

## Identification and Dissemination of Security Information on the X platform for Enhanced Conflict Prevention in Nigeria

**Justina A. KOTSO Ph.D<sup>1</sup>**

Isa Mustapha Agwai Polytechnic, Lafia

[anjiode5@gmail.com](mailto:anjiode5@gmail.com)

**Imoisili O. ODIGIE<sup>2</sup>**

Federal University Lokoja.

[odigieimoisili@gmail.com](mailto:odigieimoisili@gmail.com)

<https://orcid.org/0000-0002-7887-0191>

**Kenneth O. IRENOA<sup>3</sup>**

Federal University Otuoke,

[kennirenoa@gmail.com](mailto:kennirenoa@gmail.com)

<https://orcid.org/0000-0002-8495-1457>

DOI: <https://10.5281/zenodo.11110578>

### Abstract

*The study explores the potential of the X platform as a tool for security information dissemination in Nigeria, focusing on its role in identifying security threats and assessing the extent of information dissemination. The research gap lay in understanding the effectiveness of X in providing real-time security information for the prevention of conflict in Nigeria. The objectives of the study include assessing X's role in threat identification and determining the degree of security information dissemination on the platform. Through a mixed-method research design, the study examines both quantitative data obtained from X API and qualitative observations of the platform's usage. Content analysis of harvested tweets reveals the presence of relevant keywords related to security, indicating the potential utility of X for threat identification. However, despite the availability of security-related content, overall user engagement with such content is found to be low, suggesting a disconnect between content availability and user participation. Based on these findings, the study concludes that while X holds promise for aiding in the identification of security threats, there is a need to enhance user engagement strategies and improve the relevance and visibility of security-related content on the platform. Recommendations include targeted campaigns, interactive content, and collaborations with relevant stakeholders to develop compelling and informative content that resonates with users.*

**Keywords:** Conflict Prevention, Information Diffusion, Network Analysis, Nigeria, Security,

## Introduction

Nigeria has had its fair share of security challenges that have threatened the stability and development of the country. Terrorism, banditry, ethnic clashes, farmer-herder conflicts, kidnappings for ransom, and secessionist movements are a few of the many issues that have bedeviled the country (Monday, 2022). These issues have resulted in the deaths and displacement of so many people, with high occurrences of human rights violations ongoing around many parts of the country. These challenges have not happened in isolation; many of the conflicts have their roots in the information disseminated and the general oversharing of information by many on social media platforms. Over the years, social media has become a very powerful tool for social mobilization, with the power for good and evil depending on the use to which it is put (Hemsley et al., 2018; McKeon & Gitomer, 2019). On the one hand, social media can spread misinformation, disinformation, propaganda, and hate speech, which could stoke existing tensions, leading to further division. On the other hand, it could be used to promote dialogue, negotiation, mediation, and cooperation among conflicting parties. The 2023 Nigeria general elections were replete with all forms of messaging on social media, which resulted in widespread sentiments with ethnic, tribal, and religious colourations. Influential social media platforms such as Facebook, WhatsApp, Instagram, X (formerly Twitter), and Nairaland have been used at different times to post different kinds of information, from propaganda, disinformation, misinformation, hate speech, outright incitement of violence, and so on with consequences on innocent Nigerians from different parts of the country (Jimada, 2023). Therefore, for proper identification of security information dissemination for conflict prevention in Nigeria, it is very important to understand the patterns and ways information dissemination on social media can exacerbate existing tensions which has led to conflicts, and how social media can be harnessed to properly counter or prevent the negative influence of propaganda, misinformation, hate speech, and inciting information

## Historical perspective on conflict prevention

Traditional means of conflict prevention have existed for centuries and are deeply rooted in the culture and history of different societies. These methods are typically based on community-based approaches that rely on informal dispute resolution mechanisms, including negotiation, mediation, and arbitration. In many cases, these methods have been used to prevent conflicts from escalating to violence. In African societies, for example, traditional conflict prevention

mechanisms have often been grounded in the principle of Ubuntu, which emphasizes the importance of community and social harmony (Mayaka and Truell, 2021; Ajayi and Buhari, 2014). These mechanisms have included the use of village elders or chiefs as mediators, traditional courts, and community-based organizations that work to resolve conflicts peacefully. Similarly, in many Asian societies, traditional conflict prevention mechanisms have been based on the principles of Confucianism, which emphasizes social harmony, respect for authority, and the importance of relationships. These mechanisms have included the use of mediators, village councils, and other informal institutions that work to prevent conflicts from escalating.

In European societies, traditional conflict prevention mechanisms have included the use of diplomatic channels, negotiations, and treaties to prevent conflicts between states. The principles of international law have also been used to regulate relations between states and prevent conflicts from arising. While these traditional means of conflict prevention have been effective in many cases, they have also faced challenges in the face of modern-day conflicts that are often complex and multifaceted. In recent times, the international community has increasingly focused on developing more formal and structured approaches to conflict prevention, including early warning systems, peacekeeping operations, and diplomatic efforts to resolve conflicts peacefully.

### **Statement of the problem**

Social media networks are virtual communities that show connections between individuals, organizations, and businesses, through which they share information and engage in various forms of communication. Analysing social media networks involves examining the structure and behaviour of these virtual communities to gain insights into their dynamics, patterns of communication, and relationships between users. In recent years, Nigeria has experienced heightened levels of conflict, posing significant threats to the region's stability and security. Social media, particularly the X platform, has evolved from a microblogging platform to a dynamic channel for information dissemination. However, there remains a critical gap in understanding the potential of X as a tool for identifying and disseminating timely security information in the country, which could contribute to conflict prevention in Nigeria.

The existing gap hinders the harnessing of the platform's full potential in providing real-time, context-specific, and actionable information to relevant stakeholders, including local communities, security agencies, and humanitarian organizations. This study seeks to improve

the overall understanding of X as a medium for information dissemination and indicate its usefulness to security information dissemination. Ultimately, the findings will contribute to the development of targeted interventions that harness the potential of social media platforms in fostering conflict prevention and community resilience in Nigeria.

### **Objectives of the study**

The study was guided by a major objective "Can the X platform aid security information identification and dissemination in Nigeria". To achieve this objective and further the frontiers of research two minor objectives or sub-objectives were formed from the main objective they are;

- a. Identify ways X can aid threat identification in Nigeria.
- b. Ascertain the degree to which X is used for the dissemination of security information in Nigeria.

### **Limitations of the study**

The study's scope is limited to January 2019 to January 2023 (1/1/2023-1/01/2023) due to the changes in X API restricting the harvesting of tweets after the company had changed ownership.

### **Review of Related Literature**

Literature in the following areas were analysed; Nigerian conflict landscape and causes, Role of Information in Conflict Prevention, Uses of the X platform and opportunities in security.

### **Nigerian Conflict Landscape and Causes**

Communities within Nigeria in recent times have been faced with varying levels of disputes. These have ravaged the northern and southern geo-political zones of Nigeria. The understanding and conceptualization of conflict have led to a multiplicity of definitions and explanations of what constitutes conflict. Conflict is a struggle or contest between people of opposing needs, ideas, beliefs, values, or goals, and this is deeply linked to how we construe or understand information.

The conflict landscape in Nigeria is complex, with various forms of unrest and violence. Ethnic chauvinism and power struggles among politicians and the military fuel political violence, which contributes to insecurity and mass migration (Obasesam, 2021). Since the restoration of democracy in 1999, religious, ethnic, and communal conflicts over resources have destabilized the country. Crises such as the Niger Delta militancy and Boko Haram insurgency have challenged the state's existence (Onwudiwe & Mendie, 2022). Furthermore, the crop farmer-herder conflict exacerbates the situation, leading to losses in crops and livestock. Other causes include crop damage by cattle and inadequate grazing reserves, religious misinterpretations, and fanaticism (Abegunde *et al.*, 2019). Overall, Nigeria faces a web of conflicts rooted in economic, religious, political, ethnic, and communal issues, which require urgent conflict resolution efforts to safeguard lives, property, development, and democracy (Bwala & Ogirima, 2020).

### **Role of Information in Conflict Prevention**

The role of information in conflict cannot be overstated and plays a crucial role in conflict prevention by influencing various aspects of conflicts. Mediators strategically provide conflicting parties with information to reduce the probability of war, benefiting weaker parties more in costlier conflict scenarios (Hennigs, 2021). In a study by Mazepus *et al* (2023), entitled information battleground conflict perceptions to motivate the belief in and sharing of misinformation about the adversary, the study found that group identification influences the belief and sharing of false news thereby exacerbating conflict. Dissemination of information can counteract negative impacts like corruption and civil conflict, Armand *et al* (2020) in their study conducted a large scale experiment about a substantial gas discovery they found that information targeting citizens increases local mobilization and decreases violence, while information reaching only local leaders increases elite capture and rent-seeking. ICTs aid in identifying conflict risks, supporting peacebuilding, and providing early warnings of violence by aiding the diffusion of information. However, the relationship between information and conflict is complex, as access to data does not always lead to conflict resolution, as seen in the Syrian civil war (Bell, 2013; Powers & O'Loughlin, 2015). Overall, information dissemination, when used strategically and accurately, can contribute significantly to conflict prevention efforts.

## Uses of the X platform and opportunities for security in Nigeria

Utilizing social media for security information in Nigeria presents both challenges and opportunities. Studies reveal that the Nigerian military's silence strategy during crises, like the Nigerian Defence Academy attack, can exacerbate online firestorms, highlighting a challenge in effectively countering narratives (Uwalaka, 2023). Such delayed counter narratives lead to the inevitable spread of fake news by bloggers. Evident in the spread of fake news online during events like the Ebola and COVID-19 pandemic in Nigeria where salt water drinking and phrases like “*covid no de kill black man became trends*” these underscores the challenge of misinformation and the need for policies to combat it (Uduma *et al.*, 2020; Gbaje *et al* 2023). On the other hand, social media platforms have been instrumental in spreading awareness and debunking fake news during crises, showcasing the opportunity for informative and educative campaigns (Fink *et al.*, 2015; Uwalaka & Nwala, 2023). Understanding local network structures on platforms like Twitter can also aid in predicting the spread of security-related hashtags, indicating an opportunity for leveraging social contagions for information dissemination (Gbaje *et al.*, 2023). This once small social media site used for communication between friends and colleagues has grown and found many other uses amongst its users. These include;

**Education:** Many studies have indicated the use of X in education and research. Some ways in which X is being used in the education sector include collaboration in class or class exercises (Giordano & Giordano 2011), alert services of ongoing conferences (Skiba 2008), and discoveries in research and development (Mollett *et al* 2011). However, in recent times, X has also been used to improve institutional bibliometric ranking and individual citation counts. There is also a vast amount of data available from X and other social media platforms for studying user behaviour.

**Emergency:** X's real-time functionality serves as an effective emergency communication system for breaking news. Individual citizens give details in real-time on emergencies as they occur, resulting in a term known as “citizen journalism.” X has been used for spreading news and updates around the world and has been shown to have applications in emergencies (The American Red Cross (2009) or natural disasters such as earthquakes (Earle, *et al* 2010; Kireyev, Palen Anderson, 2009; Muralidharan, *et al.*, 2011), floods (Vieweg, 2010; Vieweg, *et al.*, 2016;

Starbird, *et al.*, 2010), hurricanes (Hughes & Palen 2009; Hughes, *et al.*, 2008), and wildfires (De Longueville-Smith & Luraschi, 2009). X has been shown to have the potential to increase survival during Tornado-related disasters (Cates, *et al.*, 2013). Social media's technology platforms allow for multidirectional network communication which can aid officials during disasters to compile a list of the injured, and deceased, and contact family and friends of victims (Lindsay 2011) all while connecting and organizing both casualties and responders (Acar & Muraki 2011).

**Business:** The platform has aided the development of many small and medium-scale businesses with the introduction of ads. With more than 60% of the Nigerian population allegedly on X, it is the go-to platform for any business to reach their customers and clientele. X allows you to connect your businesses with the world and invest in social listening for feelings or opinions on your brand.

### **Methodology**

The study adopted a sequential mixed method research design to analyse the quantitative data obtained from X API based on identified keywords, a qualitative method was used to determine if the X platform could be utilized for Security Information dissemination based on observation. The population of the study was the Nigerian X space where tweets on security information had been created and disseminated. Tweets from X were harvested using the Mozdeh platform for a period of four years being from January 2019 to January 2023. The Corpus of tweets harvested were analysed using the same platform to achieve the objectives. Content analysis of the harvested tweets was used to determine the presence of keywords (Security alert, Nigeria, Kidnapping, Theft) retrieved and the context of the tweet in relation to security information dissemination. Data from the tweets were represented in graphs and charts.

### **Data Analysis and Discussion**

#### **Minor Objective 1: threat identification**

Can the X platform aid in threat identification in Nigeria, to determine if X could be used for the identification of threats the researchers first searched through the harvested tweets for tags linked to the earlier stated keywords. Then a face validation of the live platform was done from

an account linked to the researchers. The data showing the tags from the keyword harvested is shown in Fig 1 below.

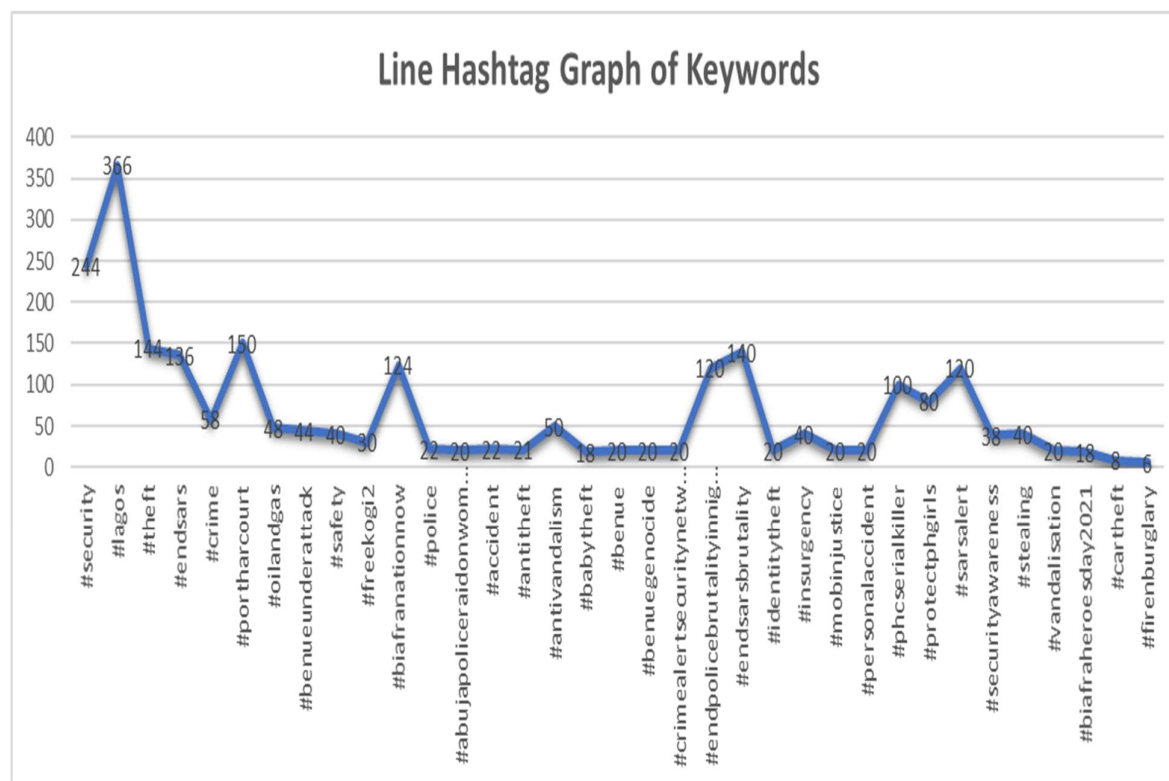


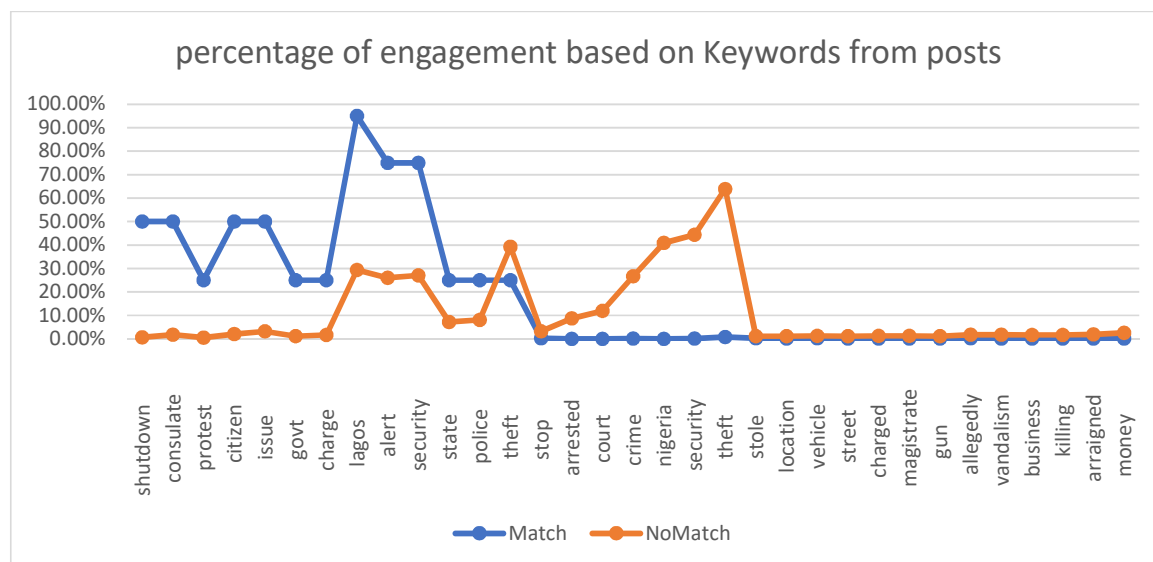
Fig 1: X threat identification based on Keyword extraction and number of Reposts

The figure above shows the distribution of hashtags and keywords on the X platform for the period of January 2019 to January 2023 the line graph is an indication of the potential use of the platform for the identification of threats. From the figure above hashtags such as #security, #endsarsbrutality and #Lagos can be identified with high word counts. Furthermore, hashtags such as #babytheft, #cartheft, and #fireburglary had low word counts. This finding conforms with that of Mazepus et al (2023), in their study where they found that group identification influences the belief and sharing of news. This means that X platform can be utilised for the identification of threats. This could be useful to security agencies and forces in Nigeria

### Minor Objective 2: Degree of security information dissemination on X

Determining dissemination of security information was done along two metrics; content validation and engagement of posts. content validation was carried out through examination of the corpus of tweets and deletion of irrelevant posts. Subsequently, the engagement analysis

was carried out, major words from posts and their engagement are highlighted. Engagement dealt particularly with the percentage frequencies of posts shared which sum up to user reactions on the platform. The chart below represents a line graph of percentage engagements based on keywords drawn from the tweets harvested.



The chart is a combined line graph of words with frequencies extracted from disseminated posts, it depicts the existence of matches and no matches for keywords. Dissemination of security information was based on percentile frequency count of keywords with matches while the no matches show the degree of user interaction with posts. The graph depicts that while keywords percentage count of a security post may be high the overall engagement can be low leading us to deduce that security information dissemination engagement on X platform in Nigeria is low despite the ability to disseminate information on the platform. For instance, looking at the highest keyword count being Lagos with 95% and Alert with 75% they have below average engagement rates of 29% and 27% respectively. Whereas, engagements that dealt with main security issues like theft and security had lower keyword count of less than 2%. The finding here further agrees with Mazepus *et al* (2023), whom stated that group identification influences sharing of news however it debunks the findings of Uwalaka (2023) that silence of the Military can exacerbate online firestorms.

### Summary of major findings

1. The study found upon assessment of the X platform use in information dissemination that it can aid identification of security threats in Nigeria from messages posted and

reposted, especially as present in banter on issues about the country. Analysis of collected tweets revealed the presence of certain hashtags related to security indicating significant the potential utility of the X platform for threat identification. An understanding of how the disseminated information during user engagements by participants on social platforms would aid conflicts prevention efforts by government, its agencies, and other stakeholders interested in managing the spread of conflicts emanating from social information grounds.

2. The study found a high extent of security information dissemination also on the X platform. This was evident from the content validation and engagement analysis showing that while security-related posts had high keyword counts, the overall engagement was low albeit with a high possibility for content with ethnic, religious and political colourations, however, the limited interaction with security information can be traced to a higher preference for entertainment among the active larger majority. These findings highlight the need for further research and potential interventions to enhance the effectiveness of social media platforms for security information dissemination.

## Conclusion

The power of information dissemination on the Nigerian social space, and indeed across the globe can no longer be ignored by all spheres in society. Indeed social media, particularly X has shown the edge it has and its influence in the social choices that people make today. So many major decisions have been influenced by pressure from X users, indicating a need for interest by stakeholders in the activities of these pressure groups online to ensure balanced reportage of issues as they happen in the country. With the increasing drama on the social space already showing selfish and prejudiced tendencies, and premeditated narratives targeted at Nigerians who are not better informed on happenings around the country but may only be exposed to the disseminated information from people with such bias. Based on the findings from the study, the researchers conclude that the X platform holds promise for aiding in the identification of security threats in Nigeria. The analysis of collected tweets showed the presence of relevant hashtags related to security, suggesting that the platform could be effectively utilized for this purpose. However, despite the potential for disseminating security information, the overall engagement with such content on the X platform was found to be measured in terms of spectrum, due to the perceived. This indicates a gap between the presence

of security-related content and active user engagement, which may limit the platform's effectiveness in serving as a tool for security information dissemination.

### **Recommendations**

1. Enhancing User Engagement Strategies by government agencies and other stakeholders involved with conflict management in the country: harnessing strategies aimed at increasing user engagement with security-related content especially on the X platform. This could involve targeted campaigns with interactive content, or incentivized participation to encourage users to actively engage with security information that is able to create enough awareness within the active participants on the social space so as to be able to debunk wrong narratives cum information online when the need arises. Collaboration with relevant and recognised stakeholders, like security agencies, online influencers, and others, would also help in developing compelling and informative content that resonate on the online information grounds.
2. Improving Content Relevance and Visibility of government agencies involved with conflict management and relevant stakeholders: To maximize the effectiveness of security information dissemination on the X platform, efforts should be made to ensure that content is relevant, timely, and easily accessible to users and able to match the narratives already in circulation with the potential to cause disaffection and conflicts. This can involve the use of analytics tools to identify trending topics and optimize content distribution strategies to match the virality of contents on the social space.

## References

- Abegunde, O., Oladeji, O., & Ayiti, S. B. (2019). Public Spaces, Citizenship Right and Religion Conflicts in Nigeria. *International Journal of Political Science*, 5(2). <https://doi.org/10.20431/2454-9452.0502004>
- Ajayi, A. T., & Buhari, L. O. (2014). Methods of Conflict Resolution in African Traditional Society. *African Research Review, An International Multidisciplinary Journal*. 8 (2). <https://dx.doi.org/10.4314/afrrrev.v8i2.9>
- Armand, A., Coutts, A., Vicente, P. C., & Vilela, I. (2020). Does Information Break the Political Resource Curse? Experimental Evidence from Mozambique. *American Economic Review*, 110(11), 3431–3453. <https://doi.org/10.1257/aer.20190842>
- Bell, S. R. (2013). What you don't know can hurt you: Information, external transparency, and interstate conflict, 1982–1999. *Conflict Management and Peace Science*, 30(5), 452–468. <https://doi.org/10.1177/0738894213499659>
- Bwala, M. A., & Ogirima, A. (2020). Conflict in Nigeria's Agricultural Community; The Herders' Perspective in North Central Nigeria. *Journal of Agribusiness and Rural Development*, 56(2). <https://doi.org/10.17306/j.jard.2020.01272>
- Fink, C., Schmidt, A., Barash, V., Cameron, C., & Macy, M. (2015). Complex contagions and the diffusion of popular Twitter hashtags in Nigeria. *Social Network Analysis and Mining*, 6(1). <https://doi.org/10.1007/s13278-015-0311-z>
- Gbaje, E. S., Agwu, C., Odigie, I. O., & Dauda Yani, S. (2023). Curtailing fake news creation and dissemination in Nigeria: Twitter social network and sentiment analysis approaches. *Journal of Information Science*, 016555152311600. <https://doi.org/10.1177/01655515231160029>
- Hemsley, J., Jacobson, J., Gruzd, A., & Mai, P. (2018). Social Media for Social Good or Evil: An Introduction. *Social Media + Society*, 4(3). <https://doi.org/10.1177/2056305118786719>
- Hennigs, R. (2021). Conflict prevention by Bayesian persuasion. *Journal of Public Economic Theory*. <https://doi.org/10.1111/jpet.12511>
- Ihekwoaba Onwudiwe, & Edidiong Mendie. (2022). Political Violence and Civil Fight in Nigeria. In *Advances in religious and cultural studies (ARCS) book series* (pp. 105–114). Routledge. <https://doi.org/10.4018/978-1-6684-4964-6.ch006>
- Iyanda Kamoru Ahmed, & Adjah Ekwang Adjah. (2022). Democratisation and Conflict in Nigeria. *Indonesian Journal of Education and Social Science*, 1(1), 1–11. <https://doi.org/10.56916/ijess.v1i1.85>
- Jimada, U. (2023). Social Media Hate and Misinformation Campaign in the Nigeria 2023 Elections. *IJRDO - Journal of Social Science and Humanities Research*, 9(7), 1–14.
- Mayaka, B., & Truell, R. (2021). Ubuntu and its potential impact on the international social work profession. *International Social Work*, 64(5), 002087282110227. <https://doi.org/10.1177/00208728211022787>

- Mazepus, H., Osmudsen, M., Bang-Petersen, M., Toshkov, D., & Dimitrova, A. (2023). Information battleground: Conflict perceptions motivate the belief in and sharing of misinformation about the adversary. *PLoS ONE*, 17(3), 1–20. <https://doi.org/10.1371/journal.pone.0282308>
- McKeon, R. T., & Gitomer, D. H. (2019). Social Media, Political Mobilization, and High-Stakes Testing. *Frontiers in Education*, 4(June), 1–14. <https://doi.org/10.3389/feduc.2019.00055>
- Mollett, A., Moran, D., & Dunleavy, P. (2011). Using Twitter in University research, teaching and impact activities. LSE Public Policy Group
- Monday, E. J. (2022). The Characteristics and Complexity of the Nigerian Security Challenges: The Need for a New Strategy. *TheJournalish: Social and Government*, 3(1), 1–9. <https://doi.org/10.55314/tsg.v3i1.215>
- Obasesam Okoi. (2021). The Changing Landscape of Oil Insurgency. In *Springer eBooks* (pp. 79–97). Springer Nature. [https://doi.org/10.1007/978-3-030-86327-2\\_5](https://doi.org/10.1007/978-3-030-86327-2_5)
- Powers, S., & O'Loughlin, B. (2015). The Syrian data glut: Rethinking the role of information in conflict. *Media, War & Conflict*, 8(2), 172–180. <https://doi.org/10.1177/1750635215584286>
- Starbird, K. and Palen, L. (2012). How will the Revolution be Retweeted? Information Propagation in the 2011 Egyptian Uprising. In *Proc. of CSCW*, 6-17.
- Uduma, N. E., Nwasum, C. J., Abaneme, E. C., & Icha -Ituma, E. (2020). We are watching them as they post: a mirror into the Nigerian Police Force use of social media and challenges affecting its adoption in policing. *Police Practice and Research*, 1–16. <https://doi.org/10.1080/15614263.2020.1848563>
- Uwalaka, T. (2023). Nigerian Military Strategic Use of Social Media During Online Firestorms: An Appraisal of the NDA Terrorist Attack. *Journal of Communication Inquiry*, 019685992311517. <https://doi.org/10.1177/01968599231151727>
- Uwalaka, T., & Nwala, B. (2023). Examining the role of social media and mobile social networking applications in socio-political contestations in Nigeria. *Communication and the Public*, 205704732311684. <https://doi.org/10.1177/20570473231168474>
- Vieweg, S. & Hodges, A. (2016) Surveillance & modesty on social media: How Qataris navigate modernity and maintain tradition. In: *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*: ACM, pp. 527-538.