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Misinformation and Covid-19 Infodemic: Identifying Offline Social Spaces for Infodemic Diffusion in Selected Communities in Northern Nigeria

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Abstract The paper argues that there exists an intersection between social media and Informal Offline Social spaces. For the world to win the war against Misinformation on the Covid-19 'infodemic', there is a compelling need to disseminate information on the pandemic and its safety protocols in Informal Offline Social spaces for information dissemination where even the vulnerable population in communities have access to. The structure proposition of Nugent's (2016) amendment to the Information grounds theory helped in identifying these channels. A qualitative case study design with embedded cases is adopted. Ten participants are purposively selected and interviewed from three tea houses that were chosen for the study. The findings indicated that six informal channels of information dissemination exist in the Samaru community, Kaduna State. They are Businesses, Local Hangouts, and Venues for ceremonies, Transportation service stations, Essential Services, and Workspaces. The paper recommended diffusing information on coronavirus in these channels as they are used by people of different social classes in the community as information sources. This is because the information emanating from these spaces is habitually trusted by people in the community.

Keywords:misinformation,COVID-19,Nigeria

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Introduction

The term 'Infodemic' was coined by the World Health Organisation (WHO) to escribe the proliferation of misinformation, disinformation and rumours during health emergencies (UN Department of Global Communications, 2020; Wade, 2020). This includes conspiracy theories about the origin of the Covid-19 virus, which claim that 5G telecommunication facilities were used to spread the virus. Other issues revolve around misleading pieces of advice about spurious treatments of the disease such as the consumption of high quantities of ginger and garlic. Infodemics hamper an effective public health response and create confusion and distrust among people. It has also been harmful to the fight against the outbreak and the effective implementation of countermeasures to kerb the spread of the disease. In extreme cases, the infodemic leads people to not acknowledge the existence of Covid-19, and this undermines the willingness to abide by public health advice, especially during the Lockdown (Lee, 2020). It has been argued that the covid-19 infodemic diffuses faster than the pandemic itself (Hua and Shaw, 2020; Lee, 2020). This infodemic has also been driven by the ease with which information is diffused on social media.

The effect of this covid-19 infodemic has become a fight that the WHO has given high priority. For example, it has partnered with search and social media companies such as Facebook, Google, Pinterest, Tencent, Twitter, TikTok, and YouTube to use their newsfeed function to direct users to WHO websites and the websites of other local health authorities when a user searches for

information on coronavirus (Gold, 2020; Merchant and Lurie, 2020) and flag down posts that can negatively impact public health. In addition to that, WHO launched a new information platform, EPI-WIN Information Network for Epidemics. The platform (www.who.int/epi-win) provides access to timely, accurate, and easy-to-understand advice and information from trusted sources on the evolving covid-19 pandemic. Even with these efforts, covid-19 cases are still on the rise. In Nigeria, people are seen breaking the lockdown directives and many still believe the information on the disease is either false or that the Government was soliciting relief funds, especially from WHO. Some Nigerians also believe that Covid-19 is the disease of the rich who travel abroad. This problem is exacerbated by a general mistrust of authorities, particularly in Northern Nigeria (Odeogwu and Muntari, 2020; Sabiu, 2020).

All efforts made by WHO and other constituted authorities were intended to curb infodemics. However, diffusing the right information online is not enough as Brennen, Simon, Howard, and Nielsen (2020) maintain that for public health messages to be successful, they must reach over 80% of the population and no single channel can achieve that. The infodemic continues offline as information diffuses from social media to informal channels of information dissemination (Pettersen, 2016; Lee, 2020). Studies have shown the intersection of social media with informal channels of information dissemination and the way information diffuses from social media to informal channels of information dissemination (Steinfield et al. 2009; Riemer et al., 2015; Pettersen, 2016). Moreover, Vanden Abeele, De Wolf, and Ling (2018) opine that mobile

technology is a global phenomenon with a serious impact on human lives. Its role is also central to the development of social media accounts, especially WhatsApp, which is easier and affordable. With this development, the individual becomes a content creator and a medium for information diffusion in both realms (Online and Offline).

In order to reduce the covid-19 cases in Nigeria as a result of the infodemic, there is a compelling need to identify informal offline social spaces of information dissemination. This is critical because such spaces serve as cognitive authorities where individuals visit to seek and verify information (Muhammad, 2018). Similarly, it is of utmost importance to identify these spaces, as they serve as informal hubs of information where community members gather for their daily life updates. The information emanating from these spaces is trusted by community members. Diffusing information on covid-19 in these spaces increases the uptake of the information, which reaches vulnerable groups in society.

The objective of this study, therefore, is to identify informal offline social spaces for information dissemination where infodemic diffuses in Samaru Community of Sabon-Gari Local Government Area, Kaduna State, Nigeria. The structure propositions of Fisher's Information Grounds theory as amended by Nugent (2016) provide the lens used to identify these spaces.

This study argues that participants have more than one offline social space, while typologies of these Offline Social spaces are businesses, local hangouts, venues for ceremonies, transportation service stations, essential

services centres, and workspaces. The study maintains that Nugent (2016) structural propositions of the amendment of information grounds succinctly describe the identified spaces as information sources and as filters for people in a typical Hausa society of Northern Nigeria. It discovers that four of the identified informal channels are well-established permanent spaces, while two are transient. The channels, therefore, facilitate the creation of social networks and social capital, especially among participants of the study by virtue of the intersubjective discourse taking place in the spaces.

Offline Social Spaces

Offline social spaces are birthplaces for social and collective action (Foucault, 1984; Lefebvre, 1996). They are physical sites for social life where people meet and interact (Lefebvre, 1991). This interaction shapes the actions and behaviours of people who visit these spaces. A significant part of human behaviour that is shaped by these spaces is their information behaviour, which refers to the type of information an individual needs, seeks, and uses in decision making (Fisher and Julien, 2009).

During crisis situations, an information vacuum that is created before the authorities understand the situation. This information vacuum is filled with information individuals obtain informally from informal sources. These informal sources are spaces where community information diffuses and the intersubjective nature of the relationships that exist in these spaces makes information emanating from these spaces trustworthy.

Theoretical Lens

Nugent (2016) organised the seven propositions of Information Grounds theory into three categories: Flow, Structure and Purpose. The propositions that fall into the flow category include:

1. Information grounds are attended by different social types, most, if not all, of whom play expected and important, albeit different, roles in information flow.

2. People engage in formal and informal information sharing, and information flow occurs in many directions.

These propositions describe how information flows in an Information Ground. The propositions that fall under the Structure Category include:

1. Information grounds can occur anywhere, in any type of temporal setting and are predicated on the presence of individuals.

2. Many sub-contexts exist within information grounds and are based on people's perspectives and physical factors; together, these sub-contexts form a grand context.

These propositions describe the structure of an Information Ground. While the propositions that fall under the Purpose include:

1. People gather on information grounds for a primary, instrumental purpose other than information sharing.

2. Social interaction is a primary activity on information grounds such that information flow is a by-product.

3. People use information obtained at information grounds in alternative ways and benefit along physical, social, affective, and cognitive dimensions.

Literature Review

The study by Hua and Shaw (2020) analyses the timeline of the key actions taken by governments and people on the infodemic over three months in five different phases. Original data was collected and analysed from Chinese social media. Although there is characteristic information censorship in China, there were several positive and negative things happened in the period. This paper is a narrative of those events and provides an original analysis. This study uses raw data from the original survey to understand the types of media people used to get information, and the study relied on different types of online services in different phases of the lockdown. It finds that although there was an initial delay in responding, a unique combination of strong governance, strict regulation, strong community vigilance and citizen participation, and wise use of big data, as well as digital technologies, were some of the key factors in China's efforts to combat the virus. Being inviable and nonmeasurable, unlike radioactive exposure, appropriate and timely information is very important to form the basic foundation of mitigation and curative measures. The infodemic, as it is termed by the WHO, is a key word where participation of different stakeholders, along

with stricter regulations is required to reduce the impact of fake news in this age of information age and social media. Different countries need variant approaches to address the infodemic for future global mitigation efforts.

Similarly, the study by Pulido, Villarejo-Carballido, Redondo-Sama and Gomez (2020) sheds a little new light on the type of tweets that circulated on Twitter during the Covid-19 outbreak for two days. The authors analyse how false and true information is shared. The study raises four research questions to include: RQ1: How many tweets contain false information? How many RT do these get? RQ2: How many tweets debunk false information? How many RT do these get? RQ3: How many tweets are based on scientific information? How many RT do these get? RQ4: What are the implications of the results? The study adopts Communicative Content Analysis, a novel contribution to the field of content analysis methods. In total, 1000 tweets were analysed. The results show that false information is tweeted more but retweeted less than science-based evidence or fact-checking tweets, while science-based evidence and fact-checking tweets capture more engagement than mere facts. These findings provide relevant information to inform public health policies.

In the report by Brennen, Simon, Howard and Nielsen (2020) survey data was collected in late March and early April 2020 to understand how people in six countries access news and information about Covid-19, how they rate the trustworthiness of the different sources and platforms they rely on, how much misinformation they come across from different sources and on different platforms including what they themselves know about and do about the

coronavirus crisis. The report is based on a survey commissioned by the Reuters Institute for the Study of Journalism and the Misinformation, Science and Media project run with the Oxford Internet Institute and supported by the Oxford Martin School. Data were collected using an online questionnaire fielded from 31 March and until the beginning of April 2020 in Argentina, Germany, South Korea, Spain, the UK and the US. The results indicate that the respondents rely on various platforms but regard the content they access via social media, video sites, and messaging applications (and to a lesser extent search engines) as much less reliable than information from news organisations. The news media has helped them understand the pandemic. Findings also indicate that people express very high levels of trust in scientists, doctors, other experts, often high levels of trust in health authorities and in global health organisations like the WHO – sources of information that many platform companies are currently promoting. It is also discovered that basic social and political factors also influence understanding of the pandemic. In terms of social factors, however, those with lower levels of education know less about coronavirus than those with higher levels of education. In terms of political factors, those who are uninterested in politics, or alienated from established parties know less about coronavirus than others. In some countries, there are also significant partisan differences as people with different political persuasions see the situation differently, particularly in the United States.

From the foregoing, it should be noted that although the available literature on coronavirus, as well as infodemics provide vital information about

the role of social media platforms either in the promotion of fake news about the virus, or in terms of community enlightenment. Contrary to the fact that such studies focus largely on the role of governments on addressing infodemics, social media censorship, the nature, and impact of tweets during the Covid-19 pandemic. This study presents a micro analysis of misinformation during lockdown by identifying offline social spaces for the diffusion in selected communities in Northern Nigeria. Rather than presenting a macro-analysis as in most comparative studies on how countries access news about the coronavirus, this study prioritises the personal and collective experiences of a smaller population.

Methodology

A qualitative single case study design with embedded subcases is adopted for the study. A qualitative case study design is a holistic strategy that provides rich and in-depth information about an event, an individual, an organisation, or groups in a naturalistic setting (Samkange, 2012; Ridder, 2017). Maximum Variation Sampling is used to select three tea shops from forty-five (45) tea shops in Samaru Community to accommodate as many variations of tea shops as possible (Merrian, 2009). Ten participants were used for the study. The tea shops served as the site for this study based on the assertion by Fisher, Landry and Naumer (2006) that individuals have more than one social space. After identifying the tea shop as a popular social space, participants were asked to mention other places they go to interact with friends. To have more reliable information, a semi-structured interview was used to collect the data for this

study. This was also complemented using secondary sources. The data collected was, therefore, analysed using the thematic analysis.

Result

Six themes emerged as the typologies of offline social spaces for the diffusion of Covid-19 information in Samaru Community. They are businesses, local hangouts, venues for ceremonies, transportation service stations, essential services and workspaces. The themes, their categories, and subcategories are shown in the table below.

Table 1.0 Informal Channels for information dissemination in Samaru Community

Objectives	Themes	Categories	Sub-Categories
Informal channels of information dissemination in Samaru Community	**1. Businesses**	**1. Fast Food Businesses**	1.1 Tea Shops 1.2 Suya (Barbecue) Spot. 1.3 Fura da Nono (millet and milk Joint
		2. Non-Food Related Businesses	2.1 Corner Shops 2.2 Barber's Shop 2.3 Open Markets 2.4 Car Wash 2.5 Mechanic Workshop 2.6 Football Viewing Centres
	2. Local Hangouts	**3. Discussion/ Relaxation Spaces**	3.1 Majalisa (Discussion Spaces with informal membership)
	3. Venues for Ceremonies	**4. Venues for ceremonies**	4.1 Venues for wedding, naming, and funeral ceremonies
	4. Transportation Service Stations	**5. Commercial transport Stations**	5.1 Motor Parks (Bus Stations) 5.2 Commercial Motorcycle Park
	5. Essential Services		6.1 Hospitals

centres	**6. Health Care Centres**	
6. Workspaces	**7. Office spaces**	7.1 office space

This study found six typologies of offline social spaces in the Samaru Community. Four of these offline social spaces for Covid-19 information dissemination (Businesses, Local Hangouts, venues for ceremonies, and transportation service stations) serve as third spaces (Mehta and Bosson, 2010), while the other two are First spaces (Essential Services centres and Workspaces). Third spaces are informal public places that connect individuals of different social classes beyond the realms of home and work. It is regarded as a space contrasting with the first place (Workspace) and second place (Home space) (Pennington, 2012). However, literature has shown that two categories of third spaces exist: Relaxation space and "hostage-like" space (Fisher, Landry and Naumer, 2006; Landry, 2014; Siagian, 2016; Steigemann, 2017). In this study, businesses, local hangouts, and ceremonies venues fall under the relaxation spaces, while transportation service stations fall under the category of hostages-like spaces.

This study revealed that the designation of spaces as first space and third space is not clear. The Tea shops, Suya (Barbecue) spots, Kiosks (Corner) Shops and Mechanic workshops are the first places for the owners, while they are the third spaces for the customers. For example, this study found that, while the

Mechanic Workshop is a first space for the mechanic, it is also a third space in the hostage-like category for people who take their cars for repairs. It is surprising that, while the literature has indicated little or no intersubjective discourse in first spaces, people who go for vehicle repairs experience on the average two to four hours. Unlike developed societies, vehicle owners do not have to wait this long, but in this study setting, vehicle owners are forced to wait for their vehicles to be fixed regardless of the time it will take. In the process of waiting, it is not uncommon for intersubjective discourse and information diffusion to take place with other vehicle owners.

Finally, this study found that four of the Offline Social spaces for covid-19 information dissemination are well established permanent spaces (Fisher, et al, 2006). These are businesses, local hangouts, essential services centres and workspaces. Two of the informal channels are transient spaces. These include venues for ceremonies and transportation service stations.

The structure propositions of Nugent (2016) describe these offline spaces in the following way:

> Information grounds can occur anywhere, in any type of temporal setting and are predicated on the presence of individuals. This proposition describes the structure of information grounds based on three parameters. All the Offline Social spaces for Covid-19 information dissemination can occur anywhere and at any time in unexpected places in the community. For example, there are no fixed places where tea shops and corner shops are located in the Samaru Community. They can be located anywhere in the community.

The proposition describes a temporal setting as places that do not have a permanent location. However, information grounds are environments that are formed based on the presence of people and the time (waiting time). This is because people have to wait for the service that is provided in that particular space. The temporal setting is people-based. It is the interaction and the behaviour of individuals based on the duration of meeting (waiting time) that forms the Information ground. As individuals come and go, the information grounds form and disperse. Information grounds are formed based on the presence of people.

Many subcontexts exist within an information ground and are based on people's perspectives and physical factors; together these sub-contexts form a grand context. This proposition explains subcontexts as circumstances relating to the place and/or participants in the information ground that affects information seeking behaviour. In relation to the place, the findings indicate that it encourages social interaction, and participants gather reliable information and verify the information they have from these informal channels of information dissemination. In addition, these spaces provide a relaxing atmosphere for participants where they unwind, meet people and discuss. Offline Social spaces of information dissemination have become potent sources of information and information filtering systems for the participants of this study.

In relation to the participants, findings indicate that participants seek information (purposively or non-purposively) through social interaction in these spaces. Information flows in many directions between the different social actors

that visit these spaces. Similarly, findings indicate that participants benefit from the information exchanges in these informal channels in the physical, social, affective and social dimensions. These subcontexts together give a grand context of informal channels of information dissemination as information sources and filters for individuals in Hausa communal settings in Northern Nigeria.

Conclusion and Recommendations

The following conclusions are drawn from this study. First, this study has established that participants have more than one offline social space. The typologies of these Offline Social spaces are businesses, local hangouts, venues for ceremonies, transportation service stations, essential services centres and workspaces. The study also established that the structure propositions of Nugent (2016) amendment of the information grounds propositions aptly described these spaces as information sources and filters for individuals in Hausa setting in Northern Nigeria.

Based on the findings of this study, the following recommendations were made:

This study discovered that there is a high degree of intersubjective discourse in third spaces with hostage-like characteristics in the Samaru community. In addition, the study also discovered that four of the informal channels are well-established permanent spaces, while two are transient. The Nigerian Centre for disease control can disseminate information on the coronavirus in these permanent spaces and repackage it in the language the people understand. They can for instance, put posters containing information on

the coronavirus in tea shops, motor parks, and local hangouts so that they are seen by individuals. Also, since individuals have more than one of these spaces the information diffuses in the community in no time.

Similarly, this study revealed that informal channels foster the creation of social networks and social capital among study participants due to the intersubjective discourse that takes place in these spaces. This implies that the coordination and exchange of information that takes place in the spaces breeds trust among participants and the information that is acquired. The government can create informal channels like transportation service stations or even partner with businesses like fast food businesses to disseminate timely information on coronavirus in these spaces. This happens because individuals trust any information they get from these spaces.

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