Fake News on Social Media And Influence on COVID 19 Behaviour of Undergraduate Students

ODOEMELAM, Chinedu Christian, PhD
Department of Mass Communication and Faculty member,
Buratai Center for Contemporary Security Affairs, Igbinedion University, Okada
judahmandate@gmail.com Christian.odoemelam@iuokada.edu.ng

MISAN, Metiele Faith
Department of Mass Communication
Igbinedion University, Okada

Abstract

Fake news has become so prevalent that it cannot be ignored on a global scale. Since social media has become trendy than traditional communication channels, at least among younger population, fake news is now a hot topic. Because young people make up the majority of social media users, this has therefore had an effect on how they behave toward COVID-19. A review of the literature in this study reveals that experts have not conducted enough research on the impact of fake news on social media on university students' COVID-19 behaviors. However, while studies on the impact of fake news on social media have been conducted, none has focused explicitly on how fake news on social media affects undergraduate students' COVID-19 behaviors. This study aims to investigate how fake news on social media affects undergraduates' COVID-19 behavior. The undergraduates in Okada, Ovia North-east LGA were sampled in this study. The study anchored on medium theory, Uses, and gratification theory. The survey method was adopted using the questionnaire. The study found that undergraduate students are not able to differentiate fake news from authentic news. The study also found that fake news social media has limited influence on the COVID-19 behaviours of undergraduate students. The study recommends that the Federal government, in particular, the ministry of Information and Communication should implement regulations that encourage media literacy and discourage the spread of false information, especially in the area of health.

Keywords: Fake news, Social Media, Influence, COVID-19, Behavior, Undergraduate Students.

Introduction

Fake news has a long history dating back to 1439, when the first printing press was built and news began to spread extensively (Adegunle & Odoemelam 2019). Rather than traditional transmission, fake news is associated with digital channels and social media. It's a phrase that refers to satire, parody, fabrication, native advertising, and propaganda, among other things. While misinformation has always existed in media – think of the Great Moon Hoax of 1835 that claimed life was discovered on the moon – the advent of social media has significantly increased the scope, spread and reach of misinformation (Anjana 2022).

Fake news related to COVID-19 cuts across different areas such as the origin of the virus, its cause and prevention and how to control its spread. Schäfer and Schadauer (2018) noted that fake news poses a serious threat to global well-being and global perspective as it has been used to promote disease outbreaks, hate, crime, racism and war. For instance, while some faceless individuals have linked the origin of the virus to a covert biological weapon program in Wuhan, there is no evidence to support this claim (*The Independent*, 2020).

Social media channels are distinguished as the most important sources of information as well as misinformation (Gupta, Gasparyan, Misra, Agarwal, Zimba, & Yessirkepov, 2020). With social media, information is shared through a network in a faster way around the globe, even faster than the pandemic virulence (Merchant & Lurie, 2020). The rise of social media has altered our perceptions of and interactions with information. For many people, social media has supplanted traditional news sources. Never before has it been so simple to get information, publish it, and share it. Anyone may create one or more Facebook or Twitter accounts in minutes, often anonymously.

The usage of social media in higher education can vary from information seeking to information sharing, friendship-wide relationships and learning community-building. Distinction was made between different purposes of social media use including 'search information', 'stay up-to-date', 'relaxing/entertainment', 'stay in contact with friends', 'exchange information with others', 'share opinions with others' and 'search new friends' (Rutsaert, Pieniak, Regan, McConnon, & Verbeke, 2013).

In November 2018, a research team from the British Broadcasting Corporation (BBC) reported that Nigerians are one of the most common victims of false news because they are afraid of not being able to call the source of the information, which has resulted in an increase in fake news in the country. Some of the disparities can be attributed to the relatively recent nature of social media as a tool. According to Musa (2015), the majority of mass communication students in Nigeria utilize social media for communication, collaboration, news sharing, research, expressing of opinion, maintaining a connection, and finding friends from other countries.

The SARS-CoV-2 new coronavirus (COVID-19) outbreak was accompanied by a flood of inaccurate and misleading information regarding the virus, particularly on social media. The discovery of the novel coronavirus (SARS-CoV-2) in December of 2019 sparked a global pandemic that has claimed the lives of hundreds of thousands of people around the world.

Fake news according to Himma-Kadakas (2017) refers to information on social media but can sometimes be found in conventional media as well. This means that false news, often known as junk news, is the unreliable and deceptive dissemination of information or news through print, web, and other media. The pace with which fake news spreads appears to rise proportionately as information about COVID-19 spreads, which is particularly noteworthy given the need to raise awareness about the Pandemic.

The spread of fake news has accelerated during the COVID-19 pandemic (Apuke & Omar, 2021). The spread of false information about the virus has prompted the World Health Organization (WHO) to issue a warning about an ongoing "infodemic," or an excess of information, particularly misinformation, during an epidemic (Odoemelam, 2020. Acting on incorrect information can lead to death. According to recent research, nearly 6 000 people were hospitalized around the world in the first three months of 2020 as a result of coronavirus misinformation. According to researchers, at least 800 people may have died as a result of misinformation about COVID-19during this time period.

Chen (2016) stated that the spread of fake news among students could be attributed to the increase in the use of social media platforms for information sharing. The issue is that not all undergraduate students possess the abilities necessary to become effective information makers and communicators. Sawano (2019) opined that lack of a rigorous quality control mechanism and the relative ease of sharing information among

undergraduates are among the factors that enhance the spread of fake news among undergraduates. With technologies such as Facebook, Twitter, WhatsApp and individual blogs, students are now more connected than ever and share information, regardless of the reliability of that information.

Statement of Research Problem

COVID-19 is the first pandemic in history to rely primarily on technology and social media to keep people healthy, aware, active, and connected. Simultaneously, the infrastructure we rely on to keep connected and informed is encouraging and magnifying an infodemic, undermining global responses and compromising pandemic monitoring efforts. Misinformation and disinformation can have a negative impact on people's physical and mental health, exacerbate shame, jeopardize important medical advances, and contribute to a lack of compliance with public health policies, undermining their effectiveness and jeopardizing countries' ability to avoid a pandemic.

Furthermore, misinformation is polarizing public debate on COVID-19-related problems, amplifying hate speech, raising the risk of unrest, criminality, and human rights violations, and undermining democracy, human rights, and social stability in the end. These factors associated with fake news and misinformation therefore inhibit efforts at mitigating the effects of the pandemic.

While studies (Adegunle, Odoemelam and Odoemelam, 2019; Shilpi & Arun Guha, 2021) show that Fake news on social media influence behavior, it is not clear how fake news on social media influence COVID-19 behavior of undergraduates in Okada, Ovia North East L.G.A. This represents a missed opportunity, given the proven negative roles social media play in many health interventions. The present study fills this gap by examining the influence of Fake news on social media on COVID-19 behaviour of undergraduates.

Research Questions

The study is guided by the following three research questions:

1.What influence does social media misinformation have on undergraduates?
2.What is the issue with the COVID-19 pandemic-related social media infodemic?
3.What effect does fake news on social media have on COVID-19 behaviour of undergraduate?

Theoretical Framework.

Two key theories are relevant to this study, they include; Medium theory Uses and gratification theory

Medium Theory

The theory was oriented from Marshal McLuhan's 'the medium is the message' postulation (McLuhan 1964). McLuhan viewed every form of media innovation to be an extension of some human faculty. He argued that the media are not simply channel for transmitting information between two or more environments, but are themselves distinct social-psychological settings or environment that encourages certain types of interaction and discourage others (Ellis, 2099).It highlights that a certain channel can have an impact on human thinking and other aspects of social organization.

The concept of medium theory states that the medium used to communicate with the consumer is just as significant as the material delivered by the medium. Medium theorists believe that the means by which a technology expresses itself has a significant impact on how the message of that medium is received.

People should observe not simply the media but also "the ways in which each new medium undermines convention and reshapes social life," according to McLuhan. The medium applies a filter to a message that has a substantial impact on how it is interpreted. On a social level, medium theories describe how shifting patterns of social interaction caused by medium differences alter (internet, social media platforms) social structure. The internet has transformed the speed, storage, and availability of information, as well as creating a new information class that includes new reading patterns. Social media has altered social capital, or the resources collected via interpersonal relationships, and has enabled the spread of new social networks' knowledge.

Uses and Gratification Theory

This theory is associated with the work of Elihu Katz (1970), Jay Blumler and Michael Gurevitch. The theory of focuses on what people do what people do with media rather the impacting influence of the media. The theory focuses on three components: the motive for media use, the audience activity such as involvement, and result of the media use, such as satisfaction. The uses and gratification theory is key to understanding people's media consumption habit. For instance, Park and Goering (2016) used the uses and gratification theory to examine a relationship among motives for health-related YouTube, post-exposure online activity, cognitive involvement in health related YouTube use and others.

Evidence has shown uses and gratification theory to be the dominant theoretical approach to understanding why and how people actively seek out specific media to satisfy particular needs (Ruggiero, 2000).Past scholars have suggested individuals' personality traits influence fake news sharing behavior (Apuke and Omar, 2021. Furthermore, scholars have also suggested that user gratifications also influence fake news sharing behavior (Chen, 2016, Brinda & Sahil 2021).

To achieve the aim of this study, we draw from the uses and gratification theory (UGT) to include some user motivation such as altruism, entertainment, socialization, self-promotion and instant news sharing. The uses and gratification theory, therefore fits into this research to contend that understanding the reasons and associated behaviours that induce people to share falsehood on social media.

Methodology

The study adopted the descriptive survey research design. The survey research design was chosen to allow the researchers to use a collection of questions on various aspects of the subject of study that a subset of the study's population was required to discuss and provide sufficient replies to the research question (Mugenda & Mugenda, 2003).

The target population for this study was undergraduates in Okada, Ovia North East LGA, because they are within the researchers reach. It covers undergraduates in Okada, Ovia North East LGA. The target population for this study were undergraduates in Okada within the age of 18 to 40. The estimated population of Ovia North East LGA is Two hundred and three thousand five hundred (203, 500) (National Population Commission (projected), 2020).

Given the population of Okada, Ovia North East LGA, an appropriate sample size for the study was selected with the aid of the Taro Yamene formula. The sample size for this study is 100

The elements from the sample were selected by the Cluster sampling technique. Cluster sampling ensures that number of samples are obtained by probability through a selection process that identifies elements in clusters. Data was collected through the questionnaire instrument.

To test for validity, the instrument was carefully prepared to cover all of the objectives and this process was overseen by 3 experts in the field of mass communication whose academic ranks ranged from Doctors of Philosophy and Professor. They examined the items in the instrument for the following: straightforwardness, simplicity and ambiguity. The validators also, ensured that the researchers included items in the instrument that correctly measure the theoretical constructs of the study. Thereafter, the researchers were requested to fine-tune the contents of the instrument with specific reference to the content and face observations made by the validator

In analysing and presenting the data from the study, keen attention was paid to the relationship between facts, ideas, information, and concepts. These were were reflected in frequencies and percentages and presented in tables. Given the type of data collated, the descriptive statistics formed the major method of analysis and interpretation of the data.

Findings and Discussions

Socio Demographic Distribution

Results from the findings revealed that more females (58%) participated in the study than males (42%). Our results indicate that different age groups have susceptibility to interact with the fake news propagated by social media, especially in Nigeria. These results were also verified and corroborate a previous study by Guimarães et al (2021), who examined knowledge about COVID-19 and misinformation from an anonymous online survey. Their study demonstrated that some parameters such as gender, education, and age were directly associated with a better perception of health issues in the context of the pandemic. Similar scenario was found in Hayat *et al. (2020)*, who explored the public's understanding of COVID-19 from online forms and concluded that participants with ages ranging from 16 to 29 years obtained better scores than older participants. Such a fact is associated with the digital media literacy of individuals primarily over the age of 60 who end up not reliably determining the trustworthiness of online news, thus needing to develop literacy competencies that encompass the types of skills needed to identify questionable content (Guess *et al.,* 2019).

Research question 1: what Impact does social media misinformation on undergraduate? To understand the behavior of spreading rumors among the undergraduates, our results as reflected in table 1, show that majority of the respondents negatively evaluated the dissemination of fake news, while an insignificant number did not care anyway. Among them, the correlation between the spread of rumors and anxiety was negatively associated, as they influenced the behavior and perception of the undergraduates to understand what a fact is and what is fake news. Research shows that individuals of younger ages share up to seven times more unverified information when compared to older age groups, often in order to feel useful, active, and connected (Guess *et al.,* 2019).

The analysis shows that the majority of respondents disagreed to the view that children and teenagers do not need to make effort to prevent COVID-19 infection because they have strong immune system. Global COVID-19 trends suggest that children are far less likely to be infected than adults (Gudbjartsson etal., 2020). However, this does not imply that children are immune to the virus. Just as with adults, children exposed to the coronavirus can be infected with it and display signs of Covid-19. "At the beginning of the pandemic, it was thought that children are not getting infected with the coronavirus, but now it is clear that the amount of infection in children is the same as in adults," explains Andrew Pollard, professor of pediatric infection and immunity at the University of Oxford (BBC, 2020).

From the findings, the higher percentage of respondents oppose the opinion that COVID-19 only spreads through objects, it is not airborne. In the context of COVID-19, airborne transmission may be

possible in specific circumstances and settings in which procedures or support treatments that generate aerosols are performed (WHO, 2020). Findings show that COVID-19 misinformation have little impact on undergraduate. Although a larger portion of the study case, are not impacted negatively by the misinformation on social media, as is the case with a smaller percentage.

Findings suggest that more than half of the respondents strongly agreed that they are not able to spot or discern fake news from verified and authentic news. This implies that false information has been a critical concern among social-media platforms and governments, which have implemented strategies to contain misinformation and fake news during the pandemic. Of the social-media platforms, in order to contain the advance of Fake newss, Facebook has implemented a new feature to inform users when they engage with unverified information (BBC 2020). Another way to counteract misinformation is to seek support and discuss actions that authorities or public agencies could take to mitigate the spread of conspiracy theories, and encourage users to flag inappropriate content to social-media companies (González-Padilla and Tortolero-Blanco 2020).

Table 1: Showing responses to: what Impact social media misinformation has on youth

ITEMS	SA	A	SD	D	TOTAL
There is so much information about COVID-19 floating about that it is tough for me to figure out what is true	53 (54.1%)	38 (38.8%)	7 (7.1%)	2 (1.0%)	100 (100%)
I am not able to discern or spot fake news from verified and authentic news.	50 (51.0%)	24 (24.5%)	8 (6.1%)	18 (18.4%)	100 (100%)
You do not have COVID-19 if you can hold your breath for 10 seconds without discomfort.	13 (13.3%)	20 (24.4%)	34 (34.7%)	33 (33.6%)	100 (100%)
COVID-19 will be destroyed in the body if you drink a lot of alcohol	3(3.0%)	31 (31.6.5%)	30 (30.6.5%)	36 (36.7%)	100 (100%)
COVID-19 is a result of 5G	6 (6.1%)	26(26.5%)	37 (37.8%)	31 (31.6%)	100 (100%)
There is no COVID-19 in Nigeria.	34 (34.6%)	22(22.4%)	19 (19.3%)	25 (25.5%)	100 (100%)

Research questions 2: What is the issue with the COVID-19 pandemic-related social media infodemic?
The results also showed that majority of the total respondents disagreed that they obtain information on COVID-19 from reputable organizations such as WHO and NCDC (see table two). This is corroborated by Torres, Gerhart, & Negahban (2018) that during panic periods as seen in the COVID-19 pandemic, younger people will most likely receive information from unverified sources. In addition, the psychological impact of social media on COVID-19 behaviouir of undergraduate students did not make users to react negatively by believing the fake news. Two previous studies, Huang and Zhao (2020), and Wang et al., (2020) contradict this finding. For instance, in evaluating the psychological impact of the uncontrolled spread of COVID-19, they realized that the manifestations of anxiety and psychological outbreaks were more common especially in the younger population who used social networks for a longer time (Huang and Zhao 2020; Wang et al. 2020). On the other hand, pandemic uncertainty and confinement created considerable levels of stress in young people, especially women, in Switzerland (Mohler-Kuo *et al*., 2021). Thus, people who believe in this "conspiracy world" are less likely to comply with social norms (Imhoff and Lamberty, 2020).

Table 2: Showing *the issue with the COVID-19 pandemic-related social media infodemic*

ITEM	SA	A	SD	D	TOTAL
I mostly obtain information on COVID-19 from reputable organizations such as WHO and NCDC.	12 (12.2%)	25 (25.5%)	25 (25.5%)	36 (36.7%)	100 (100%)
You do not have COVID-19 if you can hold your breath for 10 seconds without discomfort.	13 (13.3%)	20 (24.4%)	34 (34.7%)	33 (33.6%)	100 (100%)
COVID-19 will be destroyed in the body if you drink a lot of alcohol	3(3.0%)	31 (31.6.5%)	30 (30.6.5%)	36 (36.7%)	100 (100%)
COVID-19 is a result of 5G	6 (6.1%)	26(26.5%)	37 (37.8%)	31 (31.6%)	100 (100%)
There is no COVID-19 in Nigeria.	34 (34.6%)	22(22.4%)	19 (19.3%)	25 (25.5%)	100 (100%)

Research question 3: What effect does Fake news on social media have on COVID-19 behaviors of undergraduates? The study revealed that majority of the respondents disagreed to double checking COVID-19 materials circulating on social media before they believe and distribute it; and majority do not critically study COVID-19 data before using and relying on them. The impact of denial and its association with fake news presents itself as a social phenomenon through the production of controversial theses to the scientific consensus (Duarte and César 2020). Good examples of denial content can be the emergence of the earthmoving movement, the global warming farce, and anti-vaccination discourses (Vasconcelos-Silva and Castiel 2020). With regard to the COVID-19 pandemic, denialism takes on an expression never seen before, in which the number of people who spread this news grows more and more, and therefore results in an increase in the number of deaths of the most vulnerable patients (Morel, 2021). Social media platforms have contributed to the spread of false news and conspiracy theories during the new coronavirus pandemic. According to the dominant conspiracy hypothesis, SARS CoV-2 does not exist; as a result, the pandemic response is a way for Nigerian government officials and politicians to profit financially from the misuse of response funding. When analyzing the phenomenon of fake news in health, it is possible to observe that infodemic knowledge is part of people's lives around the world, causing distrust in Governments, researchers, and health professionals, which can directly impact people's lives and health. When analyzing the potential risks of misinformation, panic, depression, fear, fatigue, and the risk of infection influence psychological distress and emotional overload. In the COVID-19 pandemic, the disposition to spread incorrect information or rumors is directly related to the development of anxiety in populations of different ages.

Table 3: Showing *the effect that Fake news on social media has on COVID-19 behaviors of youth*

ITEM	SA	A	SD	D	TOTAL
Before I believe and distribute COVID-19 materials that is circulating especially on social media, I double check it.	20 (20.4%)	9 (9.2%)	33 (33.5%)	36 (36.7%)	100 (100%)
Before using and relying on COVID-19 data, I study critically and consider it.	8 (8.2%)	20 (24.4%)	23 (23.5%)	49 (49.0%)	100 (100%)

Conclusion

It is impossible to overstate the acceptance of new media, particularly social media, as a means of quick information dissemination, particularly among undergraduates. At the same time that social media continues to thrive, bogus news spreads at a similar rate. This study has shown that social media is a veritable tool for Communication especially during the COVID-19 pandemic.

It is crucial to understand that university students are already aware of misleading news throughout the pandemic. In spite of this, the majority of university students cannot tell the difference between false

news and certified news. Fake news still affect the perception of undergraduate Students. However, the spread of false information received a poor rating from the students.

Undergraduate students in Okada, Ovia North East LGA are internet savvy and they are aware of the spread of fake news on Social media. Social media is a big news source for university students, but the information they find about COVID-19 there appears to affect how they feel about the illness, as the majority of them don't think the condition exists in Nigeria, majority cannot different fake news from authentic news and as well do not verify the information the get on social media before utilizing them.

In conclusion, the study predicts that as youths and teenagers mature and join the social media bandwagon, social media will have a greater impact in the near future. In order to favorably affect people's perceptions of health issues, particularly those related to the COVID-19 pandemic, government institutions like the NCDC, WHO, NAFDAC, and other health organizations can use social media. To do this, the problem of fake news on social media needs to be adequately handled in order to prevent misinformation and disinformation from worsening health problems.

Recommendations

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

1. Health Organization, for example The World Health Organization (WHO) and the Nigeria Center for Disease Control (NCDC) must constantly improve their online presence by using social media more frequently and opening up new channels for communication. This will improve the authority of online news and make it possible to easily verify material on social media.
2. The federal government, in particular the ministry of information and communication, should implement regulations that encourage media literacy and discourage the spread of false information, especially in the area of health.
3. Periodic educational programs on the effects of fake news consumption in society should be organized by the federal government, especially the ministries of health and information and communication.
4. The federal government and professional organizations should continuously train and retain bloggers, social media companies, and everyone else involved in the online distribution of information. As a result, gatekeeping of social media messages will expand in order to foster trust.

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