

# **Adaptive Structuration Theory and The Role of Social Computing Sites in the Biafran Struggle.**

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## Front Matter

### Abstract

*On May 30<sup>th</sup>, 2017, a sit-at-home order was planned by organisers of the struggle for a sovereign Biafran state<sup>1</sup>. This protest was largely mobilised via social computing sites such as twitter and Facebook and was deemed a success due to the unprecedented level of compliance across the south-eastern region of Nigeria<sup>2</sup>. However, this success did not correspond with the patterns deduced from the #Biafra twitter network. The network was lacking in terms of poor coherence in their message, shabbily crafted narratives etc. So, could there be something more at play in driving the success of these social media inspired campaigns, and would that deliver the long-term goals of independence for the 'Biafran state'? This research explores these issues using NodeXL analytic tool to analyse the interaction of these groups on the #Biafra twitter network. The findings are then discussed using Adaptive structuration theory to explore the existing gaps in the impact of social computing sites on self-determination groups in south eastern Nigeria. By doing so, I deduced that, the interaction between socio-political entities and technology is an iterative one between technology, tasks and groups understanding of the two. Furthermore, while social computing sites was used as an avenue to mobilise people, the success was a product of existing societal perceptions on the self-determination struggle in south eastern Nigeria and if these perceptions continued there is little hope for actualising their agenda.*

### Introduction.

Underscoring the global revolutionary impact of social computing sites today are the numerous ways in which these sites are reshaping the general political structures of societies, social movements and even diplomacy<sup>3</sup>. More specifically, these digital platforms are constantly unveiling new avenues in activism for expressing emotions and perceptions even as the role of keeping the public informed and holding governments accountable rapidly shifts to individuals, notably the civil service organisations and the youth, armed with social computing sites. In Nigeria, Socio-

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<sup>1</sup> Officially called the Republic of Biafra, this was a secessionist state in south-eastern Nigeria that existed from 30 May 1967 to January 1970. It took its name from the Bight of Biafra, the Atlantic bay to its south. The inhabitants were mostly the Igbo people who led the secession due to economic, ethnic, cultural and religious tensions among the various peoples of Nigeria. Since 2001 it has been experiencing a resurgence in its demand for a separate state with various organisation attempting to lead the affairs.

<sup>2</sup> James Eze (2017) Biafra sit-at-home order; <http://www.premiumtimesng.com/news/top-news/232508-%E2%80%8Ebiafra-sit-at-home-onitsha-shut-down-partial-compliance-in-abakaliki.html>

<sup>3</sup> Adesina S. 2017

political groups as Indigenous People of Biafra (IPOB), Movement for the Actualisation of the Sovereign State of Biafra have not been left out in this new wave of digital activism<sup>4</sup>. Much of the debate about the influence of social computing sites on socio-political interactions in the society has been framed by two sides, the so-called cyber-optimists and cyber-sceptics<sup>5</sup>. The former argue that online technology is a powerful new tool for mobilizing anti-regime dissent and facilitating democratization. Stressing the fact that the internet functions as a “liberation technology,” allowing residents of closed societies to disseminate news and opinions, expose corruption, and mobilize protests<sup>6,7</sup>, they argue that it lowers the barriers to collective action by facilitating leaderless, decentralised coordination. In this regard, they have attributed the success of the Arab spring uprising to the use of new media and social networking sites<sup>8</sup>. This assertion holds a lot of truth, as both the Tunisian and Egyptian protests were constantly in the spotlight of most political blogs, Facebook and Twitter; they were also covered in online discussion forums and in many virtual mailing lists. The sceptics, meanwhile argue that online technology is either ineffective or marginal to the process of regime contestation, and is easily subject to government censorship and control. As Deibert et al. have argued, internet censorship techniques have continuously evolved, from filtering and surveillance to site shutdowns and network attacks<sup>9,10</sup>. Moving beyond access denial, governments have begun to engage in more subtle methods of control like “just-in-time” filtering, and are now actively contesting both the flow of online information and the legitimacy of norms and rules surrounding cyberspace control. Moreover, decreasing the costs of participation may lead to widespread but ineffective political involvement, in which facile expressions of support replace costlier forms of physical protest<sup>11</sup>.

The arguments put forward in this essay falls somewhere in the cautious middle, conceding that social media can function as a tool of anti-regime mobilization while emphasizing its limits and unintended consequences. As Marc Lynch concludes in his

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<sup>4</sup> Chiluiwa. I 2012.

<sup>5</sup> Athani Karatzogianni, 2005.

<sup>6</sup> Shirky, Clay 2009.

<sup>7</sup> Larry Diamond 2010.

<sup>8</sup> Ghareeb 2000.

<sup>9</sup> Deibert et al. 2008.

<sup>10</sup> A. J. Omede 2015.

<sup>11</sup> These debates will be dealt with extensively in the segment of the research containing the literature review.

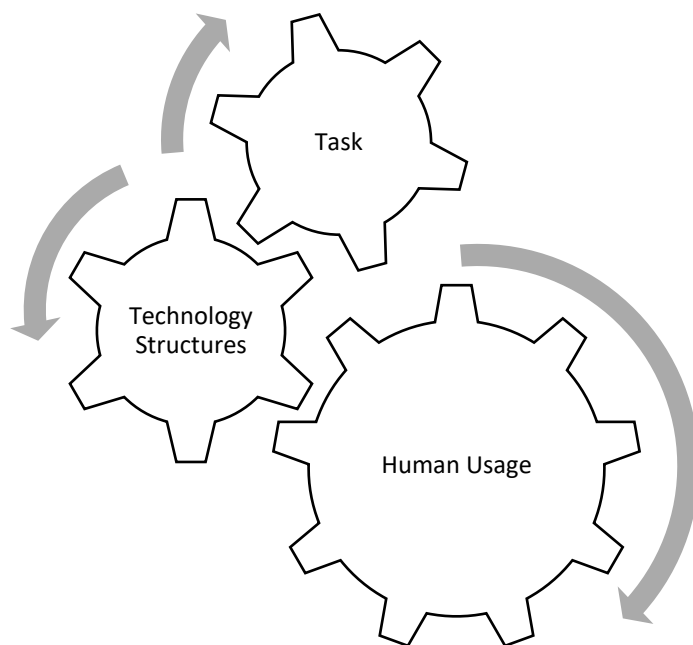
analysis of the Arab Spring, while “protestors effectively used social media in their struggles, it is surprisingly difficult to demonstrate rigorously that these new media directly caused any of the outcomes with which they have been associated.”<sup>12</sup>. In this regard, the challenge is not that the effectiveness of social media on politics is not acknowledged, what is less examined is the absence of mechanisms that demonstrate the impact of the interaction of technical features of these social computing sites with socio-political norms. So, the first question is, can there be (in the case that there is not) such mechanism(s) that organises digital interactions from the use of these social computing sites (input) to its consequences (output)? Secondly, in southern Nigeria, it has become imperative to take a non-cursory look at this topic considering the rising popularity of SCSs and considering the ability of such groups to carry out their planning and strategic operations such as mass mobilisation, fund raising, organising and conducting sit-ins etc. This sees a divorce from their former tactics of open confrontation with the government. My second question is, can this change in tactics be ascribed as a product of using social computing sites? If so, can distinctive patterns be deduced from their use of these sites in a manner that can only be achieved or is largely attributable to these sites?

In answering this question, this research makes use of the theoretical framework provided by the Adaptive Structuration Theory (AST) to critically assess the social media activities of self-determination groups in southern Nigeria in an age of digital information. I use this framework to critically analyse the scale of their activities, their target audience, the nature, content and impact of their messages, etc. because it better accommodates the dynamic complexities in the role of social computing sites on formalised social groups better than existing frameworks. As SCSs are fast becoming a must have tool in the digital repertoires of these self-determination groups in Nigeria in carrying out most of their social and political activities such as mass mobilisation, fund raising etc., existing theoretical frameworks focus on sociolinguistic analysis, or analysis of the causal mechanisms of these sites. I argue that such an approach provides little guidance in assessing the fluid and influencing powers of social computing sites on socio-political structures and vice versa. As such, AST examines this interactive

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<sup>12</sup> Marc Lynch et. Al, 2010.

process from two vantage points 1) the types of structures<sup>13</sup> that are provided by the advanced technologies and 2) the structures that emerge in human action as people interact with these technologies<sup>14</sup>. This forms a key distinction in the integrative approach offered by this framework is it recognises that although technology has inherent features that allow for organisational adaptation, social practices (political inclusive) moderate the outcome and effect on behaviour. In other words, this theory gives me the search light to shine into the crevices of techno-political structures and how the activities of groups and organizations using information technology for their work dynamically create perceptions about the role and utility of information and communication technology.



*The interactions between Technology structures, task and Human Usage.*

### **Theoretical & Practical Implications**

Investigations into the impact of social computing sites on politics so far has lacked a robust theoretical framework that enables the social scientist in thinking about the long-term consequences of digital interactions. Most of the approaches I came across, which

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<sup>13</sup> Structures here refer to the technical and less technical attributes or features of technology. In the case of social computing sites, these structures are the same in principle but they function differently in practice. For example, the use of application programming interfaces (APIs) is supported by all SCSs, but some, like twitter, operate an open API, while others like Facebook support a closed API framework. AST argues that while these structures play a very important role in directing how technology in general guides the user experience towards a somewhat predictable outcome, the influence works in both ways.

<sup>14</sup> DeSanctis G. and Poole M. S. (1994)

are discussed subsequently appeared to focus on the short-term impacts and structures of these interactions such as socio-linguistic patterns and causal mechanisms of social computing sites. These approaches capture current happenings and are largely only relevant for today. This research brings to the fore an alternative framework which can serve as a more forward-looking approach in the understanding of social media sites and its impact.

Such long-term model is important today considering the new and revolutionary dimensions social computing sites are introducing in the field of social science such as online radicalisation and the formation and spread of (counter) narratives. These dimensions, especially those instigated by digital activism and techno-political integration could have inestimable implications for national security and the global political order as we know it. This research and its methodology could offer political and social scientist a deep structured approach that enables them to not just ‘go with the flow’, but also develop predictive capabilities.

## **Chapter Layout**

After this introductory segment, the dissertation is divided into the two parts, the first concerning theoretical and methodological approach and the following two parts, the episode of usage and the discussion, whereby I draw my conclusions. In the theoretical chapter, I am reviewing existing literatures on the ways the role of social computing sites and their consequences on politics have been studied. Generally, the literature reviewed touches on both sides of the argument stated earlier. This discussion gives me the opportunity to discuss various theoretical approaches and to elucidate on why/how AST offers social scientist a comprehensive framework for navigating through the arguments on the role/consequences of social computing sites on politics. In the empirical part, I take the argument a step further with an analysis of the role of SCSs in self-determination politics using NodeXL<sup>15</sup> (to analyse the #Biafra Twitter network) to gain deeper insights into the degree of social media interactions by these group. This segment is followed by discussions of my findings in which I expatiate on the observations made from the top 10 twitter accounts in the #Biafra twitter network.

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<sup>15</sup> NodeXL (a free Excel plug-in) is developed by the Social Network Foundation (NodeXL Graphs, 2016) which is a not-for profit organization dedicated to creating open tools, open data, and open scholarship related to social media.



In the discussion and conclusion section, I locate my findings within the Adaptive Structuration Theory (AST) and how it is reflected in my case study of the #Biafra twitter network.

### **Methodology/ Design/Approach**

Given the complex and sensitive nature of the topic, there is a dearth of publicly available primary data available for analysis. As such, I will make use of literature and NodeXL complementarily. Several algorithms like the Fruchterman-Reingold algorithm, Harel-Koren Fast Multiscale algorithm and the Clauset-Newman-Moore algorithms are used to analyse the social media metrics like betweenness, closeness centralities, etc., and visualize the sociograms.

#### Why Twitter?

- In the last year, Twitter activity around the Biafran struggle has increased significantly. This uptick in twitter feeds on the subject #Biafra was noticeable especially in the months before May 30<sup>th</sup>, 2017 which marked the 50<sup>th</sup> anniversary of the Biafran struggle.
- On the technical side, the brevity of the Twitter micro-post has made it de facto standard for such kind of publishing and has turned out to be a new favourite for researchers<sup>16</sup>. As such it is known for breaking news and a fine resource for tracking online trends. Twitter thus offers an abundance of unstructured, voluminous data generated from heterogeneous sources in a short space of time.
- Twitter, unlike Facebook is meant not for just friends and family but for people you want to communicate with and build a network around. Its unique linking mechanisms such as Hashtags (#), mentions, retweets and listings methods make it possible to analyse the development of networking patterns between particle entities.
- To conduct this analysis, AST requires an episode of usage i.e. an example depicting the use of emerging socio-technical structures, this research makes use of the Twitter Search Network of the Apache NodeXL data discovery tool to extract data from Twitter accounts that tweeted, retweeted or commented on the hashtag, #Biafra in the last 3

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<sup>16</sup> Gayo-Avello 2013.

months, to gain insight into the impact of social computing sites in self-determination politics in Southern Nigeria.

## **Findings**

The findings from this investigation reflects the forward and backward influencing factors of political calculations on technology in a globalised and socially connected world. While I acknowledge that I probably will not be saying anything new, these findings could have profound impact on the future analysis of self-determination politics in Africa and the world. By contextualising my analysis of the key twitter accounts in AST, I conclude that, the primacy of underlying political judgements and calculations must be acknowledged. Second, the unique technical structures of twitter make adaptation for political mobilisation easier. Third, in a reverse manner, understanding the technical structures such as the unique linking patterns on twitter opens it to various forms of manipulations including sock-puppetry i.e. the creation of fake online identities for purpose of deception, forceful establishment of connections, evidence of homophily i.e. the propensity of individuals who are similar on some meaningful dimension to form clusters with each other etc. Finally, these forward and backward interactions that emerged are consistent with the adaptive structuration process proposed by the chosen theoretical framework.

## **Conceptual Clarification**

### **Social Computing Sites (SCSs)**

Social computing is a branch of computational science that is premised on the fact that it is possible to design digital systems that support useful functionality by making socially/digitally produced information available to their users. Social computing sites are thus those technologies that facilitate social interaction, make possible collaboration, and enable deliberation across stakeholders<sup>17</sup>. By this definition, social media could be categorized into eight areas that are inter-dependent by their mode

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<sup>17</sup> Bryer and Zavatarro (2011: 327)

of usage. Examples of sites listed are not exhaustive, the categories of social computing sites include;

### **Social Networking Sites (SNS);**

- Facebook - Facebook is a social utility that connects people with friends and others who work, study and live around them, even if they are in other countries<sup>18</sup>.
- LinkedIn - LinkedIn is a social networking website for people in professional occupations<sup>19</sup>.
- ResearchGate - This is a social networking site for scientists and researchers to share papers, ask and answer questions, and find collaborators<sup>20</sup>.
- Academia - Academics use the platform to share their research, monitor deep analytics around the impact of their research, and track the research of academics they follow<sup>21</sup>.

### **Social Bookmarking and Sharing Tools;**

- CiteULike - This social bookmarking site allows users to save and share citations of academic papers amongst researchers<sup>22</sup>.
- Delicious - This is a social bookmarking web service for storing, sharing, and discovering web bookmarks<sup>23</sup>.
- Reddit - Reddit, stylized as reddit, is a social news and entertainment website where registered users submit content in the form of either a link or a text post of either a link or a text post<sup>24</sup>.

### **Blogging and Microblogging Tools;**

- Blogger - This is a weblog publishing service from Google, for sharing text, photos and video<sup>25</sup>.
- WordPress - It's an open source blogging tool and a content-management system (CMS) based on PHP and MySQL, which runs on a web hosting service<sup>26</sup>.

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<sup>18</sup> [www.facebook.com](http://www.facebook.com)

<sup>19</sup> [www.linkedin.com](http://www.linkedin.com)

<sup>20</sup> [www.researchgate.net](http://www.researchgate.net)

<sup>21</sup> [www.academia.edu](http://www.academia.edu)

<sup>22</sup> [www.citeulike.com](http://www.citeulike.com)

<sup>23</sup> [www.delicious.com](http://www.delicious.com)

<sup>24</sup> [www.reddit.com](http://www.reddit.com)

<sup>25</sup> [www.blogger.com](http://www.blogger.com)

<sup>26</sup> [www.wordpress.org](http://www.wordpress.org)

- Twitter - This is an online social networking site and microblogging service that enables users to send and read "tweets", which are text messages limited to 140 characters. Registered users can read and post tweets but unregistered users can only read them<sup>27</sup>.

### **Virtual Worlds;**

- Second Life – This is a free 3D virtual world where users can socialize, connect and create using free voice and text chat<sup>28</sup>.
- OpenSim – This is an open source multiplatform, multi-user 3D application server. It can be used to create a virtual environment (or world) which can be accessed through a variety of clients, on multiple protocols. It allows virtual world developers to customize their worlds using the technologies they feel work best<sup>29</sup>.

### **Presentation Sharing Tools;**

- Scribd - This is a digital documents library that allows users to publish, discover and discuss original writings and documents in various languages using their iPhone, iPad, Kindle Fire and Nook tablet<sup>30</sup>.
- SlideShare - This platform allows for the sharing of information in PowerPoint, OpenOffice presentations, Keynote, PDF and infographics<sup>31</sup>.
- Slidrocket - SlideRocket is an online presentation platform that let users create, manage, share and measure presentations<sup>32</sup>.

### **Audio and Video Sharing Tools;**

- YouTube - YouTube is a video-sharing website which allow users to share their videos with friends, family, and the world<sup>33</sup>.
- Flickr - This is an image and video hosting website with large pool of picture galleries available with social networking, chat, groups, and photo ratings<sup>34</sup>.
- Livestream - This is a live streaming video platform that allows users to view and broadcast video content using a camera and a computer through the internet<sup>35</sup>.

### **Research and Writing Collaboration Tools;**

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<sup>27</sup> [www.twitter.com](http://www.twitter.com)  
<sup>28</sup> [www.secondlife.com](http://www.secondlife.com)  
<sup>29</sup> [www.opensimulator.org](http://www.opensimulator.org)  
<sup>30</sup> [www.scribd.com](http://www.scribd.com)  
<sup>31</sup> [www.slideshare.net](http://www.slideshare.net)  
<sup>32</sup> [www.slidrocket.com](http://www.slidrocket.com)  
<sup>33</sup> [www.youtube.com](http://www.youtube.com)  
<sup>34</sup> [www.flickr.com](http://www.flickr.com)  
<sup>35</sup> [www.livestream.com](http://www.livestream.com)

- PBworks – PBworks is a commercial real time collaborative editing system that allow users to capture knowledge, share files, and manage projects within a secure, reliable virtual environment<sup>36</sup>.
- Wikispaces - The section of this social site allows teachers to create a classroom workspace where the teacher and students can communicate and work on writing projects alone or in teams<sup>37</sup>.
- Wikipedia: Wikipedia is a free online encyclopaedia, written collaboratively by the people who use it. It is a special type of website designed to make collaboration easy, called a wiki. Jimmy Wales and Larry Sanger launched Wikipedia on January 15, 2001, the latter creating its name, wiki (quick) and encyclopaedia<sup>38</sup>.

### **Project Management, Meeting and Collaboration Tools;**

- BigBlueButton – It is built for online learning. It enables universities and colleges to deliver a high-quality learning experience to remote students<sup>39</sup>.
- Skype - The service allows users to communicate with peers by voice using a microphone, video by using a webcam, and instant messaging over the Internet. Phone calls may be placed to recipients on the traditional telephone networks<sup>40</sup>

For this research, I focus specifically on Twitter and how it weaves together the social experience and computational tools primarily developed to foster user-centred social interaction in the #Biafra twitter network. This decision to focus on Twitter, as has been explained earlier is borne out of the understanding that the technical and non-technical attributes of Twitter make it easier to use NodeXL in mapping the social media connections associated with the Biafra online network.<sup>41</sup> Secondly, previous research on the role of social computing sites on the activities of the Biafra struggle has focused on the sociolinguistic aspects of these tools with little emphasis on the collaborative effort between the unique technical features of these tools and group usage<sup>42</sup>. By focusing on Twitter and contextualising the deductions in adaptive structuration framework, I take the argument a step forward incorporating the forward and backward

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<sup>36</sup> [www.pbworks.com/education](http://www.pbworks.com/education)

<sup>37</sup> [www.wikispaces.com](http://www.wikispaces.com)

<sup>38</sup> [www.en.wikipedia.org](http://www.en.wikipedia.org)

<sup>39</sup> [www.bigbluebutton.org](http://www.bigbluebutton.org)

<sup>40</sup> [www.skype.com](http://www.skype.com)

<sup>41</sup> (Lessig 1999)

<sup>42</sup> I review this work extensively in the next section.

linkages in the structuration process. Such a posture is necessary for this research because it helps to deconstruct existing perceptions on the consequence of SCSs, especially the unique experiences that each offer which we can in principle, and indeed in practice, disentangle from each other. Furthermore, it allows us to think systematically about the underlying foundations of these sites and the possess technologies for structured adaption and how politics is likely to change as these sites become ever more assimilated into everyday political activity.

### **Self-determination Politics in Nigeria; the Biafra Struggle.**

Nigeria became independent in 1960. Since her birth as a nation, Nigeria has been immersed in the dual struggle of maintaining its corporate existence and at the same time building an integrated nation. This struggle has been waged in the face of multiplicity of nations within it for the loyalty and allegiance of its citizens. At each point of this struggle, she has always lost to these primordial groups that compose it. The first signs of its losing the struggle showed on 30 May 1967, when the Igbo-dominated Eastern Region of Nigeria seceded from the main federation and declared its independence as the Republic of Biafra. The head of Nigeria's Federal Military Government (FMG), General Yakubu Gowon, maintained that Nigeria was one and would remain so, and with guaranteed military superiority the FMG resorted to military action to bring Biafra back into the Nigeria. The war that ensued lasted for 30 months and led to defeat and surrender of Biafra on 12 January 1970<sup>14</sup>. Since the end of hostilities, Nigeria has been kept together by what each group feels it can get from the metaphorical 'National Cake' in the accumulation process and not by any legal or psychological identification with its aspirations and goals as a nation. Thus, where and when any groups' access to this accumulation process is denied or curtailed, a phenomenon popularly known in Nigeria as marginalization, the group threatens to secede.

It is against this background that groups like the Movement for the Actualization of the Sovereign State of Biafra (MASSOB), Indigenous People of Biafra (IPOB), emerged all claiming to represent the Igbo Nation want the state of Biafra because of feeling of exclusion from the socio-economic and political mainstream of the Nigerian state. Scholars have produced a large amount of literature drawing on various aspects

and dimension of the Biafran struggle that touch on the character of the Nigerian state. In fact, it is largely considered as the most critical project in Igbo nationalism in Nigeria<sup>43</sup>. Indeed, this is to be expected owing to the prevailing pattern of its construction and composition, its rentier character, its power structure, the parochial behaviour of its hegemonic ruling class, and the present market norms that nourishes rather than reduce or eliminate poverty account largely for the emergence of ethnic militia in Nigeria<sup>44,45</sup>. Of course, all these opinions are open to individual and collective interpretations, and rightly so. However, it is important to clarify the point of entry and dimensions that this research seeks to focus on. First, as has been stated earlier, this research seeks examines the perceptions that reflect the growing debate surrounding the infusion and effectiveness of digital repertoires on political agendas. This should explain my little or no analysis of the historical, social and economic dimensions of the Biafran struggle. Secondly, in principle, there are numerous self-determination groups in south eastern Nigeria such as Movement for the Actualisation of the sovereign state of Biafra (MASSOB), Indigenous People of Biafra (IPOB) etc. In practice however, these groups have different tactics and modus operandi. In this research, I focus solely on the fusion between political interactions and technical characteristics as reflected in the #Biafra twitter network, thus I make no differentiation between these groups. In short, the historical, social and economic dimensions have been over stressed over the years and indeed they would continue to be. However, less overlooked is the slowly but steady advances of the internet on the Biafran struggle, an oversight that leads to dilemmas, while creating opportunities that I seek to explore in this research.

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<sup>43</sup> Godwin Onuoha (2017):

<sup>44</sup> *ibid*

<sup>45</sup> Jega (1996:96)



*Map of Nigeria showing the location of the proposed Biafran state.*



## Section 2

### **Literature Review and Theoretical Framework**

As social computing sites continue to penetrate the daily lives of all and sundry, broad debates over the general implications of the Internet for democracy have given rise to a set of more specific inquiries into ways in which the Internet might shape politics. As I stated earlier, much of the debate about the role of social media on the democratic process of self-determination politics has been framed by two sides, the cyber-optimists and cyber-sceptics. However, scholars are beginning to uncover specific ways in which the Internet may affect politics, and to explore these relationships using both qualitative and quantitative data<sup>46</sup>. As Farrell noted, thinking about the Internet in this way has some important implications. First—and most significantly is that it unbundles it into more discrete phenomena, allowing scholars to ask research questions that they have some hope, however faint, of answering<sup>47</sup>. There is a growing call to micro-manage the role and consequences of social computing sites on politics in a shift that could change existing perceptions from a binary to a more comprehensive approach. But is it possible to come up with a theoretical framework that could aptly accommodate such an integrative approach in the understanding of social computing sites especially for the political scientist? Can a taxonomy be established that captures both the increasing multidimensionality of social computing sites and its immediate effects on politics? These questions I argue, could be answered by the adaptive structuration theory which, regarding the two major schools of thought that have pursued the study of the role of information technology and organizational change i.e. the decision-making school and the institutionalists<sup>48</sup>, seeks to establish an integrative methodological toolkit for a more comprehensive study. It argues that, while these tools provide platforms for greater degrees of interaction and collaboration amongst these groups, it's the sociotechnical attributes that empower participants to share content and communicate with one another in distributed networks thus increasing efficiency. First and foremost, what are some of the existing ways the role/consequences of social computing sites on politics have been studied.

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<sup>46</sup> Farrell 2012

<sup>47</sup> Ibid.

<sup>48</sup> The decision school focuses on technology engineering and is rooted in the positivist tradition of research. It espouses the view that technology should consist of structures (e.g., data and decision models) designed to overcome human weaknesses. While for institutionalists, the emphasis is on social structures. The creation, design, and use of advanced technologies are inextricably bound up with the form and direction of the social order. It follows that studies of technology and organizational change must focus on interaction and capture historical processes as social practices evolve. (See the discussion segment for more theoretical analysis)

## Social Computing sites and their Causal mechanisms

In the words of Henry Farrell, the most promising way to study the Internet is to look at the role that causal mechanisms such as the lowering of transaction costs, homophilous sorting, and preference falsification play in intermediating between specific aspects of the Internet and political outcomes. He made this assertion in his article, *The Consequences of the Internet for Politics, 2012*. The summary of the arguments put forward suggest that by examining the role these causal mechanisms play in intermediating between specific aspects of the Internet and political outcomes, allows scholars to disentangle the relevant causal relationships and contribute to important present debates over whether the Internet exacerbates polarization or if it was responsible for the Arab spring. This argument was made using the case studies of the United States, and of course the Arab Spring uprisings of 2011.

Thinking about the social computing sites in this manner is problematic on some key levels. First, the very nature of a mechanism-led explanations is that they are transitional and are contingent on the presence of certain attributes before they can take place. In other words, they are too fluid to develop patterns around them, because what might work in one location might not be the same in another. Consider some of the mechanisms that linked the Internet to political outcomes of the Libyan revolution; ease of political expression, low cost of participation, socio-economic ties etc. This mechanisms Jennifer Earl argues, in the present age of information technology upturned the need for physical co-presence and enabled like-minded people to raise their voices, even from a distant location, for social change<sup>49</sup>. There is little doubt that social computing technologies promoted political participation and change of governance in Libya, the challenge is that under the same conditions, using the same tools and up against the same type of repressive leadership, the victory that was attainable on the platform of social computing sites in Libya has remained elusive in Syria, Egypt. So, while technological innovation and its mechanisms may cause political organisations to change the set of tactics over time by replacing old tactics with new ones, there are historical drawbacks to how far these modifications can impact on the goal of self-determination. In the case of the Biafra struggle, some of the contextual repertoires of contention SDGs have to select their tactics from include, the degree of finality with which the right to self-determination was put down at the time of achieving independence from colonial rule; the tribalistic character of any later attempts to invoke this right; Also, the impossibility of admitting any revision of existing boundaries for fear of starting a chain reaction culminating in general chaos<sup>50</sup>.

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<sup>49</sup> Jennifer Earl & Katrin Kimport (2014), *Digitally Enabled social change; Activism in the internet age*. MIT press. P. 55:-

<sup>50</sup> Keller, 2007

Secondly, such an idea seems to focus primarily on the technological features of the social computing sites. Different social computing sites have different architectures, encouraging or discouraging different kinds of behaviour<sup>51</sup>. As such it is possible to plausibly study differences in linking practices across blogs, Twitter (as I have done in this research), and Facebook, exploring how variations in architecture and other factors lead to different outcomes. The question that immediately comes to mind is, can these technological features by themselves be held responsible for social change? Inasmuch as one could build on this to compare the consequences of these technologies with other means of communication, the effect of these mechanisms are largely contingent on a variety of factors. Malcolm Gladwell is wary, as I am, on the short comings of growing reliance of dissidents and political activists on the technological attributes of social media especially on the contemporary politics of activism and self-determination. Deducing from Kurt Weylands study of 1848 revolutions, Gladwell argues that contemporary activists are learning the wrong lessons from history. He questions the rationale behind encouraging the reliance on 140-characters in activism instead of studying and methodological analysis. He concludes that, “where activists were once defined by their causes, they are now defined by their tools”<sup>52</sup>. At the core of his argument is that, social computing sites are far more likely to create “weak ties” than the strong ties that social movement theorists argue are the bedrock of political action. That said, there is no doubt an understanding of the technological properties plays a critical role in the outcomes of advanced information technology use especially in organisations such as SDGs. My argument is that, this ability for organisations to adapt technology to meet their socio-political tasks more often than not involves a deeper interaction of factors such as the agenda to which the system is employed – mass mobilisation, creating awareness, the target audience – international, local, opposition. This interplay implies an integrative effort that includes human interaction, evolution-in-use and organisational impact<sup>53</sup> of social computing site at the heart of socio-technological systems, the main argument of the adaptive structuration theory.

So, my question is, if triggered by more or less the same predictable conditions yet causal mechanisms are still largely indeterminate in mapping out concrete ways of explaining the consequence of internet on politics, where does that leave the political scientist as the internet continues to permeate our everyday lives? Erroneously though, Farrell seems to think that social science may have little or no answers to that question.

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<sup>51</sup> Lessig 1999

<sup>52</sup> Gladwell, 2010.

## Social computing sites and Socio-linguistic mechanisms

Another attempt at studying the role of social computing sites on politics is captured by Innocent Chilwa who brings the argument home as he examines self-determination and the struggle for political independence in Nigeria, Chilwa, I.<sup>54</sup> investigated how sociolinguistic issues such as language variations and identity and social interaction are shaping virtual communities. As such, he pays attention to language and discourse structures in analysing the digital discourse patterns of these virtual community, social interaction, language structure and ideology. He suggests that ideology is reflected in this context via the discourses produced by Biafran Online Community Groups in relation to the Nigerian state as they try to project their goals and aspiration. It shouldn't come as a surprise that again, I find his position reflective of the same one-sided focus that seems to pervade understandings of social information processes. Inherent in such a position, is the willingness to micromanage the properties of technology while ignoring the dynamic way technology and social practices mutually shape each other over time<sup>55</sup>. In other words, it is one thing to be able to passionately engage in computer mediated discourse on socio-political issues, it is another thing for this discourse to translate into lasting shift in the balance of political power at the centre towards the goal of self-determination.

The challenges with attributing people's activity on social computing sites as a reflection of their political leaning are captured by Seva Gunitsky's work '*Corrupting the Cyber-Commons: Social Media as a Tool of Autocratic Stability*' in which he lays out mechanisms on how autocrats have increasingly transformed surveillance of social media sites into tools of regime entrenchment<sup>56</sup>. He argues that certain mechanisms have enabled autocrats to move beyond strategies of "negative control" of the internet, toward strategies of proactive co-optation in which social media serves certain regime functions. These strategies include four mechanisms that link social media co-option to autocratic regime durability: 1) countermobilization, 2) discourse framing, 3) preference divulgence, and 4) elite coordination<sup>57</sup>. To put this in a better perspective, the advantages social computing sites offer to political

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<sup>54</sup> Innocent Chilwa (2012); Social media networks and the discourse of resistance: A sociolinguistic CDA of Biafra online discourses.

<sup>55</sup> Saunders and Jones, 1990.

<sup>56</sup> The framing of the study seeks to undermine the roles of states in maintaining stability and the rule of law within nonwestern states. By classifying them as tools for abusing civil rights by autocratic, it portrays a certain degree of double standards especially in light of post-Snowden revelations. However, I overlook this fundamental flaw in favour of the salient features of social media surveillance which it seeks to capture and which are necessary for this review.

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activists such as lowered cost of organisation, anonymity, the power of numbers etc. can be quickly reversed and exploited by a repressive government. A quick example can be found in the recent introduction of a no-frills internet app by Facebook called ‘**Free Basics**’, which provides access to a low-data version of Facebook and a limited number of pre-selected websites<sup>28</sup>. In principle, this version offers a step down in its privacy settings and increases its ways of widening its controlling power, and at the same time deepening its influence on the African market. In practice however, this comes at a price, the ability of users gets only the parts of the internet that some ‘interested party’ has worked with Facebook. What this all means is that, if a repressive government ‘works’ out a means of creating backdoor access to such a site, such a government could easily establish its own ways of exploiting the very same advantages that these sites give social change through misinformation, covert surveillance etc. and as Erica Chenoweth argues, because misinformation spreads faster than truths through the echo chambers created by social media, governments who can access more sophisticated surveillance and tracking tools, will up the ante on clamping down on ‘clicktivists’<sup>29</sup>. Also, there is a high possibility of preference falsification i.e. individuals will have incentives to conceal their true preferences in a wide variety of social situations. As Farrell noted, with a little personal modification, even in mildly authoritarian regimes like Nigeria, people may conceal their preferences on social networks for a different social order so as to avoid punishment. This means that people will lack information about others’ true preferences and may in turn be reluctant to display their own true preferences. As such basing a methodological assessment for examining the role of internet on just their political utterances may overlook Internet-based architectures which make preference falsification harder to monitor.

Following closely on the heels of preference falsification is the possibility of sock puppetry. Sock puppets are online identities used for purposes of deception. The term, a reference to the manipulation of a simple hand puppet made from a sock, refers to a user account controlled by an individual who has at least one other account. In identifying sock puppets, it is important to note that no explicit labels of sock puppets exist, as such the use of multiple signals that together suggest that accounts are likely to share the same owner have been advocated<sup>58</sup>. Some of the ways include identifying sock puppets based on their linguistic traits. Citing difficulty in obtaining ground-truth data about sock puppets, one can assume that they have similar usernames, or they are usually support one another, or that they write like each other<sup>59</sup>. My point is, with a social media analysis based on linguistic traits of people’s speech and choice of framing, a lot of pitfalls await the political scientist attempting to wade through the maze that

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<sup>58</sup> Srijan Kumar et al 2017

<sup>59</sup> D. Liu, Q. Wu, W. Han, and B. Zhou. 2016.

is social computing sites. Secondly, a potent social media analysis framework should be able to accommodate the influence of governments and existing political undertones owing to their persistence in adapting to the antics of digital activism. The Adaptive structuration theory (AST) offers a deeper understanding of the role of social computing sites in politics, especially in Nigeria as it aims to extend the discourse to account for both the structure of advanced technologies as well as the unfolding of social interaction as these technologies are used. Which is what I discuss next.

### **Social Computing Sites and the Adaptive Structuration Theory**

Theory Development Adaptive Structuration Theory; An integrative approach

Adaptive Structuration theory was originally developed to explain the use of group support systems<sup>60</sup>, but has been applied to a wide array of information and communications technologies (ICT), including enterprise-level systems and mobile systems, as well as to nontechnological phenomena such as leadership in group. Built on the foundation of Giddens ST Structuration theory<sup>61</sup>, it has been instrumental in explaining the mechanisms through which adaptation leads to change in organizations<sup>62</sup>, groups<sup>63</sup>, and individuals<sup>64</sup>. The theory sought to harmonise the bipolar arguments that were emerging within the socio-technical theoretical spectrum. The decision-making school has been more dominant. This school is rooted in the positivist tradition of research and presumes that decision making is "the primordial organizational act".<sup>65</sup> Decision theorists tend toward an engineering view of organizational change, believing that failure to achieve desired change reflects a failure in the technology, its implementation, or its delivery to the organization<sup>66</sup>. Its research hypotheses are grounded in either hard-line determinism, the belief that certain effects inevitably follow from the introduction of technology, or more moderate contingency views, which argue that situational factors interact with technology to cause outcomes<sup>67,68</sup>. On the other hand, researchers within the institutional school advocate a different approach: the study of technology as an opportunity for change, rather than as a causal agent of change<sup>69</sup>. The focus of study for institutionalists is less on the structures within

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<sup>60</sup> Poole 1983; Poole & Doelger, 1986

<sup>61</sup> Giddens, 1984.

<sup>62</sup> Tyre and Orlikowski 1994.

<sup>63</sup> DeSanctis et al. 2008.

<sup>64</sup> Schmitz et al. 2016.

<sup>65</sup> Perrow 1986.

<sup>66</sup> Orlikowski and Baroudi 1991

<sup>67</sup> Gerardine DeSanctis and Marshall Scott Poole (1994)

<sup>68</sup> P. M. Leonardi et al. 2010.

<sup>69</sup> Op. cit

technology, and more on the social evolution of structures within human institutions. Institutionalists criticize decision theorists for the "technocentric" assumption that technology contains inherent power to shape human cognition and behaviour; this assumption, they contest, leads to "gadget philia," an overemphasis on hardware and software and an underemphasise on the social practices that technologies involve<sup>70</sup>.

AST posits that the impacts of ICTs on organizational processes and outcomes depend on the structures incorporated in the technology and on the structures, that emerge as users attempt to appropriate the technology to adapt it to the tasks at hand. When members appropriate structural elements from platforms like social computing technologies, they may adopt them directly (which involves specifying how the elements fit into the current activity stream), change them, combine them with other structures, or use them in ways that run counter to the spirit in which they were designed (e.g., use a vote to suppress dissent, engender socio-political change). This appropriation occurs in a bid-response-elaborate process in which multiple members construct an object-in-practice, and local patterns of appropriation build over time to global patterns that hold over multiple episodes of a practice<sup>71</sup>. This theory examines this interactive process from two vantage points 1) the types of structures that are provided by the advanced technologies and 2) the structures that emerge in human action as people interact with these technologies. This gives an added advantage over alternative frameworks because it suggests that social environments shape the technical characteristics of technological systems, in this case social computing sites. The theory provides a viable platform for my analysis of the penetration power of various technological innovations such as the Internet, blogs, websites etc. AST distinguishes two elements of ICT structures, spirit and features. *Structural features* are specific rules and resources that are embodied in the material ICT artefact, while *spirit* is the general intent regarding values and goals underlying a given set of structural features<sup>72</sup>. When features are used *faithfully* in ways compatible with the spirit, outcomes of technology use are predictable and depend on how well the ICT is suited to the challenges the group faces, both externally and in its internal processes. However, if ICT structural features are used in ways incompatible with the spirit of the ICT, outcomes are much less predictable. This is what accounts for the unintended consequences of ICTs in groups and organizations, why they sometimes fail to deliver intended benefits or why their effects are unexpected.

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<sup>70</sup> Finlay 1987; Markus and Robey 1988

<sup>71</sup> Poole & DeSanctis, 1992.

<sup>72</sup> Orlikowski 1992.

## **Process of Adaptation**

AST applied the ideas of structuration to group decision support systems (GDSS)<sup>73</sup>. In their submission, information technology facilitated social interactions are organized in a sequential pattern from Input to Process and then Output. AST identifies the inputs of technology, task, and organizational environment to be the objects that hold and convey social structure into group discourse. In addition, important contingency factors are provided by a group's existing internal system (its style, memory models, knowledge, and conventions). By engaging the social structures of IT, technology gains meaning, creates process outcomes, and generates new structural resources that may be transferred across boundaries of time and space to impose their biases on subsequent episodes<sup>74</sup>. New interpretations formed during social interaction recursively create emergent structures which may be fleeting and transient, or become reified and institutionalized as new social structures with persistent influence. Now I attempt to elucidate on the Input – Process – Output structure as proposed by AST;

## **Inputs (P1, P2 & P6)**

As has been stated earlier, AST argues that information technologies provide technical structures that can be described in terms of their features and spirit. These aspects of the theory cannot be overemphasised because they embody the utilitarian dimensions of the process of adaptation. These dimensions comprise; the technical objects i.e. the artefact and its component parts—the presence perceived by users; functional affordances i.e. the potential uses of an information technology; and the symbolic expressions i.e. the communicative possibilities of a specific technical object and its relationship with other digital assets<sup>75</sup>. Putting these in perspective of social computing sites like twitter and internet messaging boards, these dimensions i.e. the artefact and its component parts, provides the technological first point of contact or the raw materials for adaptation to a user every time it is used. They largely determine the users approach either to interactively/collectively rearrange, add, delete, or even modify individual elements of the site. Furthermore, as users engage with these inherent technical structures, their approach to it may vary depending on the task, the environment, and other contingencies that offer alternative sources of social structures. For example, in the recent coup attempt in Turkey, the President Erdogan made use of FaceTime<sup>76</sup>, iPhone's video chat feature to address the country when coup plotters seized control of the state media outfits to rally support in defence of the government.

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<sup>73</sup> Poole M. S.

<sup>74</sup> Gopal et al. 1993.

<sup>75</sup> Markus and Silver 2008.

<sup>45</sup> Kallinikos et al. 2013.

<sup>76</sup> <https://qz.com/739198/is-internet-freedom-a-tool-for-democracy-or-authoritarianism/>

This goes to show that task-related structures in social computing sites include both the process structures and environmental structures present when interaction takes place. The result is a collective conceptualization that includes situation specific requirements for performing a task. The final input block as proposed by AST is the group's internal system encompassing assets of participants. Individual personalities impose certain degree of influence the overall direction of a group's style of leadership and utilisation of information technologies. This includes transactive memories, group chain of commands, style of leadership, and conventions for group behaviour and team goals, each with parallels for an individual. The accumulated knowledge, skills, abilities, and experience of particle entities within groups forges a memory base from which the group constantly uses to engage in innovation<sup>77</sup>. Beyond this influence of personality, agreements on how these technology is approached is a product of the emotional reactions that build and evolve over a series of usage episodes. It is the combination of the structures for adaptation and the groups internal structures that provide technology, task, and individual characteristics that influence adaptation during the input episode.

### **Factors influencing Social Interactions in Information Technologies (P5 & P3)**

The very nature of technologies and their inherent structure exposes it to various levels of perception and some degree of malleability for adaptation. When individual, either within a group, or acting alone decide to use technologies to perform a task, a decision - usually a product of time, geography- is made to use the technology as currently understood for the conventional work task, or to supplement this behaviour by attempting adaptations. So, in this phase of the adaptation process tasks are more often than not the backbone of the social interaction between humans and technological systems. It is important to separate the concept of task from technology to provide a more distinct description of user behaviours based on the distinction between adaptation of technology and adaptation of tasks. For a better understanding, Task is defined as "a stimulus complex and a set of instructions that specify what is to be done vis-à-vis the stimuli. The instructions indicate what operations are to be performed by the subject(s) with respect to the stimuli and/ or what goal is to be achieved"<sup>78</sup>. In short, tasks refer to the actions performed in the process of transforming instructions into products. Tasks and technologies do not adapt on their own accord as such adaptation is contingent on the increasing knowledge and understanding of the instruction to which such technologies would be used. This

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<sup>77</sup> Agarwal and Prasad 1998.

<sup>78</sup> Goodhue and Thompson 1995.

continuous interaction between understanding the tasks and the technological features underscores the duality of structures both between and within usage periods. In other words, as individuals put technology into action its structures are constantly reified or redefined based on the understanding of the task. To put this in perspective, a key task for self-determination groups is mass mobilisation. In a country like Nigeria where that freedom is largely curtailed, the best way to carry out this task is to use social computing sites. Even at that, not all sites would be helpful, for example on Facebook you will need to send an individual a ‘friend request’, which the said individual has to accept, for permission to interact with the person. But on twitter the process of getting an individual into your network is easier with a simple ‘mention’ of such an individual. As such, this basic technical feature of twitter serves the overall task for mass mobilisation. So, we see that in the process of utilising a new technology, users interact with these embedded biases and respond by adapting processes and technical structures.

The above example on the interplay of task and technology mirrors the task-technology fit model (TTF), in which the functionality of a technology matches the task as well as the abilities of the individual who performs the task. As Schmitz et. al posit, “some work tasks may be largely fixed by constraints such as statutory regulation and laws of nature, others may rely on varying levels of autonomy, organizational license, technical skill, or motivation on the part of individuals to participate in activities that seek to circumvent existing protocols of usage. Similarly, some technologies may be less malleable due to security precautions taken by the developer, economic practicality, or limitations in scientific advancement”. Such looped interaction between human perception of the task at hand and the technical features imposes a feedback structure into the technology, with the user inscribing capabilities and symbolism into the technology artefact and thereby altering the utility value of that technology. In summary, from the perspective of AST, the spirit of a technology adapts as a user’s understanding of that technology’s capabilities and affordances improve<sup>79</sup>.

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<sup>79</sup> Adamopoulos, P. 2012

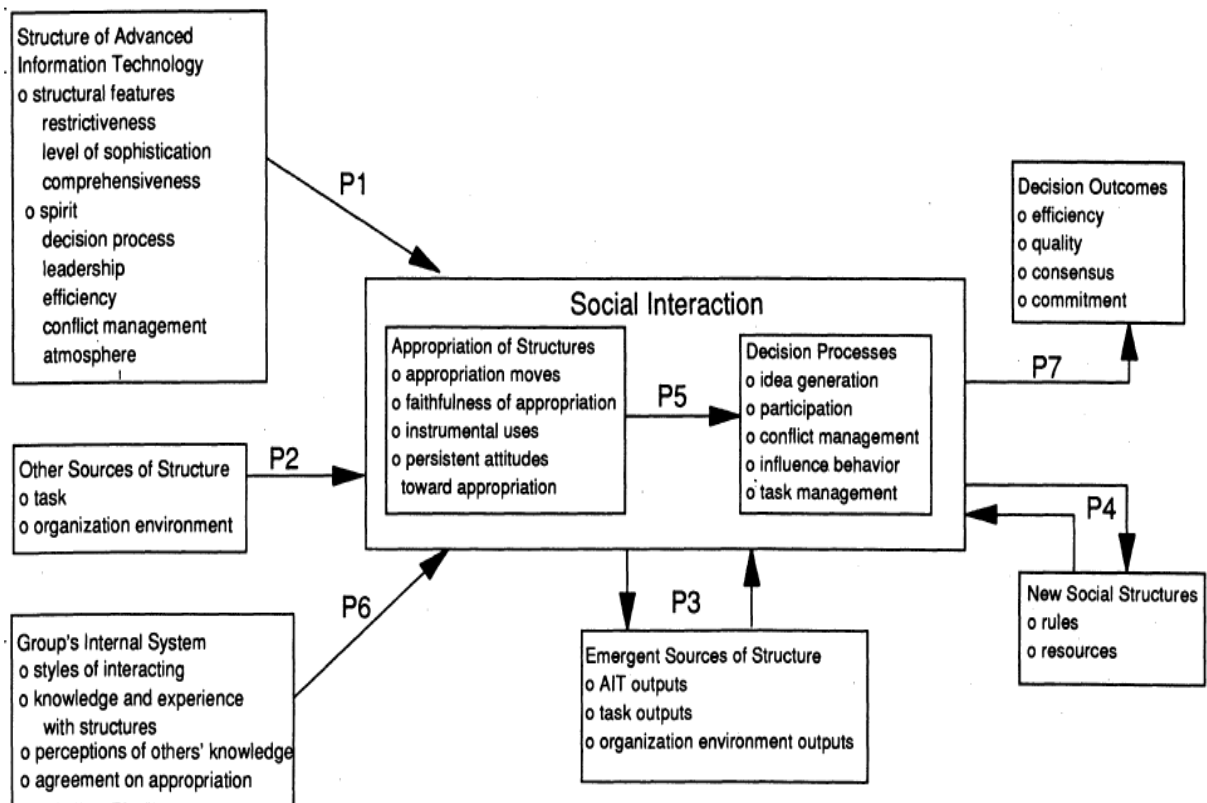


Fig. 1 Summary of AST constructs (adapted from DeSanctis and Poole 1994)

**Output: Outcomes and Emergent Structures (P4 & P7).**

The emerging structures from the structuration process proposed by AST suggests that adaptation is no longer determined solely by the intent of the developer, but rather is tied to how the user understands the technology and for what task it is available for in each usage episode. What this means is that, the intended use of a tool will be manipulated and adjusted many times during periods of use thus culminating in an outcome that has benefit for the setting in which a task takes place. Of course, it goes without that outcomes may vary from one usage episode to another as groups adapt the technology and/or task and thereby alter the performance potential. What is interesting to note is that, at this stage the influencing factors may be temporary, affecting only the current social interaction, in this case they will be identified as transient structures or point-in-time adaptations<sup>80</sup>. These changes are transitory in the meaning and influence they hold during a single episode, and over a short period of time of unfavourable outcomes they are soon neglected and forgotten. On the other hand, when features that have been reinforced through multiple episodes form more permanent structures, they solidify over the course of multiple interactions and create new or persistent social structures i.e. structures that are a

<sup>80</sup> Schmidt et. al

legacy from structuration episodes that serve as raw material for future use and adaptation. Adaptations that create value are more likely to be retained and persist across usage events and overtime they become institutionalized with influence that extends across time and space<sup>81</sup> Identifying these influencers and their impact on the adaptation outcome represents a salient feature in AST because it is easy to fade into the background external forces that are components of neither the features nor spirit of a technology. In this regard, social computing sites like Facebook, twitter which were designed for social interactions are seeing their platforms being influenced by the whims and caprices of political state and non-state actors, forcing the developers to adapt measures to promote or curb such tendencies. In addition, as these technologies are redefined and transformed so also the task processes during structuration episodes will similarly be tried and discarded or remembered and routinized. Add this interaction between technology and task to the influence of emotional attitudes of individuals and their experience over time, the outcome would see the emergence of new structures in the technology, task, and perceptions based on the environmental structures in which they are applied during social interaction. This interaction, AST argues is a product of modification in technology features and capabilities of such social computing sites by users, new possibilities are created that make the artefact qualitatively different with new value over and above that which previously existed<sup>82</sup>.

### **Self-determination Politics in the Adaptive Structuration Process**

At this point, I have established that technologies are not simply physically constructed by their designer and implementers. They are also socially constructed by the interpretive action of users who give meaning to the technology every time they appropriate it. While I don't contend that the parallel constructs function in exactly the same way every time, they each provide structural influence on behaviours linking AST and the activities of SDGs. This is because, these social computing sites bring together the most powerful features of online interactions in a manner that aligns with AST i.e. the fungibility of human interaction with technology. In practice, these SDGs exert a degree of understanding of SCSs when appropriated, thus empowering their members to create new interpretations that redefine both task and technology structures. This segment integrates SCSs as appropriated by SDGs in the Input, Process, Output adaptive structuration model.

AST provides a model that describes the interplay between advanced information technologies, social structures, and human interaction. Consistent with structuration theory, AST focuses on social structures, rules and resources provided by technologies and institutions as the basis for human activity.

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<sup>81</sup> Germonprez and Zigurs, 2009

<sup>82</sup> Tyre and Orlikowski 1994



This interplay is can be seen in the activities of Nolitics (short form for **Nigerian Politics**) blog<sup>83</sup>. Chiluiwa, I. in analysing its activities, examines the advantages of such platforms as part of computer mediated discourses (CMD) combining speed and currency with the facility that enable asynchronous CMD (e.g. blogs and posts) to be stored and archive messages at the addressee's site until they are read, interactants are able to monitor and follow-up socio-political debates to their conclusions. As he puts it;

*“Since Nolitics take the form of blogs, they share some general features that are common to the blog genre such as (1) asynchronicity (i.e. unlike synchronous computer mediated discourse (CMD), they do not require that users be logged on at the same time in order to send and receive messages, rather messages are stored at the addressee's site until they are read, (2) one-way communication (3) message are archived until they are read, (4) web-based delivery and a tendency for messages to be text only (5) the display of blog entries in reverse chronological sequence, with a ‘comment’ option below each entry”<sup>84</sup>.*

Already we begin to see how the nature and functions of SCSs by SDGs in southern Nigeria emphasising discursive elements such as wall posts, photo sharing, video dissemination etc. all of which are aimed at demanding deeper forms of reflection and compositional processing<sup>85</sup>. Indeed, a key attribute of Nolitics, and social computing sites as captured by Chiluiwa, I. is their ability to offer alternative strategies for opposing corruption and political power abuse, initiating and practising political propaganda by politicians and as discourse tact of preventing offences i.e. spreading narratives. A main strength of this position is the acknowledgment of the mutuality in the influencing power of technology and socio-political structures.

These same structures can be extended to Twitter which has emerged as a major location of political interaction in Nigeria since 2012, following the Occupy Nigeria campaigns. With an estimated tweet every second during the protest, the movement highlighted that Nigerians are capable of, and will mobilize to demand change from the government<sup>86</sup>. What is more, mobilisation was not restricted to twitter, the campaigns saw the first translation of cyber conversation to actual mobilization beyond those platforms. It is not clear if these groups are really experts in the underlying technology and characteristics upon which Twitter is constructed, however, certain technical features – key amongst

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<sup>83</sup> A Nigerian online political discussion forum that provides an opportunity for social interaction and political participation, through new media technologies.

<sup>84</sup> Chiluiwa, 2011: 80.

<sup>85</sup> Computational approaches to online political expression

<sup>86</sup> LeVan, Carl, and Patrick Utaka.

which is its Public Application programming interface (API)<sup>87</sup>, makes twitter easy for structural adaptation to technology and task. Also, asynchronicity i.e. they do not require that users be logged on at the same time in order to send and receive messages, rather messages are stored at the addressee's site until they are read, one-way communication makes internet messaging boards (IMB) feature prominently in the digital repertoires of SDGs in southern Nigeria<sup>88</sup>. These SDGs utilise these tools to identify with the common history of their members, most of whom are Igbos. And they share the history of the civil war as main actors and are viewed as 'rebels' who now see themselves as suffering from generational punishment in the form of economic denials and social exclusion. Their common interest is the sensitization and mobilization of Igbo youths towards the ultimate goal of the realization of the defunct Biafra nation. As has been stated earlier, task and technology do not spontaneously adapt on their own accord, as such each structure for adaptation has some degree of malleability or various ways in which technology is adapted to suit task-specific requirements. In the case of SDGs, the above stated technologies have been adapted in numerous ways, prominent of which is the Biafra online community groups (BOCG)<sup>89</sup>. These mediums function as Internet Message Boards (IMBs) or discussion forums where members regularly update personal journals, publish and share fresh ideas, and respond to posts by other members. Most of the posts are media reports culled from offline newspapers, magazines, memes, etc. these trends are increasingly seen in regions of the world where violent conflict is ongoing or imminent. Unlike other SDGs in the country, the forces and interests behind their extensive use of digital repertoires such as social computing sites to spread images, symbols, narratives of the Igbo past and a version of Igbo historiography inspires a deeper sense of belonging and shared suffering<sup>90</sup>. Using NodeXL<sup>91</sup> this study reviewed Twitter user accounts (with the #Biafra) associated with SDGs in southern Nigeria in a bid to create a typology of the key behaviour, characteristics and motivations. This study revealed that the key narratives spread on these sites are;

a. The Biafran anthem, flags and emblems,

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<sup>87</sup> An application programming interface (API) is a specification intended to be used as an interface by software components to communicate with each other. A major advantage of offering a public API is to promote external innovation, further strengthening the base technology, service or data. Offering data externally allows developers to create products, platforms, and interfaces without the need to expose the raw data.

<sup>88</sup> An Internet message board (or forum), is an online discussion site where people can hold conversations in the form of posted messages.

<sup>89</sup> BOCG is a virtual community, which acts as a platform for coordinating Biafra online resistance which include Biafra World, Biafra Forum and BNW.

<sup>90</sup> Duruji, M. M. 2012

<sup>91</sup> NodeXL Basic is a free, open-source template for Microsoft Excel that makes it easy to explore network graphs. <sup>61</sup> The Igbo identification with the Jews is perhaps the most ironic and exploited aspect of the neo-Biafran struggle for selfdetermination. As they are perceived to have suffered the same fate as the Igbo nation in the face of genocide.

- b. Biafran images, objects and literatures,
- c. The Igbo–Jewish connection and processes of conscientisation<sup>61</sup>,

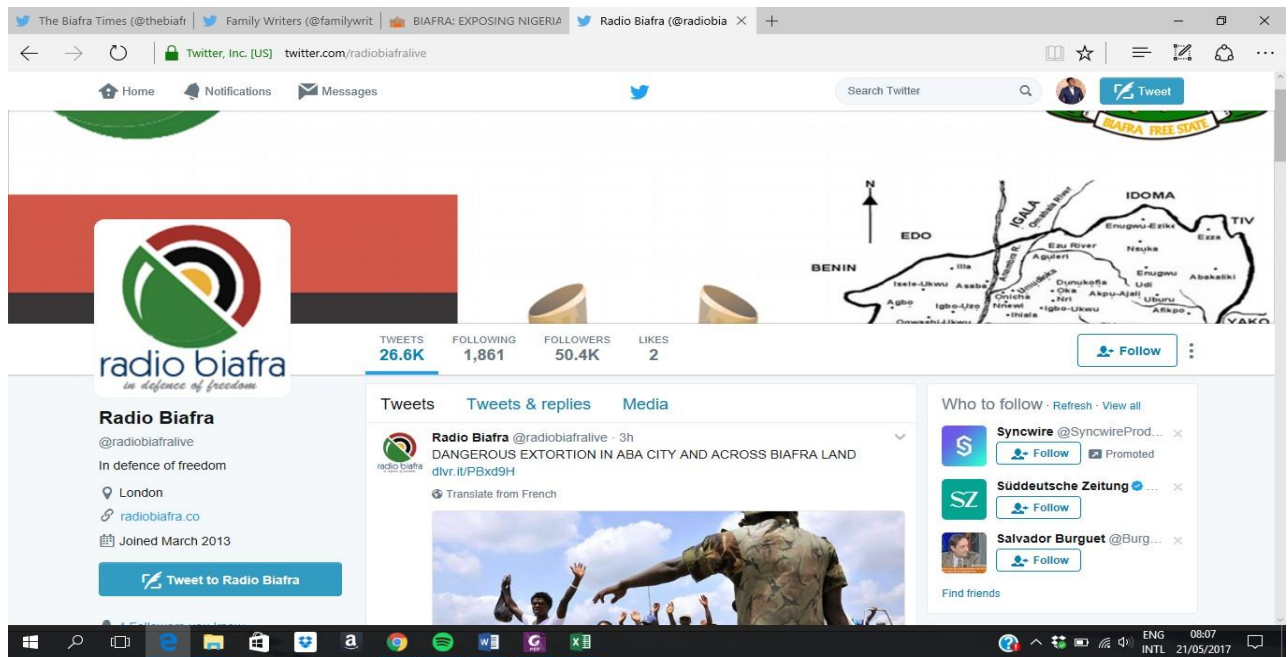


Diagram 1; Screen shot of a Twitter page associated with the #biafra.

This need to deploy certain radical features, use of inflammatory rhetoric in a wider struggle for political power and as vehicles for entrenching their claim to self-determination has put them on an inevitable clash with State Security Services. These activities, especially by the Biafran movements have constantly been located within civil society literature that categorises these movements ‘as overtly militant and non-mainstream groups that exemplify radical civil society par excellence’<sup>92</sup>. As expected, these positions have drawn reactions from scholars who have argued that this frame is a methodological one that draws largely on the sensationalist or delinquent treatment of the activities of the neo-Biafran groups in the day-to-day debate among Nigerians, in national newspaper coverages, policy and security-related statements by politicians, government and other stakeholders<sup>93</sup>. This becomes obvious when attention focuses on news making protest activities, demonstrations, or sit-at-home orders occasionally issued by the movement, while the character of their struggle is hardly made the focus of scholarly enquiry.

<sup>92</sup> Adekson 2004; Agbu 2004

<sup>93</sup> Onuoha 2013; Adejumobi 2003



Diagram 2; another twitter account associated with #Biafra

However, what is interesting is that SDGs are deepening the interactions between their social and political requirements and social computing sites, instilling a degree of pluralism to technological advancement. This fits into the expectations of the theoretical framework adopted by this research, especially as it relates to the need to bypass technological linearity that alternative frameworks offer. As I stated earlier on, an interesting dimension in this phase of adaptation by SDGs is the influence of ‘Point-in-time adaptations’ of input structures, these are depicted as persistent structures in Figure 2. Modified structures that persist become institutionalized with influence that extends across time and space<sup>94</sup>. Structures that are reified through multiple episodes become the new norm as they redefine the structures for adaptation. These persistent structures are a legacy from structuration episodes that serve as raw material for future use and adaptation. These persistent structures may be fleeting with meaning and influence during the process of adaptation, nevertheless in the case of SDGs, external political and security factors largely influence the degree of influence these SCSs have on the laid-out agendas. Following the end of the civil war in 1970, political and security adaptations through various military regimes have created a negative value/perception about SDGs that has been retained and continues to persist across usage events. Neglect is expected for adaptations with unfavourable outcomes.

In summary, we see that rising out of this bipolar world order is a thriving comparative literature, much like a third dimension, which is starting to examine how the Internet shapes democratic politics

<sup>94</sup> Germonprez and Zigurs 2009.

on a wider scale and its implications on various levels of society. This chapter has focused on reviewing the extensive literature that abounds regarding the role of social computing sites on politics as a whole and self-determination in southern Nigeria. It nestled these arguments within the propositions of the adaptive structuration theory to provide a firmer foundation for the arguments. As expected, the literature was/is diverse especially on the composition of the current repertoires of these SDGs. What this section has tried to do is to review the way digital repertoires are enhancing cultural and political discourses in influencing nationalist ideals, and how SDGs use SCSs to find expression in the dynamics of struggle and resistance. Indeed, it is becoming increasingly possible to break down broad questions - such as the consequences of the Internet for citizenship, identity etc- into specific lines of inquiry regarding, e.g., effects on political knowledge and political participation and exposure to different opinions<sup>95</sup> the impact of these sites within the framework of a national context<sup>96,97,98</sup>. Furthermore, easier access to good data is proving to be a game changer in the field. Thus, for example, Collins et. al (2016) could mine data from Twitter using the NodeXL analytic tool to better gauge social media impact on the politics of developing countries. In the next segment, I use the same tool to analyse the degree of technical collaborative efforts on the #Biafra twitter network.

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<sup>95</sup> Bimber 2012

<sup>96</sup> Collins et al. 2016

<sup>97</sup> Chadwick 2006

<sup>98</sup> Gibson & McAllister 2011

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## Section 3

### Episodes of Usage

So far, this research has focused on laying a solid theoretical and literature background that will give directions and meaning to the role of SCSs in south-eastern Nigeria. In this regard, I have argued that SCSs are increasingly becoming part and parcel of the digital repertoires of self-determination politics between the Biafran agitators and the Nigerian government. Furthermore, I have incorporated the noticeable patterns of these engagements in the adaptive structuration process as a means of developing a model that makes sense out of these social computing activities. In this segment, I take the argument a step further with an analysis of the role of SCSs in self-determination politics using NodeXL<sup>99</sup> (to analyse Twitter) to gain deeper insights into the degree of social media interactions by these groups. This segment opens with the brief description of the computational approach behind the use of these tools i.e. the ‘what, why & how’ of these tools. This will be followed by an analysis of the political discourse associated with the SDGs in south-eastern Nigeria, key amongst this is the #Biafra. This segment will analyse the contents of selected SCSs (tweets, blogs, echo chambers etc) related to the use of Hashtag Clusters, Expression Intensity, Network mapping associated with the #Biafra. This chapter concludes that, exploring the value of computation approaches in analysing the role of SCSs on self-determination politics can provide unique insights into how political elites and their followers deploy language around controversial political issues. Furthermore, this approach reveals how these forms of expression splinter into polarised factions, coalesce into action and get recirculated through networks.

#### **NodeXL;**

NodeXL is a general-purpose network analysis application that supports network overview, discovery and exploration<sup>70</sup>. The tool enables the computerisation of a data flow that starts with the collection of network data and moves through multiple steps until final processed network visualizations and reports are generated (Diagram 1). NodeXL allows for the quick generation of useful network statistics; metrics and visualizations in the context of the familiar Excel spreadsheet (Diagram 2). Simple filtering and flexible display attributes can be used to highlight important structures in networks easily. NodeXL supports the exploration of social media with import features that extract network data from a range of data sources like personal email indexes on the desktop, Twitter, Flickr, YouTube,

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<sup>99</sup> NodeXL (a free Excel plug-in) is developed by the Social Network Foundation (NodeXL Graphs, 2016) which is a not-for-profit organization dedicated to creating *open tools*, *open data*, and *open scholarship* related to social media.

Facebook, Wikis and WWW hyper-links (see Diagram 3). Other sources of data can be imported through text, CSV, or Graph files. In NodeXL, networks are made up of nodes (often people or organizations) and edges (the relationships or exchanges between nodes). The set of nodes and edges that make up a network form the data set for analysis. I chose this tool to test the depth of social media interactions because it is very flexible to work with, it uses so many types of algorithms to show many types of data relationships in social media. Furthermore, like other types of data, there are quantitative metrics about networks, for example, the overall size and density of the network. Also, Twitter offers an abundance of unstructured, voluminous data generated from heterogeneous sources in a short space of time. There are four basic steps to creating a social network map in NodeXL: get NodeXL, open NodeXL, import data, and visualize. In the analysis, I will use this tool to extract data from twitter accounts that twitted, re-twitted or commented on the hashtag, #Biafra during its 50<sup>th</sup> anniversary. Hashtags indicate a subject matter that a lot of people are interested in. And they start to follow each other and create a network, because the use of that hashtag creates a link that connects to all other Twitter posts that used that hashtag. It is like a group that gets together to talk about a subject. As they reference each other using the “@” sign, they create a tie. The subject in the hashtag indicates the popular topics people are talking about. Using this hashtag, I look for posts that contain the subject using Twitter Search Network. Subsequently, several algorithms like the Fruchterman-Reingold algorithm, Harel-Koren Fast Multiscale algorithm and the ClausetNewman-Moore algorithms are used to analyse the social media metrics like betweenness, closeness centralities, etc., and visualize the socio-grams.

## **Computational Approach**

NodeXL enables the automatic execution of a five-step data work flow that starts with data collection from a variety of network data sources, through storage, analysis, visualization and finally publication. Each step is configured by the user and can then be executed in a batch. Users interact with the network via the familiar spreadsheet interface:

## **Collection**

First, I initiate the data analysis process by collecting a data set using the NodeXL data importer. NodeXL enables simple access to social media and other forms of network data through a menu of popular network services. In this case, I collected data from twitter search networks

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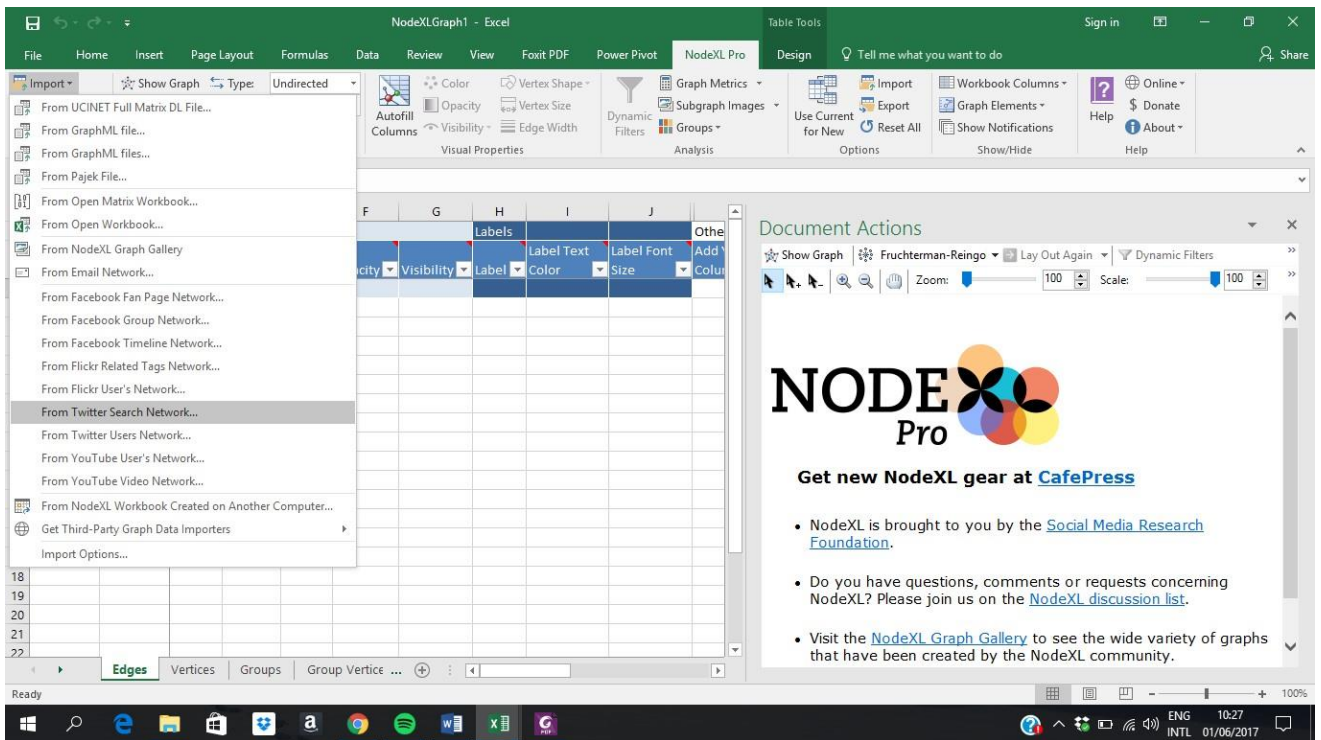


Diagram 1

After that, I used the NodeXL Twitter data import feature to extract networks for topics related to the search word #Biafra. NodeXL automatically adds an “edge” which describes the connection between two twitter users that is formed when they follow, reply or mention one another. Data about each user along with the contents of their latest tweet were also selected to be added to the data set. An age limit of about a week reduces the total set of messages Twitter will return. Studying longer time periods requires repeated data collections. To conduct this analysis, I monitored and conducted the research on the #Biafra over a period of 3 months.

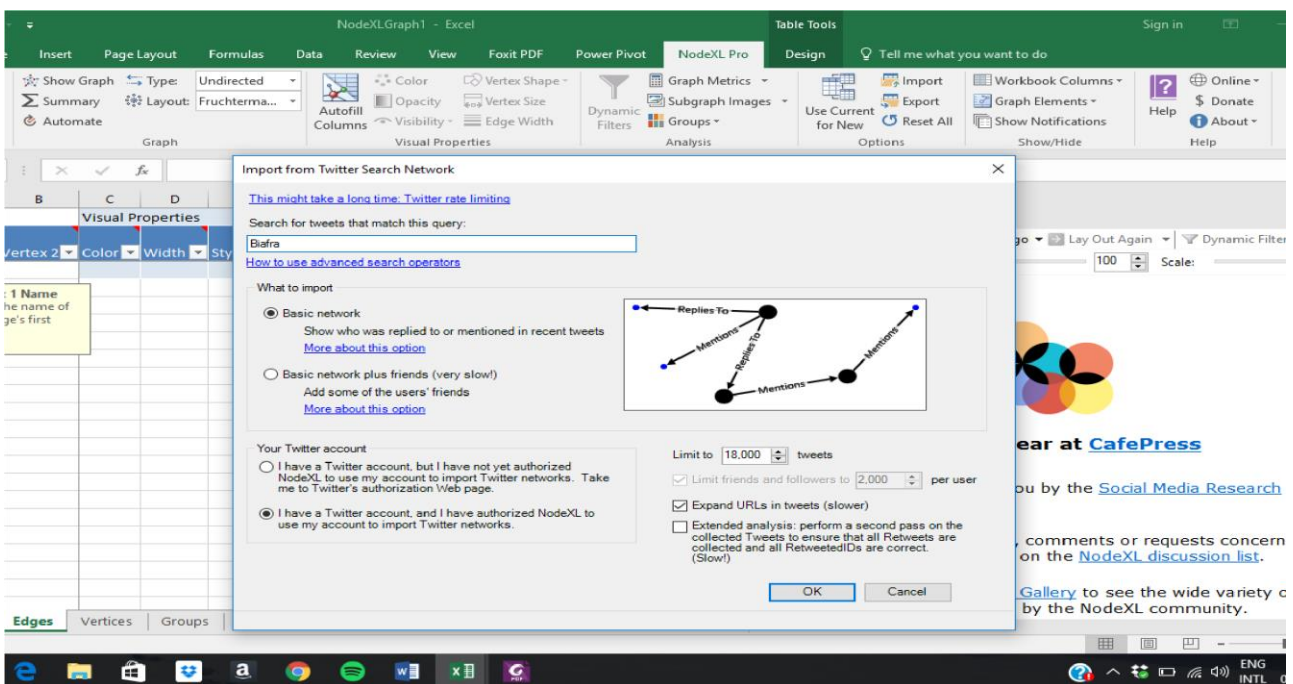


Diagram 2



The resulting set of tweets is then processed further by NodeXL. Data is assembled from the results of many queries to Twitter about the connections among the authors in the data set. The results are displayed in a NodeXL worksheet labelled “Edges” in the workbook (Figure 5)<sup>100</sup>

The screenshot shows the NodeXL Pro interface in Excel. The main data table is titled "Edges" and contains the following columns: Vertex 1, Relationship, Date (UTC), Tweet, URLs in Tweet, Domains in Tweet, Hashtags in Tweet, Media in Tweet, Tweet Image File, Tweet Date (UTC), Twitter Page for Tweet, Longitude, and Follower. The table lists various users and their interactions with tweets containing the #Biafra hashtag. For example, the first row shows a mention by user 'fpcrules' of a tweet by 'fpcrules' about the Nigerian Army plan to send Biafra to IPOB.

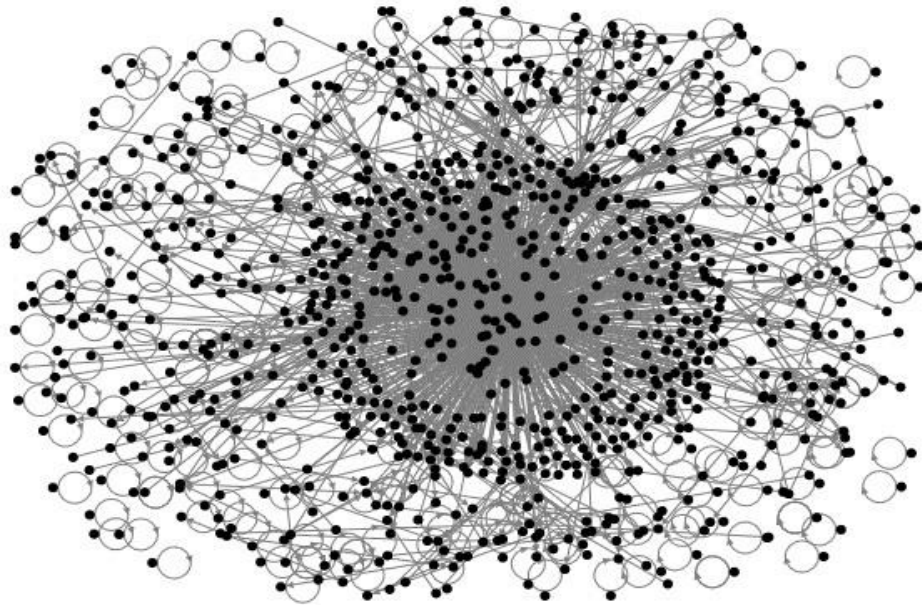
Vertex 1	Relationship	Date (UTC)	Tweet	URLs in Tweet	Domains in Tweet	Hashtags in Tweet	Media in Tweet	Tweet Image File	Tweet Date (UTC)	Twitter Page for Tweet	Longitude	Follower
fpcrules	Mentions	#####	#Biafra: @HQNigerianArmy plan to s biafra ipob	http://pbs.twimg.com/media/...	pbs.twimg.com	#Biafra		http://pbs.twimg.com/media/...	#####	https://twitter.com/fpcrules/status/869217046676025344		FALSE
ackchilli	Tweet	#####	I am open to correction but is this biafra thing is just about an lgh	http://pbs.twimg.com/media/...	pbs.twimg.com			http://pbs.twimg.com/media/...	#####	https://twitter.com/ackchilli/status/869504865571135488		FALSE
uzomaabba	Tweet	#####	Biafra Ma! <a href="https://fb.com">https://fb.com</a>	https://fb.com	fb.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/uzomaabba/status/86950486519727109		FALSE
adforumco	Mentions	#####	RT @AdForumCo: #AdForumCo! don' adforumco biafra	http://pbs.twimg.com/media/...	pbs.twimg.com			http://pbs.twimg.com/media/...	#####	https://twitter.com/adforumco/status/869504869782224096		FALSE
hiphop_mil	Tweet	#####	Biafra: 50 <a href="http://www.rfi.fr">http://www.rfi.fr</a>	http://www.rfi.fr	rfi.fr			https://pbs.twimg.com/media/...	#####	https://twitter.com/hiphop_mil/status/869504870365229056		FALSE
adforumco	Mentions	#####	RT @AdForumCo: #AdForumCo! don' adforumco biafra	http://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/adforumco/status/869504884562853888		FALSE
uzokanze16	Tweet	#####	Biafra is a great nation <a href="https://t.co/2285nHnMDI">https://t.co/2285nHnMDI</a>	https://t.co/2285nHnMDI	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/uzokanze16/status/869504916162838528		FALSE
emikaboli	Mentions	#####	RT @L_pisVodka: "I don't think 2nd c biafra	https://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/emikaboli/status/869504920604532118		FALSE
vanguard	Mentions	#####	RT @vanguardngnews: Shut-down for 50th anniversary of Biafra	https://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/vanguard/status/869504927269257217		FALSE
transafrica	Tweet	#####	Biafra Wa <a href="http://www.transafricadio.net">http://www.transafricadio.net</a>	http://www.transafricadio.net	transafricadio.net			https://pbs.twimg.com/media/...	#####	https://twitter.com/transafrica872/status/869504937620910081		FALSE
ilkeysiblogs	Tweet	#####	Biafra: Don't open fire on IPOB, MASSOB members – Al warns secu	https://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/ilkeysiblogs/status/869504937708756993		FALSE
adforumco	Mentions	#####	RT @AdForumCo: #AdForumCo! don' adforumco biafra	http://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/adforumco/status/869504950711308288		FALSE
emivee	Tweet	#####	Biafra: Do <a href="http://daily.postng.com">http://daily.postng.com</a>	http://daily.postng.com	postng.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/emivee/status/869504956612489216		FALSE
prince_viii	Mentions	#####	RT @PRINCE_VIII: If Biafra leaves Nigeria, will Biafra fight with Nig	https://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/prince_viii/status/8695049575984247808		FALSE
mbuhari	Replies to	#####	@realIFK @MBuhari u my broda because u believe in Biafra I lo	http://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/mbuhari/status/8695049609869162273234		FALSE
trib	Mentions	#####	RT @BBC: <a href="http://trib.trib.al">http://trib.trib.al</a> biafra	http://trib.trib.al	trib.al			https://pbs.twimg.com/media/...	#####	https://twitter.com/trib/status/8695049609869162273234		FALSE
trib	Mentions	#####	RT @BBC: <a href="http://trib.trib.al">http://trib.trib.al</a> biafra	http://trib.trib.al	trib.al			https://pbs.twimg.com/media/...	#####	https://twitter.com/trib/status/8695049609869162273234		FALSE
adforumco	Mentions	#####	RT @AdForumCo: #AdForumCo! don' adforumco biafra	http://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/adforumco/status/869504970504253442		FALSE
ediong	Mentions	#####	RT @Ediong: If you want Biafra history that would smooch your eg	https://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/ediong/status/869504972991467520		FALSE
metrostang	Tweet	#####	Biafra@s <a href="https://ime.metrostang.com">https://ime.metrostang.com</a>	https://ime.metrostang.com	metrostang.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/metrostang/status/86950497240550144		FALSE
vanguard	Tweet	#####	Vanguard <a href="http://www.vanguardng.com">http://www.vanguardng.com</a>	http://www.vanguardng.com	vanguardng.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/vanguard/status/869504977882009604		FALSE
realbuch1	Mentions	#####	RT @RealBuch1: A society that refus biafraheroesday biafraat50	https://pbs.twimg.com/media/...	pbs.twimg.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/realbuch1/status/869505009679044609		FALSE
ayobami_sj	Tweet	#####	Biafra: Re <a href="http://www.topnigerianews.com">http://www.topnigerianews.com</a>	http://www.topnigerianews.com	topnigerianews.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/ayobami_sj/status/869505014481506304		FALSE
bloel0tv	Tweet	#####	Biafra At: <a href="https://fb.com">https://fb.com</a>	https://fb.com	fb.com			https://pbs.twimg.com/media/...	#####	https://twitter.com/bloel0tv/status/869505029279027200		FALSE

Diagram 3

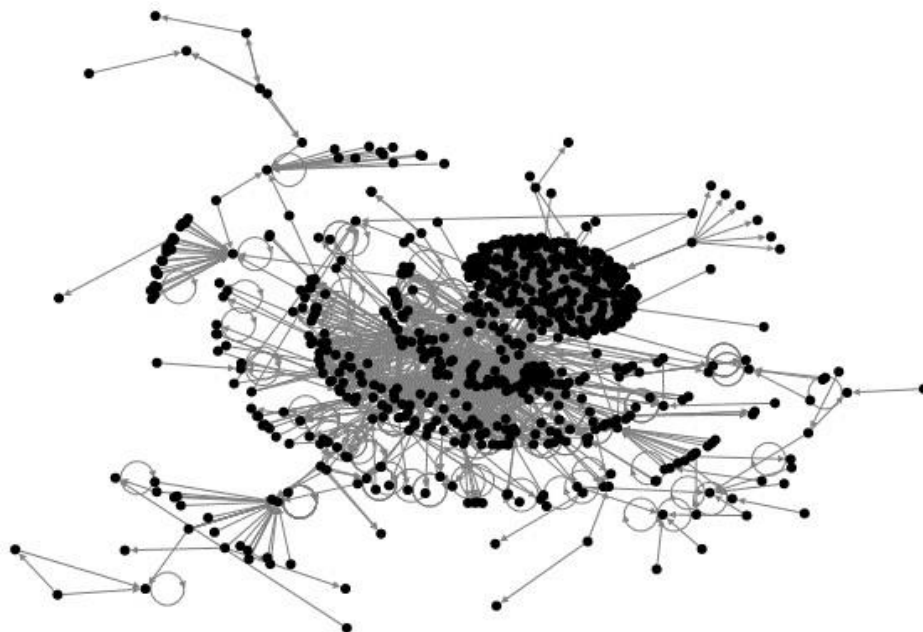
From this spread sheet, we see that NodeXL displays “Edge List” connections between Twitter users who posted a tweet containing the search term #Biafra. Each “edge” represents a connection event between two people who tweeted within the data sample period. Edges can represent the various kinds of relationships that can be created through Twitter. NodeXL constructs four different types of Twitter edges from the data it collects: follows, replies, mentions and tweet. A “follows” edge is created if one author follows another who also tweeted in the sample dataset (the time stamp for a follows edge is the date of the query rather than the time when one user followed another user, which is information that is not available from Twitter). A “mentions” edge is created when one user creates a tweet that contains the name of another user. A “reply” relationship is a special form of “mention” that occurs when the user’s name is at the very start of a tweet. A tweet is a message that does not contain a reply or mention.

<sup>100</sup> Pew Research Centre, 2014.

Many networks can be decomposed into smaller sub-groups or regions based on differences in the ways groups of vertices or users connect to one another. There are many algorithmic methods for creating sub-groups from the larger population. The default clustering algorithm for NodeXL is Fruchterman-Reingold. Others are Harel-Koren fast multiscale, horizontal sine wave, vertical sine wave etc. These approaches generally divide the network guided by the ways some people connect to one another more than to other groups. Often networks have several densely interconnected but separate groups of people who connect more to themselves than to others.



Fruchterman-Reingold Algorithm mapping of the #Biafra twitter Network.



Harel-Koren fast multiscale mapping of the #Biafra twitter Network.

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A range of measures of the graph can be calculated for each vertex in the network and for the network as a whole (figure 7). Each of the network metrics captures a different dimension of the size and shape of the graph and the location and connection properties of each person or entity in the network graph. I selected the creation all of the network metrics available through NodeXL.

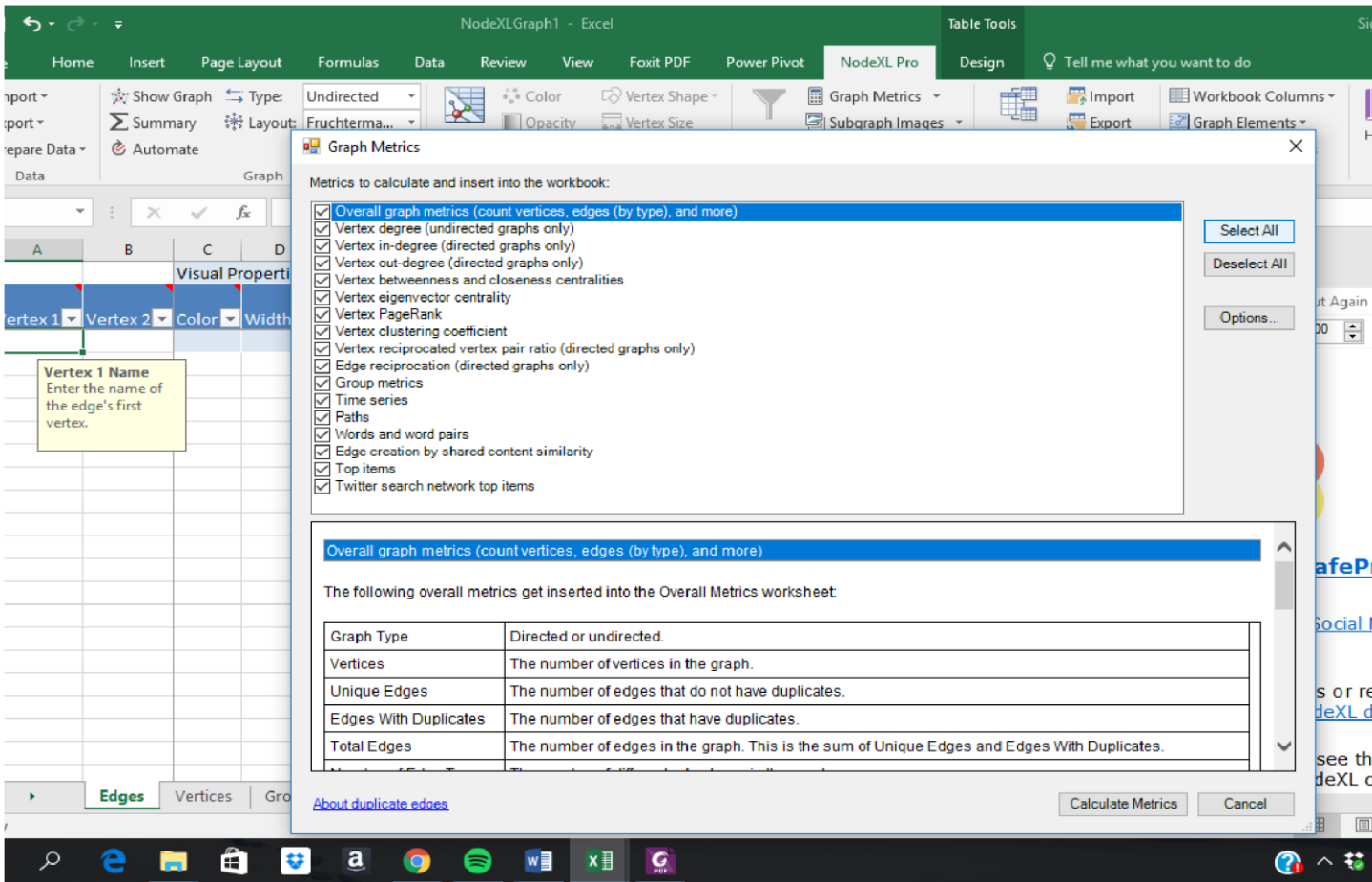


Diagram 3

Following these steps, I proceed to analyse the network associated with the #Biafra online campaigns.

### Visualising the twitter network associated with #Biafra

The vertices i.e. people or objects that twit, re-twit or mentions/mentioned generated from this search returned 927 individuals. While the edges which are ties or connections between nodes returned 1425 connections between the 927 individuals from the search. The table below summarises the surface details of the graph.

## Overall Graph Matrix

Graph Metric	Value
Graph Type	Directed
Vertices	927
Unique Edges	1425
Edges With Duplicates	908
Total Edges	2333
Self-Loops	472
Reciprocated Vertex Pair Ratio	0.003748126
Reciprocated Edge Ratio	0.00746826
Connected Components	202
Single-Vertex Connected Components	170
Maximum Vertices in a Connected Component	655
Maximum Edges in a Connected Component	2007
Maximum Geodesic Distance (Diameter)	15
Average Geodesic Distance	4.389912
Graph Density	0.001559875

### Social network metrics.

NodeXL calculates common metrics used to describe networks such as betweenness centrality, in/out degree, eigenvector centrality etc. As a way of “sorting” through the highly duplicated network, I have ranked the top 10 accounts as a sample to measure the prominence using the above parameters;

- Degree, which is a simple count of the number of connections for each node. For directed networks, it is divided into in-degree, for the number of incoming connections, and out-degree, for outgoing connections. Actors who display high out-degree centrality are often said to be influential actors (Hanneman and Riddle, 2005). From the table below, we see the actors, @elly\_ify and @viva\_biafra having the highest out-degree value of 257, while @Adeyanjudeji and @Emekagift have relatively high in-degree. In the following sections, we shall find out their influence on this network.
- The eigenvector centrality approach is an effort to find the most central actors (i.e. those with the smallest farness from others) in terms of the “global” or “overall” structure of the network, and to pay

less attention to patterns that are more “local” (Hanneman and Riddle, 2005). Eigenvector centrality accounts not only for the node’s own degree, but also the degrees of the nodes to which it connects. From Table I?, we see the same actor, elly\_ify having the highest value of 0.041.

- Betweenness centrality essentially reveals how important each node is in providing a link between different parts of the network. It highlights the nodes that, if removed, would cause a network to fall apart. One argument would be that one is likely to be more influential if one is connected centrally to others – because one can quickly reach a lot of other actors with one’s message. From our sociogram, we see how this argument plays out with @elly\_ify and @viva\_biafra.
- Closeness centrality is based on the sum of the geodesic distances from each actor to all others (farness). It is a measure of how close each node is, on average, to all of the other nodes in a network. It highlights the nodes that connect to the others through a lower number of edges. We can see “centrality” as an attribute of individual actors as a consequence of their position.

### Top Centrality accounts

Tooltip	In-deg ee	Out-deg ee	Betweenness centrality	Closeness centrality	Eigenvector centrality
@Elly_ify	6	257	187421.825	0.001	0.041
@Viva Biafra	0	257	85676.609	0.001	0.039
@Royal Chris51	0	34	75154.027	0.001	0.003
@Tonytoner ro9	0	34	65777.024	0.001	0.003
@Adeyanjud eji	19	1	41013.263	0.001	0.004
@Emekagift	0	16	34647.495	0.000	0.000
@Sam_ezeh	8	2	33815.432	0.000	0.000

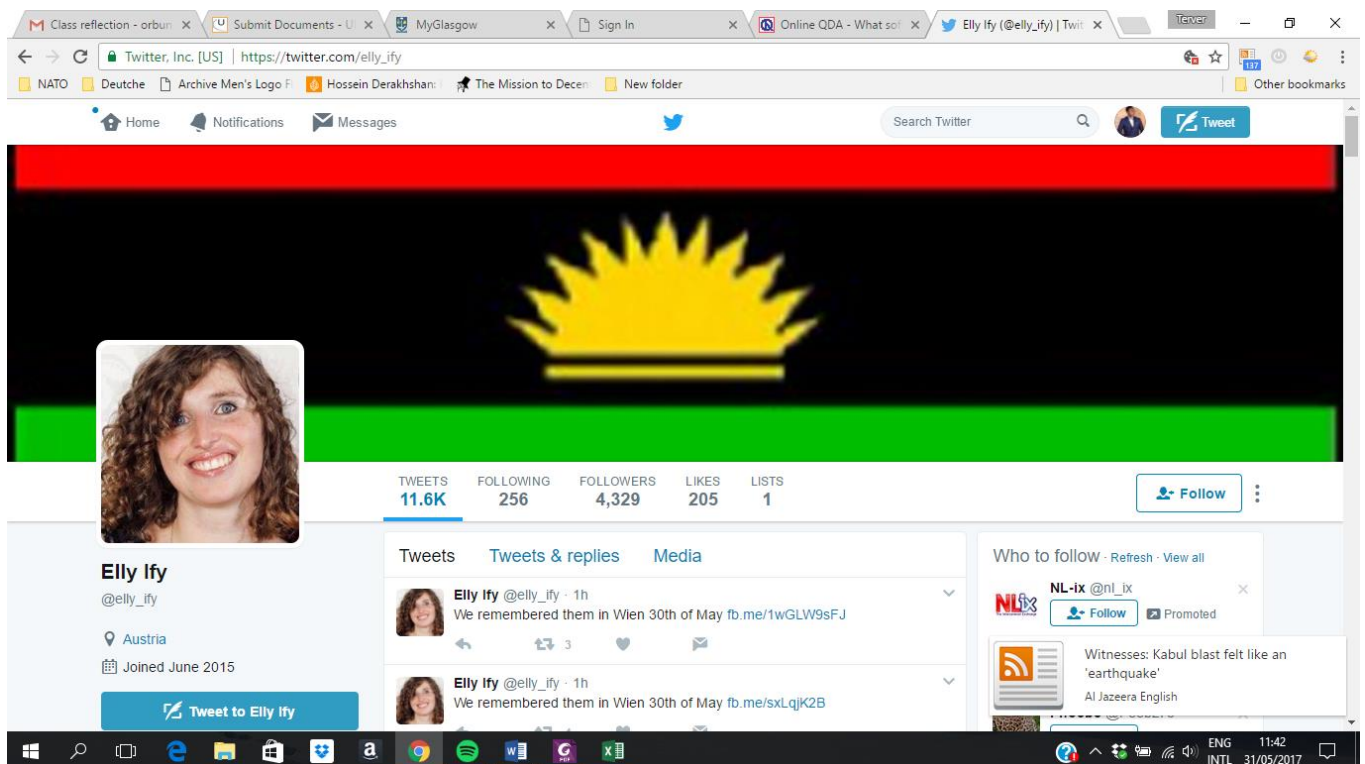


## Profile Analysis

I am going to analyse the content of these accounts individually for, narratives, Keyword volume, the use of Hashtag Clusters, Expression Intensity, Network mapping etc.

### Elly\_Ify

As a background information, Elly\_Ify is a female from Austria (which doesn't really say much). She joined twitter in June 2015 and has amassed over 4300 followers.



### @elly\_ify Profile Page

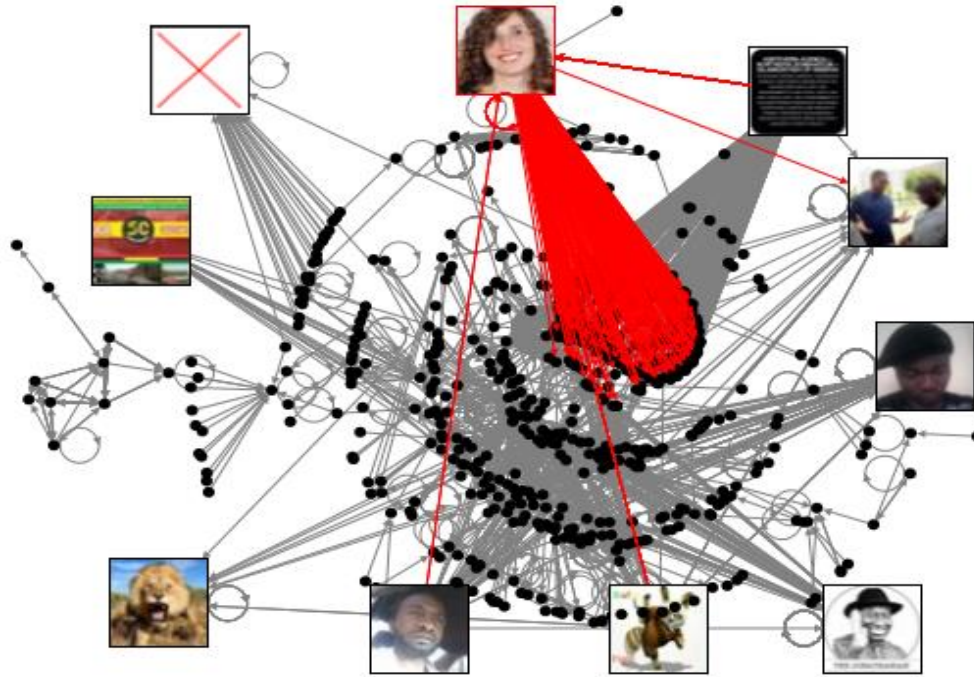
From the table above, we see that the account has an unusually high out-degree and a very low in-degree. This means that it is highly active in exchanging information with many others by way of making many others aware of their views. However, it rarely reciprocates this gesture, this signifies that communication from this account is generally in one direction i.e. out. Below are some of the characteristics of the account;

- The account is 'operated' from Austria, also the profile picture is a white-skinned lady. This gives the impression of an active diaspora in favour of the Biafran cause, an impression that serves both as a public relation tactic and a morale booster.

- **Ex;** the account tweeted on 30/05/17; Biafrans in Austria - we remember them!!! This tweet attracted 49 retweets and 8 likes.
- The posts on the account are simple, short (not in terms of precision, but length) and most times untrue. They are usually in form of memes, opinion articles (which are usually alarmist in nature;
- **Ex;** The account tweeted on 29/05/17; “**Breaking news!!! War in Aba as Army Fires Live Bullets to Defenseless Residence, Happening Now!!!**” which was absolutely untrue and largely unfounded.
- The sources frequently used by this account are out-rightly biased towards towards the Biafran struggle. They mostly include @radiobiafra, biafrapost.com. This comes as no surprise, however what is interesting is the presence of typographical errors, misspellings on quite a number of occasions;
- **Ex;** the account retweeted on 1/06/17; “BIAFRA: The Folly Of "One, United, Indivisible Nigeria"; The Owners of Nigeria's Resources Has **Hecome** The...”. take note of the spelling error and the incomplete sentence
- Activities on the account connects the Biafran struggle with the Jewish struggle for statehood. The irony in this connection is quite obvious, however, this narrative form a key dimension in the digital repertoire of the Biafran struggle.
- **Ex;** on 29/05/17, the account tweeted an article published on the website of ‘times of Israel’<sup>101</sup> titled “Biafran Jews mark 50 years since failed bid for independence”.

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<sup>101</sup> This is the link to the tweeted article; [https://twitter.com/elly\\_ify/status/869140804517990400](https://twitter.com/elly_ify/status/869140804517990400). This is the link to the original article; <https://t.co/fPbirbxcHc>



Visualisation of

Betweenness centrality of elly\_ify in the Biafran twitter network

## Viva\_Biafra

This account is owned by an entity known as 'indigenous biafran', a moniker which is backed up by a profile picture of a 'Northern Agenda' conspiracy. The account was opened in April 2015 and has generated close to 6000 followers so far.

**REPUBLIC OF BIAFRA**

**NORTHERN AGENDA = NORTHERN DOMINATION + ISLAMIZATION OF NIGERIA**  
 IS BUHARI HIDING SHEKAU? ABUBAKAR SHEKAU AND BOKO HARAM MIGHT BE TAKING REFUGE IN APC-LED GOVERNMENT'S ASO ROCK, WITH THE WAY SATAN (APC-LED GOVERNMENT) IS SLAUGHTERING NIGERIANS, BIAFRANS, CHRISTIANS, SHITES AND MINORITY TRIBES, PRESIDENT MUHAMMADU BUHARI'S ASO ROCK MIGHT BE BOKO HARAM'S LATEST HIDEOUT

**Indigenous Biafran**  
 @viva\_biafra  
 Joined April 2015

TWEETS 150K | FOLLOWING 2,353 | FOLLOWERS 5,881 | LIKES 276

Indigenous Biafran Retweeted  
 Elly Ify @elly\_ify · Feb 16  
 @oreillyfactor, NIGERIA/BRITISH GOVERNMENT PLAN TO ELIMINATE BIAFRAN LEADER NNAMDI KANU LEAKED thebiafrapost.com/2017/02/biafra...

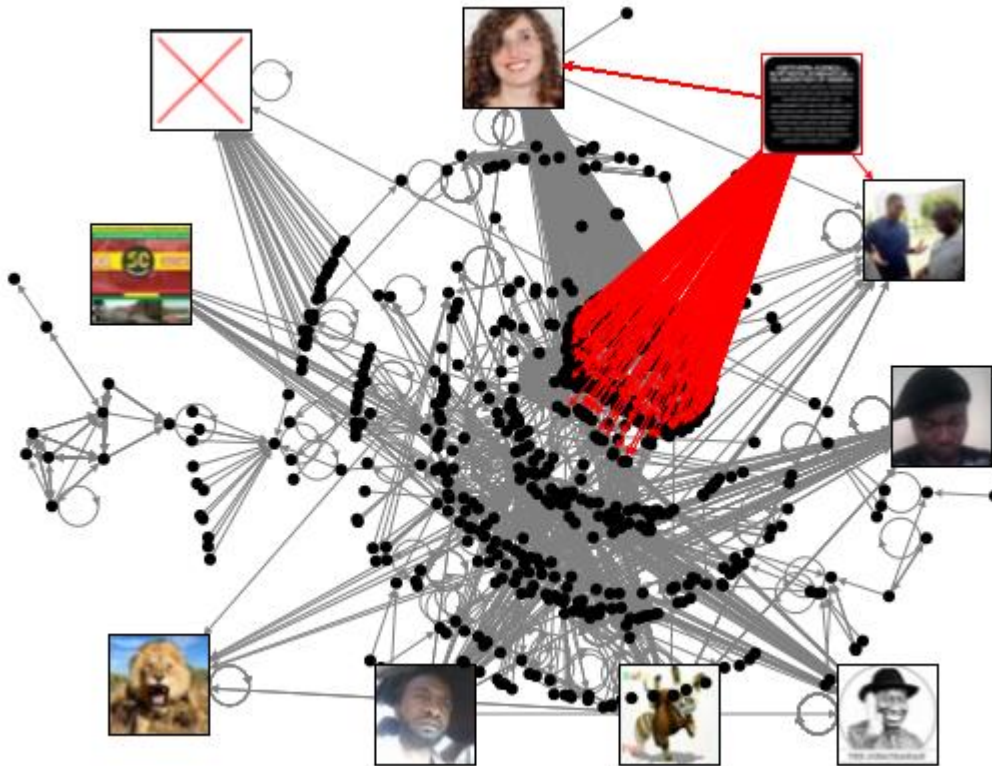
Who to follow - Refresh · View all  
 Alex @Raylexsosa  
 Followed by josh and others  
 R.O.Y.A.L.T.Y @\_I...  
 Followed by Mohammed AD



### **@Viva\_biafra Profile page.**

The account plays a prominent role in the #Biafra network accounting for a similar out-degree as elly\_ify, but zero out degree. Signifying a non-existent reciprocation per vertex ratio. Assessing the characteristics of this account immediately reveals why;

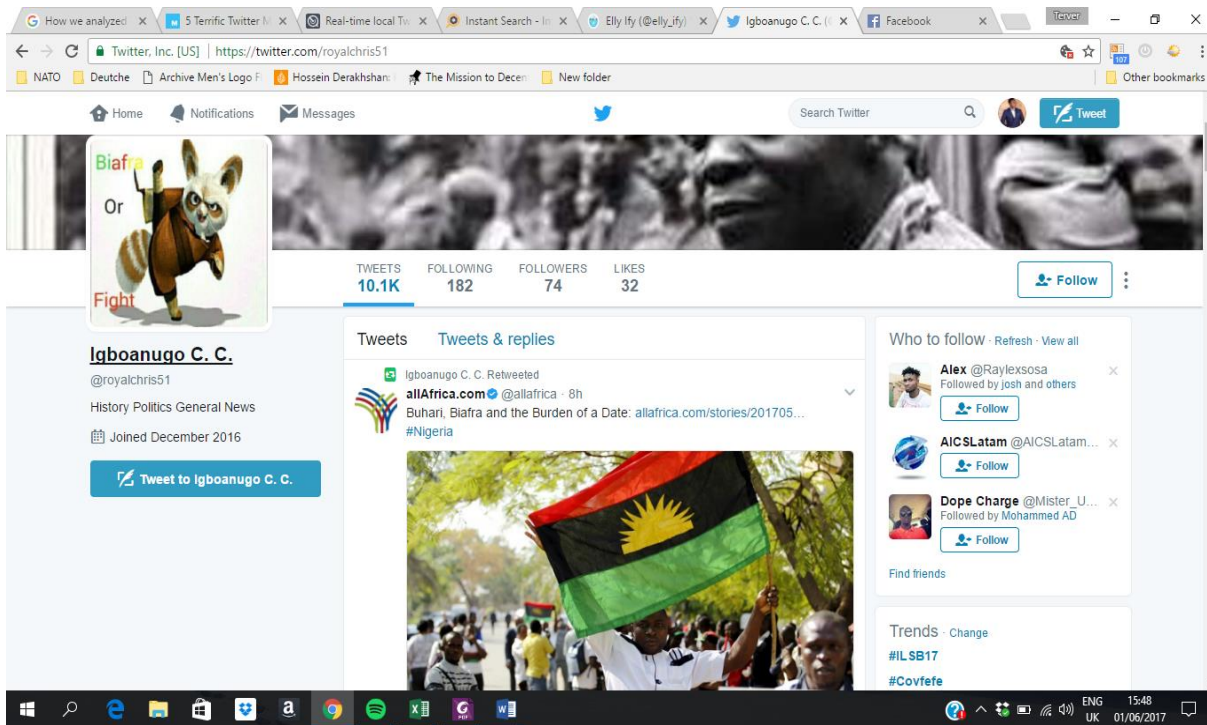
- The profile picture (as shown below) used by the account seeks to establish a connection between the Biafran struggle – Christians – Shi'ites – minority tribes. This is worth noting, as it infuses a religious perspective to the narratives of oppression, broadens the scale of groups involved and presents itself as a collective front against the Nigerian government.
  - The account has a strong connection with @elly-ify. This is noticeable because, most of the retweeted information comes from this account. This explains why the 2 accounts share the same out-degree and questions the credibility of the account.
  - Ex; the account retweeted a post from @elly\_ify with the heading “NIGERIA/BRITISH GOVERNMENT PLAN TO ELIMINATE BIAFRAN LEADER NNAMDI KANU LEAKED”
  - The account rarely generates any new information. Instead, it simply recycles the same conspiracy information about a Nigeria/British Government Plan to Eliminate Biafran Leader Nnamdi Kanu.
  - Further questioning the credibility of the account is the fact that it forces connections between other entities by ‘mentioning’ celebrities and political figures in its retweets. Noteworthy amongst the list of mentions include @erictrump, @DonaldJTrumpJr, @oreillyfactor, @foxandfriends, just to mention a few.
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*Visualisation of Betweenness centrality of @viva\_biafra in the Biafran twitter network*

### **Igboanugo C. C (@Royalchris51)**

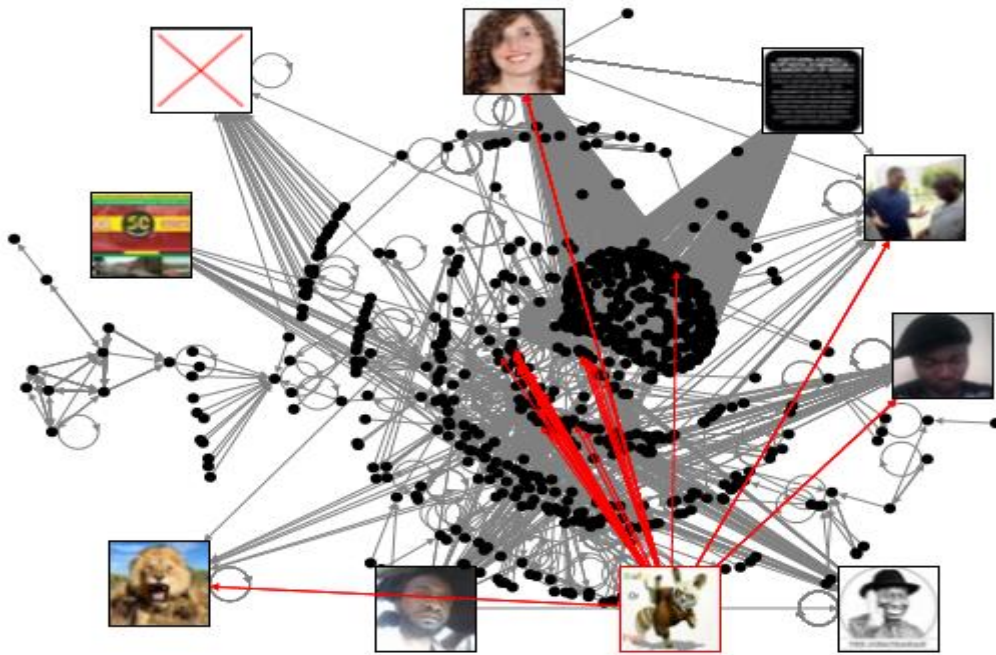
This account is operated by an entity referred to as 'Igboanugo C. C.'. It was opened in December 2016 and has attracted 74 followers so far. This account is quite distinct in its operation, not just because of how recently it was opened, but also the fact that much of this activity is noticeably centred on the recent Biafran sit-at-home carried out on the 30<sup>th</sup> of May.



- A large amount of information disseminated is from main stream media sites which are famous for being biased in their reportage. Such as @vanguardng, dailymail.co.uk
- Simultaneously, the site also tweets and retweets conspiracy videos from YouTube on a variety of issues. There is a video of a ‘genocide’ carried out in 1967 when “Nigeria Govt backed by Britain, USSR Etc exterminated More Than 3.5m Biafran Civilians”<sup>102</sup>. While the video shows the shooting of a man, its lack of sound, or context makes it highly questionable. Nevertheless, this video had 190 retweets (a large number for a small network) and 44 likes. Another video shows ‘thousands of Biafra supporters hit streets in Germany to mark anniversary day’<sup>103</sup>. A look at the video reveals very sketchy details about the actual size of the crowd & where it was conducted.
- Information spread on this account seeks to bring to remembrance the history of the Nigerian civil war by re-constructing it as an ‘unacknowledged genocide’. This narrative is largely shaped around the detention and trial of its leading figures, Nnamdi Kanu.

<sup>102</sup> Here's the URL for this Tweet; [https://twitter.com/sam\\_ezeh/status/868521567134920704](https://twitter.com/sam_ezeh/status/868521567134920704)

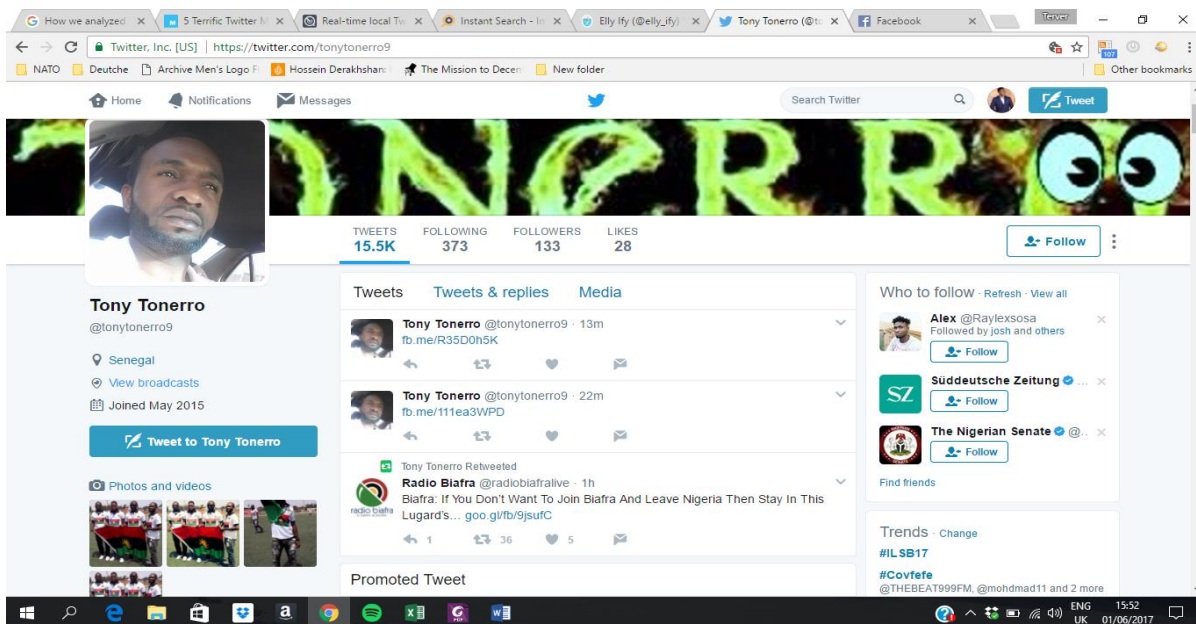
<sup>103</sup> Here's the URL for this Tweet; <https://twitter.com/jim3love/status/870143294839427072>



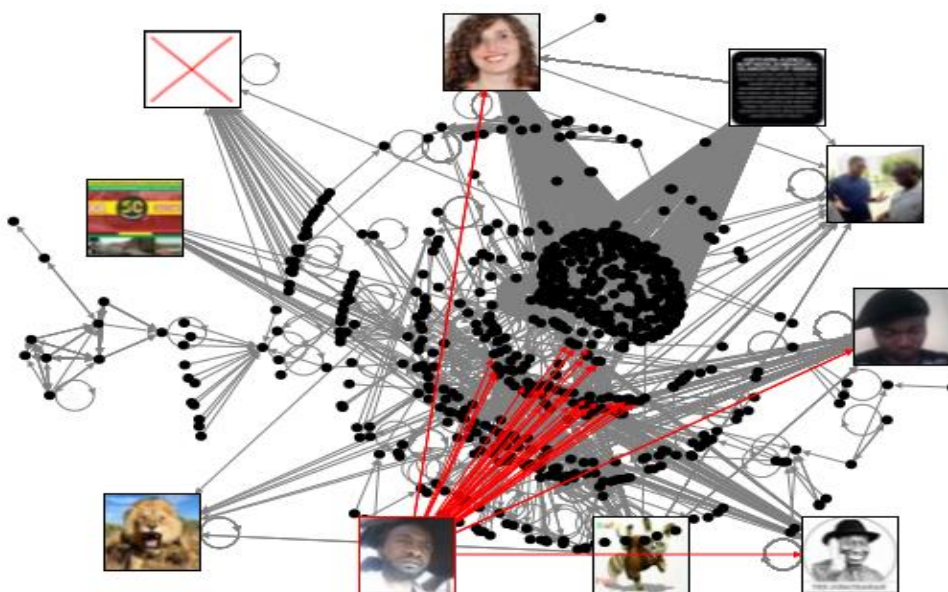
*Visualisation of Betweenness centrality of @royalchris51 in the Biafran twitter network*

### **Tony Tonerro (@Tonytonerro9)**

The profile page of this account reveals very little about the owner of the account, apart from date of joining Twitter - May 2015, number of followers- 133 and place of residence – Senegal. However, clicking on one of the tweets connects to a Facebook account bearing the same name (which turns out to be a nickname) and the real name – Tony Eboh. From this facebook account, Tony Eboh a Nigerian male and indeed lives in Dakar, Senegal. This Facebook account reveals the extent of activities that increases the influence of this twitter account in the network.



- The account adds to the growing influence and role of diaspora twitter accounts. This ability to attract international supporters is important for the campaign especially in terms of foreign media exposure, financial support. This foreign connection can be seen on this account;
  - Ex; on 1/06/17 the account retweeted an article from a German newspaper “Sehnsucht nach einem unabhängigen Biafra ... via @politikstandard<sup>104</sup>”.
- The constant need to loop his twitter activities with Facebook does not follow any pattern or strategy. This signifies the likelihood that his activities are sporadic or somewhat out of necessity to be seen as supporting the Biafran cause especially the anniversary day celebration.

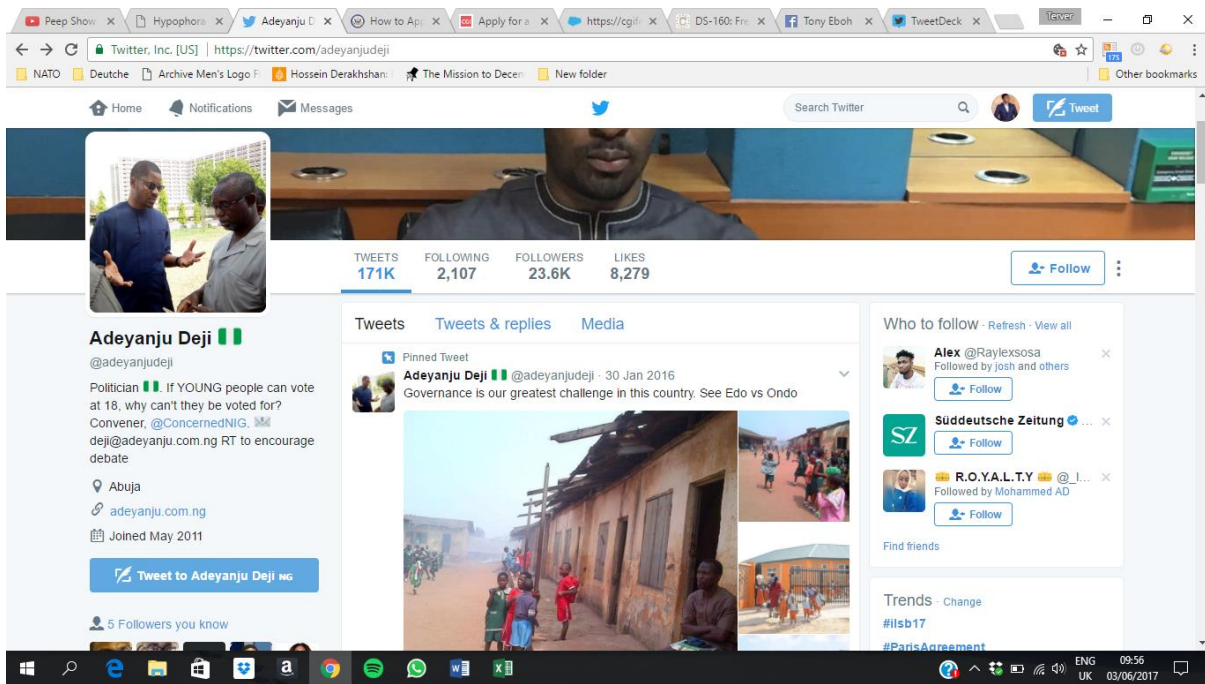


<sup>104</sup> Here is the link to the article; <http://derstandard.at/2000058486060/Von-der-Sehnsucht-nach-einem-unabhaengigen-Biafra?ref=article>



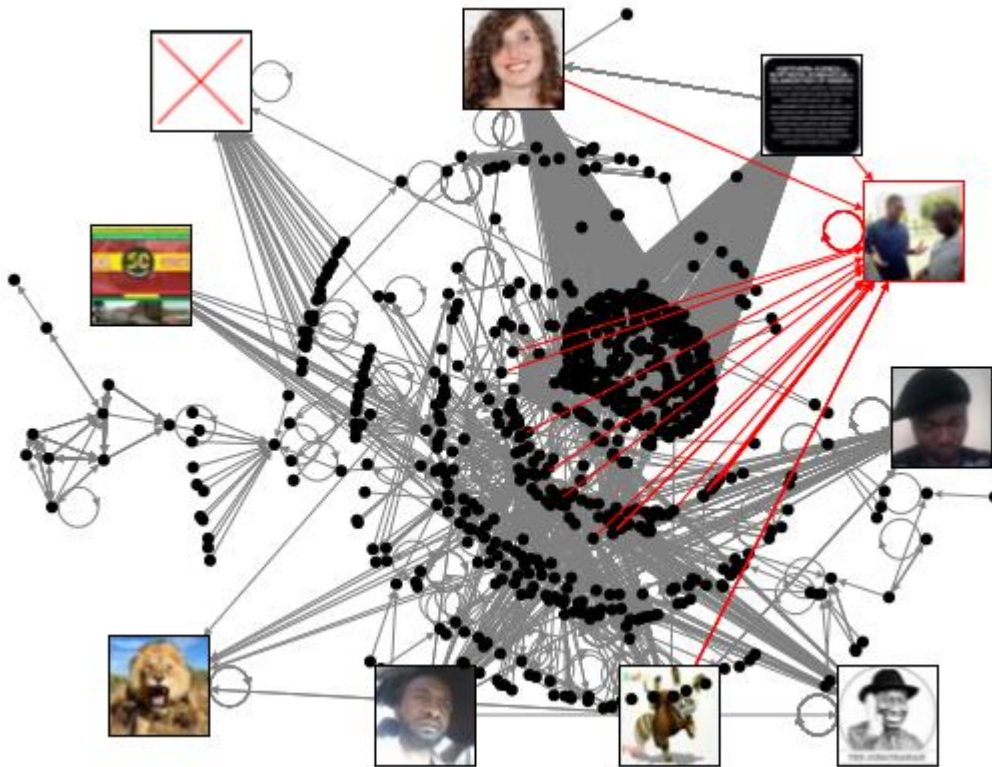
## Adeyanju Deji @Adeyanjudeji

Adeyanju Deji is a politician, blogger and human right activist. He joined twitter in may 2011 and has amassed over 23,000 followers. Also, he is the convener of Concerned Nigerians Movement @concernedNIG, which is a pro-democracy group committed to accountability, rule of law and anti-corruption in Nigeria. An analysis of his account reveals the following:



- The contents disseminated on the account seeks to present constructive arguments on a wide variety of national issues including the biafran struggle. In describing this position, he asks an interesting question “If young people can vote at 18, why cant they be voted for?”. Here we see the emphasis on building sustainable governance institutions in the country. Owing to the delicate debates surrounding the biafran struggle (such as federal restructuring, lopsided federal appointments, etc ) and the need to present a balanced view, it becomes clear how and why acitivites on this account are prominent in the twitter sociogram.
- A look at the pattern and direction of communication in the sociogram below shows that the balanced position of the account could be the reason for the comparatively high in-degree count, 19. This implies that the account is a producer of original articles and opinions which can be adopted by both sides of the debate.

- A cursory look at the contents of the blog owned and operated by Adeyanju reveals that he is a staunch member of the opposition party, Peoples Democratic Party (PDP)<sup>105</sup>. He also served as an influencing social media figure in the failed reelection campaign of the past president Jonathan. It is worthy to note that the opposition party is loosely in support of the Biafran struggle, maybe not on the basis of principle, but it helps secure followership in the south-east region of the country. This connection helps us understand the role of political balancing in shaping the biafran



debates.

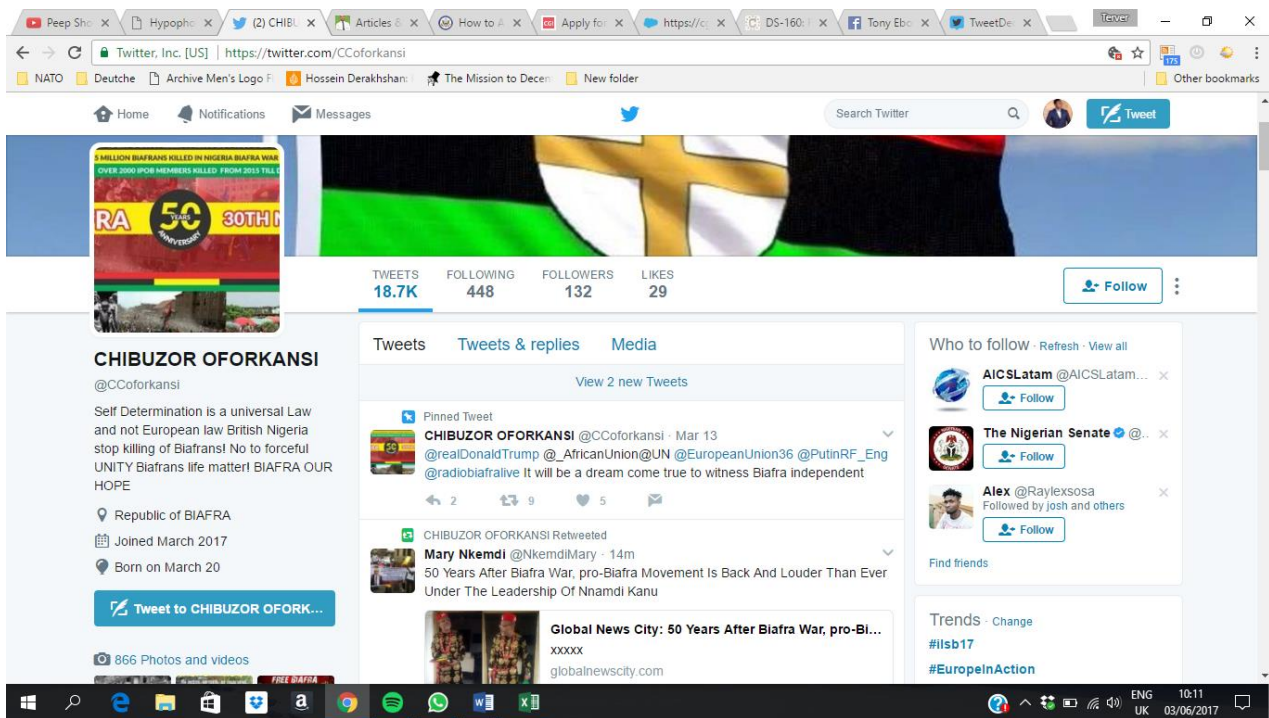
*Visualisation of Betweenness centrality of @adeyanjudeji in the Biafran twitter network*

### **Chibuzor Oforkansi @Ccoforkansi**

This account was opened in in March 2017 and has a followership of 132. It is operated by Chibuzor Oforkansi who tweets from 'Republic of Biafra' and encapsulates the Biafran struggle within the politics of self-determination. The characteristics of the account include;

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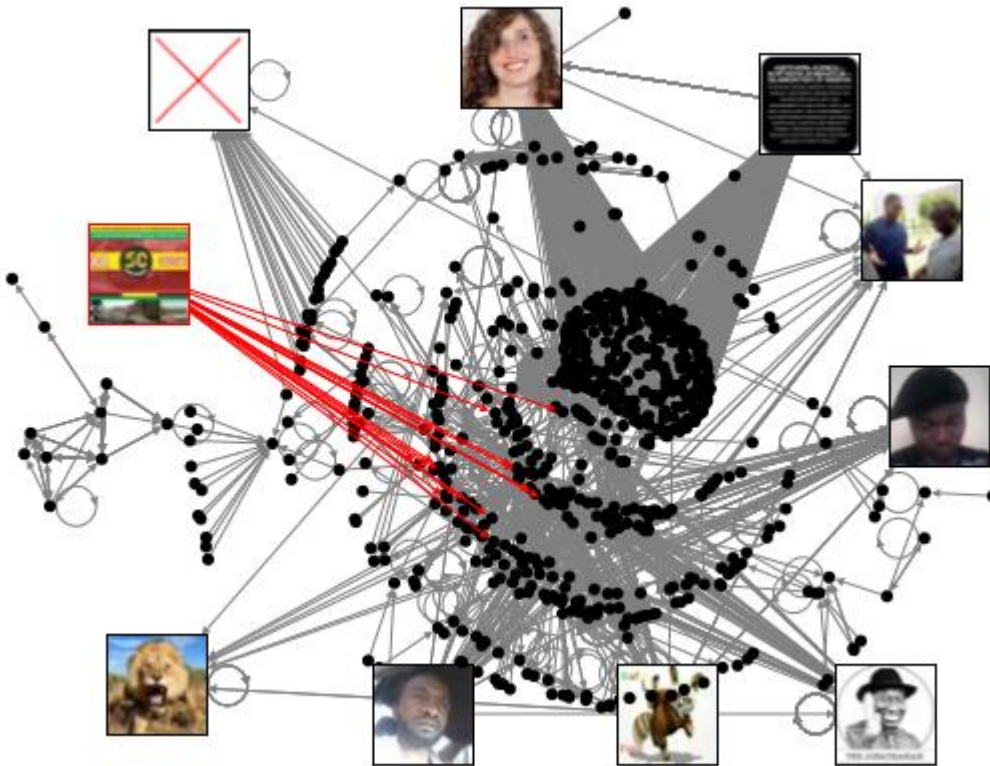
<sup>105</sup> Here is the link to the blog; <http://www.adeyanju.com.ng/>



- The background display picture used on the account is supposed to be a Biafran flag, however, the design is not consistent with the ‘official’ flags<sup>106</sup> used by the Biafran struggle. The removal of a key feature of the flag i.e. the rising sun, can easily be interpreted as a sign of ignorance of the key symbols and artefacts of the Biafran struggle. Interestingly, on further examination of the photo section in the account, the account had tweeted and retweeted photos of the original flag. As such, this may be a case of an over-enthusiastic supporter. While the user of the account may get marks for enthusiasm, it helps to identify and use the original flag.
- Furthermore, on the case of misplaced enthusiasm is the purported location of the user, ‘Republic of Biafra’.
- Like most of the other accounts analysed, this account simply retweets news and opinions from other twitter users, most times not even mentioning or adding some new dimension to the tweets. As such the relatively high out-degree signifying a none existent reciprocation per vertex ratio does not come as a surprise.

<sup>106</sup> The use of the word ‘official’ here implies popularity in use. It should not be interpreted as an endorsement of authorisation.

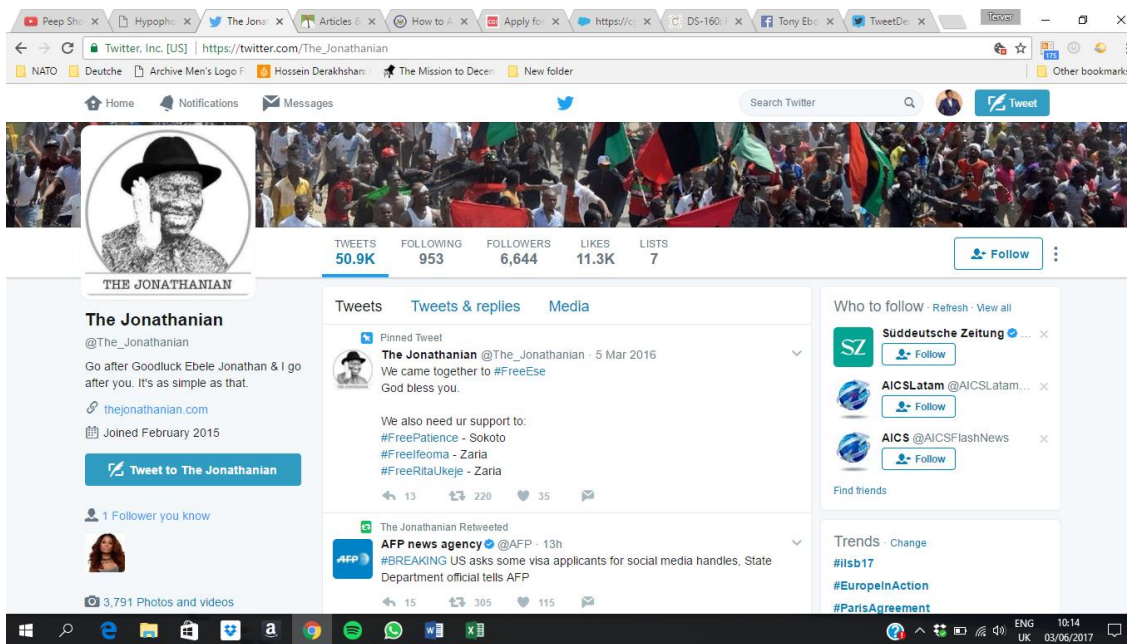




*Visualisation of Betweenness centrality of @ccoforkansi in the Biafran twitter network*

### **The\_Jonathanian@the\_jonathanian**

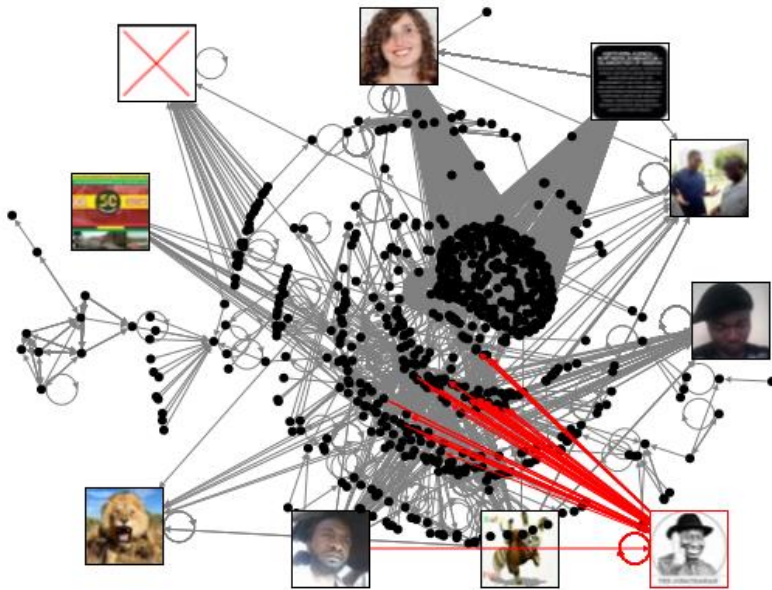
This account is operated by a staunch supporter of the former president, Goodluck Jonathan (hence the choice of twitter handle). The account was launched in February of 2015 around the same time as the general elections in which the then president lost. The account has a little over 6600 followers and is responsible for forming 7 lists on twitter which range from topics on security to economics and foreign affairs.



- From our graph metrics, this account offers the most balanced degree of communications flow. This can be seen in the measurement of the in and out degree which translates to a much more interesting reciprocity per vertex ratio i.e. the user is being mentioned (talked about) as much as it is talking about others.
- The account is synced with a blog which goes by the same title<sup>107</sup> as the twitter handle. From this blog, political connections and interactions clearly shows that it was setup as a platform to influence the outcomes of the election, which when lost, has remained dormant with the last article published in January 2016.

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<sup>107</sup> [thejonathanian.com](http://thejonathanian.com)



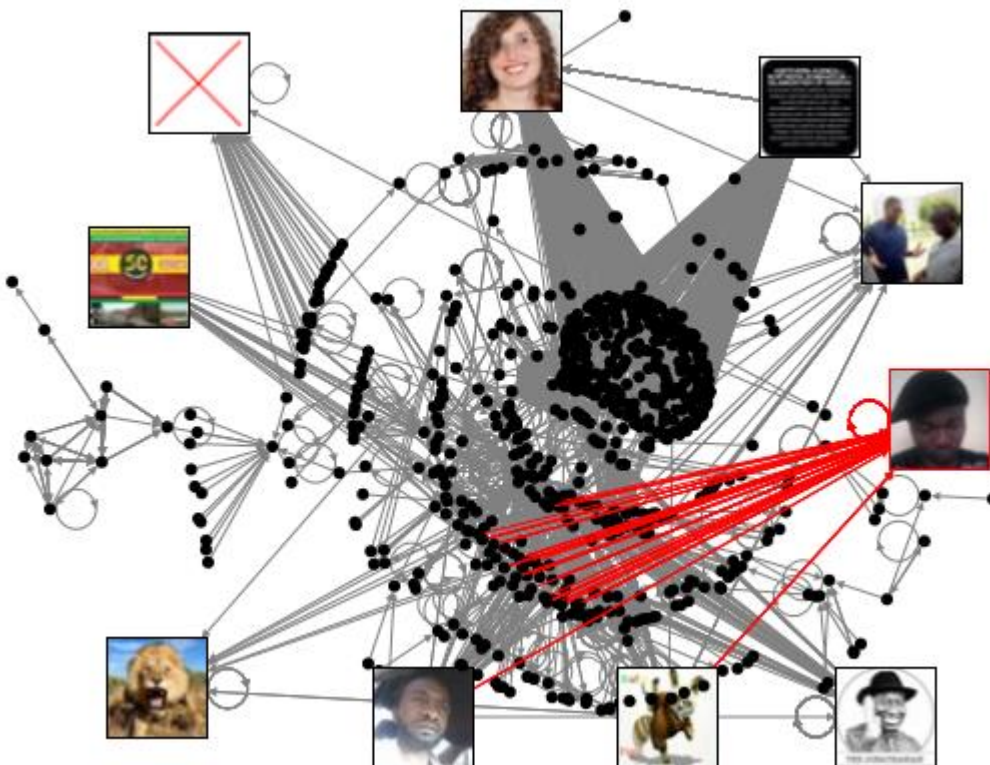
Visualisation of Betweenness centrality of @royalchris51 in the Biafran twitter network

### Emeka Gift @emekagift

This account is operated using the handle @emekagift. It was setup in 2011 and has a little over 26,000 followers. The account is dedicated to a host of Biafra related movements including #freebiafra, #Biafra, #freeNnamdiKanu. Also, the account is synced to blogs like rbworld.tv, a blog whose objective of “strict dedication to the defence of freedom of the oppressed and cultural integration of the global indigenous values and collective self-emancipation” is less than clear.

Features;

- Hashtag Clustering; this refers to whereby multiple hashtags occur in the same tweet. More often than not, they represent a similar approximation of content<sup>108</sup>. It follows that, the more often two hashtags co-occur, the more similar their meanings are. We see this account randomly clustering hashtags even at the expense of logic and meaning.
- EX; The account tweeted in 2016; Hebron #Purim #Brussels #Belgium Happy Holi Work from Home #BIAFRA Germany #DonaldTrump #UN #פורים
- The handle is subscribed to 2 lists; #trending and All MEPs on twitter. A cursory evaluation of the contents shared on these lists reveals little or no connection to any of the stated commitments of the owner of the handle. Which presents an example of a less than organised information dissemination pattern.



*Visualisation of Betweenness centrality of @royalchris51 in the Biafran twitter network*

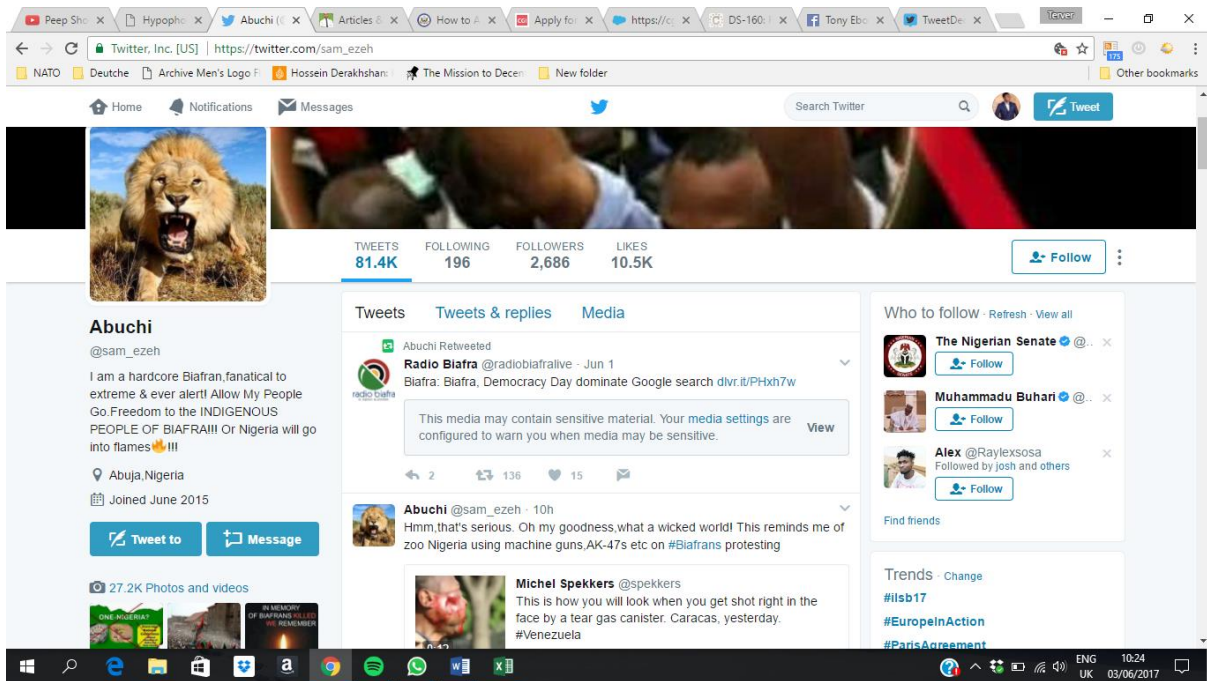
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<sup>108</sup> Dolan Antenucci Et. Al (2011) Classification of Tweets Via Clustering of Hashtags

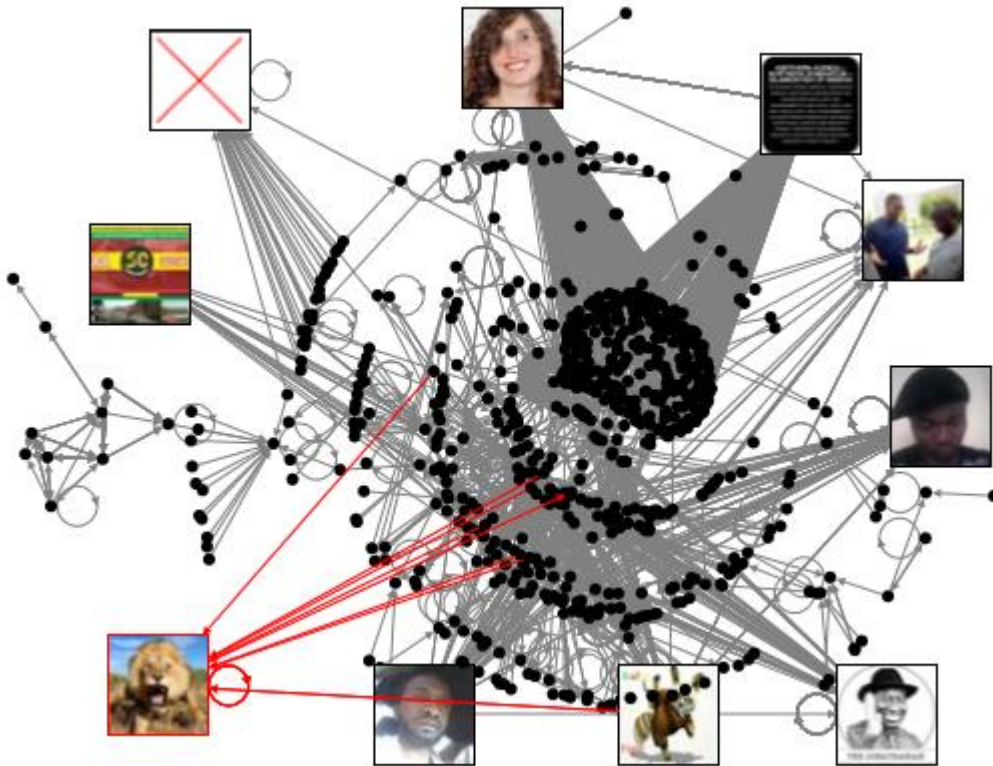


## Abuchi @ samezeh

This account is owned by a person who describes himself as “a hardcore biafran, fanatical to extreme and ever alert!”. The description ends with a threat to set Nigeria on fire if his ‘people’ are not free. The account was founded in 2015 and has over 2500 followers



- The allusion to the biblical story and character of Moses in the face of the Egyptians slave owners, underlies the religious nature of most of the narratives spread on this account.
- Ex; the user tweeted on 05/06/17; Nigeria government absent in African leaders meeting with [@netanyahu](#) shows open hate against Jewish state, Biafrans are friends of Israel.
- The intensity of expressions used in this account reflects the earlier stated fanaticism of the owner of the account. The account describes Nigeria as a ‘Zoo’ and its inhabitant who aren’t in support of the Biafran struggle as ‘Monkeys’.
- **Ex;** the user tweeted on 06/07/17; “it seems these people don't understand this our identity "BIAFRA OR EVERYTHING IN THE ZOO WILL GO DOWN". no wonder they're monkeys”
- From our graph metrics, the account is similar to other ones in terms of a relatively low degree of reciprocity in its communication pattern.



*Visualisation of Betweenness centrality of @samezeh in the Biafran twitter network*

In summary, I have used NodeXL to collate and visualise twitter accounts that have been central to the Biafra twitter community in the build-up to May 30<sup>th</sup> i.e. the 50<sup>th</sup> anniversary of the Biafran struggle. From this analysis, I have been able to identify patterns that can aid in mapping out the territory of causal relationships by identifying frequently occurring expression patterns and distinguishing them from other such patterns. On the surface, we see how social computing sites, such as Twitter, are enhancing connections between individuals with similar and non-similar interests<sup>109</sup>. From the above network, we see that, as people constantly ‘mention’, ‘reply’ or ‘retweet’ messages that align with their passions, it vastly expands the searchable data set of actors with whom one can meaningfully interact. However, as I discuss in the next chapter, convergence around shared interests and/or common source of online information represents a secondary consequence of this shared interest. In other words, more often than not, they are a product of motivations that are largely contingent on primary circumstances in this case, political and economic circumstances. As such, from the network

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<sup>109</sup> The findings and observations are discussed at length in subsequent chapters.

analysis presented above, can purposeful collective action reside in such uncertain territory? This and more are some of the questions I attempt to answer in the next segment.

## Findings

Having analysed the personal interactions of top actors in this network, what follows summarises and knits together the theoretical and technical parts of the enquiry. This segment focuses on untangling the linking practices across the Biafran twitter networks by making inferences on communication flows, the dissemination of ideas across different social groups and what these could mean for self-determination politics in Nigeria. The findings in my analysis clusters, simply, yet conveniently under themes that reflect already existing perceptions about the consequences of social computing sites on politics in general. These themes include, but are not limited to Homophily, linking patterns across social media networks, the use of sock puppets, the primacy of politics, distributed organisational structure to social media interactions. It is important to note that, while the methodology adopted alone cannot be used to properly answer the questions posed by this research, it is observed from my analysis that there is a strong engagement by a wide range of actors mediated by the social media, of which we can readily predict the likely turn of events with some level of accuracy using a simple SNA. As such, there is a strong correlation between the players' activities in the twitter network and the overall agenda of the movement.

*The linking practices across twitter networks;* from the accounts I analysed, I noticed that there was a growing propensity for these handles to enforce connections with leading international figures of some sought of agitation. This connection didn't seem to follow any pattern, but most of the connections favoured American alt-right figures such as Donald Trump, Fox and friends etc. What is unique about this linking pattern, unlike other social computing sites is that, on twitter it can be achieved just by mentioning a user using the @ sign preceding a message or target user. So, whenever a user adds a @usernames in their tweet, all of those people will see the tweet in their notifications tab<sup>110</sup>. In this regard, it appears that twitter, most especially, makes it far more likely and cheaper for individuals with unusual interests to find each other because it vastly expands the searchable set of actors with whom one can meaningfully interact. This ease of attracting attention and gaining awareness continues to be a key advantage of using social computing sites, especially in relation to lowering the cost of collective action. By lowering the costs of collective action and making it cheaper to interact with others, such SCSs provide the means for decentralized action

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<sup>110</sup> Twitter help center; <https://support.twitter.com/articles/14023>

thus making it easier for the actors to pursue their goals. However, some writers have argued that the lowering of transaction costs may have unexpected long-term consequences, perhaps leading to transactional politics with little long-term loyalty<sup>111</sup>. As Morozov claims, actors will be motivated to engage in cheap and ineffective but showy forms of politics, such as joining Facebook groups, randomly mentioning usernames or cross-posting etc. rather than more expensive or risky forms of collective action<sup>112</sup>. What is more, this tendency also occurs inversely. For example, an active twitter handle in the #Biafra twitter network is actually an online advertising firm which appeared active because it had pinned a video of an interview hosting the founder of the Biafran struggle, (late) Colonel Ojukwu, a video that simply got retweeted by both sides of the ideological divide. As such we see that Individuals may, for example, congregate around a common source of online information that is attractive given their shared interests and cluster together only as a secondary consequence of this shared interest. From the Biafran twitter network, this implies that SCSs lowers the cost of purely expressive political action more than it does the cost of actual physical protest. Gladwell takes it a step further, arguing that the Internet is far more likely to create “weak ties” than the strong ties that social movement theorists argue are the bedrock of costly political action, and hence that the Internet will not have the beneficial impact that is anticipated<sup>113</sup>.

*Evidence of Homophily* the findings in the Biafran twitter network resonate with the hypothesis put forward by McPherson (et al) which suggests that social computing sites possess mechanisms that link the Internet to political outcomes via homophilous sorting —the propensity of individuals who are similar on some meaningful dimension to form clusters with each other. Salient features of homophily are expressed in sociodemographic dimensions of society such as race, ethnicity, sex, or age, and acquired characteristics like religion, education, occupation, or behaviour patterns. These dimensions are evident in the need by actors in the twitter network to force connections with American alt-right populism figures, a move which panders to a brand of nationalism that could have adverse effects on the Nigerian unity project. More interestingly, I noticed an increasing ‘Jewish-Biafra connection’. There were comments such as “Igbo Biafrans invest in many countries around the world... yet we need a place to call home”, “Hebron #Purim #Brussels

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<sup>111</sup> (Ammori 2005, Farrell 2012).

<sup>112</sup> Morozov (2011a )

<sup>113</sup> Gladwell (2010)



#Belgium Happy Holi Work from Home #BIAFRA Germany #DonaldTrump #UN #פורים”<sup>114</sup>. This manner of heroizing the Jewish-Biafran narrative is grounded in the reconstruction of a national history that seeks to equate the Biafran struggle with the persecutions and victories of the Israeli state. However, one can immediately notice the contradictory and somewhat competing nature of such an agenda. First, the background circumstances in which the state of Israel was formed i.e. Jewish pogroms in second world war are incomparable to the Nigerian civil war by large margins. Second, if the questionable nature of the current Israeli state is a benchmark for the Biafran state to be formed, the state is most likely going to be dealing with human rights affairs for much of its existence. As such, arguing that such antics permeates temporality and evokes ‘triumph’, ‘resilience’ or ‘victory’ for the group based on short-lived characteristics can only reflect the need to promote and idealise a brand of Igbo nationalism that delves into ethnic chauvinism<sup>115</sup>. The implications, McPherson argues, is that such homophily limits people’s social worlds in a way that has powerful implications for the information they receive, the attitudes they form, and the interactions they experience<sup>116</sup>. From my research, the information shared within the #Biafra twitter network displayed high signs of incoherence especially in the contents, contents that portray an unhealthy appetite for fake news and misinformation. Most of the leading accounts in the network are opposed to any form of discussion or debates on the issue of self-determination for Biafra. A recurring decimal in the narratives spread on this account rejects the idea of federal restructuring. While this doesn’t come as a huge surprise, the way and manner in which the arguments are framed could easily be interpreted as a case of misplaced enthusiasm, an anomaly that could be a reflection of the lack of a centralised social media platform by the group.

*Distributed Social Media Strategy* an interesting observation from my analysis is that there is no official handle for the Biafran self-determination struggle on twitter or even Facebook. This distributed network ranges from affiliated twitter lists, blogs, online magazines etc. Collectively, they present a platform where a plurality of views co-exists and where a (un)healthy simultaneous clash of ideas takes place<sup>117</sup>. Although this strategy does not seem planned in principle, in practice it presents a more effective way of ensuring co-presence in participation. This attribute resonates with the findings of Earl J. that Internet-enabled technologies help generate collective action without co-presence and make protests or movements for social change effective. The arguments are founded on the structural adaptations of asynchronous communications and long-distance

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<sup>114</sup> Twitter handle of @emekagift, May 2016.

<sup>115</sup> (Onuoha 2012, Malkki 1995:1, 55)

<sup>116</sup> McPherson et al. 2001

<sup>117</sup> (Ugwuanyi, 2015).

collaboration by social movements to make protests and social movements possible without having physical togetherness<sup>118</sup>. The plausibility in this position, as it relates to the #Biafran twitter network is that it helps them avoid possible surveillance (or shutting down of such accounts). By distributing the accounts, it would be difficult for the network to be a target of direct or indirect surveillance by a government or non-government actor on a large scale. This interpretation seems plausible considering that the nature and contents of the information shared on a substantial amount of accounts active in the Biafran tweet and retweet information that are usually blocked from viewing by twitter. However, this system comes with some challenges that reduce the ability of the groups to present a harmonised and organised strategic/political front. Such a harmonised posture could reduce the current haphazard nature of interactions and aid its supporters to rally around the same cause with better understanding of their role and activities nature.

*Politics Rules* Unless the role of SCSs as a process are reduced merely to the administration of innovation and adaptive structuration of technologies, the primacy of politics must be acknowledged. Of course, to a certain degree such adaptation was bound to happen, however the effectiveness of SCSs can only make sense with direct reference to the political atmosphere of the country in which it is being used. This phenomenon is initiating a rise in web activism, represented in the form of digitally enabled change in tactics such as innovations in petitions, boycotts, virtual communities, emails, websites and blogs. This change in tactics Earl J argues is premised on the;

*“affordances of reduced costs for participation, reduced costs for organizing, reduced need for physical togetherness in order to participate in collective action (one component of co-presence), and reduced need for both collectivity and physical togetherness in organizing (both components of co-presence).”*

So, while technological innovation and development maybe enabling people to change the set of tactics over time by replacing old tactics with new ones, there are political drawbacks to how far these modifications can impact on the goal of self-determination. In the case of southern Nigeria, some of the contextual repertoires of contention SDGs have to select their tactics from include, the degree of finality with which the right to self-determination was exercised at the time of achieving independence from colonial rule; second, the size of the states resulting from, or likely to result from, its further exercise; third, the tribalistic character of any later attempts to invoke this right; Also, the impossibility of admitting any revision of existing boundaries, for fear of

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<sup>118</sup> Jennifer Earl and Katrina Kimport (2011) Digitally Enabled Social Change: Activism in the Internet Age

starting a chain reaction, culminating in general chaos (Keller, 2007). Against this background, the digital repertoires of contention may not be in favour of SDGs in southern Nigeria. In the presence of social computing sites, does this mean that self-determination agendas are impossible under these circumstances? The attitude displayed on these accounts reflects an increasing misjudgement of the current national and international political perspective on self-determination. While self-determination may represent a timely philosophical anchorage and inspiration for disgruntled Igbo youths, these groups need the political and financial backing of an elite-led Igbo political class who tend to be more moderate and focused on propagating a federal restructuring within the Nigerian state rather than outright secession. To upend this position, Biafran groups such as IPOB have sought backing from opposition political party's key which is known as the People's Democratic Party (PDP). To this effect, 1 in 5 of the accounts analysed was linked directly to the PDP either in practice or principle. However, this is proving to be counter-productive, as the infusion of opposition partisan politics in the repertoire of the bifran struggle reduces the chances the actualising its agenda. While they require this political platform for financial backing, they also use the platform to pressure the incumbent government for federal restructuring. However, as long as they keep receiving support from the opposition party, the ruling party is most likely to view the biafran struggle as an extension of the opposition party tactics to subvert its activities and is most likely to respond to it as such rather than constructively engage in the debates. From my case study of the #biafra twitter network, one can argue that social movements and e-protest are always ready, or in a way, subject to influence from new ways, but also that the effectiveness of these e-tactics rest largely on ample political propulsion provided by political agents.

*Evidence of Sock Puppets* Sock puppets are online identities used for purposes of deception. The term, a reference to the manipulation of a simple hand puppet made from a sock, refers to a user account controlled by an individual who has at least one other account. In other words, if an individual controls multiple user accounts, each account is a sock puppet.<sup>119</sup> In identifying sock puppets, it is important to note that no explicit labels of sock puppets exist, as such the use of multiple signals that together suggest that accounts are likely to share the same owner have been advocated<sup>120</sup>. Some of the ways include identifying sock puppets based on their linguistic traits. Citing difficulty in obtaining ground-truth data about sock puppets, one can assume that they have similar usernames, or they are usually support one another, or that they write similar to each

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<sup>119</sup> <http://wordspy.com/index.php?word=sock-puppet>

<sup>120</sup> Srijan Kumar et al (2017) An Army of Me: Sock puppets in Online Discussion Communities

other<sup>121</sup>. In the #Biafra twitter network, evidence of sock puppetry can be seen in the first two handles @viva\_biafra and @elly\_ify. First, their graph metric, represented by the in/out degree are largely the same. A look at their accounts explains why, all the information found on the handle @viva\_biafra are all retweeted from @elly\_ify. As soon as @elly\_ify tweets, the same tweet is immediately retweeted by @viva\_biafra even without being edited for errors. An inference that can be made from such similar activity feature is that they are online at the same time pretending to be different people by using different display names and they tend to write deceptively about the same thing. Secondly, the bio-profiles of these accounts are too random to establish any sense of identity. Using googles reverse image search, the closest correlation to the profile picture of @elly\_ify is from a female catalogue on curly hair<sup>122</sup>. On further inspection using TinEye<sup>123</sup>, the same picture is loosely related to a post first published on #BBC in November 11 2015<sup>124</sup>. This lack of identity and similitude in content shared cannot be a coincidence, and forms the basis for suspecting the use of sock puppets by actors in the #Biafra twitter network. An interpretation that can be made from this deduction closely relates to the patterns of forced linking patterns discussed earlier. The extent of sock puppetry and the number of sock puppet accounts may not (or never) be known, however what is clear is that the puppet masters, in a bid to express both solidarity and the less constrained nature of organisation could become an increasing recurrence in the digital repertoires of the #biafran twitter network. Whoever the *puppet master(s)* is/are, the entity obviously realises that there is power in numbers and are thus seeking ways to stealthily build a following around these puppets to stir public opinion in a certain direction.

## Conclusion

It has been the primary aim of this research to find out if the interplay between technological properties and social contingencies are relevant in the outcomes of advanced information technology used especially in socio-political organisations in Nigeria. This ability for such

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<sup>121</sup> D. Liu, Q. Wu, W. Han, and B. Zhou. Sockpuppet gang detection on social media sites. *Frontiers of Computer Science*, 10(1):124–135, 2016.

<sup>122</sup> Google Reverse Image search of profile picture of @elly\_ify. [https://www.google.cz/search?tbs=sbi:AMhZZisiFIQTNy1JJBiO54duAiwE5GcrKCJ-Ix0038XagHs6DPpeO6LYcLfKFuGUGz0Ra9T0ULd0UQUJo79vMT7DFsxS\\_1nS19cvGmgoH8BBAZ7HboooZ2rWyAgRSG39PnBQi99mtQzRiIF6MDfGQFF7drAalZDjO6uVxeRtKU\\_1ZYqzn776\\_1ThdR111k1OafiNAhlmDIqOunhKyki4QA9xKay2ngs0ddZbmgpiRluVbE6U0csEhAWpz4Q44xS98ZT936eDJGfnlGbEuKLYH8FfQG00XPF8UtzaKEJMyko3cPmKj0hsWYEhY0FJ8jO-6wrZbJhs3ojYbTtVSmPMksLqn0\\_1lfGeQw2LMQ](https://www.google.cz/search?tbs=sbi:AMhZZisiFIQTNy1JJBiO54duAiwE5GcrKCJ-Ix0038XagHs6DPpeO6LYcLfKFuGUGz0Ra9T0ULd0UQUJo79vMT7DFsxS_1nS19cvGmgoH8BBAZ7HboooZ2rWyAgRSG39PnBQi99mtQzRiIF6MDfGQFF7drAalZDjO6uVxeRtKU_1ZYqzn776_1ThdR111k1OafiNAhlmDIqOunhKyki4QA9xKay2ngs0ddZbmgpiRluVbE6U0csEhAWpz4Q44xS98ZT936eDJGfnlGbEuKLYH8FfQG00XPF8UtzaKEJMyko3cPmKj0hsWYEhY0FJ8jO-6wrZbJhs3ojYbTtVSmPMksLqn0_1lfGeQw2LMQ)

<sup>123</sup> A MatchEngine which finds duplicate, resized and modified images by identifying duplicate images, profile and UGC image verification, fraud detection, image collection reconciliation, and blacklisting unwanted images.

<sup>124</sup> Tin Eye search for the profile picture of @elly\_ify <https://www.tineye.com/search/9e510470fbd90004ad89a06f18da5c8b89dadcf4/>

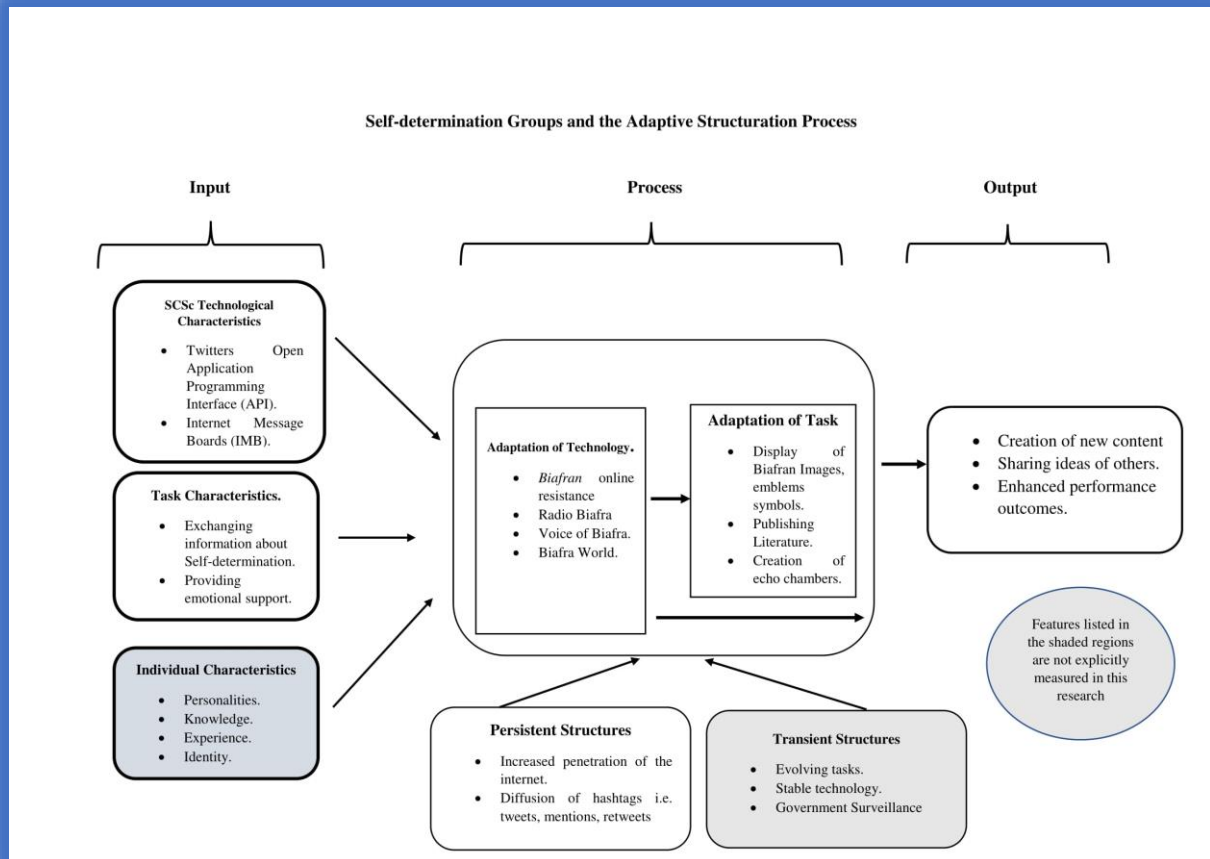
organisations to adapt technology to meet their socio-political use involves a deeper interaction of factors that I argue has been underemphasised so far in existing understandings of how to best explain the role of social computing sites on politics. This interplay implies an integrative effort that includes human interaction at the heart of socio-technological systems, the main argument of the adaptive structuration theory. To conclude this research, I synchronise the #Biafra network with the adaptive structuration theory. It is important to highlight the adaptive structuration process i.e. the Input → Process → Output structures as noticed from this episode of usage.

## **Input**

AST captures three categories that determines how users define and approach the utility of a technology; its technological characteristics, tasks characteristics and individual characteristics. Indeed, these categories proved to be very useful in understanding how twitter was used in the #Biafra network. First, the ability for twitter to be used in coordinating and raising awareness on the crucial ‘where, when and how’ of the sit-in protests of 30<sup>th</sup> may can be attributed to its technological characteristic such as its open application programming, its unique patterns of linking using hashtags, mentions, retweets and listings, the ability to pin a propaganda post to a user’s handle thus making that account a go-to account for information all seemed to play an important role in spreading narratives and counter-narratives and most importantly, maintaining the willingness of the target audience, Igbos, to constantly commit to the agenda at hand. These traits are inherent in the spirit and features of Twitter that makes it different from other social computing sites such as Facebook. Secondly, the task at hand appeared to be 2-pronged, enforce the observation of the proposed sit-in protest and in anticipation of a government led crack down on the protest, raise an international awareness on possible human rights abuse. The characteristics of this task revolved around the need to spread information about the Biafran struggle to its followers and sympathisers on Twitter in the diaspora with an unstated design to stir up emotional support for a larger audience. Also, there was a need to provide emotional support for its local supporters of the proposed sit-in protest and how it could shape the overall Biafran struggle in the face of a possible government crackdown. The individual characteristics which should normally be the driving force behind the propagation of such messages was however lacking. Such individuals would be characterised by up-to-date narratives that captures the personal and collective experience of the struggle, strategies to shape and repackage the Biafran brand or identity in the face of existing political opposition in such a manner that exudes both wit and gut etc. Instead, what is noticed are

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evidences of sock puppetry which is outright illegal, but also conveys a degree of falsehood in the power of its numbers, political miscalculations on a scale that could jeopardise the aspirations of the struggle and also endanger lives and property, a near haphazard Twitter strategy etc. As such, while this research cannot measure explicitly the role of individual characteristics, it still remains an important consideration for the subsequent adaptation process and also for creating a methodological framework.



## Adaptation Process

An interesting insight associated with this phase of the structuration process as noticed in this episode of usage is that technology adaptation precedes task adaptation. The precedence of adaptation behaviours is guided by the notion that technologies do not generate outcomes until they are applied to a task. Simply put, technological adaptations do not take place in isolation, rather, they depend upon task adaptations that bring functional affordances into contact with a work process. While this may seem axiomatic, online discourses in the #Biafra twitter network followed these patterns as they sought to create content on digital media that served as both a powerful

information source within the twitter network, and also helping to frame our own understanding of these conflicts. Against this background, the inherent structures in the use of twitter triggered adjustments in the task to accommodate the new technology. Look at it this way, unlike Facebook, twitter allows 140 characters per post. Also, a user does not need to be send a ‘friend request’ before a connection can be established. This means that the ‘spirit’ of the technology, would definitely affect how users conduct their tasks thus affecting the outcome<sup>125</sup>. We see this interaction playing out in the #Biafra twitter network in the exaggerated nature of the contents shared e.g. “NIGERIA/BRITISH GOVERNMENT PLAN TO ELIMINATE BIAFRAN LEADER NNAMDI KANU LEAKED”, also the videos and logos that are displayed reflect an altered view of *spirits* of twitter.

An interesting dimension in this phase of adaptation by SDGs is the influence of ‘Point-in-time adaptations’ of input structures, these are depicted as persistent and transient structures in Figure 2. These structures may be temporary, affecting only the current social interaction, or they may be resonating over the course of multiple interactions and thereby create new, persistent social structures<sup>126</sup>. Modified structures that persist become institutionalized with influence that extends across time and space<sup>127</sup>. Structures that are reified through multiple episodes become the new norm as they redefine the structures for adaptation. These persistent structures are a legacy from structuration episodes that serve as raw material for future use and adaptation. These are an important, and indeed a distinguishing set of factors necessary to complete the mapping of AST from the chosen episode of usage. This is because, although these structures may vary with meaning and influence based on the time and location during the process of adaptation, in the case of the Biafra struggle, they form a major reason why SCSs may not be able to deliver the anticipated result by itself. For example, after the civil war in 1970, political and security adaptations through various military and civilian regimes have created a negative value/perception about the Biafran struggle that has been retained and continues to persist across usage events. These external political and security factors outside the south-east region largely influence the degree of influence these SCSs have on the laid-out agendas. These factors, especially the transient factors are largely contingent on a wide range of factors such as geography, culture, doctrine, and people. This makes it problematic to measure because although they can be studied, they may not yield a guaranteed predictive advice on how social computing sites can be effective. Nevertheless, taking such factors

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<sup>125</sup> (Beaudry and Pinsonneault 2005)

<sup>126</sup> *ibid*

<sup>127</sup> (Germonprez and Zigurs 2009).

into consideration would be a key ingredient for understanding why the Arab spring for example was successful in some parts or and why it failed in some other parts.

## **Output**

At the end of the day, we see that social computing technologies are not simply physically constructed by their designer and implementers, but are also socially constructed by the interpretive action of users- in this case SDGs who give meaning to the technology every time they use it. As these technologies exert their power of domination when users conform to usage cues, it empowers users in an interactive process, to create new interpretations that redefine both the task and technology structures. This interplay has been at the core of my arguments, what has been described as a “duality of technology”<sup>128</sup> that mirrors Giddens’s “duality of structure”. This fusion of computing technologies and politics is largely reshaping the way the Biafran political groups contest the sovereignty of the Nigerian state over their Igbo homeland in the south-east. This is because, as they post to smaller circles and to full networks, exchanging information and providing emotional support, creating new content and sharing ideas of others, starting a group and joining those created by others, they create virtual communities on SCSs such as Twitter to create alternative spaces for exerting power and influence. This essay argues that this interplay calls into question mainstream assumptions about political authority and social spaces in an age of digital information. This is because they are increasingly playing a critical role in reinforcing a sense of group identity and shape the practice and ideology of self-determination movements. However, while these digital repertoires are fast becoming popular in the tactics of self-determination politics, successfully applying social computing technologies requires a deeper understanding of the underlying technologies, as well as the social strategies needed to cultivate communities, motivate contributions, and organize activities to achieve desired goals.

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<sup>128</sup> Orlikowski (1992)



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