Full Length Research

Information dissemination in the face of COVID-19 pandemic: Information literacy question and the role of social media in production and sharing of information

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The paper sought information dissemination in the face of COVID-19 pandemic: information literacy question; the role of social media in production and sharing of information. The objectives of the study were to: examine information literacy rate among the undergraduate students; ascertain the importance of information literacy in the fight against Covid 19 pandemic and investigate the impact of social media on information dissemination on Covid 19 pandemic. Survey research design of descriptive type was used to generate data from participants. The data retrieved was subjected to descriptive analysis. The population consisted of 390 undergraduate students of Geography and Regional planning Department, Benue state university Makurdi, with the sample of 77 using stratify proportional sampling technique. The paper revealed among others that, most of what undergraduate student of geography and regional planning Benue state university Makurdi "Like", "share" or recommend online is often as a result of they believe rather than concerns about human right & development implications; only a small percentage of the student critically evaluate information before believing it; media information literacy empowers people to be curious to understand their information needs & use for common good; information literacy is important in the fight against Covid- 19 and most Covid 19 information on the social media is overhyped and misleading. The paper recommended that, Governments, academics, digital platforms, fact checkers, concerned institutions and the public urgently need a collective understanding of what is meant by the terms mis-, and dis-information (infodemic) to check the future damage from the scourge.

Key words: Information, Dissemination, Infodemic, Information literacy and COVID-19 pandemic

INTRODUCTION

It is said that in any war situation, the first victim is the "truth". The outbreak of COVID 19 pandemic in the world in the last two years of the last decade (2019-2020) lends credence to the above assertion. As the novel coronavirus has reached nearly every country on earth, there has also been massive dissemination of falsehoods that have spread as fast as the virus itself. These lies have helped pave the path for the infection, and they have sewn mayhem in how individuals and societies are

responding to the pandemic. Recognizing the danger, United Nations has warned that our enemy is also the growing surge of misinformation. The World Health Organization has described - as second disease accompanying the COVID-19 pandemic - an infodemic, which is an overabundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it. Falsehoods in circulation can be categorized as both disinformation (produced and shared with malicious motivation), and misinformation, when these lies are

spread without bad intentions. But in the context of COVID-19 pandemic, the effects of both can be equally deadly (UNESCO, 2020). The volume and velocity of false information within the COVID-19 period points to the existence of a toxic infodemic as described in two recent UNESCO policy papers on this (Covid-19) subject. While information empowers, the infodemic disempowers. It endangers lives and lead to confusion and discord. Increased global access to cell phones with an Internet connection, as well as social media, has led to the exponential production of information and the number of possible paths for getting it, creating an information epidemic or infodemic. In other words, we are home to a situation where a lot of information is being produced and shared to every corner of the world, reaching billions of people. How much of this information is accurate? (Pan

American Health Organisation (PAHO) 2020). It's multi dollar question begging for answer. A revised Information Literacy Standards for Higher Education has in-cooperated an additional skill to the long list of information literacy skills called Meta-literacy. Which is defined as an overarching and self-referential framework that integrates emerging technologies and unifies multiple literacy types; this redefinition of information literacy expands the scope of generally understood information competencies and places a particular emphasis on producing and sharing information in participatory digital environments (Mackey & Jacobson cited in Reham, 2013). This paper examines the information dissemination in the environment of COVID-19 pandemic; information literacy demand and the role of social media in dissemination of information.

Objectives of the study

The objectives of the study are as follows
1. To examine information/media literacy rate among the students
2. To ascertain the importance of information literacy in the fight against pandemics
3. To investigate the impact of social media on information dissemination on Covid 19 pandemic

Literature Review

The literature reviewed in this study is done under the following subheadings: Information Literacy/Media Literacy; Information Dissemination and Infodemic

Information Literacy/Media Literacy

As the digital transformation continues to profoundly alter our communication habits, social media and other online platforms, such as messaging and search engine services, have grown to occupy an increasingly large part in our daily communications. Yet, due to their general opacity, we remain largely ignorant of their inner

workings, the functioning of their algorithms and the anonymized data that could offer concrete information about the flow of problematic content, such as disinformation or hate speech. In addition, many of these online platforms have fuelled disinformation and hate speech to spread at an unprecedented scale and speed. Their business models, which are designed to seize and retain the attention of their users in order to gather data for targeted advertising, have made these companies susceptible to amplifying disinformation by default, including through their enabling of micro-targeted advertisements (Zuboff cited in UNESCO, 2021). The preceeding statements are inline with the current research however, the current research incooperated the aspect of media literacy/information literacy which is absent in the cited article and which the current article intends to elaborates on.   American Association of School Librarians has stated that, the definition of information literacy has become more complex as resources and technologies have changed. Multiple literacies, including digital, visual, textual, and technological, have now joined information literacy as crucial skills for this century (American Association of School Librarians, cited in Reham, 2013). The American Library Association (ALA) cited by the same author as above defines information literacy (IL) as a set of abilities requiring individuals to recognize when information is needed and to locate, evaluate, and use effectively the needed information. The Presidential Committee on Information Literacy stated that, information literacy is a survival skill in the information age (Reham, 2013).

Globally, the development of information literacy is promoted through the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Federation of Library Associations and Institutions (IFLA) in their document "Beacons of the Information Society: The Alexandria Proclamation on Information Literacy and Lifelong Learning, which states that literacy:
• comprises the competencies to recognize information needs and to locate, evaluate, apply and create information within cultural and social contexts;
• is crucial to the competitive advantage of individuals, enterprises (especially small and medium enterprises), regions and nations;
• provides the key to effective access, use and creation of content to support economic development, education, health and human services, and all other aspects of contemporary societies, and thereby provides the vital foundation for fulfilling the goals of the Millennium Declaration and the World Summit on the Information Society; and
• extends beyond current technologies to encompass learning, critical thinking and interpretative skills across professional boundaries and empowers individuals and communities (Reham, 2013). When viewed from the lens of Covid 19 pandemic, information literacy could be a

veritable tool to curb the spread of the sickness unabated. This is because according to (UNESCO, 2021) information literacy encompasses knowledge about the significance of the right to privacy in the digital age, as well as interactions with talk radio, online etiquette and intercultural respect. Furthermore, it empowers people to be curious, to understand their information needs, to search, to critically evaluate, to use and to contribute information and media content wisely. IL calls for competence in knowing one's rights online; combating online hate speech and cyberbullying; and understanding the ethical issues surrounding access and use of information. It is critical for citizens everywhere to develop and reinforce their Media and Information Literacy (MIL) skills, in order to make informed judgments and decisions, and critically engage in sustainable development for which information as a public good is indispensable. UNESCO's discussion above is towards media viability and press freedom however, the current article is set to discuss information dissemination, media and information   literacy in the context of Covid 19 pandemic.

Information Dissemination

Dissemination according to Chukwuyere, Nwanneka, Chukwudebelu and Chidiebere, (2020) is an information alerting services designed to keep individuals informed about the new developments in their particular field, interest and situation. Dissemination basically sends information to an audience, without direct contact to the receiver, and without a direct response or clarification method that a conversation or dialogue would have. Citing Li, Zhang and Wang, the authors futher defined information dissemination as the transportation of information to the intended recipients while satisfying certain requirements such as delays, reliability and so forth. Chukwuyere et.al (2020) futher cited Daudu and Muhammed who aver that, conferences, meetings, festivals and procession are the events of information dissemination and Journals, Newspapers, Radio, Television and Video are the medium of information dissemination. Relatedly, the authors pointed out that, Phones, computers satellites and Internet are the technologies of information dissemination and Librarians, Journalists, Advertisers, Public relation personnel, Camera crew and Newsreaders are the professionals in the act of information dissemination. The authors though focused on information dissemination during Covid 19, did not address the issue of information literacy as included in this current article for knowledge expansion. Recently however with the advent of social media platforms such as Facebook, Twitter, Instagram and the likes which afford user generated content have shifted/expanded the task of information dissemination from the professionals to general public (UNESCO, 2021). In an environment that is increasingly competitive and that is simultaneously affected by the internet giants,

the COVID-19 public health crisis and its accompanying economic recessions, the viability of media remains a major challenge for information to serve as a public good, both from an economic point of view and in broader terms (UNESCO, 2021).

Infodemic

According Pan American Health Organisation (PAHO, 2020), Infodemic refers to an overabundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it. Infodemic refers to a large increase in the volume of information associated with a specific topic and whose growth can occur exponentially in a short period of time due to a specific incident, such as the Covid-19 pandemic. In this situation, misinformation and rumours appear on the scene, along with manipulation of information (disinformation) with doubtful intent. In the information age, this phenomenon is amplified through social networks, spreading farther and faster like a virus. Infodemic is a wide spread information of purposely destructive content and quickly spread about by other users who may not know the original idea behind the information which come crashing on the shores of nations in the tsunamic fashion. Thus the concept of infodemic is composed of wide spread disinformation allied with misinformation.

METHODOLOGY

A survey design was used for this study. The population for the study includes undergraduate students of geography and regional planning Benue State University Makurdi. 100level were104, 200level were 72, 300level were 83, 400level were70 while 500level were 59.   The total population is 390. Stratify proportional sampling technique was adopted to arrive at the sample of 77 as follows. $104(100l) \div 390(Total\ population) = 0.27, 72(200l) \div 390 = 0.18, 83(300l) \div 390 = 0.21, 70\ (400l) \div 390 = 0.18; 59(500l) \div 390 = 0.15.$ $0.27 \times 104 = 28; 0.18 \times 72 = 12; 0.21 \times 83 = 17; 0.18 \times 72 = 12\ and\ 0.15 \times 59 = 8. Therefore, 28 + 12 + 12 + 17 + 8 = 77.$ In gathering relevant data on information dissemination in the face of COVID-19 pandemic: Information literacy question; the role of social media in production and sharing of information, a structured questionnaire consisting of open and close ended questions was designed for collection of data. The questionnaire was formulated keeping in view, the objective of the study and personally distributed and collected with constant personal pursuance and the data obtained were later classified, analysed, tabulated and logically interpreted. This method was deemed suitable for this study because, it afford the researchers opportunity to draw valid conclusion from the pool of views, opinions and experiences of the respondents.

Table 1. Result presentation and Analysis

Level	No. of Questionnaires Distributed	Percentage of Questionnaires Distributed	Questionnaire Returned	Percentage of Questionnaire Returned
100	28	28%	25	25%
200	12	12%	12	12%
300	12	12%	12	12%
400	17	17%	17	17%
500	8	8 %	8	8%
Total 77		100%	74	74%

Table 1 shows the distribution and retrieval of the questionnaire. The table shows that, out of the sample of 77 students, only 74 filled and returned the questionnaire distributed to them. The table show that the 3 of 100l students did not return their questionnaire

Table 2.

S/No	Information literacy indicators	Yes (%)	N0 (%)
1	I use to critically evaluate information before believing it	20 (27.0%)	54 (73.0%)
2	What I "Like", "share" or recommend online is often as a result of my believe rather than concerns about human right & development implications	44 (59.5%)	30 (40.5%)
3	Most of my information & conceptions about Covid 19 came from public opinion	41 (55.4%)	33 (44.6%)
4	I don't necessarily use to check the accuracy/source of information accessed on social media	56 (75.7%)	18 (24.3%)

Table 2 above shows that, higher percentages of respondents are not information literate. The table show that only 27% of the respondents critically evaluate their information before believing it as against 54% of respondents who indicate that, they don't critically evaluate their information before believing. Similarly 44% of the respondents indicate that, what they like and share to others online is often as a result of their believes rather than the concerns about human right and development implications as against 40% who said their like and share contents with concerns for human right and development implications. In another instance, 55.4% of the respondents indicate that, most of their information and conceptions about Covid 19 came from public opinion as against 44% who did otherwise. Again 75% of the respondents indicate that, they don't necessarily use to check the accuracy/source of information accessed on social media which is higher than 24.3% who indicate that they do consider the source/accuracy of information accessed on the social media.

Table 3.

S/No	Importance of information literacy	Yes (%)	N0 (%)
1	Accurate information can help people to navigate & make sense of current times (Covid times)	60 (81.1%)	14 (18.9%)
2	Media information literacy empowers people to be curious to understand their information needs & use for common good	64 (86.5%)	10 (13.5%)
3	Information literacy can help to fight falsehood & shape young people identities & behaviour	55 (74.3%)	19 (25.7%)
4	Information literacy is important in the fight against Covid- 19	68 (91.9%)	6 (8.1%)

Table 3 above shows that, higher percentages of respondents indicate the importance of information literacy in the fight against the Covid 19 pandemic. From the table, 81.1% indicate that, accurate information can help people to navigate and make sense of current times as against 18.9% who disagree. More so, 86.5% of the respondents indicate that, media information literacy empowers people to be curious to understand their information needs and use for common good while 13.5% of the respondents disagreed. Furthermore, 74.3% of the respondents indicate that, information literacy can help to fight falsehood and shape young people identities and behaviour while 25.7% of the respondents disagreed. The table also show that, 91.9% of the respondents agreed that information literacy is important in the fight against Covid- 19 while, 8.1% of the respondents disagreed.

Table 4.

S/No	Impact of social media on information dissemination	Yes (%)	No (%)
1	Most of the information about Covid 19 I got from the social media	67 (90.5%)	7 (9.5%)
2	Most of the information on the social media turn up to be false	40 (54.1%)	34 (45.9%)
3	Different people post different information on the social media which turn up to be false	67 (90.5%)	7 (9.5%)
4	Most Covid 19 information on the social media is overhyped and misleading	72 (97.3%)	2 (2.7%)

Table 4 above show the responses on the impact of social media on information dissemination on Covid 19. From the table, 90.5% of the respondents indicate that, most of the information about Covid 19 they get is from the social media while 9.5% of the respondents indicate they get Covid 19 information through other sources. In another development, 54.1% of the respondents indicate that, most of the information on the social media turns up to be false as against 45.9% of the respondents who disagreed. The table also indicate 90.5% of the respondents agreed that different people post different information on the social media which turn up to be false. 9.5% however disagreed. Finally table 3 indicate that, 97.3% of the respondents said most Covid 19 information on the social media is overhyped and misleading while 2.7% said it is not.

Findings

From the tables it was revealed that;

1. Most of what undergraduate student of geography and regional planning Benue state university makurdi "Like", "share" or recommend online is often as a result of they believe rather than concerns about human right & development implications
2. Only a small percentage of the student critically evaluate information before believing it
3. Media information literacy empowers people to be curious to understand their information needs & use for common good
4. Information literacy is important in the fight against Covid- 19
5. Most Covid 19 information on the social media is overhyped and misleading

Discussion of findings

The study revealed that, most of what undergraduate student of geography and regional planning Benue state university makurdi "Like", "share" or recommend online is often as a result of they believe rather than concerns about human right & development implications. The

implication of the above finding is that, most of the students are not information literate. This is in line with the views of UNESCO (2020) which stated that, In these times of unprecedented flows of information and disinformation, alongside flows of entertainment, data, and other kinds of content, people risk being confused or manipulated, particularly by algorithmic personalized targeting. It is critical for citizens everywhere to develop and reinforce their Media and Information Literacy (MIL) skills, in order to make informed judgments and decisions, and critically engage in sustainable development.

The findings also revealed that, only a small percentage of the student (27%) critically evaluate information before believing it. This also aligned with the earlier findings by Long cited by Baines and Elliot (2020) who discovered that, worldwide, the behavior of the general public has a direct impact on the course of the virus through, for example, how rigorously social distancing rules are adhered to. The authors further cited Karimi and Gambrell who discovered that, some people in the Republic of Iran wrongly believed false social media messaging that COVID-19 is curable with whiskey and honey, leading to the common belief that drinking high-proof alcohol would kill the virus. Sadly, by the end of March 2020, over 300 Iranians had died and more than 1,000 became sick after ingesting methanol because of this untrue information (Baines and Elliot, 2020).

Furthermore, the study revealed that, media information literacy empowers people to be curious to understand their information needs and use for common good. This view agrees with the declaration of IFLA as cited by Reham (2013) that, information literacy provides the key to effective access, use and creation of content to support economic development, education, health and human services, and all other aspects of contemporary societies, and thereby provides the vital foundation for fulfilling the goals of the Millennium Declaration and the World Summit on the Information Society; and extends beyond current technologies to encompass learning, critical thinking and interpretative skills across professional boundaries and empowers individuals and communities. Similarly, UNESCO (2021) reported that, It is critical for citizens everywhere to develop and reinforce their Media and Information Literacy (MIL) skills, in order

to make informed judgments and decisions, and critically engage in sustainable development for which information as a public good is indispensable

Relatedly, the study also revealed that, Information literacy is important in the fight against pandemics such as Covid- 19 and infodemic. This view has been echoed by UNESCO (2021) that IL empowers people to be curious, to understand their information needs, to search, to critically evaluate, to use and to contribute information and media content wisely. IL calls for competence in knowing one's rights online; combating online hate speech and cyberbullying; and understanding the ethical issues surrounding access and use of information

In another finding the study revealed that, most Covid 19 information on the social media is overhyped and misleading. This reveals the telling impact of the social media on Covid 19 pandemic. This also agrees with the UNESCO's report that, in an environment that is increasingly competitive and that is simultaneously affected by the internet giants, the COVID-19 public health crisis and its accompanying economic recessions, the viability of media remains a major challenge for information to serve as a public good, both from an economic point of view and in broader terms (UNESCO 2021). Corroborating the above view, Kleineberg and Boguna cited by Baines and Elliot (2020) asserts that, the speed and ease with which individuals can share information internationally has also meant that discussions can often move swiftly from the local to the global. Local interactions can, therefore, have global consequences that the originating individuals may not envisage or plan, with the con- sequence that suppositions initially shared amongst intimate networks of individuals may quickly become part of international structures of proven and unproven beliefs

CONCLUSION

Covid 19 pandemic and information literacy/media are related. The quantity and the quality of information that people receive affect their knowledge and perceptions, which (in turn) affects their actions in relation to prevention, control and even cure of COVID 19. Disinformation and misinformation has ability to ruin the nations of the world and cause unprecedented havoc to the socio-political and economic wellbeing of the world. It can alter the behavioural patterns of individuals and groups in diverse ways in face of the earth. The quantity and the quality of information that people receive affect their knowledge (cognitive alteration) and perceptions, which (in turn) affects their actions in relation to prevention and control in terms of epidemics.

RECOMMENDATIONS

Governments, Civil organisations, academics, digital platforms, individuals, concerned institutions and the general public urgently need a joint understanding of the concepts of mis-, and dis-information (infodemic). Without a scientific understanding of these concepts, there is a danger of significant consequences from this global health crisis. The information systems research community can actively work to help avoid this.

REFERENCES

Baines, D and Elliot, R. J. (2020). Defining misinformation, disinformation and malinformation: An urgent need for clarity during the COVID-19 infodemic. Retrieved from https://www.researchgate.net/publication/341130695.

Chukwuyere, A. E; Nwanneka, O. I; Chukwudebelu, C.C Chidiebere, E. B; (2020). Librarians' use of social media in disseminating health information on COVID-19 *International Journal of Research and Review* 7 (7): 443-454

Reham, E.A. (2013). Concepts of information literacy and information literacy standards among undergraduate students in public and private universities in the state of Kuwait. Unpublished thesis Submitted to the Graduate Faculty, School of Information Sciences in partial fulfilment of the requirements for the degree of Doctor of Philosophy. University of Pittsburgh

UNESCO, (2021). Journalism, press freedom and COVID-19, issue brief in the UNESCO series: World Trends in Freedom of Expression and Media Development. Available in Open Access under the Attribution ShareAlike 3.0 IGO CC-BY-SA 3.0 IGO License.

UNESCO. (2020). World Press Freedom Day 2020 Concept Note https://en.unesco.org/sites/default/files/concept_note_wpfd2020_final.

Pan African Health Organisation, (2020). Understanding the Infodemic and Misinformation in the fight against Covid-19 factsheet. Department of evidence and intelligence for action in health office of the assistant director. Retrieved in June 2020 from www.paho.org/ish.