of people's propensity to prioritize information that supported their existing opinions. People often look for justifications to ignore or refrain

from engaging with content that contradicts their preconceptions in order to defend their ideas, while seeking out emotionally calming realities that support their beliefs.

Some of the interviewees' responses showed how they mentally flipped information that went against their preconceived notions and understood it in terms that supported them. Therefore, actors and disinformation propagators frequently take part in the creation and dissemination of massive amounts of disruptive content and hunt for "trusted" information from their social networks. Noting how ethnic fault lines were instrumentalised to further divide voters during the campaigns, Interviewee C4 who monitored the election through an organization observed that:

> Before the election, many APC supporters said the Igbos put all their eggs in one basket by voting PDP and now that the APC won, the Igbos are going to suffer. Another pro-PDP group pushed back against the Fulanis and Hausas using every tragedy in the North for mockery. That bandits are attacking them in Katsina and saying who Katsina voted for. There was another group that targeted Yorubas, saying they were the ones who brought Buhari into power.

These fault lines made references to electoral choices of 2015 with the aim of influencing voting decisions in the 2019 presidential election. Interviewee C4 captured one of such defining moments:

> There was another online propaganda that Peter Obi was the driver who drove Nzogwu went to kill Sultan of Sokoto, the emir in the north. That it was Peter who drove the vehicle and created a lot of problems for us in the north, created a lot of distrust, that oh, why is Atiku running with someone who drove to kill Ahmadu Bello?

In addition to displaying bloc ethnic voting patterns, the election also revealed significant ethnic attitudes, calculations, and preferences that, like in previous presidential elections, polarized the nation. These factors were mirrored in the campaigns, voter mobilizations, and candidate selection. The election offered the best chance for the South-East Igbos, who held the vice-presidential slot in the PDP, to address a long-perceived marginalization. Large percentages of Igbo voters supported the PDP, which infuriated the Yorubas in Lagos who saw opposition support as a danger to their (the APC's) dominance of Lagos state and plans for access to the presidential seat after the 2019 contest. Voting places and areas that were thought to be Igbo strongholds were attacked, vote boxes were taken, and people were killed.

Disinformation is harmful to candidates and hijacks political discussions. Some of the dominant debates were not issues-based but rather dictated by a set of actors whose interest was to create fabricated realities for other users. For instance, one of the most popular disinformation that has emerged over the past couple of years, and polarizing, was the "Buhari is a clone" disinformation. The way it was interpreted spoke volumes of the sophistication of social media. As an individual deeply involved in closely monitoring the election and engaged with people at the grassroot level, Interviewee C2 was able to locate the body double conspiracy in different contexts:

> When people talked about it, it depended on how the narrative was presented in that part of the country or to the people. So if you go to northern Nigeria, and you are trying to pass this across, is to tell that if it was really Buhari, things will not be as bad as it was because Buhari is a God fearing person, is fatherly, is a socialist so he must have actually been a clone. If you go elsewhere, people cannot relate it with their present-day reality because it is believed that when you are sick, you are supposed to look worse off especially when you are poor but he came back looking very fresh and untouched, so it does not resonate to their present day reality. Also, some people say on their own part that Buhari could not pronounce some words previously but Buhari is pronouncing these words…. There are some others who are just biased and wouldn't want to believe it.
>
> These messages are not just generic messages, they are produced and tailored to achieve an effect within the context dictating. So, there is the knowledge of the context, not that the messages are being created without the knowledge of where the messages will be used. The messages that are very successful in the North-East are not necessarily of national importance so that is where the 'Buhari is a clone' message made national news. But when you look at other messages and you test them with the 2019 elections, you find that most of those messages were geo-politically specific.

The idea is a conspiracy or piece of disinformation has a very specific target. Similar to what happened with Cambridge Analytica in the United States where they targeted African American voters because they didn't want them to go and vote. But if the same piece of disinformation had reached a well-educated voter of another race, it would have just fallen flat. In this case, the "Buhari is a clone" conspiracy which is supporting the opposition camp, but in a paradoxical way, is even getting buy-in into the pro-Buhari camp. It offers an example of how disinformation, when it becomes misinformation, can take on very unexpected effects or consequences.

Within broader discussions of discord, the assertion that the Internet has given rise to partisan echo chambers and filter bubbles needs to be handled cautiously. The introduction of the Internet may or may not have reduced exposure to opposing viewpoints in general. In fact, some studies indicate that people may experience political disagreement more frequently online than in person, and they may find it to be exceedingly stressful and unpleasant. The level of mutual animosity between supporters of opposing parties may have increased due to the rage and vitriol in many online conversations known as "negative partisanship."

The news media and their audiences have been reorganized along political lines compared to the trends in the middle of the 20th century. National media outlets, like as television networks and news magazines, used to provide Nigerians with news and commentary. These outlets tended to be centrist and typically ignored radical viewpoints on the right and the left. As a result of the traditional gatekeepers losing their ability to shape and exclude, there is now a rift in the news audience. The new environment ought to have served democratic interests by opening up public discourse to a wider range of viewpoints, including hitherto outlawed radical ones. However, the ways in which we communicate today have exacerbated polarization, intergroup animosity, and the propagation of misleading information. While the mainstream gatekeepers no longer have

as much influence, the digital revolution has given rise to new organizations that potentially fill that role. The companies in charge of the media platforms on which discussion and news are broadcast are the most significant of them. The political debate over disinformation has now been centred on the platforms and their owners as a result.

10.2.4 Poor economy and unemployment

Are misleading social media content often produced in pursuit of financial survival? The role of high unemployment in the proliferation of troll farms is highlighted in the way disinformation-for-hire has become an enticing 'creative' industry. It is now an industry that lends an aura of professional respectability with fancy titles like brand strategist, community manager, social media operator, digital media consultant, etc. But really, they are being asked to do jobs like operate fake accounts, create attack memes, adverts, messages, etc. We now have disinformation agents who do not disclose they are being paid to run political campaigns on social media platforms, and corporate marketing strategies being borrowed by political campaigns but with less transparency and ethics. Disinformation factories recruit people who are less mindful of ethics and less resistant to challenge the use of disinformation techniques due to their poor economic status.

Nigeria's inability to engage a large proportion of her youth meaningfully through job creation has led to a social dislocation. The dire unemployment situation means many graduates, and those with advanced education, survive on many small and medium scale enterprises using social media, including Twitter, for marketing, pitching, attracting investors, and reaching customers. This economic condition, coupled with increasing smartphone penetration and access to Nigeria's fledging technology sector, makes the disinformation-for-hire industry attractive to many.

Changes in the 'marketing' of candidates and political campaign strategy to incorporate digital media have encouraged the spread of disinformation. The business model of social media platforms that charges commission for every click and view encourages the production and spread of disinformation. Producers work with their networks to simultaneously publish content in numerous communities on same platform or on numerous platforms using one community (see retweets network in chapter 6). Personalized media spaces help such networks to garner social capital by allowing them to benefit from cross-border, cross-class and cross-generational relationships and resources.

After the Occupy Nigeria protests in 2012, politicians realised the power of social media and began to mobilise young people to push their narratives online. This led to the proliferation of digital influencers, bloggers and "catfish account" (a local term for fake social media account) operators who engaged each other in endless debates and propaganda battles online. "The climax was 2015 presidential elections, when the newly formed opposition party, APC" (a merger of the Action Congress of Nigeria (I), the Congress for Progressive Change (CPC), the All Nigeria Peoples Party (ANPP), a faction of the All Progressives Grand Alliance (APGA), and the new-PDP) "deployed heavy social media propaganda to demonise ex-President Goodluck Jonathan" (Interviewee C4). By 2019, the influencer market had become bigger, more dynamic, and

complex. Hiring a social media influencer costs millions of naira; a section of the online community had also become conversant with the information ecosystem and some celebrity influencers had a baggage of unfavourable persona from their involvement in 2015. Political actors had to turn to micro-influencers who became the doyen of disinformation campaigns. According to Interviewee C1:

> After the 2015 elections, a vast majority of Nigerians online began to see the "online celebrities" accept the same things they vehemently criticised in the past. This hypocrisy eroded public confidence on the influencers and ushered in a new era where people no longer believed you on the basis of your followership base, but on the content of your posts. The online space is now diversified with many micro-influencers controlling their respective spaces. Working with such micro-influencers is relatively easier and affords you the opportunity to reach out to a lot more people of diverse backgrounds and interests.

10.3 Costs and benefits of "Nairafluencer" industry

Disinformation is most dangerous when reward is involved. It is a market where you have a lot of people, charged by unemployment. The reward system in the industry varies from client to client. My interaction with them revealed a range of incentives. On the monetary end, they claimed to be paid between 5,000 and 30,000 naira (about $12 and $72) at irregular intervals. Some had the amount monetized in data bundles. Others participated on the promise that they were going to get some form of political appointment (e.g., Personal Assistant on social media) if their principal wins. It is worthy of note that "some from the 2015 and 2019 elections are already occupying those kinds of positions" (Interviewee C3). There are others driven by satisfaction of just being part of the "game" of using propaganda to sell a candidate" or being "recognized in their local communities as having dealings with a popular politician" (Interviewee C1). Incentives got as simple as "if you are the best 'performer' you get to meet Mr Yakubu [real name concealed] and get a handshake or T-shirt." Beyond this, one of the digital media influencers that sold their service, Interviewee B2 said: "as for me, despite the money, I will no longer work just for the money. Going forward, I would be working to keep a clout and maintaining it on all my social media accounts and my community."

There were indications a few of the paid influencers were not so proud of what they did: "I am just for the money because I am not really proud of the person I am associating with. So I get whatever I can and move on" says Interviewee D2 who acknowledged trading his online influence for cash during the presidential election. Another influencer in same category as D2 but worked as a state coordinator for one of the groups funded by the ruling party commented:

> Unemployment has fuelled disinformation factories to be a market and people are looking for opportunities to earn their daily bread, no matter how small it is. Since all you just need is a phone and with the phone within the confines of your home you can make a message which can go viral in very few minutes and get cool money. I feel bad but I also have to eat (Interviewee D6).

Along with an increase in commentators highlighting the financial incentives driving the fabrication and diffusion of disinformation during the 2019 election, it is now widely acknowledged that politically motivated actors attempted to influence the 2015 election. The motivation behind creating content that is both highly shareable and monetizable online has been identified as unemployment. Propagators leveraged the services of agents who created fake accounts or operated multiple accounts to spread disinformation on Twitter. By retweeting and co-tweeting items from other accounts and promoting them through swarms of false Twitter accounts, these accounts occasionally served as multiplier rather than original source of disinformation. The topic of financial incentives for spreading misinformation has been discussed beyond only the internet accounts responsible for its production and promotion. Given that disinformation content is frequently shared and viewed widely, critics and experts have emphasized that platforms' excessive reliance on advertising may provide them perverse incentives to harbour it.

With its ability to manipulate and distort narratives around elections, disinformation can pose a threat to democracy because it directly attacks the institution and process that put election in place by pitching political parties against each other. It is not just a partisan issue but one that strikes at the connective tissue of democracy. Actors and perpetrators released false stories through different media outlets and employed armies of online social media users and human-run automated accounts to target the most susceptible voters. These actions made truth unknowable and undermined public trust in the possibility of an established set of facts. During the 2019 campaign, most politicians employed the services of influencers who registered many fake accounts to heavily occupy the digital space. As Interviewee D1, a popular voice on Twitter and long serving youth leader in the PDP known for playing a pivotal role in Atiku's digital media campaign, narrates:

> The politicians used those that have already very expansive network in the social media industry to create multiple accounts that are fake. They employed the services of other people who are scattered across the whole political space so that any information they create, they may use such pseudo accounts to peddle some of those false stories and information. Creating a pseudo account or fake account is not a difficult thing.
>
> First, we use people who may not be known so well in the society to go and register some sim cards using any fake names. This can now assist any person creating fake accounts to use some of those sim cards that do not have original owners. For instance, you can just buy sim cards and register it in the name of an organization.

They exploited the poor regulatory framework in the telecommunication industry which does not closely monitor sim card registration process. Interviewee D1 comments further:

> In Nigeria, some of these activities are not being followed up with, so you can design a name and go to any of the sim card vendors and register. You can now use the sim card numbers to actually create fake accounts and use them.

In the disinformation-for-hire network, there was a central person who controlled the activities of other people referred to as "social media lieutenants or assistants", "data boys", "shekpe boys"[105], "attack dogs", or "catfish accounts". Messages are prepared and tested by this individual for the others in the network to post. They ensure it runs through the cascade of their own accounts, across platforms.

> Aside from preparing the message, some send it to a general WhatsApp group, then from the WhatsApp group it is circulated. Some have as much as 500 WhatsApp groups created with a limit of 256 people then they have a general WhatsApp where other people make conversations (Interviewee C2).

Buttressing the above narration, a graduate of computer science known for mobilizing youths around their local community for political clients and contracted to orchestrate paid network of influencers, Interviewee BI added:

> It is like a network. I may be in Enugu [original location concealed] and I create an account that may show me as living in South Africa, because I can use a South African IP to access or do anything on the Internet. The main account, name could in maybe Hausa but far from real identity, then 'recruits' other people and gives another name, could be Ijaw, another in Yoruba, and others drawn from the many language groups in Nigeria. All this may be one person controlling other assistants known to him and created by him (Interviewee B1).

> Assistants created their own fake accounts and by the time you realised, one person in a group of 20 has over 20 accounts he is coordinating within the network. Once the leader (human in this case) sends information out, those other assistants or lieutenants will also have to send out the same information down their own network(s). Don't forget that these fake accounts have mutual friendship online from real persons located in different parts of Nigeria who innocently consume their messages and engage by retweeting, liking, sharing, or commenting (Interviewee B1).

This was one way such messages received authentic engagements from inauthentic accounts and achieved virality, across platforms too. Recounting how this has become common strategy in other systems, Interviewee C2 commented:

> It's the same not just in Nigeria, Gambia and every other part of West Africa I am actually looking at this point in time, its replicated. But I think what is very key is that they are also sophisticated and so the number of bots have increased. They use unknown accounts to trend or at times they just start with one obscure account then an influencer posts it, and the reach goes on like that.

[105] A local term for alcoholics borrowed to describe social media thugs

At other instances, agents were seldomly allowed to “write messages from our experience and knowledge, especially when it had to do with a subject or target that was closer to us” (Interviewee B2). This was indicative that disinformation does not always emanate from the top: it also comes from the bottom.

The participation of grassroots online "troll" culture has been a catalyst in the dissemination of political disinformation in addition to the actions of actors who are politically and financially motivated. A long-standing aspect of social behaviour on the Internet is crowd activity, which is frequently carried out anonymously and used to startle and harass private individuals, public personalities, and institutions for pure enjoyment or financial gain (Coleman, 2015). In the past, these efforts have made use of a wide range of strategies, including the intentional targeting of journalists, candidates, and citizens as well as the manipulation of online surveys (Crain & Nadler, 2019; Marwick & Lewis, 2017). Many of these groups have recently turned radical, using irony and an understanding of Internet culture to propagate extreme hate speech, bigotry, and misogyny.

As this study finds, some of the agents that participated in coordinated disinformation campaigns exhibited similar characteristics. This included promoting conspiracy theories that Atiku Abubakar was funding terrorism and claims that President Buhari was nursing an Islamization agenda as part of his second term bid. These campaigns occasionally relied on the activities of volunteers, an informal coalition of overlapping community groups that was loosely managed. Various actors and users of the well-known online discussion board (e.g., Nairaland), members of the digital media mobilization communities (e.g., Buhari New Media Centre and Atiku Youth Force), were involved in this. Some partisan news outlets re-echo some of the messages of the APC, PDP and less popular political paymasters but exclude more controversial views. These techniques drew explicitly on earlier “trolling” tactics – one used by agents as a means to build their brands.

This analysis also highlights the important point that paid influencers (whether state-run, financially driven, or in it for the fun of trolling another user) do not operate independently. Instead, a web of overlapping, occasionally coordinating entities, are connected by various linkages to these online disinformation engines. Notably, some did the job of infiltrating other groups identified as threats. Others operated on their own, making a personal decision to spread politically harmful information with no prior contract.

10.3.1 Targets of disinformation

The process of producing disinformation involved combining platforms and collaboration with offline influencers, a view Interviewees BI and B2 agreed on. Expatiating on this, Interviewee B1 stated that: “there was a kind of triangulation somewhere creating the messages, retesting the messages and agents were working with the other political influencers and they were able to create messages that resonate[d].” The other group is a “community of influencers who have knowledge of the area or environment where they operate and who makeup all this.” “Data boys” sometimes manufactured fake information from events that “occurred in the past that may not even be related to the election or issue being addressed, which happened in Italy, Spain

or any other distant location" (Interviewee B1) and given a domestic connotation or linked to a target.

One of the goals of the disinformation campaigns was to delegitimize – a party, an institution, an opponent, a campaign. Further to this, actors and perpetrators manipulate information to sow discord along existing fault lines. The messages were designed to take away votes from opponents and not to secure votes, or delegitimize the electoral management body, INEC. Such amplified propaganda, as Interviewee B1 noted, "seems to be a kind of defacing of the truth. It does not give true information, it rides on the back of deceit, emotions and oftentimes could be seen as populist oriented." The findings from the data showed a high usage of videos, which was in sync with B1's statement that:

> Videos are very useful because it catches your attention and the shorter the videos, the better. In 2015, the most popular video was about 55 minutes about Buhari but in 2019, the videos were between 2 minutes, 22 seconds, and 55 seconds.

One of the interesting findings of this study relate to the use of persuasive communication by the networks to discredit, promote distrust, dissuade voters, and disrupt the electoral process. As the data showed, this was achieved through direct attacks on opposition (politicians and their supporters) and mounting of smear campaigns, implemented by "nairafluencer" networks. Speaking on this, Interviewee C5 who has worked closely with a good number of digital media influencers during elections and social movements asserted that:

> They ["data boys"] were responsible for hateful campaigns, smear campaigns, blackmails, personality attacks and the likes. They spread lies about the opposition, thinking if I can paint him black then the people would see my client as 'white'. If I can make him look bad then they would see my client as good.

Smear campaign was a strategy that travelled through the campaign. The campaign team that had the better media group and knew how to hit on the opposition had the advantage. Disguising as "reputation managers", paid agents generated and circulated smear campaigns against each another. "Once you are supporting me as a candidate, you have already drawn a kind of enmity line against my opponents. So it happens in such a way that you may not find it in small dose," narrates Interviewee B1. Expressing similar opinion, Interviewee C1 said that:

> Election happens every four years. They use the last two years of election for political campaigns. By the time they come in, they use the first two years to start paying political debts. So they don't have the time to do the concrete things that people expect. So, what do they fall back to when it comes to the political campaign? They resort to smear campaigns.

Another election observer expressed concern over the unhealthy nature of such communication strategy to the growing online political landscape:

> It is saddening that this strategy is becoming characteristic of our digital politics. It is mostly deployed by those who lack the capacity to sustain healthy intellectual debates or put forward sound argument on important election matters. They easily resort to personal attacks to even up (Interviewee C4).

For instance, in 2019, Atiku Abubakar was the target of a sponsored smear campaign that labelled him corrupt. The ruling party and its supporters alleged Atiku was a fugitive who couldn't set foot on American soil. To diffuse this campaign, Atiku made a short visit to the United States of America.

The 'Jubril from Sudan' conspiracy presents a case study of how a smear campaign can be weaponised to drive division especially between the Igbos and the people from the northern part of Nigeria while directing hate at President Buhari. A second case study that resonated was the "Church of God is in danger" conspiracy that targeted Christians in Northern Nigeria with messages that claimed that President Buhari has anti-Christian sentiment and if re-elected, he will become a dictator and sign laws that would regulate the open practice of Christianity. The messages suggested the church would be in danger for not supporting Buhari's campaign as some popular church leaders had spoken against his candidacy and purported agenda. Videos of Bishop David Oyedepo and Apostle Johnson Suleiman were used to reinforce this conspiracy. Elaborating on this, Interviewee C2 provides some context:

> For instance, "the church of God is in danger" messages that were spread were basically just targeting Christians and northern Nigeria. And if you take the message of "Atiku is supporting boko haram" which went viral on several platforms and when you try to test those messages in South-West Nigeria, it does not resonate and it's the same for the videos produced, the text messages produced and some of the audio messages that emerged. Such environments confront Nigerians with different deviating representations of the reality and therefore it became difficult for them to distinguish between false and correct information. Thus, political polarization facilitated the spread of online disinformation.

Then there was the "Atiku is supporting boko haram" campaign that claimed Atiku Abubakar was sponsoring terrorism in the country. Despite its popularity cutting across platforms, its associated videos, text messages, and audio clips did not resonate with the audience in south-western Nigeria.

A large section of the digital media influencers studied in this research showed more connections to supporters and actors from the PDP camp. This could be attributed to the "cult-like" followership Buhari enjoys in the north and the fact that his candidacy resonated more with electorates in that region, one with lower level of literacy and Internet penetration compared to the south of Nigeria. One user illustrated this position in a tweet: "No Facebook no twitter no IG accountI... Call them illiterate but they are the most informed people you'll meet. The true PVC holders are the Northerners #NigeriaDecide #Northerners #BuhariHasWon #NigeriaDecides2019 #NigeriaDecides2019Result." Several online polls before the election also indicated that Buhari

was less popular on social media, predicting a victory for his major opponent, PDP's Atiku Abubakar. This influenced a difference in campaign strategy by Buhari's team compared to Atiku who implemented a digital media intensive presidential campaign.

10.4 Liberation or disruption: Analysing of the role of social media in Nigeria's 2019 election

Social media is often thought of as a disruptive technology that has the potential to be both emancipatory and destructive. Ruling parties generally have an easier time setting up the kind of structures needed to take full advantage of the technology – often designed to give them more control over "fake news" that is detrimental to their interests. Nigerian politicians did not consider social media because the "constituency" was not necessarily on the Internet. Reflecting on early adoption of Facebook, Twitter or WhatsApp for political campaign, Interviewee C3 commented that:

> When politicians began to use social media, it was to boost their global brand as opposed to engage with voters. They put a greater priority in acquiring young people who they had noticed were outspoken on social media and aligned with their interest. With a loose agenda which was to promote anything in their favour and counter anything unfavourable, they engaged them, provided them with a device and allowance, and let them loose.

Before 2015, the APC did not have an organizational presence on Twitter or Facebook, but PDP did. With some knowledge of inner workings of political systems in Nigeria, Interviewee C3 pointed further that:

> What APC had was young people who bought into the anti-Goodluck narrative, who had tech skills (early adopters of social media in relation to campaigns and youth engagement) and aligned themselves with the APC. There were a lot of independent social media support groups that promoted their campaign. The idea that they would invest resources in social media was considered trivial, it made no sense to them. However, there were tons of independent platforms (e.g., Red Media), some of which managed to get social media contracts for Buhari, not for APC. It had nothing to do with the party APC. Keeping the old order, the goal was about improving Buhari's brand: seeing that they needed to convince people that he could carry others along; present him as someone who was cool with young people. Social media was a great tool for doing that.

As the influence of social media on Nigeria's political system grows, hitherto marginalised views are finding spaces to amplify their voices. Before now, winning an election depended on other non-technical factors which place younger people at the periphery of the process. The emerging system is opening up to freelance politico-digital entrepreneurs to participate more and influence campaign strategies by trading on their technical expertise to take on more prominent roles. Rewards come in varying forms: as direct cash payment or "in-kind" – political appointment. The

disruptive force of social media and its capability to amplify disinformation has now become valuable to political actors. Interviewee C2 captured it thus:

> It was the means to amplify the messages of the political parties. It was a platform that the citizens used to access information from the Independent National Electoral Commission (INEC), civic education from the civil society and engage some of the candidates and parties in the election. It gave opportunity for candidates or political parties to sell their messages, including INEC. But it also played a big role, negatively, in the elections particularly in the amount of influence peddling that emerged particularly around disinformation. It was used to divide people along religious and ethnic lines, reinforce the message of 'we against them', or the message of one ethnic group against the other, and possibly to suppress votes where people are not encouraged to turn out to vote particularly within the context of delegitimizing the INEC.

In recent elections, social media has on one hand been seen to strengthen demo–racy - equalize access to information and facilitate coordination of marginalized groups and opposition – and, on the other hand, undermine public trust in politicians and democratic process. Whether the technology's emancipatory power or destructive potential is experienced, it will depend on varying political contexts. For instance, its positive influence was evident in how it was a tool for galvanizing people during the October 20, 2020 #EndSARS protest to end police brutality and in other critical instances like influencing the National Assembly to reject the Prohibition of Hate Speech Bill, and the Protection from Internet Falsehood and Manipulation and other Related Offences Bill. Likewise, it was used to breed mistrust around the election that it became difficult to decipher truth from falsehood outrightly. Interviewee C1 noted that "social media is a double-edged sword which can be used to peddle fake news and … sometimes correct accurate information."

Disinformation-for-hire agents can boost popularity cues and assume the identity of a presumed marginalized group by using coordinated inauthentic behaviour (Howard et al., 2018). Further, Keller and Klinger (2019) contend that constructionist conceptions of public discourse rely on real people offering real perspectives from their real lives, which are vulnerable to invasion and undermining by bad actors. As a result, neither hired agents nor influencers are intrinsically evil, nor are they all problematic in the same ways. Any appraisal of their impact must therefore recognise actual empirical behaviour patterns and a theoretical reflection on normative assumptions about political communication and the public sphere.

In information warfare, manipulative actors often start with the distribution of "neutral" or "empowering" content. They started as ordinary Twitter users who wanted to share their thoughts on a wide range of issues and interact with others (build a community of friends). This kind of feel-good content is purposed to amass followers and create an audience around the account(s). Once achieved, the account is weaponised and used for more divisive and more political content (François, 2019). Mikhailov (2020), describes this as "the investment of time capital to acquire social capital (becoming an influencer), as people follow your content." It is this social capital that creates an opportunity for profiteering.

Coordination is not always from the top. There are users who set up accounts/groups to market a candidate without their knowledge of approval. This is often to get the candidate's attention in the hope they get financial or other forms of reward eventually. Agents are not always on the payroll of politicians. There are those who operate independent of the parties, then those indirectly sponsored by politicians to evade public association to the operations of an agent/group. The reward system surfaces sometimes as a post-activity where agents get paid for bad publicity and the beneficiary politician pays a handsome reward.

CHAPTER 11

SUMMARY, THEORETICAL IMPLICATIONS, AND CONCLUSIONS

Will digital media promote transparency in politics? Will the future of Nigeria's democracy depend on what technology is adopted and how? Is there going to be a radical shift in how citizens participate in politics and why? This thesis has argued that actual effects of digital media might be less transparency and as political campaigns and technology evolve, campaigns will increasingly see the need to have a digital volunteer base and social media presence. Some of these tactics will blur the line between what is considered good digital organizing and disinformation. By studying political actors who make decisions and coordinate political campaign, this thesis has revealed practices of political actors and the motivations of paid digital media influencers. Thirdly, understanding presidential election is important because its outcome has bigger impact on. Fourth, given that democratic elections were reinstated in 1999 and that people are still attempting to define their interactions with the political system, the previous processes have major consequences for the share of an emerging political culture.

As discussions and research on online disinformation continue to produce insightful data, it is evident that disinformation is much more concentrated in the media ecosystem than other online content types (such as hate speech and extreme speech), and that its prevalence is much lower than that of other online content types. A caution should be used when claims are made about the effects of disinformation, especially on behaviours like voting, even though the mechanisms underlying the spread of disinformation (and misinformation) are not yet fully understood. Evidence suggests that novelty alone, rather than the misrepresentation of the information, is what causes it to spread. Focus should be placed on system-level outcomes like trust and cynicism, which, despite being harder to pinpoint, may be more crucial to society in the long run.

Researchers still need to investigate a variety of objections to our current understanding of disinformation. One is the perplexing fact that social "media "engagement" metrics are a great deal higher than both aggregate traffic data and consumption pattern would suggest. The fact that the portion of the population who come across disinformation online connects with it frequently and repeatedly could be the explanation for this apparent disparity. This would explain the asymmetrical consumption and sharing trends and points to the possibility of a small number of accounts controlling a disproportionately large proportion of engagement and dissemination activities (see chapters on retweets network and participatory disinformation). This potential reality is obscured by an emphasis on counts or averages. Additionally, since site analytics track raw visits, this activity may be intended to encourage disinformation-for-hire agents to propagate additional falsehood.

Of course, "ampliganda" and online disinformation are not specific to Nigeria. Much of the present data, contended in this thesis, comes from studies done by scholars in the Global North who concentrated on Euro-America and Asia. However, there is a substantial body of scientific evidence examining the issues with online disinformation in settings in the Global South. This

imbalance is partially attributable to the rise in domestic (and even continental) interest and knowledge of the subject following Cambridge Analytica's interference in the 2017 and 2015 elections in Kenya and Nigeria, respectively. The company initially became involved in Africa during the 1994 South African general election. This undoubtedly had an impact on the fact that the ensuing comments from technology companies in the Global North originally emphasized on their involvement in American election and the Brexit referendum.

However, there is rising fear that the rise of social media usage in Nigeria, particularly through portable devices, is escalating societal tensions and even inciting violence. Although there is currently no rigorous data on this issue, future study should give priority to understanding the mechanisms and potential solutions for preventing the spread of weaponized online propaganda. In order to start understanding the circumstances that enable disinformation to proliferate online, studies should also assess the evidence from Global South nations. What institutional, social, technological, cultural, and other aspects make it more likely that disinformation will be spread online? In a similar vein, what decides whether mainstream institutions, such as political parties and media companies, opt to accept such messages or choose to reject them?

With improved data available, these issues may ultimately be simpler to research. Many of the current studies cited in this thesis aim to remove obstacles to direct observation of online deception and the variables associated with its propagation. For instance, conclusions can be taken from samples, but given the high degree of concentration and skew, it would be advantageous to study metadata from the full population of interest to gain a better understanding of important subgroups. Furthermore, even though some studies contend that WhatsApp was more important in the propagation of disinformation than Twitter, our strongest proof comes from Twitter's open API. We can better comprehend the phenomenon of disinformation by bridging these knowledge and research gaps, perhaps through privacy-preserving agreements between academics and Twitter (King & Persily 2018).

Social media companies, of course, have a role to play as well in identifying and removing inauthentic activity built to promote or oppose certain narratives, but most have already determined they will give political campaigns more leeway on promoting false or misleading posts and ads on their platforms. But it really should not be left to for-profit companies to be the arbiters of what people running for office can and cannot say online.

Even though the practices covered in this thesis are all widely recorded, it's vital to note that, as of this writing, there is still no conclusive empirical proof of their actual impact on political outcomes. Scholars continue to discuss whether disinformation efforts had an impact on the 2019 Nigerian presidential election (Bradshaw, Bailey, & Howard, 2020; Hassan & Hitchen, 2020). This issue will probably continue to be unclear for some time given the limited visibility into the workings of various disinformation initiatives and the data regarding general political engagement on social media and other platforms.

The potential damage to democratic institutions and procedures seems rather obvious if they are in fact effective. Difficult considerations concerning the representativeness of elected politicians

and their decisions are brought up by the ability of foreign players to influence political discourse within a nation. Insofar as most of the disinformation deployed during the 2015 and 2019 presidential campaigns was aimed at escalating political strife and solidifying polarization, such actions may also have an impact on democracies' capacity to serve as catalysts for compromise among different societal groups. However, the evidence is unclear on this front. It's uncertain whether the Internet is actually polarizing society more (Boxell, Gentzkow, & Shapiro, 2017). Furthermore, it's not apparent whether a more political media as a whole is polarizing the populace.

Despite this, the integrity of voting processes may still be threatened by politically motivated acts and public awareness of them. Disinformation tactics could hasten the public's loss of faith in the institutions that are regarded to be essential to the upkeep of democracy. First, the power of official channels producing and disseminating accurate information may be limited by doubts about the authenticity of internet information in general (Barthel & Mitchell, 2017). Democracies may find it more difficult to conduct genuine, fruitful deliberation and reach accepted conclusions as a result. Second, whether or not disinformation efforts are actually effective, the widespread belief that they do have an effect could lead people to question the legitimacy of elected leaders, especially those who receive funding from foreign entities and interests.

Despite the fact that there is still some uncertainty, these dangers and others have sparked a heated discussion about the set of remedies - whether governmental or otherwise - required to stop these actions and reduce their possible impact on the media and information ecosystem. These ideas challenge the structure of next elections, like the one in 2023.

11.1 Summary of key findings

The general objective of this study was to find out how technical artefacts combine with human elements to spread disinformation around elections by mapping and analysing how manipulative actors in Nigeria exploit the design and affordances of social media platforms to spread content that either directly benefit specific public figures and political parties, or damages opponents. The first sub-research question focused on identifying who the instigators and perpetrators of digital disinformation are. It was answered, alongside the main research question, in chapters seven, eight and ten. The second research question shifted attention to techniques used by political actors and paid agents to spread and amplify manipulated information. The third sub-research question focused on the technical characteristics of Twitter and how it is exploited by bad and good actors to achieve distinct goals. The last sub-question sought to understand the motivations and benefits derived from participating in paid-influencer industry, highlighting factors such as low trust in news media, populism, political polarization, and poor economic conditions.

This study advanced a less normative approach to studying disinformation to respond to these questions. The theoretical approach of conceptualizing disinformation as a social phenomenon made it possible to argue that the structural changes undergone by today’s media landscape make it easier for disinformation to spread. These changes make it easier for users to interact with like-minded conspiratorial thinkers. Politicians have long used deliberate falsehoods or

distortions, frequently disseminated as news, to further political ends, such as undermining opponents, halting policy discussions, influencing voters, escalating already-existing social conflicts, or fostering a general atmosphere of confusion and informational paralysis. This practice predates the advent of the Internet. Therefore, disinformation as it exists now is a difference in degree rather than kind.

Second, it argued that online disinformation campaigns are another form of participatory activities, which end up using their audiences to amplify preset narratives, not just receiving them (Starbird et al., 2019). Social media is a prime target for political influence, both legitimate and illegitimate, due to the prevalence of its usage for political communication and its identity-obscuring features. Through what Weber and Neumann (2021) called cyclical reporting social media users can unknowingly become “unwitting agents” as “sincere activists” of concerted operations (Benkler et al., 2018; Wilson & Starbird, 2020). Political trolls and bots will continue to be widely used to sway how topics are presented and discussed in the media. A communal effort and a certain level of regularity that may recognize strange trends in digital traces will continue to be beneficial for identifying bad actors who utilize sockpuppet accounts to elevate individual voices above the crowd.

11.2 Theoretical implications

The findings from this study raise concerns about misinformation catalyst and dissemination methods, emphasize the significance of what can be called "participatory sharing" of disinformation, and challenge the notion that disinformation flows are passively facilitated (Marwick, 2018). As unwitting people inadvertently increase disinformation, the participatory sharing context here becomes both an element of the issue facing a disinformation campaign and a component of the mechanisms this thesis discovered (how disinformation campaign perpetrators may still take use of these contexts' ambiguous circumstances and technology affordances). Social media's structural features are used via the processes of coordinated sharing and poor content moderation to control information flows.

But the debate on social media companies and content moderation on their platforms is missing an important element that must be factored in, which is how modern-day online political campaigning is changing in democracies, and not for the better. With social media and rapidly developing technology, political campaigns can now fight for votes with vast troll armies, coordinated fake accounts, paid influencers, fake campaign or news websites, micro-targeted ads, cheap fakes and deep fakes, and a whole host of other tactics to manipulate public opinion and ultimately influence voters — tactics we have come to associate with disinformation campaigns. And we are seeing candidates around the world doing just that in recent years, particularly in countries considered strong democracies.

The fact that disinformation can sometimes genuinely serve many purposes, one of which is the building of scepticism and mistrust, further complicates these characteristics of disinformation flows that were highlighted in this thesis. By providing competing accounts of events, disinformation serves to either maintain or intensify ambiguity (Pomerantsev & Weiss, 2014; Wilson, Zhou, & Starbird, 2018), causing people to lose faith in reliable sources of information

and create a climate of uncertainty (Starbird, 2017). Disinformation agents are probably attempting to counter the scepticism surrounding the incidents under study, although in other instances, the disinformation campaign's planned outcome may include such remarks.

11.2.1 Platform capabilities and design repercussions

Social media platform design must be taken into account as one of the main factors in amplifying disinformation. The decontextualization of the content as it circulates between conversations and platforms is a significant contributor to the spread of misinformation. Filtering effects could be reduced by making certain platform design decisions or establishing protocols that make it easier to track content fragments that move between platforms. Although the literature on communication power emphasizes the value of gatekeeping, curation, and influencers in spreading content, there are numerous examples that demonstrate how other sociotechnical features of platform design, such as decentralization, can advance disinformation campaigns.

One way disinformation operatives exploit open and disjointed discussion environments is through the filtering impact of a platform. Even if we observe some logical discourse in an integrated conversational environment, that discourse, which can result in the debunking of disinformation, can be readily dismissed by reposting the condensed false propaganda into a different context where no such dissent has occurred. In addition, because they are simple to download, change, and re-upload by anyone repeatedly, evidence collages present a substantial barrier for identifying sources. By labelling content (text or image) with a reference to the conversational context in which it circulates, watermarking/embedding could counteract this deception approach. These watermarks/embeddings could be used to automatically link backwards, create a flag or warning, or be read in other areas of the same page or by other websites. Embedded tweets on Twitter serve as a model for this kind of technique, although a watermarking mechanism might be expanded upon.

11.2.2 Mixed method approach to studies of online disinformation

The arguments made in this thesis add to a growing body of work (e.g. Acker & Donovan, 2019; Arif et al., 2018; Gagliardone et al., 2021; Krafft & Donovan, 2020; Madrid-Morales et al., 2020; Madrid-Morales & Wasserman, 2022; Sommariva et al., 2018) that employ mixed method approach to study phenomena like disinformation, conspiracy, misinformation, propaganda, fake news and other forms of hate/extreme speech - using quantitative methods as a means of getting access to the data through quantitative methods while using qualitative analysis of the content and account activity to recreate events and develop deeper understandings. This method encourages in-depth examination at many levels to identify complex and nuanced actions while also enabling researchers to evaluate massive volumes of data (e.g., using quantitative approaches to look for patterns and anomalies as entry points for further investigation). Because disinformation campaigns are not restricted to the capabilities of any one specific platform, but rather take shape on and across platforms and websites, as well as through hybrid forms of media, this study underlines the value of taking a more comprehensive view of the information ecosystem (i.e., not limiting research to a single method).

11.3 Conclusions

This thesis has explored the Nigerian political context, taking us through different trends in electoral campaigning in recent history, and complicating easy assumptions about how disinformation campaigns are organized. It highlights disinformation from a broader lens, investigating the way in which political communication and audience participation in political discourses is shaped by, and in turn shapes, the online environment. Taking a cue from international precedents regarding the impact of disinformation on political processes and electoral politics, this study focused on political campaigns in Nigeria. In the analysis, it branches into the influence of disinformation on politics in Africa and its importance, given the fragility of democratic political systems on the continent, authoritarian creep, and the imperative of democratic deepening.

It puts forward theoretical and conceptual understandings of disinformation, computational propaganda, digital campaigns, the paradox of interactivity in the context of digital presidential campaign, how human and technical artefacts collaborate to distribute content and influence online behaviour. Its goal was to answer questions around who were the spreaders of disinformation in Nigeria and what techniques did they use during the 2019 presidential election? It also answered questions about the political and technological characteristics that facilitated the spread of disinformation and the motivating factors for creating and spreading disinformation.

Scholars of media systems agree that disinformation, with its lengthy and enduring history, is different in the Internet age. Researchers are starting to identify new disinformation tendencies despite the diversity of the content and creators. However, the issue is not with the Internet per se. Distinct nations with varied cultural ways of understanding the world will have different experiences when their mediascapes change as a result of these new technologies, as noted by Benkler, Faris, and Roberts (2018).

Along with rising affective polarization and an increase in extremist discourse, the quantity, dissemination, and significance of disinformation do seem to be trending higher in some circumstances. Although the existence and precise nature of such linkages are yet unknown and additional research may be required to fully understand them, it appears that polarization and disinformation may be related in some ways (Iyengar, Sood, & Lelkes, 2012; Iyengar & Westwood, 2015; Rogowski & Sutherland, 2016; Tucker et al., 2018). The Internet also permits some forms of concealment. Although publishing under an anonymous or fictitious name has long been available, this secrecy is not necessarily a bad thing. It facilitates political activism in oppressive settings, encourages the interchange of unconventional ideas, and gives vulnerable people the chance to interact with others and explore their identities (Coleman, 2014). However, it also aids those who spread false information in making it seem as though their messages are originating from dozens or hundreds of authentic sources rather than a small number of them (individual accounts, groups, news outlets or government bureaus). Additionally, anonymity makes it easier for ideas like conspiracy theories that look outlandish or excessive to proliferate. These narratives propagate further once they are in social media ecosystems, and some are then amplified by

mainstream news media, politicians, and advocacy groups (Crosset, Tanner, & Campana, 2019; Ong & Cabanes, 2018; Phillips, 2018; Sobieraj, 2019; Tucker et al., 2017).

The situations in which audience members evaluate the accuracy of information have been impacted by academic, industrial, and professional understandings of professionalism. These norms differ greatly between nations as changes take place. The creation and consumption of news have undergone significant changes in the digital age, which have ramifications for how people judge reliability (Jahng and Littau, 2015; Russell, 2019, 2011; Usher and Carlson, 2018; Waisbord, 2013). Similar to this, societies now depend on a number of regulatory frameworks to establish standards for media producers. These rules, regulations, and cultural norms help define how society gets information, even if the level of regulatory frameworks varies from country to country (some are weak, others are strict). It shouldn't come as a surprise that those who spread disinformation will use these technical disruptions to spread their chosen viewpoints.

The fact that the source of these messages is frequently distributed - or appears to be distributed - across a range of social media accounts, online news sources, and other online expressions is another essential component of disinformation in the digital era. Disinformation narratives may spread by way of lone trolls, for example, on Twitter, or concurrently by way of networked and coordinated disinformation pages, for example, on Facebook and Instagram. Then they might travel to mainstream media outlets, where fabricated stories are given exposure and legitimacy even when they are the focus of articles attempting to disprove them (Benkler, Faris, and Roberts, 2018; Marwick and Lewis, 2017; Phillips, 2018).

The findings of this study do not all pertain to disinformation. Some could be categorised as normal political communication in the online sphere (see chapters nine and ten). Some of the tweets could be classified as rumours (see chapters seven and ten), others as conspiracy theories (see chapter nine) and others as disinformation (see chapters seven, eight, and nine). On the whole, the evidence analysed represented different types of communication, aside disinformation, that emerged from the different types of information that made up the political discourse.

A few initial assumptions did not match up with the fieldwork data. First, the tweets proved to be more than simple expression of opinions or arguments. The thought that paid influencers would be willing to speak about their activities since it was public knowledge they worked in such capacity turned out not to be so. Many of them were hesitant, some needed more assurances of confidentiality and others declined to participate. Some participants denied involvement in disinformation campaign, although their digital footprints suggested otherwise. Against normative theorisation of disinformation-for-hire agents as evil, the fieldwork data showed some of them were more of individuals who wanted to ‘make ends meet’ and thus considered their involvement as purely business.

Bibliography

Abokhodair, N., Yoo, D., & McDonald, D. W. (2015, February). Dissecting a social botnet: Growth, content and influence in Twitter. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*, 839-851.

Acker, A., & Donovan, J. (2019). Data craft: A theory/methods package for critical internet studies. *Information, Communication & Society, 22*(11), 1590-1609.

ActBlue. Organize for Nigeria. Big Change. *ActBlue*. https://secure.actblue.com/entity/fundraisers/66633

ActBlue. Small Dollars. Big Change. *ActBlue*. https://secure.actblue.com/about

Adamic, L.A., & Glance, N. (2005). The political blogosphere and the 2004 US election: Divided they blog. In *Proceedings of the 3rd International Workshop on Link Discovery*, 36–43.

Adebanwi, W., & Obadare, E. (Eds.). (2013). *Democracy and Prebendalism in Nigeria: Critical interpretations*. Palgrave Macmillan.

Adeiza, M. O. (2016). *Digital media and campaign practices in Nigeria: Ekiti State Governorship Election* (Doctoral dissertation).

Afamefume P. Ikem., Confidence N. Ogbonna, and Olusola Ogunnubi. "Pentecostalism, Electoral Prophetism and National Security Challenges in Nigeria." African Security 13, no. 1 (2020), 28-53.

AFP (2021, January 11). Facebook shuts Uganda accounts ahead of vote. https://sg.news.yahoo.com/facebook-shuts-uganda-accounts-ahead-110022678.html

Ahmad, T., Alvi, A., & Ittefaq, M. (2019). The use of social media on political participation among university students: An analysis of survey results from rural Pakistan. *Sage Open*, *9*(3), 2158244019864484.

Akpojivi, U. (2019). I won't be silent anymore: Hashtag activism in Nigeria. *Communicatio*, 45(4),19-43, DOI: 10.1080/02500167.2019.1700292.

Akpojivi, U. (2020). We are not all #ZumaMustFall: Further reflections. *Social Identities*, *26*(5), 642-659.

Akubor, E. O. (2020). Campaigns and electioneering: Reflecting on the 2015 general elections in Nigeria. *Polish Political Science Yearbook*, *49*(4), 72-86.

Alhassan, A. A. (2018). The role and use of social media in elections campaigns and voting behavior in Nigeria: An analysis of 2015 presidential election. *International Journal of Recent Innovations in Academic Research*, *2*(6), 117-129.

Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives, 31*(2), 211-236.

Allport, G. W., & Postman, L. (1946). An analysis of rumor. *Public Opinion Quarterly*, *10*(4), 501-517.

Amifor, J. (2015). Political advertising design in Nigeria, 1960-2007. International Journal of Arts and Humanities 4, no. 2), 149-163. http://dx.doi.org/10.4314/ijah.v4i2.11.

Amnesty International (2018, December 17). Nigeria: Government failures fuel escalating conflict between farmers and herders as death toll nears 4,000. *Amnesty International*. https://www.amnesty.org/en/latest/news/2018/12/nigeria-government-failures-fuel-escalating-conflict-between-farmers-and-herders-as-death-toll-nears-4000/

Apuke, O. D., & Tunca, E. A. (2018). Understanding the implications of social media usage in the electoral processes and campaigns in Nigeria. *Global Media Journal*, *16*(31), 1-8.

Arif, A., Robinson, J. J., Stanek, S. A., Fichet, E. S., Townsend, P., Worku, Z., & Starbird, K. (2017). A closer look at the self-correcting crowd: Examining corrections in online rumors. In Proceedings of the 2017 ACM Conference on Computer-Supported Cooperative Work & Social Computing (pp. 155-168).

Arif, A., Stewart, L. G., & Starbird, K. (2018). Acting the part: Examining information operations within# BlackLivesMatter discourse. Proceedings of the ACM on Human-Computer Interaction, 2(CSCW), 1-27. http://doi.org/10.1145/3274289

Arnaudo, D. (2017). Computational propaganda in Brazil: Social bots during elections.

Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of planners*, *35*(4), 216-224.

Ataman, F., & Özgüner, Ö. (2021). Determination of social media users' perceptions about "Black Friday" activity via sentiment analysis. *Educational Research (IJMCER)*, *3*(3), 361-371.

Ayankoya, K., Calitz, A. P., & Cullen, M. (2015). A framework for the use of social media for political marketing: An exploratory study. *Retrieved December*, *12*, 2018.

Ayatse F.H., Iorhen, I. (2013). *The origin and development of ethnic politics and its impacts on post colonial governance in Nigeria. Eur Sci J 9:178–189. doi: 10.19044/esj.2013.v9n17p%p*

Ayih, L. J. & Ngantem, M. L. (2018). Use of Twitter among political office holders for public communication in Nigeria: Prospects and challenges. *Canadian Social Science*, 14(9), 1-6, DOI:10.3968/10575

Badawy, A., Ferrara, E., & Lerman. K. (2018). Analyzing the digital traces of political manipulation: The 2016 Russian interference Twitter campaign. In *2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, 258–265.

Badawy, A., Lerman, K., & Ferrara, E. (2019, May). Who falls for online political manipulation?. In *Companion Proceedings of The 2019 World Wide Web Conference*, 162-168.

Badmus, M. O. (2020). When the storm is over: Sentiments, communities and information flow in the aftermath of Hurricane Dorian. *International Journal of Disaster Risk Reduction*, 47, e101645-e101645.

Bail, C. A., Guay, B., Maloney, E., Combs, A., Hillygus, D. S., Merhout, F., ... & Volfovsky, A. (2020). Assessing the Russian Internet Research Agency's impact on the political attitudes and behaviors of American Twitter users in late 2017. *Proceedings of the National Academy of Sciences*, *117*(1), 243-250.

Bailard, C. S., & Livingston, S. (2014). Crowdsourcing accountability in a Nigerian election. *Journal of Information Technology & Politics*, *11*(4), 349-367.

Bailard, C. S., & Livingston, S. (2014). Crowdsourcing accountability in a Nigerian election. *Journal of Information Technology & Politics*, *11*(4), 349–367. http://doi.org/10.1080/19331681.2014.947056.

Bakir, V., & McStay, A. (2018). Fake news and the economy of emotions: Problems, causes, solutions. *Digital journalism*, *6*(2), 154-175.

Bakshy, E., Rosenn, I., Marlow, C., & Adamic, L. (2012). The role of social networks in information diffusion. Paper presented at the *Proceedings of the 21st International Conference on World Wide Web.*

Baldassaro, M. (2019). Identifying and tracking disinformation during the May 2019 South Africa elections.

Banaji, S. (2008). The trouble with civic: a snapshot of young people's civic and political engagements in twenty-first-century democracies. *Journal of Youth Studies*, *11*(5), 543-560.

Banaji, S. (2018). Vigilante publics: Orientalism, modernity and Hindutva fascism in India. *Javnost-The Public*, *25*(4), 333-350.

Banaji, S., & Buckingham, D. (2013). *The civic web*. MIT press.

Barrett, P. M. (2019). *Disinformation and the 2020 Election: How the social media industry should prepare.* White paper, Center for Business and Human Rights, New York University.

Barrett, P. M., Wadhwa, T., & Baumann-Pauly, D. (2018). Combating Russian disinformation: The case for stepping up the fight online. *NYU Stern Center for Business and Human Rights*.

Barrie, C. & Ho, J.C. (2021). AcademictwitteR: An R package to access the Twitter academic research product track v2 API endpoint. *Journal of Open Source Software*, 6(62), 3272, https://doi.org/10.21105/joss.03272. https://github.com/cjbarrie/academictwitteR

Barthel, M., & Mitchell, A. (2017). Americans' attitudes about the news media deeply divided along partisan lines.

Bartlett, J. A. M. I. E., Krasodomski-Jones, A. L. E. X., Daniel, N. E. N. G. A. K., Fisher, A., & Jesperson, S. A. S. H. A. (2015). Social media for election communication and monitoring in Nigeria. *A report prepared for the Department for International Development (DFID), March*.

Bastos, M. T., & Mercea, D. (2016). Serial activists: Political Twitter beyond influentials and the twittertariat. *New Media & Society*, *18*(10), 2359-2378.

Bastos, M. T., Mercea, D., & Baronchelli, A. (2017). The spatial dimension of online echo chambers. *arXiv preprint arXiv:1709.05233*.

Bastos, M., Recuero, R., & Zago. G. (2014). Taking tweets to the streets: A spatial analysis of the vinegar protests in brazil. *First Monday*, 19(3). DOI: https://doi.org/10.5210/fm.v19i3.5227

Batista, C. (2003). *ICTs and good governance: The contribution of information and communication technologies to local governance in Latin America*. Brazil: Brazil University.

Baumgartner, J. C. & Morris, J. S. (2009). MyFaceTube politics: Social networking web sites and political engagement of young adults. *Social Science Computer Review,* 28(1) 24-44.

Bax, P. & Prinsloo, L. (2020, October 13). Online disinformation campaigns undermine African elections. https://www.bloomberg.com/news/articles/2020-10-13/disinformation-campaigns-on-facebook-twitter-google-undermine-african-election

Bax, P. and Prinsloo, L. (2020, October 13). Online Disinformation Campaigns Undermine African Elections: Some governments use social media to dominate the narrative around campaigns. *Bloomberg.* https://www.bloomberg.com/news/articles/2020-10-13/disinformation-campaigns-on-facebook-twitter-google-undermine-african-election#xj4y7vzkg

Bayer, J., Bitiukova, N., Bard, P., Szakács, J., Alemanno, A., & Uszkiewicz, E. (2019). Disinformation and propaganda–impact on the functioning of the rule of law in the EU and its Member States. *HEC Paris Research Paper No. LAW-2019-1341*.

Bazeley, P. (2012). Integrative strategies for mixed data sources. *American Behavioral Scientist*, 56(6), 814-828.

Bazeley, P., & Kemp, L. (2012). Mosaics, triangles, and DNA: Metaphors for integrated analysis in mixed-methods research. *Journal of Mixed-methods Research,* 6, 55–72.

BBC News (2013, March 4). Kenya election 2013: Voting around the country. https://www.bbc.com/news/world-africa-21652947

BBC News (2018, March 22). Cambridge Analytica: The data firm's global influence. *BBC News*. https://www.bbc.com/news/world-43476762

BBC News (December 3, 2018). Nigerian president denies death and body double rumours. https://www.bbc.com/news/world-africa-46424562

BBC News and INEC Nigeria. Nigerian election results. *BBC News World-Africa*, 2019.

Bekafigo M.A. & McBride, A. (2013). Who tweets about politics? political participation of twitter users during the 2011gubernatorial elections. *Social Science Computer Review*, 31(5), 625–643.

Belam, M. (2020, October 26). CBS releases footage of Trump walking out of 60 Minutes interview. *The Guardian*. https://www.theguardian.com/us-news/2020/oct/26/cbs-releases-footage-trump-walking-out-60-minutes-interview

Bello, B. S., Inuwa-Dutse, I., & Heckel, R. (2019, October). Social media campaign strategies: Analysis of the 2019 Nigerian elections. In *2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS)* (pp. 142-149). IEEE.

Benkler, Y., (2006). *The wealth of networks: How social production transforms markets and freedom*. Yale University Press.

Benkler, Y., Faris, R., & Roberts, H. (2018). *Network propaganda: Manipulation, disinformation, and radicalization in American politics*. Oxford University Press.

Bennett, W. L., & Livingston, S. (2018). The disinformation order: Disruptive communication and the decline of democratic institutions. *European journal of communication*, *33*(2), 122-139.

Bennett, W. L., & Pfetsch, B. (2018). Rethinking political communication in a time of disrupted public spheres. *Journal of Communication*, *68*(2), 243-253. https://doi.org/10.1093/joc/jqx017

Benoit, W. L. (2007). *Communication in political campaigns*. Peter Lang.

Benoit, W. L., Glantz, M. J., Phillips, A. L., Rill, L. A., Davis, C. B., Henson, J. R., & Sudbrock, L. A. (2011). Staying "on message": Consistency in content of presidential primary campaign messages across media. *American Behavioral Scientist, 55*(4), 457–468. doi:10.1177/0002764211398072

Bergman, M. E. (2018). Quantitative Measures of Populism: A Survey. *Available at SSRN 3175536*.

Berridge, W. J. (2020). Briefing: The uprising in Sudan. *African Affairs*, 119(474), 164-176.

Bessi, A. & Ferrara, E. (2016). Social bots distort the 2016 U.S. presidential election online discussion. *First Monday*, 21(11). DOI: 10.5210/fm.v21i11.7090

Best, M. L., & Meng, A. (2015, May). Twitter Democracy: Policy versus identity politics in three emerging African democracies. In *Proceedings of the seventh international conference on information and communication technologies and development* (pp. 1-10).

Best, S. G., & Rakodi, C. (2011). Violent conflict and its aftermath in Jos and Kano, Nigeria: What is the role of religion?

Bhowmick, N. (2021, February 25). Twitter 'stood up' to Trump but was 'bullied' in India, says a journalist who was caught up in the platform's standoff with Modi. *Business Insider*. https://www.businessinsider.com/how-twitters-india-standoff-dragged-in-journalists-and-activists-2021-2?IR=T

Biemann, C., Crane, G. R., Fellbaum, C. D., & Mehler, A. (2014). *Computational humanities bridging the gap between computer science and digital humanities (Dagstuhl Seminar 14301).* Paper presented at the Dagstuhl reports.

Bimber, B. (2014). Digital media in the Obama campaigns of 2008 and 2012: Adaptation to the personalized political communication environment. *Journal of Information Technology & Politics*, *11*(2), 130-150.

Blondel, V. D., Guillaume, J. L., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding of communities in large networks. *Journal of Statistical Mechanics: Theory and Experiment*, *10*, Article P10008. doi:10.1088/1742-5468/2008/10/P10008

Boatwright, B. C., Linvill, D. L., & Warren, P. L. (2018). Troll factories: The internet research agency and state-sponsored agenda building. *Resource Centre on Media Freedom in Europe*, 29.

Bode, L., Hanna, A., Yang, J., & Shah, D. V. (2015). Candidate networks, citizen clusters, and political expression: Strategic hashtag use in the 2010 midterms. The ANNALS of the American Academy of Political and Social Science, 659(1), 149–165. doi:10.1177/0002716214563923

Boler, M., & Davis, E. (2018). The affective politics of the "post-truth" era: Feeling rules and networked subjectivity. *Emotion, Space and Society*, *27*, 75-85.

Bond, S. (2021, October 28). *Facebook Is Rebranding as Meta — but the App You Use Will Still Be Called Facebook*. *NPR*. https://www.npr.org/2021/10/28/1049813246/facebook-new-name-meta-mark-zuckerberg

Born, K., & Edgington, N. (2017). Analysis of philanthropic opportunities to mitigate the disinformation/propaganda problem.

Boshmaf, Y., Muslukhov, I., Beznosov, K., & Ripeanu, M. (2011, December). The socialbot network: When bots socialize for fame and money. In *Proceedings of the 27th Annual Computer Security Applications Conference,* 93-102. https://doi.org/10.1145/2076732.2076746

Bossetta, M. (2018). The digital architectures of social media: Comparing political campaigning on Facebook, Twitter, Instagram, and Snapchat in the 2016 US election. *Journalism & Mass Communication Quarterly*, *95*(2), 471-496.

Boukes, M. (2019). Social network sites and acquiring current affairs knowledge: The impact of Twitter and Facebook usage on learning about the news. *Journal of Information Technology & Politics*, *16*(1), 36-51.

Bovet, A., & Makse, H. A. (2019). Influence of fake news in Twitter during the 2016 US presidential election. *Nature Communications,* 10(1), 7.

Boxell, L., Gentzkow, M., & Shapiro, J. M. (2017). Greater Internet use is not associated with faster growth in political polarization among US demographic groups. *Proceedings of the National Academy of Sciences*, *114*(40), 10612-10617.

boyd, D. (2017). Did media literacy backfire?. *Journal of Applied Youth Studies*, *1*(4), 83-89.

boyd, D., & Crawford, K. (2012). Critical questions for big data: provocations for a cultural, technological, and scholarly phenomenon. Information, Communication, and Society. 15, 662–679. doi:10.1080/1369118X.2012.678878

Boyd, D., Golder, S., & Lotan, G. (2010, January). Tweet, tweet, retweet: Conversational aspects of retweeting on twitter. In *2010 43rd Hawaii International Conference on System Sciences* (pp. 1-10). IEEE.

Bradshaw, S., & Howard, P. N. (2017). Troops, trolls and troublemakers: A global inventory of organized social media manipulation, 12, 1–37. Oxford: Oxford Internet Institute.

Bradshaw, S., & Howard, P. N. (2018). *Challenging truth and trust: A global inventory of organized social media manipulation. The Computational Propaganda Project, 1*. http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2018/07/ct2018.pdf

Bradshaw, S., & Howard, P. N. (2019). Social media and democracy in crisis. In M. Graham, & W. Dutton (Eds.), *Society and the Internet: How networks of information and communication are changing our lives*. DOI:10.1093/oso/9780198843498.001.0001.

Bradshaw, S., Bailey, H., & Howard, P. N. (2020a). *Industrialized disinformation: 2020 global inventory of organized social media manipulation.* https://comprop.oii.ox.ac.uk/wp-content/uploads/sites/127/2021/02/CyberTroop-Report20-Draft9.pdf

Bradshaw, S., Howard, P.N., Kollanyi, B., & Neudert, L.M. (2020). Sourcing and automation of political news and information over social media in the United States, 2016-2018. *Political Communication*, 37(2), 173-193, DOI:10.1080/10584609.2019.1663322

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Breiter, A. & Hepp, A. (2018). The complexity of datafication: putting digital traces in context. In Communicative figurations (pp. 387-405). Palgrave Macmillan, Cham.

Bria, F. (2013). Social media and their impact on organisations: Building firm celebrity and organisational legitimacy through social media. DOI:10.25560/24944

Broniatowski, D. A., Jamison, A. M., Qi, S., AlKulaib, L., Chen, T., Benton, A., Quinn, S. C., & Dredze, M. (2018). Weaponized health communication: Twitter bots and Russian trolls amplify the vaccine debate. *American Journal of Public Health*, *108*(10), 1378-1384. https://doi.org/10.2105/AJPH.2018.304567

Bruni, A., & Teli, M. (2007). Reassembling the social: An introduction to actor network theory. *Management Learning*, *38*(1), 121-125.

Bruns, A. (2007, June). Produsage. In *Proceedings of the 6th ACM SIGCHI Conference on Creativity & Cognition* (pp. 99-106).

Bruns, A. (2019). *Are filter bubbles real?* John Wiley & Sons.

Bruns, A. & Burgess, J.E. (2011). #Ausvotes: How Twitter covered the 2010 Australian Federal election. *Communication, Politics & Culture,* 44(2), 37–56.

Bryman, A. (2004). Qualitative research on leadership: A critical but appreciative review. *The Leadership Quarterly, 15*(6), 729-769.

Buccoliero, L., Bellio, E., Crestini, G., & Arkoudas, A. (2020). Twitter and politics: Evidence from the US presidential elections 2016. *Journal of Marketing Communications*, *26*(1), 88-114.

Buckels, E. E., Trapnell, P. D., & Paulhus, D. L. (2014). Trolls just want to have fun. *Personality and Individual Differences*, *67*, 97-102.

Bullard, S. B. (2014). Twitter: Social communication in the Twitter age. *Journalism and Mass Communication Quarterly*, *91*(4), 861-862.

Burghardt, M. (2015). Introduction to tools and methods for the analysis of Twitter Data. *10plus1: Living Linguistics, 1*, 74-91.

Cab, F. (2017). Researching Twitter activity of Australian advocacy groups and politicians. Accessed at: http://www.uberlink.com/content/auspol-researching-twitter-australian-advocacy-politicians.

Cadwalladr, C. (2018, April 4). Revealed: graphic video used by Cambridge Analytica to influence Nigerian election: Whistleblower says firm directed AggregateIQ to target voters with Islamophobic video in 2015. *The Guardian.* https://www.theguardian.com/uk-news/2018/apr/04/cambridge-analytica-used-violent-video-to-try-to-influence-nigerian-election

Cadwalladr, C. (2018, March 21). Cambridge Analytica's ruthless bid to sway the vote in Nigeria. *The Guardian.* https://www.theguardian.com/uk-news/2018/mar/21/cambridge-analyticas-ruthless-bid-to-sway-the-vote-in-nigeria

Cadwalladr, C. (2020, January 4). Fresh Cambridge Analytica leak 'shows global manipulation is out of control'. The Observer. *The Guardian*. https://www.theguardian.com/uk-news/2020/jan/04/cambridge-analytica-data-leak-global-election-manipulation

Calamur, K. (2016, May 6). Obama on Trump's candidacy: "This is not a reality show." *The Atlantic*. https://www.theatlantic.com/politics/archive/2016/05/obama-on-trumps-candidacy-this-is-not-a-reality-show/481665/

Caldarelli, G., De Nicola, R., Del Vigna, F., Petrocchi, M., & Saracco, F. (2020). The role of bot squads in the political propaganda on Twitter. *Communications Physics*, *3*(1), 1-15.

Calhoun, C. (2015). *Democratizing inequalities: Dilemmas of the new public participation*. New York University Press.

Campbell J. (2015, February 6). Nigeria's 2015 presidential election. *Council on Foreign Relations.* https://www.cfr.org/report/nigerias-2015-presidential-election

Carvin, A., Bandeira, L., Brookie, G., Robertson, I., Aleksejeva, N., Kann, A., Karan, K., Kaul, A., Knight, T., Roux, J., Osadchik, R., & Leon, E. P. (2020). Operation carthage: How a Tunisian company conducted influence operations in African presidential elections. https://www.atlanticcouncil.org/in-depth-research-reports/operation-carthage-how-a-tunisian-company-conducted-influence-operations-in-african-presidential-elections/

Castells, M. (1997). An introduction to the information age. *City*, *2*(7), 6-16.

Castells, M. (2012). *Networks of outrage and hope: Social movements in the internet age*. Malden, MA: Polity.

Castells, M. (2015). *Networks of outrage and hope: Social movements in the Internet age*. John Wiley & Sons.

Cataldi, M., Luigi, C., & Claudio, S. (2010). Emerging topic detection on Twitter based on temporal and social terms evaluation. *Proceedings of the 10th Int. Workshop on Multimedia Data Mining* 4. DOI: https://doi.org/10.1145/1814245.1814249

Centre for Democracy and Development (2019, February 1). FACT CHECK: Is the Nigerian Government Planning to Set Up an Agency to Monitor Churches? *Centre for Democracy and Development.* https://cddelibrary.org/2019/02/01/fact-check-is-the-nigerian-government-planning-to-set-up-an-agency-to-monitor-churches/

Centre for Democracy and Development (2019, January 31). CDD FACT CHECK: Is FG Mulling an Agency to Monitor Churches?. *The Cable*. https://www.thecable.ng/cdd-fact-check-is-the-nigerian-government-planning-to-set-up-an-agency-to-monitor-churches.

Cha, M., Haddadi, H., Benevenuto, F., & Gummadi, P. K. (2010). Measuring user influence in Twitter: The million follower fallacy. In C. W. William & G. Samuel (Eds.), Proceedings of the Fourth International Conference on Weblogs and Social Media, ICWSM 2010, Washington, DC, USA, May 23-26, 2010. The AAAI Press.

Chadwick, A. (2013). The hybrid media system: Politics and power. Oxford University Press.

Chaney, A.J., Stewart, B.M. & Engelhardt, B.E. (2018). How algorithmic confounding in recommendation systems increases homogeneity and decreases utility. In Proceedings of the 12th ACM Conference on Recommender Systems (pp. 224-232).

Chege, M. (2018). Kenya's electoral misfire. *Journal of Democracy*, 29(2), 158-172.

Chen, D., Lü, L., Shang, M. S., Zhang, Y. C., & Zhou, T. (2012). Identifying influential nodes in complex networks. *Physica a: Statistical Mechanics and its Applications*, 391(4), 1777-1787.

Chibita, M. B. (2016). Digital activism in Uganda. In B. Mutsvairo (Ed.), *Digital activism in the social media era: Critical reflections on emerging trends in sub-Saharan Africa,* 69-93. Cham Palgrave Macmillan.

Chimdubem, N. C., & Okwudiri, E. (2015). Nigerian newspapers coverage of the 78 days presidential power vacuum crisis under President Umaru Yar'adua: Managing or manipulating the outcome. *Global Journal of Arts, Humanities and Social Sciences*, 3(11), pp.101-127.

Chitanana, T., & Mutsvairo, B. (2019). The deferred 'democracy dividend' of citizen journalism and social media: Perils, promises and prospects from the Zimbabwean experience. *Westminster Papers in Communication and Culture*, *14*(1).

Chu, Z., Gianvecchio, S., Wang, H., & Jajodia, S. (2012). Detecting automation of Twitter accounts: Are you a human, bot, or cyborg? IEEE Transactions on Dependable and Secure Computing, 9(6), 811–824. doi:10.1109/TDSC.2012.75

Chung, C. J., Nam, Y., & Stefanone, M. A. (2012). Exploring online news credibility: The relative influence of traditional and technological factors. *Journal of Computer-Mediated Communication*, *17*(2), 171-186.

Clement, J. (2020, February 20). *Twitter: Statistics and facts*. Statista. https://www.statista.com/topics/737/twitter/

Coleman, G. (2014). *Hacker, hoaxer, whistleblower, spy: The many faces of Anonymous*. Verso books.

Coleman, G. (2015). The anthropological trickster. *HAU: Journal of Ethnographic Theory*, *5*(2), 399-407.

Conover, M., Ratkiewicz, J., Francisco, M., Gonçalves, B., Menczer, F., & Flammini, A. (2011, July). Political polarization on Twitter. In Proceedings of the International AAAI Conference on Web and Social Media, 5(1). https://www.aaai.org/ocs/index.php/ICWSM/ICWSM11/paper/viewFile/2847/3275

Conroy-Krutz, J. (2020). The squeeze on African media freedom. *Journal of Democracy* 31, 2, 96–109.

Cook, D. M., Waugh, B., Abdipanah, M., Hashemi, O., & Rahman, S. A. (2014). Twitter deception and influence: Issues of identity, slacktivism, and puppetry. *Journal of Information Warfare*, *13*(1), 58-71.

Cordey, S. (2019). Cyber influence operations: An overview and comparative analysis. *CSS Cyberdefense Reports*.

Cossu, J-V., Dugue, N. & Labatut, V. (2015). Detecting real-world influence through Twitter. In 2015 Second European Network Intelligence Conference, ENIC 2015, Karlskrona, Sweden, September 21-22, 2015, pages 83–90. IEEE Computer Society.

Cossu, J-V., Labatut, V., & Dugue, N. (2015). A review of features for the discrimination of Twitter users: Application to the prediction of offline influence. *CoRR*, abs/1509.06585.

Couldry, N. (2010). Media ethics: Towards a framework for media producers and media consumers. *Media Ethics Beyond Borders: A Global Perspective*, 59-72.

Couldry, N. (2015). The myth of 'us': digital networks, political change and the production of collectivity. *Information, Communication & Society*, *18*(6), 608-626.

Crain, M., & Nadler, A. (2019). Political manipulation and internet advertising infrastructure. *Journal of Information Policy*, *9*(1), 370-410.

Cresci, S. (2020). A decade of social bot detection. *Communications of the ACM*, *63*(10), 72-83.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed-methods approaches*. SAGE Publications.

Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). Best practices for mixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health*, *2013*, 541-545.

Creswell, J.W., & Plano Clark, V.L. (2011). *Designing and conducting mixed-methods research* (2nd ed.). SAGE Publications.

Criddle, C. (2021, March 10). Russia slows down Twitter over 'banned content'. *BBC News.* https://www.bbc.com/news/world-europe-56344304

Crosset, V., Tanner, S., & Campana, A. (2019). Researching far right groups on Twitter: Methodological challenges 2.0. *New media & society*, *21*(4), 939-961.

Cunliffe-Jones, P., Gaye, S., Gichunge, W., Onumah, C., Pretorius, C., & Schiffrin, A. (2021). The state of media literacy in sub-Saharan Africa 2020 and a theory of misinformation literacy, 5-96. In *Misinformation Policy In Sub-Saharan Africa: From Laws and Regulations to Media Literacy*. University of Westminster Press. DOI: https:// doi.org/10.16997/book53.a.

Dahir, A.L. (2018, July 18). How social media bots became an influential force in Africa's elections. *Quartz Africa.* https://qz.com/africa/1330494/twitter-bots-in-kenya-lesotho-senegal-equatorial-guinea-elections/

Dailey, D., & Starbird, K. (2015, February). "It's raining dispersants": Collective sensemaking of complex information in crisis contexts. In *Proceedings of the 18th ACM Conference Companion on Computer Supported Cooperative Work & Social Computing* (pp. 155-158).

Dalton, R. J. (2008). The quantity and the quality of party systems: Party system polarization, its measurement, and its consequences. *Comparative Political Studies*, *41*(7), 899-920.

Daniels, G. (2016). Scrutinizing hashtag activism in the #MustFall protests in South Africa in 2015. In B. Mutsvairo (Ed.), *Digital activism in the social media era: Critical reflections on emerging trends in sub-Saharan Africa,* (pp. 175-193). Cham: Palgrave Macmillan.

Danjibo, N., & Ashindorbe, K. (2018). The evolution and pattern of political party formation and the search for national integration in Nigeria. *Revista Brasileira de Estudos Africanos= Brazilian Journal of African Studies*, *3*(5).

Dantani, U., Wika, P. N., & Maigari, A. M. (2017). Internet revolutions, democratic globalisation and elections outcome in the twenty-first century: Echoes from Nigeria. *Glocalism: Journal of Culture, Politics and Innovation*, *3*, 1-27.

Davis, C. A., Varol, O., Ferrara, E., Flammini, A., & Menczer, F. (2016). Botornot: A system to evaluate social bots. In Proc. 25th Intl. Conf. Companion on World Wide Web, 273–274.

Davis, R., Holtz-Bacha, C., & Just, M. (2016). *Twitter and elections around the world*. Taylor & Francis.

De Gregorio, G., & Stremlau, N. (2020). Internet shutdowns and the limits of law. *International Journal of Communication*, 14(2020), 4224–4243.

Deb, A., Luceri, L., Badaway, A., & Ferrara, E. (2019). *Perils and challenges of social media and election manipulation analysis: The 2018 US midterms*. In Companion Proceedings of The World Wide Web Conference, 237–247.

Debre, I. (2019). *Israeli disinformation campaign targeted Nigerian election.* https://apnews.com/article/8c5eec1f55bd4e209edbf5f9401e87c2

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods*. McGraw-Hill.

Dewalt, K. M., & Dewalt, B. R. (2002). *Participant observation: A guide for fieldworkers*. Altamira.

Diakopoulos, N.A. & Shamma, D.A. (2010). Characterizing debate performance via aggregated Twitter sentiment. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1195–1198.

Diamanti, I. (2014). The 5 Star Movement: a political laboratory. *Contemporary Italian Politics*, *6*(1), 4-15.

Diamond, L. J. (1996). Is the third wave over? *Journal of Democracy*, *7*(3), 20-37.

Diamond, L., Plattner, M. F., & Walker, C. (2016). *Authoritarianism goes global: The Challenge to Democracy*: JHU Press.

Digital Forensic Research Lab (2019). *Inauthentic Israeli Facebook assets target the world.* https://medium.com/dfrlab/inauthentic-israeli-facebook-assets-target-the-world-281ad7254264

DiGrazia, J., McKelvey, K., Bollen, J., & Rojas, F. (2013). More tweets, more votes: Social media as a quantitative indicator of political behavior. *PloSone*, 8(11), e79449.

Dike, D. N. (2018). Countering political narratives through Nairaland meme pictures. *Cahiers d'études africaines*, (230), 493-512.

DiResta, R. (2018, October 28). The Internet's Original Sin. *Mozilla*. https://www.youtube.com/watch?v=baPF-sOXP24&t=81s

DiResta, R. (2020, September 20). The supply of disinformation will soon be infinite. *The Atlantic*. https://www.theatlantic.com/ideas/archive/2020/09/future-propaganda-will-be-computer-generated/616400/

DiResta, R. (2021, October 9). It's not misinformation. It's amplified propaganda. *The Atlantic*. https://www.theatlantic.com/ideas/archive/2021/10/disinformation-propaganda-amplification-ampliganda/620334/

DiResta, R., Shaffer, K., Ruppel, B., Sullivan, D., Matney, R., Fox, R., Albright, J., & Johnson, B. (2019). The tactics & tropes of the Internet Research Agency. https://digitalcommons.unl.edu/senatedocs/2

Doherty, B. J. (2012). *The rise of the president's permanent campaign*. University Press of Kansas.

Donsbach, W., & Klett, B. (1993). Subjective objectivity. How journalists in four countries define a key term of their profession. *Gazette (Leiden, Netherlands)*, *51*(1), 53-83.

Dotto, C. (2020, July 9). How to use network analysis to explore social media and disinformation. https://firstdraftnews.org/latest/how-to-use-network-analysis-to-explore-social-media-and-disinformation.

Douglas, D. M. (2016). Doxing: a conceptual analysis. *Ethics and Information Technology*, *18*(3), 199-210.

Duhem, V. (2020). Côte d'Ivoire presidential election: On the web, anything goes. https://www.theafricareport.com/48248/cote-divoire-presidential-election-on-the-web-anything-goes/

Durosomo, D. (2019). #SayNoToSocialMediaBill: Nigerians Protest Proposed Law Allowing Government to Block the Internet. *OkayAfrica*. https://www.okayafrica.com/say-no-to-social-media-bill-nigeria-protest-government-internet-blocking-law-censorship/

Dutta, S., & Gangopadhyay, S. (2019). Digital journalism: Theorizing on present times. *Media Watch*, *10*(3), 713-722.

Dwyer, M., & Molony, T. (2019). Mapping the study of politics and social media use in Africa. In M. Dwyer, & T. Molony, *Social media and politics in Africa: Democracy, censorship and security, 1-18*. Zed Books Ltd.

Ebegbulem C, J. (2011). Ethnic politics and conflicts in Nigeria: Theoretical perspective. *Journal of Humanities and Social Sciences,* 14(76-91). DOI:10.5782/2223-2621.2011.14.3.76

Edogor, I. O., Jonah, A. A., & Ojo, L. I. (2015). Nigerian users' evaluation of credibility of social media sites. *New Media and Communication Journal*, *4*(2), 69-77.

Edwards, P. N., & Hecht, G. (2010). History and the technopolitics of identity: The case of apartheid South Africa. *Journal of Southern African Studies*, *36*(3), 619-639.

Effing, R., Van Hillegersberg, J., & Huibers, T. (2011). Social media and political participation: are Facebook, Twitter and YouTube democratizing our political systems? In *International Conference on Electronic Participation*, 25–35, Springer.

Egbunike, N. (2019, December 12). Social media propelled ethnocentric disinformation and propaganda during the Nigerian elections: Ethnic driven falsehoods spiked on social media during the elections. *Global Voices Advox*. https://advox.globalvoices.org/2019/11/06/social-media-propelled-ethnocentric-disinformation-and-propaganda-during-the-nigerian-elections/#

Egbunike, N. (2019, November 6). Social media propelled ethnocentric disinformation and propaganda during the Nigerian elections: Ethnic driven falsehoods spiked on social media during the elections. *Global Voices.* https://advox.globalvoices.org/2019/11/06/social-media-propelled-ethnocentric-disinformation-and-propaganda-during-the-nigerian-elections/

Egbunike, N. A. (2017). Social media, Nigerian youths and political participation: A thematic and methodological review. *International Journal of Civic Engagement and Social Change (IJCESC)*, *4*(4), 48-62.

Egelhofer, J. L., & Lecheler, S. (2019). Fake news as a two-dimensional phenomenon: A framework and research agenda. *Annals of the International Communication Association*, *43*(2), 97-116.

Espinosa, M. S. (2020). Profiling and detecting fake news spreaders on social media. http://ceur-ws.org/Vol-2802/paper7.pdf

European Commission. Directorate-General for Communication Networks, Content and Technology. (2018). *A multi-dimensional approach to disinformation: Report of the independent high level group on fake news and online disinformation*. Publications office of the European Union.

Evkoski, B., Mozetič, I., Ljubešić, N., & Kralj Novak, P. (2021). Community evolution in retweet networks. *Plos one*, *16*(9), e0256175.

Ezeibe, C. C. (2020). Hate speech and electoral violence in Nigeria. Journal of Asian and African Studies, 56(4), 919-935. https://doi.org/10.1177%2F0021909620951208

Ezirim, G. E., Nnamani, K. E., & Nnaegbo, O. (2016). Democracy at the crossroads: Ethno-regional power contestations and democratisation in a diversified Nigeria, 1960–2015. *South East Journal of Political Science*, *1*(1), 2015.

Fagbola, T. M., & Thakur, S. C. (2019). Lexicon-based bot-aware public emotion mining and sentiment analysis of the Nigerian 2019 presidential election on Twitter. *International Journal of Advanced Computer Science and Applications (IJACSA),* 10(10), 329-336.

Fatai, A. (2020). Smart card readers and the quality of the 2019 general elections in Nigeria: successes and challenges. *The Round Table*, *109*(4), 396-405.

Featherstone, C. (2019, August). South African bot behaviour post the July 2018 Twitter account cull. In *2019 International Conference on Advances in Big Data, Computing and Data Communication Systems (icABCD)* (pp. 1-6). IEEE.

Feldstein, S. (2022, March 31). Government Internet shutdowns are changing. How should citizens and democracies respond? Carnegie Endowment for International Peace. https://carnegieendowment.org/2022/03/31/government-internet-shutdowns-are-changing.-how-should-citizens-and-democracies-respond-pub-86687

Ferrara, E. (2017). Disinformation and social bot operations in the run up to the 2017 French presidential election. *First Monday* 22(8).

Ferrara, E., Chang, H., Chen, E., Muric, G., & Patel, J. (2020). Characterizing social media manipulation in the 2020 U.S. presidential election. *First Monday*, *25*(11). https://doi.org/10.5210/fm.v25i11.11431

Ferrara, E., Varol, O., Davis, C., Menczer, F., & Flammini, A. (2016). The rise of social bots. *Communications of the ACM*, 59(7), 96–104.

Ferree, M. M., Gamson, W. A., Gerhards, J., & Rucht, D. (2002). Four models of the public sphere in modern democracies. *Theory and Society*, *31*(3), 289-324.

Fetters, M. D., Curry, L. W., & Creswell, J. W. (2013). Achieving integration in mixed-methods designs – principles and practices. *Health Services Research*, 48(6,2), 2134-2156. https://doi.org/10.1111/1475-6773.12117

Findlay, K., & van Rensburg, O. J. (2018). Using interaction networks to map communities on Twitter. *International Journal of Market Research*. http://journals.sagepub.com/doi/10.1177/1470785317753025

Fink, C., Bos, N., Perrone, A., Liu, E., & Kopecky, J. (2013). Twitter, public opinion, and the 2011 Nigerian presidential election. In *2013 International Conference on Social Computing*, 311–320.

Fischer, R., & Klazar, E. (2020). Facts, truth, and post-truth. *The International Journal of Information, Diversity, & Inclusion*, *4*(3/4), 5-19.

Flick, U. (2018). *An introduction to qualitative research*. Sage.

Flood, A. (2012, September 4). Sock puppetry and fake reviews: publish and be damned. *The Guardian*. https://www.theguardian.com/books/2012/sep/04/sock-puppetry-publish-be-damned

Flores-Saviaga, C., Keegan, B., & Savage, S. (2018, June). Mobilizing the trump train: Understanding collective action in a political trolling community. In *Proceedings of the International AAAI Conference on Web and Social Media*, 12(1).

Floridi, L. (2011). *The philosophy of information*. Oxford.

Foot, K. A., Schneider, S. M., & Cornfield, M. (2006). Web campaigning (p. 263). Cambridge, MA: MIT press. http://doi.org/10.7551/mitpress/7186.001.0001

Forelle, M., Howard, P. N., Monroy-Hernandez, A., & Savage, S. (2015). Political bots and the manipulation of public opinion in Venezuela. SSRN. https://ssrn.com/abstract=2635800 or http://dx.doi.org/10.2139/ssrn.2635800

Frame, A., Mercier, A., Brachotte, G., & Thimm, C. (2016). General introduction. In A. Frame, A. Mercier, G. Brachotte, & C. Thimm(Eds.), *Tweets from the campaign trail: Researching candidates' use of Twitter during the European parliamentary elections*, 7-16. Peter Lang AG.

François, C. (2019). *Actors, behaviours, content: A disinformation ABC. A working paper of the Transatlantic Working Group.* https://science.house.gov/imo/media/doc/Francois%20Addendum%20to%20Testimony%20-%20ABC_Framework_2019_Sept_2019.pdf

Freelon, D. (2017). Campaigns in control: Analyzing controlled interactivity and message discipline on Facebook. *Journal of Information Technology & Politics*, *14*(2), 168-181.

Freelon, D., & Wells, C. (2020). Disinformation as political communication. *Political Communication*, *37*(2), 145-156.

Friggeri, A., Adamic, L., Eckles, D., & Cheng, J. (2014). *Rumor cascades.* Paper presented at the Eighth International AAAI Conference on Weblogs and Social Media.

Fuchs, C. (2014). Digital prosumption labour on social media in the context of the capitalist regime of time. *Time & Society*, *23*(1), 97-123.

Fuchs, C. (2014). *OccupyMedia!: The occupy movement and social media in crisis capitalism*. John Hunt Publishing.

Fujiwara, T., Muller, K., & Schwarz, C. (2020). How Twitter affected the 2016 presidential election. https://voxeu.org/article/how-twitter-affected-2016-presidential-election.

Gagliardone, I. (2014). "A country in order": Technopolitics, nation building, and the development of ICT in Ethiopia. *Information Technologies & International Development*, *10*(1), 3.

Gagliardone, I., & Pohjonen, M. (2016). Engaging in polarized society: Social media and political discourse in Ethiopia. In B. Mutsvairo (Ed.), *Digital activism in the social media era: Critical reflections on emerging trends in sub-Saharan Africa,* 25-44. Palgrave Macmillan.

Gagliardone, I., Pohjonen, M., Beyene, Z., Zerai, A., Aynekulu, G., Bekalu, M., Bright, J., Moges, M., Seifu, M., Stremlau, N., Taflan, P., Gebrewolde, T.M., & Teferra, Z. (2016). *Mechachal: Online debates and elections in Ethiopia - From hate speech to engagement in social media*. *SSRN*. http://dx.doi.org/10.2139/ssrn.2831369

Garbe, L. (2020, September 29). What we do (not) know about Internet shutdowns in Africa. *Democracy in Africa.* http://democracyinafrica.org/internet_shutdowns_in_africa/

Garry, J. (2013). Emotions and voting in EU referendums, European Union Politics, 15(2), 235-254.

Gayo-Avello, D. (2012). No, you cannot predict elections with Twitter. *IEEE Internet Computing*, *16*(6), 91-94.

Gayo-Avello, D. (2013). Nepotistic relationships in Twitter and their impact on rank prestige algorithms. *Information Processing and Management*, 49(6), 1250–1280.

Gemeinboeck, P. (2021). The aesthetics of encounter: a relational-performative design approach to human-robot interaction. *Frontiers in Robotics and AI*, *7*, 577900.

George, C. (2016). *Hate spin: The manufacture of religious offense and its threat to democracy*. MIT Press.

George, E. E. (2018, March 29). Did Facebook and Cambridge Analytica attack Nigeria? *The Guardian*. https://guardian.ng/features/did-facebook-and-cambridge-analytica-attack-nigeria/

Giachanou, A., Zhang, X., Barrón-Cedeño, A., Koltsova, O., & Rosso, P. (2022). Online information disorder: Fake news, bots and trolls. *International Journal of Data Science and Analytics*, 1-5.

Gibaja, A.F. (2020). Are elections and politics in Africa ready to cope with the influence of social media? https://www.idea.int/news-media/news/are-elections-and-politics-africa-ready-cope-influence-social-media

Gibson, R. K. (2013). Party change, social media and the rise of "citizen-initiated" campaigning. *Party Politics,* 21(2), 183-197. http://doi:10.1177/1354068812472575

Gibson, R. K., & McAllister, I. (2015). Normalising or equalising party competition? Assessing the impact of the web on election campaigning. *Political Studies*, *63*(3), 529-547.

Gibson, R., Römmele, A., & Williamson, A. (2014). Chasing the digital wave: International perspectives on the growth of online campaigning. *Journal of Information Technology & Politics*, *11*(2), 123-129.

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration.* University of California Press.

Giglietto F, Righetti N, Rossi L, Marino G (2021). Coornet: An Integrated Approach to Surface Problematic Content, Malicious Actors, and Coordinated Networks. Paper presented at AoIR 2021: The 22nd Annual Conference of the Association of Internet Researchers. Virtual Event: AoIR. http://spir.aoir.org.

Giglietto, F., Righetti, N., & Marino, G. (2019, September 20). Understanding coordinated and inauthentic link sharing behavior on Facebook in the run-up to 2018 general election and 2019 European election in Italy. https://doi.org/10.31235/osf.io/3jteh

Giles, C and Mwai, P. (2021, January 14). Africa internet: Where and how are governments blocking it? BBC News. https://www.bbc.com/news/world-africa-47734843

Giles, H., & Smith, P.M. (1979). Accommodation theory: Optimal levels of convergence. In H. Giles & R.N.S. Clair (Eds.), *Language and Social Psychology*, 45–66. Basil Blackwell.

Gillespie, T. (2010). The politics of 'platforms'. *New Media & Society*, *12*(3), 347-364.

Gillespie, T. (2014). The relevance of algorithms. *Media technologies: Essays on communication, materiality, and society*, *167*(2014), 167.

Gleicher, N. (2019, May 16). Removing coordinated inauthentic behaviour from Israel. *Meta*. https://about.fb.com/news/2019/05/removing-coordinated-inauthentic-behavior-from-israel/

Gleicher, N. (2020, March 12). Removing coordinated inauthentic behavior from Russia. *Meta*. https://about.fb.com/news/2020/03/removing-coordinated-inauthentic-behavior-from-russia/

Gomez-Rodriguez, M., Leskovec, J., & Krause, A. (2012). Inferring networks of diffusion and influence. *ACM Transactions on Knowledge Discovery from Data (TKDD),* 5(4), 1–37.

Goodman, L. A. (1961). Snowball sampling. *Annals of Mathematical Statistics,* 32, 148–70.

Gorwa, R. (2019). Computational propaganda in Poland: false amplifiers and the digital public sphere. In P. Howard & S. Woolley (Eds.), *Computational Propaganda Research Project* (pp. 1–32). Computational Propaganda Research Project.

Graham, T., Broersma, M., & Hazelhoff, K. (2013). Closing the Gap? Twitter as an Instrument for Connected Representation. In R. Scullion, R. Gerodimos, D. Jackson, & D. Lilleker (Eds.), *The media, political participation and empowerment*, 71–88. Routledge.

Graham, T., Bruns, A., Zhu, G., & Campbell, R. (2020). Like a virus: The coordinated spread of coronavirus disinformation. Report commissioned for the Centre for Responsible Technology.

Graham, T., Jackson, D., & Broersma, M. (2014). New platform, old habits? Candidates' use of Twitter during the 2010 British and Dutch general election campaigns. *New Media & Society*, 18(5), 765–783.

Gray, D. E. (2014). *Doing research in the real world* (3rd ed.). SAGE Publications.

Grimme, C., Assenmacher, D., & Adam, L. (2018). Changing perspectives: Is it sufficient to detect social bots? International Conference on Social Computing and Social Media (pp. 445–461).

Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 U.S. presidential election. *Science,* 363(6425), 374– 378.

Grodzicka, E. D. (2021). Taking vaccine regret and hesitancy seriously. The role of truth, conspiracy theories, gender relations and trust in the HPV immunisation programmes in Ireland. *Journal for Cultural Research*, *25*(1), 69-87.

Grolemund, G. (2016). *R for data science—data tidying*. O'Reilly Media. http://garrettgman.github.io/tidying/

Gruzd, A., & Mai, P. (2020). Going viral: How a single tweet spawned a COVID-19 conspiracy theory on Twitter. *Big Data & Society*, *7*(2), 1-9. https://doi.org/10.1177/2053951720938405

Gu, L., Kropotov, V., & Yarochkin, F. (2017). The fake news machine. *How* propagandists abuse the internet and manipulate the public*. Pobrane*, *25*.

Guarino, S., Trino, N., Celestini, A., Chessa, A., & Riotta, G. (2020). Characterizing networks of propaganda on Twitter: a case study. *Applied Network Science*, *5*(1), 1-22.

Guess, A., Nyhan, B., & Reifler, J. (2018). Selective exposure to misinformation: Evidence from the consumption of fake news during the 2016 US presidential campaign. *European Research Council*, *9*(3), 4.

Guest, G. (2013). Describing mixed-methods research: An alternative to typologies. *Journal of Mixed-Methods Research,* 7, 141–151.

Guilbeault, D., & Woolley, S. (2016, November 1). How Twitter bots are shaping the election. *The Atlantic*. https://www.theatlantic.com/technology/archive/2016/11/election-bots/506072/

Guillory, J. J., & Geraci, L. (2013). Correcting erroneous inferences in memory: The role of source credibility. *Journal of Applied Research in Memory and Cognition*, *2*(4), 201-209.

Gulati, J., & Williams, C. B. (2010). Communicating with constituents in 140 characters or less: Twitter and the diffusion of technology innovation in the United States Congress. *Available at SSRN 1628247*.

Guo, L., & Vargo, C. (2020). "Fake news" and emerging online media ecosystem: An integrated intermedia agenda-setting analysis of the 2016 US presidential election. *Communication Research*, *47*(2), 178-200.

Habermas J. (1989). *The structural transformation of the public sphere: An inquiry into a category of bourgeois society*. MIT Press.

Haffajee, F. (2018, December 12). Merchants of disinformation (part 2): How the EFF dominates the disinformation market. *Daily Maverick.*

https://www.dailymaverick.co.za/article/2018-12-12-how-the-eff-dominates-the-disinformation-market/

Hameleers, M. (2018). A typology of populism: Toward a revised theoretical framework on the sender side and receiver side of communication. *International Journal of Communication*, *12*, 20.

Hameleers, M., & Powell, T. E. (2020). Disinformation and rebuttals disseminated via social media. *Political Communication*, 37(2), 281-301. https://doi.org/10.1080/10584609.2019.1674979

Hameleers, M., & Van der Meer, T. G. (2020). Misinformation and polarization in a high-choice media environment: How effective are political fact-checkers?. *Communication Research*, *47*(2), 227-250.

Handcock, M. S. & Gile, K. J. (2011). Comment: On the concept of snowball sampling. *Sociological Methodology*, 47(1), 367-371.

Hassan, I. & Hitchen, J. (2020). *Driving disinformation? Disinformation and the new media landscape in Nigeria.* Abuja: Centre for Democracy and Development.

Hassan, I. & Segun, T. (2020). Personal data and the influence industry in Nigerian elections: Data-driven campaigning by formal and informal actors. *Centre for Democracy and Development*. https://www.cddwestafrica.org/wp-content/uploads/2021/03/Data-Politics-Nigeria-CDD-Tactical-Tech.pdf

Hassan, I., & Hitchen, J. (2020). *Nigeria's disinformation landscape.* https://items.ssrc.org/disinformation-democracy-and-conflict-prevention/nigerias-disinformation-landscape/

Hawthorne, J., Houston, J. B., & McKinney, M. S. (2013). Live-tweeting a presidential primary debate: Exploring new political conversations. *Social Science Computer Review*, 31 (5). http://doi:10.1177/0894439313490643

Hegelich, S. (2017). R for social media analysis. In L. Sloan, A. Quan-Haase (Eds.) *The SAGE handbook of social media research methods,* (pp. 486-499). *SAGE Publications*.

Herman, E. S., & Chomsky, N. (1988). *The political economy of the mass media.* Pantheon.

Herring, S., Job-Sluder, K., Scheckler, R., & Barab, S. (2002). Searching for safety online: Managing" trolling" in a feminist forum. *The Information Society*, 18(5), 371-384.

Hetherington, M. J. (2001). Resurgent mass partisanship: The role of elite polarization. *American Political Science Review*, *95*(3), 619-631.

Heverin, T., & Zach, L. (2012). Use of microblogging for collective sense-making during violent crises: A study of three campus shootings. *Journal of the American Society for Information Science and Technology*, *63*(1), 34-47.

Himelboim, I., Smith, M. A., Rainie, L., Shneiderman, B., & Espina, C. (2017). Classifying Twitter topic-networks using social network analysis. *Social Media+Society*, 3(1), 2056305117691545.

Hindman, M. (2008). The myth of digital democracy. In *The Myth of Digital Democracy*. Princeton University Press.

Hitchen, J., Fisher, J., Cheeseman, N., & Hassan, I. (2019). How WhatsApp influenced Nigeria's recent election - and what it taught us about 'fake news. *Washington Post*. https://www.washingtonpost.com/news/monkey-cage/wp/2019/02/15/its-nigerias-first-whatsapp-election-heres-what-were-learning-about-how-fake-news-spreads/

Hitchen, J., Fisher, J., Hassan, I., & Cheeseman, N. (2019). *Whatsapp and Nigeria's 2019 elections: Mobilising the people, protecting the vote.* https://www.africaportal.org/publications/whatsapp-and-nigerias-2019-elections-mobilising-people-protecting-vote/

Honey, C., & Herring, S. C. (2009, January). Beyond microblogging: Conversation and collaboration via Twitter. In *2009 42nd Hawaii International Conference on System Sciences* (pp. 1-10). IEEE.

Howard, P. N. (2005). Deep democracy, thin citizenship: The impact of digital media in political campaign strategy. *The ANNALS of the American Academy of Political and Social Science, 597*(1), 153–170. doi:10.1177/0002716204270139

Howard, P. N., & Bradshaw, P. (2017). *Troops, trolls and troublemakers: A global inventory of organized social media manipulation*. Oxford, Oxford Internet Institute. https://www.oii.ox.ac.uk/blog/troops-trolls-and-troublemakers-a-global-inventory-of-organized-social-media-manipulation/

Howard, P. N., & Hussain, M. M. (2011). The upheavals in Egypt and Tunisia: The role of digital media. *Journal of Democracy*, *22*(3), 35-48.

Howard, P. N., & Kollanyi, B. (2016). Bots, #Strongerin, and #Brexit: Computational propaganda during the UK-EU referendum. http://politicalbots.org/wp-content/uploads/2016/06/COMPROP-2016-1.pdf

Howard, P. N., Duffy, A., Freelon, D., Hussain, M. M., Mari, W., & Maziad, M. (2011). Opening closed regimes: What was the role of social media during the Arab Spring? http://dx.doi.org/10.2139/ssrn.2595096

Howard, P. N., Ganesh, B., Liotsiou, D., Kelly, J., & François, C. (2019). The IRA, social media and political polarization in the United States, 2012-2018. Project on Computational Propaganda, Oxford, 2018). https://comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2018/12/The-IRA-Social-Media-and-Political-Polarization.pdf.

Howard, P. N., Woolley, S., & Calo, R. (2018). Algorithms, bots, and political communication in the US 2016 election: The challenge of automated political communication for election law and administration. *Journal of Information Technology & Politics*, 15(2), 81-93.

Hughes, J. J. (2006). Human enhancement and the emergent technopolitics of the 21st century. In *Managing nano-bio-info-cogno innovations* (pp. 285-307). Springer, Dordrecht.

Humprecht, E., Esser, F., & Van Aelst, P. (2020). Resilience to online disinformation: A framework for cross-national comparative research. *The International Journal of Press/Politics*, *25*(3), 493-516.

Humprecht, E., Esser, F., Aelst, P. V., Staender, A., & Morosoli, S. (2021). The sharing of disinformation in cross-national comparison: Analyzing patterns of resilience. *Information, Communication & Society*, 1-21.

Hundeyin, D. (2021, December 16). How to Spoof an Entire Career: The Curious Story of Kemi Olunloyo. *West Africa Weekly*. https://westafricaweekly.substack.com/p/how-to-spoof-an-entire-career-the?s=r

Hutchins, E. (1995). *Cognition in the wild*. MIT Press.

Hwang, T. (2017). Dealing with disinformation: Evaluating the case for CDA 230 amendment. *Available at SSRN 3089442*.

Hwang, T., Pearce, I., & Nanis, M. (2012). Socialbots: Voices from the fronts. *Interactions*, 19(2), 38-45.

Ibekwe, N. (2015, January 1). Wendell Simlin: American woman accuses Reno Omokri of identity theft. *Premium Times*. https://www.premiumtimesng.com/news/top-news/174113-wendell-simlin-american-woman-accuses-reno-omokri-identity-theft.html

Ibrahim, I. A. (2018). Nigeria's ethical issues in the use of ICT. *ITNOW, 60*(2), 12-13.

Ihebuzor, N., & Egbunike, N. (2018). Twitter as a tool of political discourse in Nigeria: Dialogue, self aggrandizement or party politicking? In K.A. Omenugha, A. Fayoyin, & C.M. Ngugi (Eds.), *New Media and African Society: Essays, Reviews and Research*. Nairobi: Academic Press.

Ijere, T. C. (2020). Directions of political communication in Africa: Methodology for the search of an African model and epistemology. *Social Media and Elections in Africa,* 1, 39-60. Cham: Palgrave Macmillan.

Ikem, A. P., Ogbonna, C. N., & Ogunnubi, O. (2020). Pentecostalism, electoral prophetism and national security challenges in Nigeria. *African Security*, *13*(1), 28-53.

Ilori, T. (2021, December 17). In Nigeria, the government weaponises the law against online expression: Laws that protect online expression are being used to violate it. *Global Voices*. https://globalvoices.org/2021/12/17/in-nigeria-the-government-weaponises-the-law-against-online-expression/

Ireton, C., & Posetti, J. (2018). *Journalism, fake news & disinformation: Handbook for journalism education and training*. UNESCO Publishing.

Iruonagbe, T. C., Imhonopi, D., & Ahmadu, F. O. (2013). A conceptual review of mass media and political violence in Nigeria between 1999 and 2013. *New Media and Mass Communication*, *20*, 12-20.

Iyengar, S., & Westwood, S. J. (2015). Fear and loathing across party lines: New evidence on group polarization. *American Journal of Political Science*, *59*(3), 690-707.

Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, not ideology: A social identity perspective on polarization. *Public Opinion Quarterly*, *76*(3), 405-431.

Iyofor, D. (2017, February 28). A letter to Wendell Simlin aka Reno Omokri. *The Cable*. https://www.thecable.ng/letter-wendell-simlin-aka-reno-omokri

Jabeur, L. B., Tamine, L., & Boughanem, M. (2012). Active microbloggers: Identifying influencers, leaders and discussers in microblogging networks. In L. Calderó n-Benavides, C. N. Gonzalez-Caro, E. Chavez, & N. Ziviani (eds.), String Processing and Information Retrieval - 19th International Symposium, SPIRE 2012, Cartagena de Indias, Colombia, October 21-25, 2012. Proceedings, volume 7608 of Lecture Notes in Computer Science, pages 111–117. Springer.

Jack, C. (2017). Lexicon of lies: Terms for problematic information. *Data & Society*, *3*(22), 1094-1096.

Jahng, M. R., & Littau, J. (2015). Interacting Is believing interactivity, social cue, and perceptions of journalistic credibility on Twitter. *Journalism & Mass Communication Quarterly*, 93 (1), 38-58. doi:10.1177/1077699015606680

Jaidka, K. & Ahmed, S. (2015). The 2014 Indian general election on twitter: an analysis of changing political traditions. In *Proceedings of the Seventh International Conference on Information and Communication Technologies and Development*, 43.

Jaiyesimi, L. (2015, January 18). Bedfellows: Reno Omokri (Wendell Simlin) and Lies by 'Lakunle Jaiyesimi. *Sahara Reporters*. http://saharareporters.com/2015/01/18/bedfellows-reno-omokri-wendell-simlin-and-lies-'lakunle-jaiyesimi

Janetzko, D. (2017). The role of APIs in data sampling from social media. In L. Sloan, A. Quan-Haase (Eds.) *The SAGE handbook of social media research methods,* (pp. 146-160). *SAGE Publications*.

Jenkins, H. (2006). Introduction: "Worship at the altar of convergence". In *Convergence Culture* (pp. 1-24). New York University Press.

Jenkins, H. (2018). Fandom, negotiation, and participatory culture. *A Companion to Media Fandom and Fan Studies*, 13-26.

Jimoh, I., & Stephen, K. R. (2018). Is this love? a study of deception in online romance in Nigeria. *Covenant Journal of Communication*.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed-methods research. *Journal of Mixed-Methods Research*, 1(2), 112–133. https:// doi.org/10.1177/1558689806298224

Jones, V. A. (2020). *Artificial intelligence enabled deepfake technology: The emergence of a new threat* (Doctoral dissertation, Utica College).

Jowett, G., & O'Donnell, V. (2018). *Propaganda & persuasion*. SAGE Publications.

Jungherr, A. (2015). *Analyzing political communication with digital trace data: The role of Twitter messages in social science research*. Springer.

Jungherr, A. (2016). Twitter use in election campaigns: A systematic literature review. Journal of Information Technology & Politics, 13(1), 72–91. doi:10.1080/19331681.2015.1132401

Jwan, J. O., & Ong'ondo, C. O. (2011). *Qualitative research: An introduction to principles and techniques*. *Eldoret, Moi University*.

Kabir, A. and Olufemi, A. (2021, June 2). UPDATED: Nigerian govt reacts to Twitter deleting Buhari's tweet. *Premium Times*. https://www.premiumtimesng.com/news/headlines/465254-just-in-nigerian-govt-reacts-to-twitter-deleting-buharis-tweet.html

Kagan, V., Stevens, A., & Subrahmanian, V.S. (2015). Using Twitter sentiment to forecast the 2013 Pakistani election and the 2014 Indian election. *IEEE Intelligent Systems*, 30(1), 2–5.

Kamau, S. C. (2017). Democratic engagement in the digital age: Youth, social media and participatory politics in Kenya. *Communicatio*, 43(2), 128-146.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business horizons, 53*(1), 59-68.

Karekwaivanane, G. H. (2019). 'Tapanduka Zvamuchese': Facebook,'unruly publics', and Zimbabwean politics. *Journal of Eastern African Studies*,13(1), 54-71.

Karl, T. L. (1995). The hybrid regimes of Central America. *Journal of Democracy*, *6*(3), 72-86.

Karl, T. L. (2000). Economic inequality and democratic instability. *Journal of Democracy*, *11*(1), 149-156.

Karpf, D (2012) Social science research methods in Internet time. *Information, Communication & Society,* 15(5): 639–661.

Kasmani, M. F., Sabran, R., & Ramle, N. (2014). Can Twitter be an effective platform for political discourse in Malaysia? A study of# PRU13. *Procedia-Social and Behavioral Sciences*, *155*, 348-355.

Kazeem, Y. (2018). Cambridge Analytica tried to sway Nigeria's last elections with Buhari's hacked emails. Quartz. Https://qz.com/africa/1234916/cambridge-analytica-tried-to-sway-nigerias-last-elections-with-buharis-hacked-emails/

Kazeem, Y. (2019, February 11, 2019). It's become much harder to rig elections in Nigeria thanks to technology. *Quartz Africa*. https://qz.com/africa/1553505/nigeria-election-rigging-inec-card-readers-and-pvc-protect-polls/

Kazeem, Y. (2019, February 11). It's become much harder to rig elections in Nigeria thanks to technology. *Quartz Africa*. https://qz.com/africa/1553505/nigeria-election-rigging-inec-card-readers-and-pvc-protect-polls/

Kazeem, Y. (2020, October 14). Taping the truth: Young Nigerian protesters are using social media to dispel misinformation from traditional media. *Quartz Africa.* https://qz.com/africa/1917507/nigeria-endsars-protests-use-twitter-whatsapp-to-beat-fake-news/

Keller, F. B., Schoch, D., Stier, S., & Yang, J. (2019). Political astroturfing on Twitter: How to coordinate a disinformation campaign. *Political Communication*, DOI: 10.1080/10584609.2019.1661888

Keller, T. R., & Klinger, U. (2019). Social bots in election campaigns: Theoretical, empirical, and methodological implications. *Political Communication*, 36(1), 171-189.

Kelly, S., Truong, M., Shahbaz, A., Earp, M., & White, J. (2017). Manipulating social media to undermine democracy. Freedom House. *https://freedomhouse.org/report/freedom-net/freedom-net-2017*.

Kemp, S. (2021, February 11). Digital 2021: Nigeria. *DATAREPORTAL.* https://datareportal.com/reports/digital-2021-nigeria

Khalid, I. (2018, December 3). Nigerian President Buhari denies death and body double rumours. *BBC News*. https://www.bbc.com/news/world-africa-46424562

Khrabrov, A., & Cybenko, G. (2010). Discovering influence in communication networks using dynamic graph analysis. In A. K. Elmagarmid & D. Agrawal (eds), editors, Proceedings of the 2010 IEEE Second International Conference on Social Computing, SocialCom / IEEE International Conference on Privacy, Security, Risk and Trust, PASSAT 2010, Minneapolis, Minnesota, USA, August 20-22, 2010, pages 288–294. IEEE Computer Society.

Kim, D., Graham, T., Wan, Z., & Rizoiu, M. A. (2019). Tracking the digital traces of Russian trolls: Distinguishing the roles and strategy of trolls on twitter. *arXiv preprint arXiv:1901.05228*.

King, G., & Persily, N. (2018). A new model for industry-academic partnerships [Working paper].

King, G., & Persily, N. (2020). A new model for industry–academic partnerships. *PS: Political Science & Politics*, *53*(4), 703-709.

Kleinberg, J. M. (1999). Authoritative sources in a hyperlinked environment. *Journal of the ACM*, 46(5), 604–632.

Klinger, U. (2013). Mastering the art of social media: Swiss parties, the 2011 national election and digital challenges. *Information, communication & society*, *16*(5), 717-736.

Knight, T. (2021, February 10). Facebook removed planted content linked to Ugandan government following an investigation. *Daily Maverick*. https://www.dailymaverick.co.za/article/2021-02-10-facebook-removed-planted-content-linked-to-ugandan-government-following-an-investigation/

Kollanyi, B., Howard, P. N., & Woolley, S. C. (2016). Bots and automation over Twitter during the first US presidential debate. *Comprop Data Memo*, *1*, 1-4.

Komolafe, A., Hitchen, J., & Kalu-Amah, O. (2019). the role of the media during Nigeria's 2019 elections. https://ace.soas.ac.uk/wp-content/uploads/2019/11/ACE-WorkingPaper016-MediaRole-Text-191105.pdf

Kong, S. & Feng, L. (2011). A tweet-centric approach for topic-specific author ranking in micro-blog. In J. Tang, I. King, L. Chen, & J. Wang (eds.), Advanced data mining and applications - 7th International Conference, ADMA 2011, Beijing, China, December 17-19, 2011,

Proceedings, Part I, volume 7120 of Lecture Notes in Computer Science, pages 138–151. Springer.

Kperogi, F. A. (2016). Networked social journalism: Media, citizen participation and democracy in Nigeria. In *Participatory Politics and Citizen Journalism in a Networked Africa* (pp. 19-33): Springer.

Krafft, P. M., & Donovan, J. (2020). Disinformation by design: The use of evidence collages and platform filtering in a media manipulation campaign. *Political Communication*, 37(2), 194-214. http://doi.org/10.1080/10584609.2019.1686094

Krafft, P., Zhou, K., Edwards, I., Starbird, K., & Spiro, E. S. (2017, May). Centralized, parallel, and distributed information processing during collective sensemaking. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 2976-2987).

Kreiss, D. (2012). *Taking our country back: The crafting of networked politics from Howard Dean to Barack Obama*. Oxford University Press.

Kreiss, D., & Barrett, B. (2019). Facebook and Google as global democratic infrastructures: A preliminary five country comparative analysis of platforms, paid political speech, and data.

Kreiss, D., & McGregor, S. C. (2018). Technology firms shape political communication: The work of Microsoft, Facebook, Twitter, and Google with campaigns during the 2016 U.S. presidential cycle. *Political Communication, 35(2), 155–177*. https://doi.org/10.1080/10584609.2017.1364814

Kruikemeier, S. (2014). How political candidates use twitter and the impact on votes. *Computers in human behavior*, 34, 131–139.

Kumar, S., Cheng, J., Leskovec, J., & Subrahmanian, V. S. (2017, April). An army of me: Sockpuppets in online discussion communities. In *Proceedings of the 26th International Conference on World Wide Web* (pp. 857-866). http://dx.doi.org/10.1145/3038912.3052677

Kurban, C., Peña-López, I., & Haberer, M. (2017). What is technopolitics? A conceptual schema for understanding politics in the digital age. *IDP. Revista de Internet, Derecho y Política*, (24), 3-20.

Kvale, S. (1996). *InterViews: An introduction to qualitative research interviewing*. Thousand SAGE Publications.

Kwak, H., Lee, C., & Moon, S. (2010, April 26–30). *What is Twitter, a social network or a news media*. Proceedings of the 19th World-Wide Web (WWW) Conference, Raleigh, NC.

Langville, A. N. & Meyer, C. D. (2003). Survey: Deeper inside PageRank. *Internet Mathematics*, 1(3), 335–380.

Langville, A. N. & Meyer, C. D. (2005). A survey of eigenvector methods of web information retrieval. *SIAM Review*, *47*(1), 135-161.

Lanoszka, A. (2019). Disinformation in international politics. *European Journal of International Security*, *4*(2), 227-248.

Lapowsky, I. (2016, November 15). Here's how Facebook won Donald Trump the presidency. *The Wired*. https://www.wired.com/2016/11/facebook-won-trump-election-not-just-fake-news/

Larsson, A. O., & Moe, H. (2011). Studying political microblogging: Twitter users in the 2010 Swedish election campaign. *New Media & Society*, *14*, 729–747.

Latour, B. (1992). 10 "where are the missing masses? *The Sociology of a Few Mundane Artifacts*. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.696.2114&rep=rep1&type=pdf

Latour, B. (2002). Gabriel Tarde and the end of the social. *The social in question: New Bearings in History and the Social Sciences*, 117-132.

Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory.* Oxford University Press.

Latour, B. (2007). Reassembling the social: An introduction to actor-network-theory (Clarendon Lectures in Management Studies

Latour, B., Jensen, P., Venturini, T., Grauwin, S., & Boullier, D. (2012). 'The whole is always smaller than its parts' - a digital test of Gabriel Tardes' monads. *The British journal of sociology*, *63*(4), 590-615.

Law, J. (2008). Actor network theory and material semiotics. *The New Blackwell Companion to Social Theory*, 141-158.

Lawal, N. (2018, March 3). Fact check: Is 'Jibril from Sudan' Buhari's Body Double? *Legit*. https://www.legit.ng/1206933-fact-check-how-true-claim-buhari-dead-replaced-a-lookalike.html

Lazer, D., Baum, M., Benkler, Y., Berinsky, A., Greenhill, K., Menczer, F., Metzger, M., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, M., Sloman, S., Sunstein, C., Thorson, E., Watts, D., & Zittrain, J. (2018). The science of fake news. *Science* 359(6380), 1094–1096.

León, B., Martínez-Costa, M. P., Salaverría, R., & López-Goñi, I. (2022). Health and science-related disinformation on COVID-19: A content analysis of hoaxes identified by fact-checkers in Spain. *PloS one*, *17*(4), e0265995.

Levin, D. H. (2016). When the great power gets a vote: The effects of great power electoral interventions on election results. *International Studies Quarterly*, *60*(2), 189-202.

Lewandowsky, S., Ecker, U. K., & Cook, J. (2017). Beyond misinformation: Understanding and coping with the "post-truth" era. *Journal of Applied Research in Memory and Cognition, 6*(4), 353-369.

Lilleker, D. G. (2016). Comparing online campaigning: The evolution of interactive campaigning from Royal to Obama to Hollande. *French Politics*, *14*(2), 234-253.

Lilleker, D. G., & Jackson, N. A. (2010). Towards a more participatory style of election campaigning: The impact of Web 2.0 on the UK 2010 general election. *Policy & Internet*, *2*(3), 69-98.

Lilleker, D. G., Koc-Michalska, K., Schweitzer, E. J., Jacunski, M., Jackson, N., & Vedel, T. (2011). Informing, engaging, mobilizing or interacting: Searching for a European model of web campaigning. *European Journal of Communication*, *26*(3), 195-213.

Lim, M. (2018). Sticks and stones, clicks and phones: Contextualizing the role of digital media in the politics of transformation. In *Digital media and the politics of transformation in the Arab world and Asia* (pp. 9-34). Springer VS, Wiesbaden.

Liman, M. (2010, January 12). Nigeria's leader breaks silence. *BBC News*. http://news.bbc.co.uk/2/hi/africa/8453409.stm

Lorayne (2020, June 21). What some Redditors think of Nairaland. *Nairaland.* https://www.nairaland.com/5941850/what-some-redditors-think-nairaland

Lukito, J. (2020). Coordinating a multi-platform disinformation campaign: Internet Research Agency activity on three US social media platforms, 2015 to 2017. *Political Communication*, *37*(2), 238-255.

MacKinnon, R., & Zuckerman, E. (2012). Don't feed the trolls. *Index on Censorship*, *41*(4), 14-24.

MacKinnon, R., & Zuckerman, E. (2012). Don't feed the trolls. *Index on Censorship*, *41*(4), 14-24.

Maddock, J., Starbird, K., Al-Hassani, H. J., Sandoval, D. E., Orand, M., & Mason, R. M. (2015, February). Characterizing online rumoring behavior using multi-dimensional signatures. In *Proceedings of the 18th ACM conference on computer supported cooperative work & social computing* (pp. 228-241).

Madrid-Morales, D., & Wasserman, H. (2022). Research methods in comparative disinformation studies. In *Disinformation in the Global South*, H. Wasserman and D. Madrid-Morales (Eds.). Wiley-Blackwell.

Madrid-Morales, D., Wasserman, H., Gondwe, G., Ndlovu, K., Sikanku, E., Tully, M., Umejei, E., & Uzuegbunam, C. (2021). Motivations for sharing misinformation: A comparative study in six sub-Saharan African countries. *International Journal of Communication* 15, 1200–19.

Madrid-Morales, D., Wasserman, H., Gondwe, G., Ndlovu, K., Sikanku, E., Tully, M., ... & Uzuegbunam, C. (2021). Comparative approaches to mis/disinformation| motivations for sharing misinformation: A comparative study in six Sub-Saharan African countries. *International Journal of Communication*, *15*, 20.

Madrid-Morales, D., & Wasserman, H. (2022). Research methods in comparative disinformation studies. *Disinformation in the Global South*, 41-57.

Mail & Guardian (2018, April 3). Nigeria to launch probe into two elections over Cambridge Analytica. *Mail & Guardian*. https://mg.co.za/article/2018-04-03-nigeria-to-launch-probe-into-two-elections-over-cambridge-analytica/

Mail & Guardian (2019, February 21). Nigerian political parties are weaponising fake news. *Mail & Guardian*. https://mg.co.za/article/2019-02-21-nigerian-political-parties-are-weaponising-fake-news/

Malley B., Ramazzotti D., Wu, J. T. (2016). Data pre-processing. In MIT Critical Data, *Secondary Analysis of Electronic Health Records* (pp. 115-141). Springer, Cham. https://doi.org/10.1007/978-3-319-43742-2_12

Manovich, L. (2001). *The language of new media*. The MIT Press.

Marcinkowski, F., & Metag, J. (2014). Why do candidates use online media in constituency campaigning? An application of the theory of planned behavior. *Journal of Information Technology & Politics*, *11*(2), 151-168.

Mare, A., Mabweazara, H. M., & Moyo, D. (2019). "Fake news" and cyber-propaganda in sub-Saharan Africa: Recentering the research agenda. *African Journalism Studies*, 40(4), 1-12. https://doi.org/10.1080/23743670.2020.1788295

Mare, A., Mabweazara, H. M., & Moyo, D. (2019). "Fake news" and cyber-propaganda in Sub-Saharan Africa: Recentering the research agenda. *African Journalism Studies*, *40*(4), 1-12.

Maréchal, N. (2017). Networked authoritarianism and the geopolitics of information: Understanding Russian Internet policy. *Media and Communication*, 5(1), 29-41.

Margolin, D. B., Hannak, A., & Weber, I. (2018). Political fact-checking on Twitter: When do corrections have an effect? *Political Communication*, 35(2), 196-219.

Margolis, M., & Resnick, D. (2000). *Politics as usual* (vol. 6). Sage. Margolis, Michael , David Resnick and Joel D. Wolfe (1999) ` Party Competition on the Internet in the United States and Britain', Harvard Journal of Press/Politics 4, 24—7.

Margolis, M., Resnick, D., & Wolfe, J. D. (1999). Party competition on the Internet in the United States and Britain. *Harvard International Journal of Press/Politics*, *4*(4), 24-47.

Marks, G. (2020, January 9). If your customers are left-leaning, Twitter could be the place for you. *The Guardian*. https://www.theguardian.com/business/2020/jan/09/twitter-left-leftwing-customers-small-business

Marrow, A. (2021, April 30). Russia says Twitter complying with demand to remove 'banned content'. *Reuters.* https://www.reuters.com/technology/russia-says-twitter-is-complying-with-demand-remove-banned-content-2021-04-30/

Martin-Rozumiłowicz, B. & Kužel, R. (2019). *Social media, disinformation and electoral integrity*: *IFES Working Paper*. Arlinton: International Foundation for Electoral Systems.

Marwick, A., & Lewis, R. (2017). Media manipulation and disinformation online. *Data & Society Research Institute*.

Marwick, A.E. & Boyd, D. (2010). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society* 13(1), 114–33. DOI: https://doi.org/10.1177/1461444810365313

Mascaro, C., Agosto, D., & Goggins, S.P. (2016). One-sided conversations: The 2012 presidential election on Twitter. In *Proceedings of the 17th International Digital Government Research Conference on Digital Government Research*, 112–121.

Maweu, J. M. (2019). "Fake elections"? Cyber propaganda, disinformation and the 2017 general elections in Kenya. *African Journalism Studies*, *40*(4), 62-76.

Maweu, J. M. (2020). "Fake elections"? Cyber propaganda, disinformation and the 2017 general elections in Kenya. *African Journalism Studies*, 40(4), 62-76.

Maxwell, J. A., Chmiel, M., & Rogers, S. (2015). Designing integration in multimethod and mixed-methods research. In S. Hesse-Bieber, & R. B. Johnson (Eds.), *Oxford handbook of multimethod and mixed-methods research inquiry* (pp. 688-706). Oxford University Press.

Mayer-Schönberger, V., & Cukier, K. (2013). *Big data: A revolution that will transform how we live, work, and think*. Boston: Houghton Mifflin Harcourt.

Mazza, M., Avvenuti, M., Cresci, S., & Tesconi, M. (2022). Investigating the difference between trolls, social bots, and humans on Twitter. *Computer Communications*.

McChesney, R. W. (2013). *Digital disconnect: How capitalism is turning the Internet against democracy*: New Press, The.

McQuarrie, E. F., & Phillips, B. J. (2014). The megaphone effect in social media: How ordinary consumers become style leaders. *NIM Marketing Intelligence Review*, *6*(2), 16.

Meraz, S., & Papacharissi, Z. (2013). Networked gatekeeping and networked framing on# Egypt. *The international Journal of Press/Politics*, *18*(2), 138-166.

Mercea, D., & Bastos, M. T. (2016). Being a serial transnational activist. *Journal of Computer-Mediated Communication, 21*(2), 140–155. https://doi.org/10.1111/jcc4.12150

Mernit, S. (2011). Using social media for social change. https://wemedia.s3.amazonaws.com/papers/tp/ifocos_wm_socialmedia.pdf

Metaxas, P. T. (2009, March). Web spam, social propaganda and the evolution of search engine rankings. In *International Conference on Web Information Systems and Technologies*, 170-182. Heidelberg.

Metaxas, P. T., & Mustafaraj, E. (2012). Social media and the elections. *Science*, *338*(6106), 472-473.

Metaxas, P., & Mustafaraj, E. (2010). *From obscurity to prominence in minutes: Political speech and real-time search.* Paper presented at the Proceedings of the WebSci10: Extending the Frontiers of Society On-Line, Raleigh, NC: US.

Metropolitan Police (2022, April 1). Man jailed for inciting racial hatred in online posts. *Metropolitan Police.* https://news.met.police.uk/news/man-jailed-for-inciting-racial-hatred-in-online-posts-445324

Mihaylov, T., Georgiev, G., & Nakov, P. (2015, July). Finding opinion manipulation trolls in news community forums. In *Proceedings of the Nineteenth Conference on Computational Natural Language Learning*, 310-314.

Mikhailov, D. (2020). *How spreaders of misinformation acquire influence online.* https://medium.com/@danil.s.mikhailov/how-spreaders-of-misinformation-acquire-influence-online-456757723e50

Miller, D., & Slater, D. (2020). *The Internet: An ethnographic approach*. Routledge.

Mitter, S., Wagner, C., & Strohmaier, M. (2014). A categorization scheme for socialbot attacks in online social networks. *arXiv preprint arXiv:1402.6288*.

Monaco, N., & Nyss, C. (2018). State sponsored trolling: How governments are deploying fake news as part of broader harassment campaigns. *Institute for the Future Working Research Papers*.

Morone, F. & Makse, H. (2015). Influence maximization in complex networks through optimal percolation. *Nature*, 524, 65–68.

Morozov, E. (2012). *The net delusion: The dark side of Internet freedom*. PublicAffairs.

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research, 40*(2), 120–123.

Morstatter, F., Pfeffer, J., Liu, H., & Carley, K. M. (2013). Is the sample good enough? Comparing data from Twitter's streaming api with twitter's firehose. *Proccedings of the Seventh International AAAI Conference on Weblogs and Social Media*, *North America,* 400-408. https://www.aaai.org/ocs/index.php/ICWSM/ICWSM13/paper/view/6071/6379

Mudhai, O. F. (2017). Globalization and political communication in Africa: Anglo-american influences in Kenya and Nigeria. In *Political Communication in Africa* (pp. 229-246). Springer, Cham.

Mueni, J., & Ndavula, J. (2014). New media and political marketing in Kenya: The case of 2013 general elections. http://dlibrary.ru.local:8080/xmlui/handle/123456789/357

Mumbere, D. (2018, December 3). Buhari tells Nigerians to ignore rumours of his death and replacement. *Africa News*. https://www.africanews.com/2018/12/03/buhari-tells-nigerians-to-ignore-rumours-of-his-death-and-replacement/

Murthy, D. (2018). *Twitter: Social communication in the Twitter age* (2nd ed.). Polity.

Mustafaraj, E., & Metaxas, P. T. (2017, June). The fake news spreading plague: Was it preventable? In *Proceedings of the 2017 ACM on Web Science Conference,* 235-239.

Mutsvairo, B. (2018). Mapping social media trajectories in Zimbabwe. *The Routledge Companion to Media and Activism*.

Mwaura, J. (2017). Digital activism in the social media era: Critical reflections on emerging trends in sub-Saharan Africa. *African Journalism Studies, 38*(1), 152-155. DOI: 10.1080/23743670.2017.1329249

Nagar, Y. (2012, February). What do you think? The structuring of an online community as a collective-sensemaking process. In *Proceedings of the ACM 2012 conference on computer supported cooperative work* (pp. 393-402).

Naik, R. (2019). Political Campaigning: The law, the gaps and the way forward. Oxford Technology and Election Commission. https://oxtec.oii.ox.ac.uk/wp-content/uploads/sites/115/2019/10/OxTEC-The-Law-The-Gaps-and-The-Way-Forward.pdf

Nairaland (2014, December 22). Reddit rules vs Nairaland rules. *Nairaland.* https://www.nairaland.com/2057425/reddit-rules-vs-nairaland-rules

Narayanan, V., Howard, P. N., Kollanyi, B., & Elswah, M. (2017). Russian involvement and junk news during Brexit. *Comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2017/12/Russia-and-B rexit-v27. pdf*.

Ndlela, M. N. (2020). Social media algorithms, bots and elections in Africa. In M. N. Ndlela & W. Mano (Eds.), *Social media and elections in Africa, Volume 1: Theoretical perspectives and election campaigns*, 13-37. Springer International Publishing. https://doi.org/10.1007/978-3-030-30553-6_2

Ndlela, M. N. (2020). Social media algorithms, bots and elections in Africa. In *Social Media and Elections in Africa, Volume 1* (pp. 13-37). Palgrave Macmillan, Cham.

Ndlela, M. N., & Mano, W. (2020). The changing face of election campaigning in Africa. In *Social media and elections in Africa,* 1, 1-12. Cham: Palgrave Macmillan.

Needham, C. (2005). Brand leaders: Clinton, Blair and the limitations of the permanent campaign. *Political Studies*, *53*(2), 343-361.

Neudert, L. M., & Howard, P. (2019). Ready to vote: elections, technology and political campaigning in the United Kingdom. https://apo.org.au/node/263976

Nguyen, T., & Dolbec, P. Y. (2020). Problematizing the megaphone: The very difficult journey to becoming an influencer. *ACR North American Advances*.

Nied, A. C., Stewart, L., Spiro, E., & Starbird, K. (2017, February). Alternative narratives of crisis events: Communities and social botnets engaged on social media. In *Companion of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*, 263-266.

Nigeria Civil Society Situation Room (2019). Report of Nigeria's 2019 general elections. https://situationroomng.org/wp-content/uploads/2019/09/Report-on-Nigerias-2019-General-Elections.pdf

Norris, P. (2003). Preaching to the converted? Pluralism, participation and party websites. *Party Politics*, *9*(1), 21-45.

Norris, P., Curtice, J., Sanders, D., Scammell, M., & Semetko, H. A. (1999). *On message: Communicating the campaign*. Sage.

Nyabola, N. (2018). *Digital democracy, analogue politics: How the Internet era is transforming politics in Kenya*. Bloomsbury Publishing.

Nyabola, N. (2019). *Platform governance of political speech*. Centre for International Governance Innovation. https://www.cigionline.org/articles/platform-governance-political-speech

O'Cathain, A., Murphy, E., & Nicholl, J. (2008). The quality of mixed-methods studies in health services research. *Journal of Health Services Research Policy,* 13(2), 92–98. https://doi.org/10.1258/jhsrp.2007.007074

O'Cathain, A., Murphy, E., & Nicholl, J. (2010). Three techniques for integrating data in mixed methods studies. *Bmj*, *341*.

O'Sullivan, D., & Gold, H. (2019). Facebook says Israeli company used fake accounts to target African elections. https://edition.cnn.com/2019/05/16/tech/facebook-takedown-israeli-company/index.html

Oates, B. J. (2005). *Researching information systems and computing.* Los Angeles: SAGE Publications.

Odote, C., & Kanyinga, K. (2021). Election technology, disputes, and political violence in Kenya. *Journal of Asian and African Studies,* 56(3), 558-571

Odusanya, K., & Adetutu, M. (2020, April). Exploring the determinants of Internet usage in Nigeria: A micro-spatial approach. In *Conference on e-Business, e-Services and e-Society*, 307-318. Springer.

Ogbodo, J. N. (2021). Fake news and politics of in/security in Nigeria. *Ebonyi State University Journal of Mass Communication,* 8(1), 1-12.

Ojebode, A. (2012). Mobile phone deception in Nigerian: Deceivers' skills, truth bias or respondents' greed? *International Journal of Arts and Commerce,* 3(6). https://www.ijac.org.uk/images/frontImages/gallery/Vol._3_No._6/7.pdf

Okakwu, E. (2018, July 11). Nigerian govt launches campaign against 'fake news'. *Premium Times*. https://www.premiumtimesng.com/news/more-news/275846-nigerian-govt-launches-campaign-against-fake-news.html

Okolie, A. M., Enyiazu, C., & Nnamani, K. E. (2021). Campaign propaganda, electoral outcome and the dynamics of governance in the post-2015 presidential election in Nigeria. *Cogent Social Sciences*, *7*(1), 1922180.

Okoro, E. M., Abara, B. A., Umagba, A. O., Ajonye, A. A., & Isa, Z. S. (2018). A hybrid approach to fake news detection on social media. *Nigerian Journal of Technology*, *37*(2), 454-462.

Okoro, N., & Emmanuel, N. O. (2018). Beyond misinformation: Survival alternatives for Nigerian media in the "post-truth" era. *African Journalism Studies*, 39(4), 67-90. https://doi.org/10.1080/23743670.2018.1551810

Okoro, N., & Santas, T. (2017). An appraisal of the utilisation of social media for political communication in the 2011 Nigerian presidential election. *African Research Review*, *11*(1), 115-135.

Olabamiji, O. M. (2014). Use and misuse of the new media for political communication in Nigeria's Fourth Republic. *Developing Country Studies*, *4*(4), 92-102.

Olaniran, B., & Williams, I. (2020). Social media effects: Hijacking democracy and civility in civic engagement. In *Platforms, Protests, and the Challenge of Networked Democracy* (pp. 77-94). Palgrave Macmillan, Cham.

Olayiwola, R. O. (1991). *Political communications: Press and politics in Nigeria's Second Republic*. Institute of Commonwealth Studies, University of London.

Olteanu, A., Castillo, C., Diaz, F. & Kıcıman, E. (2019). Social data: Biases, methodological pitfalls, and ethical boundaries. Frontiers in Big Data, 2, p.13

Ong, J. C., & Cabanes, J. V. (2018). Architects of networked disinformation: Behind the scenes of troll accounts and fake news production in the Philippines. *Newton Tech4Dev Network.* https://doi.org/10.7275/2CQ4-5396

Ong, J. C., & Cabanes, J. V. (2019). When disinformation studies meets production studies: Social identities and moral justifications in the political trolling industry. *International Journal of Communication,* 13, 5771-5790. https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1110&context=communication_faculty_pubs

Opeibi, T. (2019). The Twittersphere as political engagement space: A study of social media usage in election campaigns in Nigeria. *Digital Studies/Le champ numérique,* 9(1), 1–32. https://doi.org/10.16995/dscn.292

Osaghae, E. E. (2020). Conceptual notes on the challenges and integrity of the 2019 presidential election in Nigeria. https://ancl-radc.org.za/node/645

Oso, L., Soremekun, O., & Jimoh, J. (2020). *Countering fake news and hate speech in Nigeria: A guide for journalists and social media content producers.* Lagos: Media Awareness and Information for All Network (MAIN).

Otis, C. L. (2020). *True or false: A CIA analyst's guide to spotting fake news*. Feiwel & Friends.

Otto, J. M. (2008). *Sharia and national law in Muslim countries. Tensions and opportunities for Dutch and EU foreign policy*. Leiden University Press.

Owoyele, T. (2022, January 13). Five Things Learnt From FG's Statement Lifting Twitter Ban. *Foundation for Investigative Journalism*. https://www.fij.ng/article/five-things-learnt-from-fgs-statement-lifting-twitter-ban/

Oyewo, O. O. (2009). Rumour: An alternative means of communication in a developing nation: The Nigerian example. *International Journal of African & African-American Studies, 6*(1).

Pacheco, D., Hui, P. M., Torres-Lugo, C., Truong, B. T., Flammini, A., & Menczer, F. (2020). Uncovering coordinated networks on social media. *ArXiv preprint arXiv:2001.05658*.

Page, L., Brin, S., Motwani, R., & Winograd, T. (1999). The PageRank citation ranking: Bringing order to the web. Technical report, Stanford Digital Library.

Page, M. T. (2020). Dubai property: An oasis for Nigeria's corrupt political elites. https://carnegieendowment.org/2020/03/19/dubai-property-oasis-for-nigeria-s-corrupt-political-elites-pub-81306

Pal, J., & Gonawela, A. (2016, September). Political social media in the global South. In *Conference on e-Business, e-Services and e-Society* (pp. 587-593). Springer, Cham.

Palen, L., & Liu, S. B. (2007, April). Citizen communications in crisis: anticipating a future of ICT-supported public participation. In *Proceedings of the SIGCHI conference on Human factors in computing systems* (pp. 727-736).

Parker, C., Scott, S., & Geddes, A. (2019). Snowball sampling. In P. Atkinson, S. Delamont, A. Cernat, J. W. Sakshaug, & R. A. Williams (Eds.), *SAGE Research methods foundations.* https://doi.org/10.4135/9781526421036831710

Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.

Pateman, C. (1970). *Participation and democratic theory*. Cambridge University Press.

Pateman, C. (2012). Participatory democracy revisited. *Perspectives on politics*, *10*(1), 7-19.

Pennebaker, J. W., Slatcher, R. B., & Chung, C. K. (2005). Linguistic markers of psychological state through media interviews: John Kerry and John Edwards in 2004, Al Gore in 2000. *Analyses of Social Issues and Public Policy, 5*(1), 197–204. doi:10.1111/j.1530-2415.2005.00065.x

Penny, S. (2017). *Making sense: Cognition, computing, art, and embodiment*. MIT Press.

Pennycook, G., & Rand, D. G. (2019). Fighting misinformation on social media using crowdsourced judgments of news source quality. *Proceedings of the National Academy of Sciences*, *116*(7), 2521-2526.

Pennycook, G., Cannon, T. D., & Rand, D. G. (2018). Prior exposure increases perceived accuracy of fake news. *Journal of Experimental Psychology: General*, *147*(12), 1865.

Perper, R. (2018, April 6). Cambridge Analytica's parent company claimed it invented the tough guy image that got Rodrigo Duterte elected. *Business Insider*. https://www.businessinsider.com/cambridge-analytica-duterte-tough-guy-image-for-presidential-election-2018-4?IR=T

Pfeffer, J., Mayer, K., & Morstatter, F. (2018). Tampering with Twitter's sample API. *EPJ Data Science*, 7, 50, 1-21. https://doi.org/10.1140/epjds/s13688-018-0178-0

Phillips, W (2015) This Is why we can't have nice things: Mapping the relationship between online trolling and mainstream culture. The MIT Press.

Phillips, W. (2018). The oxygen of amplification. *Data & Society*, *22*, 1-128.

Pohjonen, M. (2019). A comparative approach to social media extreme speech: Online hate speech as media commentary. *International Journal of Communication*, *13*, 3088-3103.

Pomerantsev, P., & Weiss, M. (2014). The menace of unreality: How the Kremlin weaponizes information, culture and money. https://www.almendron.com/tribuna/wp-content/uploads/2015/08/The_Menace_of_Unreality_Final.pdf

Posard, M. N., Kepe, M., Reininger, H., Marrone, J.V., Helmus, T.C., & Reimer, J.R. (2020). *From consensus to conflict: Understanding foreign measures targeting U.S. elections*. RAND Corporation. DOI:https://doi.org/10.7249/RRA704-1

Prasetyo, N.D. & Hauff, C. (2015). Twitter-based election prediction in the developing world. In *Proceedings of the 26th ACM Conference on Hypertext & Social Media*, 149–158.

Premium Times (2019, February 12). Elections: INEC List of Registered Voters in 36 States, FCT. https://www.premiumtimesng.com/features-and-interviews/312054-for-the-record-2019-elections-inec-list-of-registered-voters-in-36-states-fct.html

Pretorius, L., & Africa Check (2021). *Anatomy of a disinformation campaign: The who, what and why of deliberate falsehoods on Twitter*. https://www.news24.com/news24/analysis/anatomy-of-a-disinformation-campaign-the-who-what-and-why-of-deliberate-falsehoods-on-twitter-20210210

Prier, J. (2020). Commanding the trend: Social media as information warfare. In *Information Warfare in the Age of Cyber Conflict* (pp. 88-113). Routledge.

Princewill, T. (2019, January 9). Electioneering and partisanship in the age of fake news. *Vanguard.* https://www.vanguardngr.com/2019/01/electioneering-and-partisanship-in-the-age-of-fake-news/

PRNigeria (2022, January 12). Breaking: President Buhari Lifts Suspension of Twitter Operation in Nigeria (full text). *PRNigeria*. https://prnigeria.com/2022/01/12/buhari-twiiter-nigeria/

Przeworski, A., Alvarez, M., Cheibub, J. A., & Limongi, F. (1996). What makes democracies endure?. *Journal of Democracy*, *7*(1).

Rabiger, S. & Spiliopoulou, M. (2015). A framework for validating the merit of properties that predict the influence of a Twitter user. *Expert Systems with Applications*, 42(5), 2824–2834.

Rahman O Olayiwola, "Political Communications: Press and Politics in Nigeria's Second Republic." Africa Media Review 5, no. 2 (1991), 31-45. http://digital.lib.msu.edu/projects/africanjournals.

Ramadhan, D.A., Nurhadryani, Y., & Hermadi. I. (2014). Campaign 2.0: Analysis of social media utilization in 2014 Jakarta legislative election. In *2014 International Conference on Advanced Computer Science and Information System*, 102–107.

Rasmussen, T. (2013). Internet-based media, Europe and the political public sphere. *Media, Culture & Society*, *35*(1), 97–104.

Rathnayake, C., & Buente, W. (2017). Incidental effects of automated retweeting: An exploratory network perspective on bot activity during Sri Lanka's presidential election in 2015. *Bulletin of Science, Technology & Society*, 37(1), 57-65.

Ratkiewicz, J., Conover, M. D., Meiss, M., Gonçalves, B., Flammini, A., & Menczer, F. (2011). *Detecting and tracking political abuse in social media.* Paper presented at the *5th International AAAI Conference on Weblogs and Social Media (ICWSM11)*, Barcelona.

Ratkiewicz, J., Conover, M., Meiss, M., Gonçalves, B., Patil, S., Flammini, A., et al. (2011). *Truthy: Mapping the spread of astroturf in microblog streams*. Paper presented at the *20th International Conference Companion on World Wide Web*, Hyderabad, India.

Reisach, U. (2021). The responsibility of social media in times of societal and political manipulation. *European Journal of Operational Research*, *291*(3), 906-917.

Remnick, D. (2016, November 18). Obama Reckons with a Trump Presidency: Inside a stunned White House, the President considers his legacy and America's future. *The New Yorker*. https://www.newyorker.com/magazine/2016/11/28/obama-reckons-with-a-trump-presidency

Rhynard-Geil, M. & Inks, L. (2020). *Report: The weaponization of social media. ADAPT Peacebuilding*. https://adaptpeacebuilding.org/newsfeed/2019/12/20/the-weaponization-of-social-media

Riquelme, F., & González-Cantergiani, P. (2016). Measuring user influence on Twitter: A survey. *Information Processing & Management*, 52(5), 949-975.

Ritzen, Y. (2019, March 6). Exclusive: Facebook allowed fake news ads ahead of Nigeria vote [*online] Aljazeera.* https://www.aljazeera.com/news/2019/02/exclusivefacebook-fake-news-ads-nigerian-vote-190214115116293.html

Rizoiu, M. A., Graham, T., Zhang, R., Zhang, Y., Ackland, R., & Xie, L. (2018, June). #debatenight: The role and influence of socialbots on Twitter during the 1st 2016 us presidential debate. In *Proceedings of the International AAAI Conference on Web and Social Media, 12(1)*.

Robb, J. (2007, August 23). When bots attack. *Wired*. www.wired.com/2007/08/ff-estonia-bots/

Robbins, C., & Corps, M. (2019). *The weaponization of social media*. Technical Report. Mercy Corps.

Roberts, M. (2018). *Censored: Distraction and delay within China's Great Firewall*. Princeton, NJ: Princeton University Press.

Rochlin, N. (2017), Fake news: Belief in post-truth. *Library Hi Tech*, 35(3), 386-392. https://doi.org/10.1108/LHT-03-2017-0062

Rogowski, J. C., & Sutherland, J. L. (2016). How ideology fuels affective polarization. *Political Behavior*, *38*(2), 485-508.

Rojecki, A., & Meraz, S. (2016). Rumors and factitious informational blends: The role of the web in speculative politics. *New Media & Society*, *18*(1), 25-43.

Rosnow, R. L. & Kimmel, A. J. (2000) 'Rumor'. In A. E. Kazdin (Eds.), *Encyclopedia of psychology*, Vol. 7, pp. 122-123. Oxford University Press and American Psychological Association.

Roulston, K. (2010). Theorizing the researcher: The reflective interviewer. In K. Roulston, *Reflective interviewing: A guide to theory and practice* (pp. 115-129). SAGE Publications. https://doi.org/10.4135/9781446288009

Rowley, J. (2012a). Conducting research interviews. *Management Research Review, 35*(3/4), 260-271. https://doi.org/10.1108/01409171211210154

Russell, F. M. (2019). Twitter and news gatekeeping: Interactivity, reciprocity, and promotion in news organizations' tweets. *Digital Journalism*, *7*(1), 80-99.

Ruths, D., & Pfeffer, J. (2014). Social media for large studies of behavior. *Science, 346*(6213), 1063-1064.

Sade-Beck, L. (2004). Internet ethnography: Online and offline. *International Journal of Qualitative Methods*, 3(2), 45-51.

Sadri, A. M., Hasan, S., Ukkusuri, S. V., & Cebrian, M. (2020). Exploring network properties of social media interactions and activities during Hurricane Sandy. *Transportation Research Interdisciplinary Perspectives*, *6*, 100143.

Salawu, B., & Hassan, A. O. (2011). Ethnic politics and its implications for the survival of democracy in Nigeria. *Journal of Public Administration and Policy Research*, *3*(2), 28–33. https://doi.org/10.5897/JPAPR.9000022

Saldana, J. (2016). *The coding manual for qualitative researchers* (3rd Ed.). SAGE Publications.

Samuel-Arzan, T., & Hayat, T. (2019). Online news recommendations credibility: The tie is mightier than the source. [La credibilidad de las noticias digitales: El vínculo es más impactante que la fuente]. *Comunicar*, 60, 71-80. https://doi.org/10.3916/C60-2019-07

Samuel-Azran, T., Yarchi, M., & Wolfsfeld, G. (2015). Equalization versus normalization: Facebook and the 2013 Israeli elections. *Social Media+ Society*, *1*(2), 2056305115605861.

Samuel, E. (2021). Fact-checking as a solution to political disinformation in Nigeria. https://idac.dubawa.org/tag/politicalc

Sanovich, S., Stukal, D., & Tucker, J. A. (2018). Turning the virtual tables: Government strategies for addressing online opposition with an application to Russia. *Comparative Politics, 50*(3), 435-482.

Sarcevic, A., Palen, L., White, J., Starbird, K., Bagdouri, M., & Anderson, K. (2012, February). Beacons of hope. In Decentralized coordination: Learning from on-the-ground medical twitterers during the 2010 Haiti earthquake. In *Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work* (47-56).

Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students* (8th Ed.). Pearson Education Limited.

Schlosberg, D. (2003). Reconciling equity, recognition, and participation. In *Moral and political Reasoning In Environmental Practice*, 77.

Schneider, S. M., & Foot, K. A. (2006). Web campaigning by US presidential primary candidates in 2000 and 2004. In A. P. Williams & J. C. Tedesco (Eds.), *The Internet election: Perspectives on the Web in campaign 2004* (pp. 21–36). Lanham, MD: Rowman & Littlefield.

Schoonenboom, J. (2018). Designing mixed methods research by mixing and merging methodologies: A 13-step model. *American Behavioral Scientist*, *62*(7), 998-1015.

Schoonenboom, J., & Johnson, R. B. (2017). How to conduct a mixed-methods design. *Köln Z Soziol* (Suppl 2)69, 107–131. https://doi.org/10.1007/s11577-017-0454-1

Schreckinger, B. (2016, September 30). Inside Trump's "cyborg" Twitter army. *Politico*. http://politi.co/2dyhCD0

Schudson, M. (1989). The sociology of news production. *Media, Culture & Society*, *11*(3), 263-282.

Schweitzer, E. J. (2011). Controlled interactivity: Parties' online campaigns in the 2009 German national elections. In D. G. Lilleker & N. A. Jackson (Eds.), *Political campaigning, elections, and the Internet: Comparing the US, UK, France, and Germany* (pp. 99–120). Routledge.

Segal, D. (2018, February 4). How Bell Pottinger, PR firm for despots and rogues, met its end in South Africa. *New York Times*. https://www.nytimes.com/2018/02/04/business/bell-pottinger-guptas-zuma-south-africa.html.

Segerberg, A., & Bennett, W. L. (2011). Social media and the organization of collective action: Using Twitter to explore the ecologies of two climate change protests. *The Communication Review*, *14*(3), 197-215.

Shahbaz, A. and Funk, A. (2019). What was once a liberating technology has become a conduit for surveillance and electoral manipulation. *Freedom House*. https://freedomhouse.org/report/freedom-net/2019/crisis-social-media

Shao, C., Ciampaglia, G. L., Flammini, A., & Menczer, F. (2016, April). Hoaxy: A platform for tracking online misinformation. In *Proceedings of the 25th International Conference Companion on World Wide Web* (pp. 745-750).

Shao, C., Ciampaglia, G. L., Varol, O., Yang, K. C., Flammini, A., & Menczer, F. (2018). The spread of low-credibility content by social bots. *Nature Communications*, 9(1), 1-9.

Shendi, N. K. A. E. (2020). *Revolutionary Sudanese social media as an indicator of the changing face of online activism in Sudan and the remainder of the Middle East and North Africa* (Doctoral dissertation, Leiden University).

Shibutani, T. (1966). *Improvised news*. Ardent Media.

Shin, J., & Thorson, K. (2017). Partisan selective sharing: The biased diffusion of fact-checking messages on social media. *Journal of Communication*, *67*(2), 233-255.

Shin, J., Jian, L., Driscoll, K., & Bar, F. (2017). Political rumoring on Twitter during the 2012 US presidential election: Rumor diffusion and correction. *New Media & Ssociety*, 19(8), 1214-1235.

Shirky, C. (2009). A speculative post on the idea of algorithmic authority," at http://www.shirky.com/weblog/2009/11/a-speculative-post-on-the-idea-of-algorithmic-authority/

Shu, K., Wang, S., & Liu, H. (2019, January). Beyond news contents: The role of social context for fake news detection. In *Proceedings of the twelfth ACM international Conference on Web Search and Data Mining* (pp. 312-320).

Sieber, S. D. (1973). The integration of fieldwork and survey methods. *American Journal of Sociology*, 78(6), 1335-1359.

Simon, A. F., & Jerit, J. (2007). Toward a theory relating political discourse, media, and public opinion. *Journal of Communication, 57*(2), 254–271. doi:10.1111/j.1460-2466.2007.00342.x

Singh, S., & Bagchi, K. K. J. . (2020). *How* internet platforms are combating disinformation and misinformation in the age of COVID-19. *New America.* http://www.jstor.org/stable/resrep25418

Smiley, L. (2017, November 1). The college kids doing what Twitter won't | Backchannel. *Wired*. www.wired.com/story/the-college-kids-doing-what-twitter-wont/

Smith, A. S. A. A., Pitt, M., & Choon, C. H. (2010). Contractors' perception of factors contributing to project delay: Case studies of commercial projects in Klang Valley, Malaysia. *Journal of Design and Built Environment, 7*, 43-57.

Smith, M., Rainie, L., Shneiderman, B., & Himelboim, I. (2014, February 20). Mapping twitter topic net- works: From polarized crowds to community clusters. *Pew Research Center*. http://www.pewinternet.org/2014/02/20/mapping-twitter-topic-networks-from-polarized-crowds-to-community-clusters

Smith, S. T., Kao, E. K., Mackin, E. D., Shah, D. C., Simek, O., & Rubin, D. B. (2021). Automatic detection of influential actors in disinformation networks. *Proceedings of the National Academy of Sciences*, *118*(4), e2011216118.

Smyth, T.N. & Best, M.L. (2013). Tweet to trust: Social media and elections in West Africa. In *Proceedings of the Sixth International Conference on Information and Communication Technologies and Development*, 1, 133–141.

Sobieraj, S. (2019). Audiences in social context: bridging the divides between political communications and social movements scholarship. *Information, Communication & Society*, *22*(5), 739-746.

Sobkowicz, P. & Sobkowicz, A. (2012). Two-year study of emotion and communication patterns in a highly polarized political discussion forum. *Social Science Computer Review*, *0*(4), 448-469.

Søe, S. O. (2021). A unified account of information, misinformation, and disinformation. *Synthese*, *198*(6), 5929-5949.

Solon, O. (2015, January 31). Twitter, the @BritishArmy needs YOU! *The Mirror*. http://www.mirror.co.uk/news/technology-science/technology/cyber-warfare-army-seeks-twitter-5076931

Sommariva, S., Vamos, C., Mantzarlis, A., Đào, L. U. L., & Martinez, T.D. (2018). Spreading the (fake) news: Exploring health messages on social media and the implications for health professionals using a case study. *American Journal of Health Education*, *49*(4), 246-255.

Southwell, B. G., Thorson, E. A., & Sheble, L. (2017). The persistence and peril of misinformation. *Am Sci, 105*(6), 372-375.

Stanzel, V. (2018). Introduction: Following the wrong track or walking on stepping stones – Which way for diplomacy? In V. Stanzel, *New realities in foreign affairs: Diplomacy in the 21st century*. Stiftung Wissenschaft und Politik.

Starbird, K. (2013). Delivering patients to sacré coeur. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems - CHI '13 (p. 801). ACM Press. https://doi.org/10.1145/2470654.2470769

Starbird, K. (2017). Examining the alternative media ecosystem through the production of alternative narratives of mass shooting events on Twitter. In Proceedings of the International AAAI Conference on Web and Social Media (pp. 230-239).

Starbird, K. (2021). Online rumors, misinformation and disinformation: The perfect storm of {covid-19} and election 2020.

Starbird, K., & Palen, L. (2011). Voluntweeters: Self-Organizing by Digital Volunteers in Times of Crisis. In Proceedings of the Conference on Human Factors in Computing Systems (CHI), 1071–1080. https://doi.org/10.1145/1978942.1979102

Starbird, K., & Palen, L. (2013). Working and sustaining the virtual disaster desk. In Proceedings of the 2013 Conference on Computer Supported Cooperative Work (pp. 491–502). ACM.

Starbird, K., Arif, A. & Wilson, T. (2019). Disinformation as collaborative work: Surfacing the participatory nature of strategic information operations. Proceedings of the ACM on Human-Computer Interaction, 3(CSCW), pp.1-26.

Starbird, K., Spiro, E. S., Arif, A., Chou, F., Narisimhan, S., Maddock, J. & Robinson, J. (2015). Expressed uncertainty and denials as signals of online rumoring. Proceedings of Collective Intelligence.

Starbird, K., Spiro, E., Edwards, I., Zhou, K., Maddock, J., & Narasimhan, S. (2016). Could This Be True?: I Think So! Expressed Uncertainty in Online Rumoring. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, 360–371. https://doi.org/10.1145/2858036.2858551

Stella, M., Ferrara, E., & De Domenico, M. (2018). Bots increase exposure to negative and inflammatory content in online social systems. *PNAS,*115(49), 12435–12440.

Stewart, L. G., Arif, A., & Starbird, K. (2018, February). Examining trolls and polarization with a retweet network. In *Proc. ACM WSDM, workshop on misinformation and misbehavior mining on the web* (Vol. 70). http://faculty.washington.edu/kstarbi/examining-trolls-polarization.pdf

Stieglitz, S., & Dang-Xuan, L. (2012, January). Political communication and influence through microblogging--An empirical analysis of sentiment in Twitter messages and retweet behavior. In *2012 45th Hawaii international conference on system sciences* (pp. 3500-3509). IEEE.

Stier, S., Bleier, A., Lietz, H., & Strohmaier, M. (2018). Election campaigning on social media: Politicians, audiences and the mediation of political communication on Facebook and Twitter. *Political Communication*, 35(1), 50–74. doi:10.1177/1461444817709282

Strauss, V. (2020, December 28). New 'Media Manipulation Casebook' from Harvard teaches how to detect misinformation campaigns. *The Washington Post*. https://www.washingtonpost.com/education/2020/10/28/new-media-manipulation-casebook-harvard-teaches-how-detect-misinformation-campaigns/

Stromer-Galley, J. (2014). Presidential campaigning in the Internet age. Oxford University Press.

Stromer-Galley, J. (2019). *Presidential campaigning in the Internet age*. Oxford University Press.

Stromer-Galley, J., Rossini, P., Hemsley, J., Bolden, S. E., & McKernan, B. (2021). Political Messaging Over Time: A Comparison of US Presidential Candidate Facebook Posts and Tweets in 2016 and 2020. *Social Media+ Society*, *7*(4), 20563051211063465.

Sullivan, A., Wroughton, L., and Carsten, P. (2019, February 4). Exclusive: Nigerian candidate's U.S. visit was temporary reprieve from graft ban. *Reuters.* https://www.reuters.com/article/us-nigeria-election-atiku-exclusive-idUSKCN1PT0TR

Sun, J. & Tang, J. (2011). A survey of models and algorithms for social influence analysis. In C. C. Aggarwal (ed.), *Social Network Data Analytics*, pages 177–214. Springer.

Sundar, S. S., Oeldorf-Hirsch, A., & Xu, Q. (2008). The bandwagon effect of collaborative filtering technology. In *CHI'08 Extended Abstracts on Human Factors in Computing Systems*, 3453-3458. https://doi.org/10.1145/1358628.1358873

Swart, M. (2020). 'Big data' and Africa's political campaigns: The growth (pains) of Africa's technological democracy. Accessed at: https://www.inonafrica.com/2020/09/16/big-data-and-africas-political-campaigns-the-growth-pains-of-africas-technological-democracy/

Swire, B., Berinsky, A. J., Lewandowsky, S., & Ecker, U. K. (2017). Processing political misinformation: Comprehending the Trump phenomenon. *Royal Society Open Science*, *4*(3), 160802.

Tarde, G. (2011). *Monadology and sociology*. re. press.

Taylor, E., Walsh, S., & Bradshaw, S. (2018). Industry responses to the malicious use of social media. *Nato Stratcom*.

Tenove, C. & McKay, S. (2020). Trump's lies about the election show how disinformation erodes democracy. *The Conversation*. https://theconversation.com/trumps-lies-about-the-election-show-how-disinformation-erodes-democracy-150603

Terranova, T. (2010). New economy, financialization and social production in the Web 2.0. *Crisis in the Global Economy: Financial Markets, Social Struggles, and New Political Scenarios*, 153-170.

Thapa, D., & Sæbø, Ø. (2014). Exploring the link between ICT and development in the context of developing countries: A literature review. *The Electronic Journal of Information Systems in Developing Countries*, *64*(1), 1-15.

The *African Network of Centers for Investigative Reporting* (2017, September 4). The Guptas, Bell Pottinger and the fake news propaganda machine. *Times Live.*

https://www.timeslive.co.za/news/south-africa/2017-09-04-the-guptas-bell-pottinger-and-the-fake-news-propaganda-machine/

The Media Manipulation Casebook, 2020. https://mediamanipulation.org/sites/default/files/media-files/code-book-v1-26Oct20.pdf

Thomas, E., Thompson, N., & Wanless, A. (2020, June 10). *Challenges of countering influence operations*. https://carnegieendowment.org/2020/06/10/challenges-of-countering-influence-operations-pub-82031

Thorson, K., & Wells, C. (2016). Curated flows: A framework for mapping media exposure in the digital age. Communication Theory, 26(3), 309–328. doi:10.1111/comt.12087

Timoneda J. C. (2018). Where in the world is my tweet: Detecting irregular removal patterns on Twitter. *PloS ONE*, 13(9), 1-19. https://doi.org/10.1371/journal.pone.0203104

Toma, G. A. (2021). Fake news as a social phenomenon in the digital age: A sociological research agenda. *Sociologie Românească*, *19*(1), 134-153.

Toromade, S. (2019, January 16). Atiku accuses INEC of giving APC governors uncollected PVCs to rig 2019 elections. *Pulse.* https://www.pulse.ng/news/politics/atiku-accuses-inec-of-giving-apc-governors-uncollected-pvcs-to-rig-2019-elections/1lrgpm9

Treem, J. W., & Leonardi, P. M. (2013). Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association. *Annals of the International Communication Association*, *36*(1), 143-189.

Tucker, J. A., Theocharis, Y., Roberts, M. E., & Barberá, P. (2017). From liberation to turmoil: Social media and democracy. *Journal of Democracy*, *28*(4), 46-59.

Tufekci, Z. (2014). Big questions for social media big data: Representativeness, validity and other methodological pitfalls, in International AAAI Conference on Web and Social Media (Ann Arbor, MI)

Tufekci, Z., & Wilson, C. (2012). Social media and the decision to participate in political protest: Observations from Tahrir Square. *Journal of Communication*, *62*(2), 363-379.

Tully, M., & Ekdale, B. (2014). Sites of playful engagement: Twitter hashtags as spaces of leisure and development in Kenya. *Information Technologies & International Development*, *10*(3), pp-67.

Tumasjan, A., Sprenger, T.O., Sandner, P.G., & Welpe, I.M. (2010). Predicting elections with Twitter: What 140 characters reveal about political sentiment. In *Fourth international AAAI Conference on Weblogs and Social Media*.

Tunkelang, D. (2009, January 13). *A Twitter analog to Pagerank*. http://thenoisychannel.com/2009/01/13/a-twitter-analog-to-pagerank.

Turcotte, J., York, C., Irving, J., Scholl, R. M., & Pingree, R. J. (2015). News recommendations from social media opinion leaders: Effects on media trust and information seeking. *Journal of Computer-Mediated Communication*, *20*(5), 520-535.

Turenne, N. (2018). The rumour spectrum. *PloS one*, *13*(1), e0189080.

Twitter Safety (2021, February 10). Updates on our response to blocking orders from the Indian Government. *Twitter*. https://blog.twitter.com/en_in/topics/company/2020/twitters-response-indian-government

Udupa, S. (2018). Gaali cultures: The politics of abusive exchange on social media. *New Media & Society*, *20*(4), 1506-1522.

Udupa, S., Gagliardone, I., & Hervik, P. (2021). Digital hate. Indiana University Press

Ugor, P. (2009). Small media, popular culture, and new youth spaces in Nigeria. *The Review of Education, Pedagogy, and Cultural Studies*, *31*(4), 387-408.

Usher, N., & Carlson, M. (2018). The midlife crisis of the network society. *Media and Communication*, *6*(4), 107-110.

Uwalaka, T. (2015). Nairaland and the reconstruction of the public sphere in Nigeria. In *Refereed Proceedings of the Australian and New Zealand Communication Association Conference: Rethinking Communication, Space and Identity, Queenstown, NZ, http://www.anzca.net/conferences/past-conferences/,ANZCA*

Vaccari, C. (2013). From echo chamber to persuasive device? Rethinking the role of the Internet in campaigns. *New Media & Society*, *15*(1), 109-127.

Vaccari, C. (2017). Online mobilization in comparative perspective: Digital appeals and political engagement in Germany, Italy, and the United Kingdom. *Political Communication*, 34(1), 69–88. doi:10.1080/10584609.2016.1201558

Van der Maaten, L., & Hinton, G. (2008). Visualizing data using t-SNE. *Journal of Machine Learning Research*, *9*(11).

Van Kessel, S., & Castelein, R. (2016). Shifting the blame. Populist politicians' use of Twitter as a tool of opposition. *Journal of Contemporary European Research*, 12(2), 594 - 614.

Van Meter, K. (1990). Methodological and design issues: Techniques for assessing the representatives of snowball samples. *NIDA Research Monograph*, pp. 31-43.

Van Niekerk, B. (2018, March). Information warfare as a continuation of politics: An analysis of cyber incidents. In *2018 Conference on Information Communications Technology and Society (ICTAS)* (pp. 1-6). IEEE.

Varol, O., Ferrara, E., Davis, C., Menczer, F., & Flammini, A. (2017). Online human-bot interactions: Detection, estimation, and characterization. Proceedings of the Eleventh International AAAI Conference on Web and Social Media (pp. 280–289).

Vereshchaka, A., Cosimini, S., & Dong, W. (2020). Analyzing and distinguishing fake and real news to mitigate the problem of disinformation. *Computational and Mathematical Organization Theory*, *26*(3), 350-364.

Vergeer, M., Hermans, L. & Sams, S. (2011). Is the voter only a tweet away? Micro-blogging during the 2009 European Parliament election campaign in the Netherlands. *First Monday*, 16(8).

Verkamp, J. P., & Gupta, M. (2013). Five incidents, one theme: Twitter spam as a weapon to drown voices of protest. In *3rd USENIX Workshop on Free and Open Communications on the Internet (FOCI 13)*.

Vieweg, S., Hughes, A. L., Starbird, K., & Palen, L. (2010, April). Microblogging during two natural hazards events: what twitter may contribute to situational awareness. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 1079-1088).

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359 (6380), 1146–1151. doi:10.1126/science.aap9559

Waisbord, S. (2013). *Reinventing professionalism: Journalism and news in global perspective*. John Wiley & Sons.

Wang, Y., Li, Y., & Luo, I. (2016). Deciphering the 2016 U.S. presidential campaign in the Twitter sphere: A comparison of the trumpists and clintonists. In *Tenth International AAAI Conference on Web and Social Media*.

Ward, C., Polglase, K., Shukla, S. Mezzofiore, G., and Lister, T., and CNN (2020, April 11). Russian election meddling is back -- via Ghana and Nigeria -- and in your feeds. CNN Edition. https://edition.cnn.com/2020/03/12/world/russia-ghana-troll-farms-2020-ward/index.html

Wardle, C. (2017). Fake news. It's complicated. *First Draft*, *16*, 1-11.

Wardle, C. (2019, September 1). Misinformation Has Created a New World Disorder. *Scientific American*. https://www.scientificamerican.com/article/misinformation-has-created-a-new-world-disorder/

Wardle, C., & Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policymaking. *Council of Europe Report, 27*. http://tverezo.info/wp-content/uploads/2017/11/PREMS-162317-GBR-2018-Report-desinformation-A4-BAT.pdf

Wardle, C., & Derakhshan, H. (2018). Thinking about 'information disorder': formats of misinformation, disinformation, and mal-information. *Ireton, Cherilyn; Posetti, Julie. Journalism, 'Fake News'& Disinformation.* Paris: UNESCO, 43-54.

Wasserman, H. (2017). Fake news from Africa: Panics, politics and paradigms. *Journalism: Theory, Practice, Critique,* 21 (1): 3–16.

Wasserman, H., & Madrid-Morales, D. (2019). An exploratory study of 'fake news' and media trust in Kenya, Nigeria and South Africa. *African Journalism Studies,* 40 (1): 107–23. https://doi.org /10.1080/23743670.2019.1627230.

Wasserman, H., & Madrid-Morales, D. (2021, July 1). South African Government's handling of COVID-19: Study shows declining trust. *The Conversation*. https://theconversation.com/south-african-governments-handling-of-covid-19-study-shows-declining-trust-163372.

Wasserman, H., & Madrid-Morales, D. (2022). *Disinformation in the Global South*. WILEY Blackwell. DOI:10.1002/9781119714491

Watkinson, R. (2018). How Africa tweets 2018. *Portland Communications.* https://portland-communications.com/publications/how-africa-tweets-2018/

Weber, D., & Neumann, F. (2021). Amplifying influence through coordinated behaviour in social networks. *Social Network Analysis and Mining*, *11*(1), 1-42.

Weinglass, S. (2019, May 19). Who is behind Israel's Archimedes Group, banned by Facebook for election fakery? *The Times of Israel*. https://www.timesofisrael.com/who-is-behind-israels-archimedes-group-banned-by-facebook-for-election-fakery/

Williams, C., & Gulati, G. (2008). What is a social network worth? Facebook and vote share in the 2008 presidential primaries. *American Political Science Association*. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.471.7745&rep=rep1&type=pdf

Williams, E. M., Novak, V., Blackwell, D., Platzman, P., McCulloh, I., & Phillips, N. E. (2020, December). Homophily and Transitivity in Bot Disinformation Networks. In *2020 Seventh International Conference on Social Networks Analysis, Management and Security (SNAMS)* (pp. 1-7). IEEE.

Williams, R. (1983). *A vocabulary of culture and society.* Oxford University Press

Wilmot, C., Tveteraas, E., & Drew, A. (2021). Dueling Information Campaigns: The War Over the Narrative in Tigray.

Wilson, T. (2021). Understanding the structure and dynamics of multi-platform information operations. https://faculty.washington.edu/kstarbi/TomWilson-dissertation.pdf

Wilson, T., & Starbird, K. (2020). Cross-platform disinformation campaigns: lessons learned and next steps. *Harvard Kennedy School Misinformation Review*, *1*(1).

Wilson, T., Zhou, K., & Starbird, K. (2018). Assembling strategic narratives: Information operations as collaborative work within an online community. *Proceedings of the ACM on Human-Computer Interaction*, *2*(CSCW), 1-26.

Windeck, F. (2010). Political communication in Sub-Saharan Africa and the role of new media. http://www.kas.de/wf/doc/kas_19703-544-2-30.pdf?100526134006

Wium, A-M., & Louw, B. (2018). Mixed-methods research: A tutorial for speech-language therapists and audiologists in South Africa. *South African Journal of Communication Disorders,* 65(1), 1-13. https://doi.org/10.4102/sajcd.v65i1.573

Woodhams, S. & Migliano, S. (2022, June 13). Government Internet Shutdowns Have Cost Nearly $26 Billion Since 2019. *Top10VPN*. https://www.top10vpn.com/research/cost-of-internet-shutdowns/

Woolley, S. C. (2016a). Automating power: Social bot interference in global politics. *First Monday*. https://doi.org/10.5210/fm.v21i4.6161

Woolley, S. C. (2018). *Manufacturing consensus: Computational Propaganda and the 2016 US Presidential Election* (Doctoral dissertation).

Woolley, S. C., & Guilbeault, D. R. (2018). United States: manufacturing consensus online. *Computational Propaganda: Political parties, politicians, and political manipulation on social media*, 185-211.

Woolley, S. C., & Howard, P. N. (2016). Automation, algorithms, and politics| political communication, computational propaganda, and autonomous agents - Introduction. *International Journal of Communication*, 10, 9.

Woolley, S. C., & Howard, P. N. (2016). Political communication, computational propaganda, and autonomous agents: Introduction. *International Journal of Communication*, 10.

Woolley, S. C., & Howard, P. N. (Eds.). (2018). *Computational Propaganda: Political parties, politicians, and political manipulation on social media*. Oxford University Press.

Woolley, S. C., & Howard, P. N. (Eds.). (2019). *Computational propaganda: Political parties, politicians, and political manipulation on social media*. Oxford University Press.

Woolley, S., & Howard, P. (2014). Bad news bots: How civil society can combat automated online propaganda. *TechPresident, December, 10*.

Yang, K. C., Varol, O., Davis, C. A., Ferrara, E., Flammini, A., & Menczer, F. (2019). Arming the public with artificial intelligence to counter social bots. *Human Behavior and Emerging Technologies*, *1*(1), 48-61.

Yin, R. K. (2011). *Applications of case study research*. London: SAGE Publications.

Yoo, E., Rand, W., Eftekhar, M., & Rabinovich, E. (2016). Evaluating information diffusion speed and its determinants in social media networks during humanitarian crises. *Journal of Operations Management*, 45, 123-133.

Yoon, N., Hemsley, J., Smith, A., Simpson, E., & Eakins, J. (2022). Super-amplifiers! The role of Twitter extended party networks in political elections. *Policy & Internet*.

Zannettou, S., Caulfield, T., Blackburn, J., De Cristofaro, E., Sirivianos, M., Stringhini, G., & Suarez-Tangil, G. (2018, October). On the origins of memes by means of fringe web communities. In *Proceedings of the Internet Measurement Conference 2018*, 188-202.

Zannettou, S., Caulfield, T., De Cristofaro, E., Sirivianos, M., Stringhini, G., & Blackburn, J. (2019, May). Disinformation warfare: Understanding state-sponsored trolls on Twitter and their influence on the web. In *Companion proceedings of the 2019 world wide web conference* (pp. 218-226).

Zannettou, S., Caulfield, T., Setzer, W., Sirivianos, M., Stringhini, G., & Blackburn, J. (2019, June). Who let the trolls out? towards understanding state-sponsored trolls. In *Proceedings of the 10th ACM Conference on Web Science*, 353-362.

Zappavigna, M. (2013). *Discourse of Twitter and social media: How we use language to create affiliation on the web*. London: Bloomsbury Publishing Plc.

Zeifman, I. (2015, December 9). 2015 bot traffic report: Humans take back the web, bad bots not giving any ground. *Incapsula Blog*. https://www.imperva.com/blog/bot-traffic-report-2015/

Zhou, X., & Zafarani, R. (2018). Fake news: A survey of research, detection methods, and opportunities. *ArXiv preprint arXiv:1812.00315*.

Zhuravskaya, E., Petrova, M., & Enikolopov, R. (2020). Political effects of the internet and social media. *Forthcoming, Annual Review of Economics. DOI/10.1146/annurev-economics-081919-050239*.

Ziegler, C. E. (2018). International dimensions of electoral processes: Russia, the USA, and the 2016 elections. *International Politics*, 55(5), 557-574.

Zubiaga, A., & Ji, H. (2014). Tweet, but verify: Epistemic study of information verification on twitter. *Social Network Analysis and Mining*, *4*(1), 1-12.

Appendices

Appendix 1: Ethics Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Olaniran

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H19/11/52**
PROJECT TITLE	Disinformation: Exploring the complex relations between politics and technology in Nigeria
INVESTIGATOR(S)	Mr S Olaniran
SCHOOL/DEPARTMENT	Literature, Language and Media Studies/
DATE CONSIDERED	15 November 2019
DECISION OF THE COMMITTEE	Approved
EXPIRY DATE	15 January 2023

DATE 16 January 2020 **CHAIRPERSON** _____
(Professor J Knight)

cc: Supervisor : Professor I Gagliardone

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

_____ _____/_____/_____
Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix 2: Participant Information Sheet



Department of Media Studies,
Faculty of Humanities,
University of the Witwatersrand,
Johannesburg.

Dear Sir / Madam,

My name is Samuel Olaniran and I am a PhD student in Media Studies at the University of the Witwatersrand in Johannesburg. As part of my studies, I have to undertake a research project titled ***"Disinformation: Exploring the complex relations between politics and technology in Nigeria"***. The aim of this research project is to examine how political campaigns in Nigeria are employing digital technology tools to gather consumer data, micro-target and communicate with potential voters on Twitter.

As part of this project, I would like to invite you to take part in an interview. The interview is scheduled for April 2020 in Abuja, Nigeria. This activity will involve answering questions about the 2019 presidential campaigns on social media and will take around 30 minutes. It will be a one-off activity and with your permission, I would also like to record the interview using a digital recorder.

You will not receive any direct benefits from participating in this research, and there are no disadvantages or penalties for not participating. You may withdraw at any time or not answer any question if you do not want to. The interview will be completely confidential and anonymous as I will not be asking for your name or any identifying information (except otherwise permitted by you), and the information you give to me will be held securely in my personal password protected computer and Wits Cloud OneDrive account and not disclosed to anyone else. I will be using a pseudonym (false name) to represent your participation in my final research report and you will not be at risk of any form of identification.

If you have any questions at anytime during the research process about this research, feel free to contact me or my supervisor on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email Shaun.Schoeman@wits.ac.za.

Yours sincerely,

Samuel Olaniran, 1708153@students.wits.ac.za, +27 84 6069208/+234 7030719205
Supervisor: Prof Iginio Gagliardone, iginio.gagliardone@wits.ac.za

Appendix 3: Consent Form



Disinformation: Exploring the complex relations between politics and technology in Nigeria

Samuel Olaniran

I, ……., agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. Please circle the relevant options below.

I agree that my participation will remain anonymous	YES	NO
I agree that the researcher may use anonymous quotes in his research report	YES	NO
I agree that the researcher may use quotes from my tweets in his research report	YES	NO
I agree that the researcher may use quotes from my tweets but these should be anonymized in his research report	YES	NO
I agree that the interview may be audio recorded	YES	NO
I agree that the information I provide may be used anonymously by other researchers following this project	YES	NO

…… (signature)
…… (name of participant)
…… (date)

Appendix 4: Interview Schedule

Interview Questions

1. The combination of digital influencers, bloggers and fake accounts operators weaponize social media to sow distrust to the political opposition, journalists and activist groups. How would you describe social media's role in the 2019 presidential election?
2. Deliberate manipulation of information is not only an issue of electoral integrity, but also that of political economy. Despite this, can we say social media remains a viable space for grassroot mobilisation?
3. Political campaigns have gradually shifted from the cheaper traditional tactic to the costlier air war and ground machinery of digital communication technologies. How has this become a central part of standard repertoire of campaign tactics?
4. Do you consider online manipulation of political debates to favour or harm a particular presidential candidate a form of hijacking democratic discussions?
5. With the ascendancy of propaganda tactics among a new group of Internet trolls, stakes change by the eve of presidential elections. Were there specific groups and individuals you targeted in your campaign?
6. There has been a shift from the use of online celebrities who command millions of social media followers to micro-influencers who have less mainstream visibility but cultivate more intimate and interactive relationships with their fans. What was it like working with the new group?
7. Digital media campaign participants have a desire to participate, receive payment without the risk of being identified and socially stigmatised. Does this promote political participation or exploitation by political interest groups?
8. Global tech companies are increasingly setting local political agenda through social media platforms. Would you say this trend makes fragile democracies like Nigeria's vulnerable to manipulation and external influence?
9. How can Nigeria's Electoral Act and legal frameworks respond to the adoption of digital technology in the conduct of future elections?
10. Were there times you employed persuasive communications designed to "discredit, promote distrust, dissuade, deter, delay [and] disrupt the campaign of an opponent?
11. Are you in services with any corporate organization or group whose ideological cause you support?
12. A 2019 Oxford Internet Institute report found evidence of bot accounts being used in previous Nigerian elections. However, even more common than bots were human-run accounts, which do not make use of automation. Can you describe how you engaged in conversations on social media platforms?
13. A variety of communication strategies are used in digital politics. From creating disinformation or manipulated media, data-driven strategies to trolling, doxing or harassment of opponents and voters. How do these relate to Nigerian contemporary politics?
14. Attacking the opposition, mounting smear campaigns, and suppressing participation through personal attacks and harassment are some messaging strategies in digital politics. How have these become commonplace in Nigerian digital politics?