

**ENHANCING INFORMATION LITERACY DURING THE COVID 19 PANDEMIC: THE  
ROLES OF LIBRARIANS**

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**Abstract**

*With the high rate of Covid 19 transmission, it is evidenced that people may have not been properly informed about this scourge. This may be as a result of their poor literacy abilities to sort, search, evaluate and determine the reliability and authenticity of the health information on covid-19. This imminent poor information literacy (IL) ability has therefore provided a gap for the librarians to fill. This theoretical paper dealt on enhancing IL during the covid 19 pandemic: the roles of librarians. The paper discussed the history of libraries supporting IL; roles of librarians in enhancing IL during Covid 19; library-based ILP to combat misinformation on covid-19; implications of poor health IL on covid-19 pandemic on the people; advantages of IL on covid-19 infections to the people; challenges and solutions to enhancing IL. Conclusion and recommended were provided*

**Keywords:** Librarian, Libraries, Information literacy, Health information, Covid 19

**Introduction**

The year 2019-2021 was coupled with the ravaging Covid-19 infection which has about 194,434,019 global cases as at 25<sup>th</sup> July, 2021 (WHO, 2021). There is the fear that the rate of transmission owing to the rumored 3<sup>rd</sup> wave Covid virus may have over 200 million infections by the end of October, 2021. Consequently, individuals (urban and rural dwellers) are expected to know the sources of Covid 19 information and how to determine the trustworthiness of such information. Sadly, this has not been the case as many people lack the requisite knowledge and awareness in determining the authenticity of covid-19 information. The reason may be hinged on the premise that most people are not well informed on the prevention strategies to apply and avoid getting infected. To compound this problem is the proliferation of conflicting information about the scourge with its propagated conspiracy theories. These have created confusion for rural people on what to believe. Also, the prevailing fake information on social media has also increased and dominated the social media space. These developments have caused an urgent need for people to be provided with information literacy on the covid-19 pandemic.

Information literacy is the ability to find, evaluate, organize, use, and communicate information in all its various formats, most notably in situations requiring decision making, problem solving, or the acquisition of knowledge. They are a set of abilities and skills requiring individuals to recognize, locate,

evaluate and use effectively the needed information (Association of Colleges and Research Libraries, 2005). Information literacy is a combination of research skills, critical thinking skills, computer technology skills, and communication skills applied to access trusted information. These skills are viewed as critical to the creation of an equitable global 'information society' which permits individuals to effectively function in the workplace, and participate in the society as knowledgeable citizens and share in social and economic development of the country. Information literacy forms the basis for lifelong learning and it is common to all levels of persons - poor or rich, rural or urban.

Therefore, information literacy in this context presupposes that an individual can recognize the need for health information, and knows how to find, evaluate and subsequently communicate such information effectively to solve or prevent a particular problem or disease (such as the contraction of Covid 19) or to make decisions that will restrict their chances of contracting the virus. Whether information comes from the Internet, or the World Wide Web, Online databases, books or documents, and other possible sources, information literacy will provide a person with the ability to understand and critically evaluate and make use of such health information to prevent problems relating to the Covid 19 virus. Relatedly, the development of Information and Communication Technologies (ICTs) has changed the way information is generated, stored, organized and distributed (Ajegbomogun & Ajegbomogun, 2015), and this therefore calls for a more concerted effort for librarians to play a vital role in enabling people to develop information literacy that may likely change their attitude towards acquiring the right kind of information on Covid 19.

Librarians in line with their mandate are expected to deliver training to individuals on how to cope with the proliferation of health information on Covid 19 (Agim, Oraekwe, Chivuzo & Emenari, 2020). They can communicate with rural dwellers in remote location and other users globally without any structural or geographical barriers by providing them with skills on information literacy on health matters such as Covid 19. Librarians can also support people to become more sophisticated, discerning, and confident information user through the information literacy platform provided to the end users. This role of the librarian will make an information user to be able to:

- i. Develop good foundation for independent lifelong learning regarding the use of information on Covid 19;
- ii. Possess an effective research strategy using a wide range of search tools such as Google and other media platforms to accurately source for information on Covid 19 and interpret them;
- iii. Evaluate the relevance, quality, authoritativeness, and credibility of Covid 19 information retrieved online through the search platform, and
- iv. Utilize such Covid 19 information ethically and legally without being biased.

Librarians can also utilize the social media (Facebook, WhatsApp, Twitter and Instagram etc) in developing an information literate user. Social media sites can serve as an online training platform through which librarians can educate and share information through texts, photos, music videos etc to people. From such online training, individuals can be well educated on how to access, filter and use Covid 19 information gotten online. Since the social media platforms are one of the fastest mode/medium of public health awareness (Thelwall & Thelwall, 2020), it is a more worrisome aspect according to Allcott, Gentzkow and Yu (2019) of its potency to be used to spread fake news which has significant negative effects on the society and on people's decisions and behaviours.

Over time, people have been misled with wrong information of Covid 19 and this is because they are not well educated or literate enough to know how to filter such information. Also, majority of citizens are uninformed (Jogwu, 2010) and this can affect their literacy skills in determining the right kind of information regarding to Covid 19 prevention. In addition, the high rate of illiteracy among rural dwellers has made them to believe fake news which has been disseminated on the media and these set of people are handicapped. This has caused a lot of consequences just like the Ebola era where people were seen to be bathing and drinking salt water as a curative measure. Of course, many deaths were recorded. According to Boberg, Quandt, Schatto-Eckrodt and Frischlich (2020) and Ashrafi-rizi and Kazempour, (2020), such types of information create panic, fear and rumors about the Covid 19 pandemic. This poor information literacy

of individuals who accepts dissemination and spread of fake news on health information such as the Covid 19 pandemic without their ability to discern its trustworthiness and integrity has provided a gap for the librarians to fill. In this view, this paper will x-ray the role of librarians in enhancing information literacy during the Covid 19 pandemic

### **Information Literacy**

Information literacy is the ability to access, process and use information effectively. Information literacy is assumed to be the knowledge and skills necessary to correctly identify information needed to perform a specific task or unravel a problem, proficiently search for information, organize or reorganize it, interpret and advice on it once it is found and retrieved (e.g. downloaded), evaluate the accuracy and consistency of the information, including morally acknowledging the sources from whence it was obtained, communicated and presented (Ajegbomogun & Ajegbomogun, 2015). Bruce (2003) defined information literacy as the ability to access, evaluate, organize, and use information in order to learn, problem-solve, make decisions – in formal and informal learning contexts, at work, at home and in educational settings. UNESCO's Information For All Programme (IFAP, 2008:25) defined Information Literacy as:

*the capacity of people to recognise their information needs, locate and evaluate the quality store and retrieve information, make effective and ethical use of information and apply information to create and communicate knowledge. The scope of Information Literacy includes computer literacy, technology literacy, information technology literacy, internet literacy, digital literacy, media literacy and more.*

Lupton, Glanville, McDonald and Selzer (2004) defined information literacy to include library research skills and IT literacy. They explained that the definition goes beyond finding and presenting information, but it is about higher order analysis, synthesis, critical thinking and problem solving. It involves seeking and using information for independent and lifelong learning, participative citizenship and social responsibility (Anyaku, Ezeani & Osuigwe, 2015). In addition, Doyle (2001) describes an information literate person as one who recognizes the need for information; accurate and complete information as a basis for intelligent decision making; formulate questions based on the information needs; identifies potential sources of information; accesses sources of information, including computer and other technologies; evaluate information; organizes information to integrate new information; information existing body of knowledge and practical application; and uses of information in critical thinking and problem solving. In summary, information literacy is seen as a new set of competencies that enables one to determine the authenticity of information received before being used. Information literacy also creates a new skill for one to survive the information age by discerning the reliability of information sources and mould information solutions to their problems.

### **Coronavirus disease (COVID-19)**

The World Health Organization (WHO) used the term 2019 novel coronavirus to refer to a coronavirus that affected the lower respiratory tract of patients with pneumonia in Wuhan, China on 29 December 2019 (Li, Guan, Wu, Wang, Zhou & Tong, 2020). The WHO announced that the official name of the 2019 novel coronavirus is coronavirus disease (COVID-19) (WHO, 2020a). And the current reference name for the virus is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was reported that a cluster of patients with pneumonia of unknown cause was linked to a local Huanan South China Seafood Market in Wuhan, Hubei Province, China in December 2019 (Zhu, Zhang, Wang, Li, Yang & Song, 2020). Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered novel strain of coronavirus, SARS-CoV-2 (WHO, 2020b), that first appeared in the city of Wuhan, China, and has spread rapidly to almost all countries across the world. The coronavirus belongs to a family of viruses that may cause various symptoms such as pneumonia, fever, breathing difficulty, and lung infection (WMHC, 2020). These viruses are common in animals worldwide, but very few cases have been known to affect humans.

According to World Health Organization WHO (2020c) corona virus seems to spread from person to person by the same mechanism as other common cold or influenza viruses—i.e. by face to face contact with a sneeze or cough, or from contact with secretions of people who are infected. The common symptoms

include fever, dry cough, tiredness, shortness of breath, pains and aches, sore throat, and very few people will report diarrhoea, nausea or a runny nose (WHO, 2020a). Most people infected with the COVID-19 will experience mild-to-moderate fever and respiratory illness with no special treatment available. The 2019 novel coronavirus disease (COVID-19) is currently the disorder with the greatest social impact (Ryu & Chun, 2020) due to several factors, including associated deaths, its geographical expansion, stock exchange fall worldwide, cancellation of sporting/ artistic events, shortage of goods in marketplaces, among others (Castro, 2020). That in turn is related to the behavior of societies at different levels (micro and macro) (Villegas-Chiroque, 2020).

### **History of libraries supporting information literacy**

The networking of libraries in promoting a literate society is a relatively recent phenomenon dating from the late nineteenth century. Libraries were first introduced in the North-American colonies with the aim of educating the settlers in the new world. Early discussion clubs, modelling themselves on English benevolent societies, developed small book collections for their members' use (Krolak, 2005). Religious denominations also contributed to public education and supported the emergence of free public libraries. As early as the 1890s, the public library in the United States responded to the language and literacy needs of a large influx of immigrants, providing English and citizenship classes in many urban libraries. At the beginning of the twentieth century, libraries were part of an awakening consciousness that saw education as an instrument for social change.

After World War II, according to Krolak (2005) mainstream libraries gradually started to extend their services to community groups and, by the 1960s, a special focus was set on reaching marginalized groups. In the following years, libraries played an important role in national literacy campaigns, for example in Thailand. In the 1980s, more flexible and proactive facilities, often called resource centres, began to emerge as a force in movements for social change and the democratic reconstruction of civil society. These centres began to explore new relationships with their users, valuing local culture, supporting community development, and preserving indigenous knowledge (Adams, 2002).

### **Roles of librarians in enhancing information literacy during Covid 19 era**

The potentials of librarians have been to support information literacy of individuals. This task of librarians to acquire, evaluate, package, store and disseminate information, especially to the poor literate society has placed a huge demand on it to intervene in critical situation such as COVID-19 pandemic era (Ladan, Haruna & Madu, 2020). The librarian's aim is to ensure that individuals are provided with updated information on how to source for information online and as well decipher the reliability of such information. As information specialists, librarians guide individuals on skills in accessing specialized information that will promote their health information needs. Librarians also provide decentralized and accessible health knowledge to the rural dwellers through social media which is one of the prominent goals of primary health care in developing countries. Yet, lack of knowledge of people on how to acquire and process information that are disseminated remains a significant deterrent to good health practices, leading to heightened health risk (Kargbo cited in Sokey, Adjei & Ankrah, 2018).

Today, with the coming of Covid 19 pandemic, the role of librarians is changing worldwide. Librarians have evolved to become facilitators of literacy programmes that can improve lifelong learning opportunities of people with an emphasis on service, identifying user needs and communicating solutions. Librarians are also unfolding the community's learning potential by providing information on community issues, such as health, employment, continuing education and local history (Babalola, 2002). This equitable access to information is essential to enable educated and informed citizens to acquire trusted information that can promote their health decisions and source for only information to stay safe from the Covid 19 virus

With the ravaging Covid 19 virus, librarians can also help to bridge the information gap by providing free training on the use of information and communication technologies, particularly the Internet which can enable individuals to access Covid 19 information online and avert the chances of being misinformed. This training can improve on the information literacy skills of individuals thereby increasing their global level of

knowledge on health matters such as Covid 19. In industrialised countries, libraries train users on how to access modern information technology and this is currently one of the most attractive library services in recent time. For example, in the United Kingdom, public libraries secured government funding in the middle of the 1990s for computers in every library as part of the "People's Network Project" (Bertelsmann, 2004: 24), a project that assures that no one needs to be excluded from the information revolution. Librarians also have the educational role of assisting users who need to access information online through the use of guided approach to literacy education.

Some librarians in libraries that have good funding and working systems have established themselves as an integral part of a national education and information literacy. They offer free access to information, and are highly service-oriented, and constantly improve their services through co-operation and networking. These librarians can utilize e-learning approach to guide her community users on how to source and determine useful and reliable information on Covid 19. Libraries can also enhance the information literacy of her users by offering a varying of activities including author readings, creative writing classes, introductions to information and communication technologies and the Internet, reading groups, exhibitions, summer reading programs, study support, discussion groups and art classes such as drama, poetry and song. These activities show the flexibility of library services to address the education and literacy needs of the community in sourcing Covid 19 information.

In view of the nature at which information literacy education is gaining paramount importance due to the outbreak of covid-19 infections, librarians may need to develop their own programmes, and map out strategies that will enable them fully integrate information literacy skill training for rural people. By so doing, librarians will be involved in one –on-one instruction to users who visit the library during library visits. Librarians can perform formalized classroom instructions or group instructions to regular registered users. Librarians can also utilize bibliographic instruction and library orientation tours for library visitors or users probably on individual or group bases. Librarians who are poised to enhance the information literacy skills of users and people who need to surpass the challenges of misinformation and fakes news can individually provide training for users on use of specialized online databases, Boolean search techniques, and use of reference managers. These information literacy skills for users can also be in form of a formalized information literacy programme which is embedded in the library's literacy programme which has use of libraries or bibliographic instructions, and information technology skills as its contents. However, for librarians to provide effective information literacy programmes or to work effectively as information literacy instructors, they will need to have the requisite skills on the relevant parts of the information literacy contents to pass on. These skills will include both traditional bibliographic information retrieval skills and information technology skills.

### **Library-based information literacy programmes to combat misinformation on covid-19**

Over the years, there have been various forms of information literacy programme that the libraries have provided to the people. Dating back to 1963, according to Krolak (2005), United States public libraries were offering literacy services. Also, there was a planning manual for the American Library Association which examined the public library's role in national literacy activities in the 1980s. There were reports from public libraries on their involvement in all three literacy roles – collections, instruction, and support services. Over 25% of libraries provided direct literacy instruction and in many of these libraries the programmes had become a part of their traditional public library services. Nearly 50% of the libraries reported involvement in literacy coalitions (Fitzgibbons, 2000). In Victoria, Australia, adult literacy programmes began with a pilot programme at the Council of Adult Education in 1972. By 1982, 10% of the Victoria public library service co-operated in the provision of adult literacy classes and by 1991, this had risen to 25% with another 10% providing support for adult literacy programmes in other ways (Campbell, 1991).

With regards to the outbreak of covid-19 virus, there has been an increasing need for a comprehensive information literacy programme for the people to keep them abreast with skills to battle with the covid-19 infections. The rate of infections with millions of death cases has provided a challenge for

information literacy to become apparent among individual even those in rural areas. In this view, librarians and libraries can address this challenge by organizing a wide national literacy campaigns for people, extending their services and focusing on marginalized people to gain skills in the use and access to reliable health information. With libraries being seen as a literacy center, they can organize adult literacy classes for people who are not educated enough to discern real from fake health information mostly on covid-19. Since the libraries have all kinds of resources, they can ideally provide easy access to all the resources needed to run an adult literacy programme, including printed and audio books, magazines for all reading levels, videos and newspapers (Krolak, 2005). Most of them can provide space for students and tutors to interact and exchange skillful ideas on identify, locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand. Some adults with low literacy levels can be presented with a more detailed explanation of information literacy which will include library research skills and IT literacy.

According to Lupton, Glanville, McDonald and Selzer (2004), the information literacy skills to be provided must not be only on finding and presenting information, but about higher order analysis, synthesis, critical thinking and problem solving. These individuals must be provided information literacy that will enable them to independently seek and use information for lifelong learning which can help them to combat misinformation of health information on covid-19 infections. Apart from libraries teaching users and clients with skills on literacy, the library can also direct users on useful collection that will support their search for reliable health information on covid-19. Libraries can also focus strengthening the vocabulary and computer typing skills of adults and as well link them with relevant and interesting reading material for continuous learning and skill building. According to Anyaoku, Ezeani and Osuigwe (2015), libraries can also perform skilled training on information literacy to people through orientation programmes and various user education initiatives involving one-on-one and classroom based instruction. This will give users the confidence in performing evaluative actions on any health information on covid-19 that is received or posted to them online

For students and other library users in the academic settings, Dubicki, (2013) stated that the primary goal is for librarians to work in concert with the faculty in order to graduate information literate students who can effectively utilize information literacy skills in the workplace, as well as make informed decisions in their personal lives. To achieve this Fister (2013) remarked that the trick is not teaching students how to use the library and other information sources but rather, they need to focus on how the use of these things today can contribute to critical thinking, analysis, and making meaningful decisions – processes that will continue to be valuable tomorrow. To achieve this aim, librarians need institutional support as well as collaborate effectively with faculty members to integrate information literacy education into the curriculum (Øvern, 2014). Bury (2011) observed that there is a strong consensus on the centrality of faculty-librarian collaboration in fostering the information literacy (IL) agenda in higher education. Of course this will improve on their level of information literacy skills in locating health information to answer users query, and identifying various sources of health information on covid-19. They will also be highly skilled in Internet information search and retrieval, creating web pages, use of reference managers, and Boolean search techniques on health information on covid-19.

In support of the need to build information literacy skills of students, the foundation for an effective and formalized information literacy programme was laid in Nigeria through the National Universities Commission (NUC) Benchmark Minimum Academic Standards for Under-graduate Programmes (National University Commission, 2007). In this policy document a two credit unit was assigned to Use of Library, Study Skills and Information Communication Technology (ICT) under the General Studies programme. Outlined to be taught under the credit unit include ‘ Brief history of libraries, Library and education, University libraries and other types of Libraries, Study skills (reference services), Types of library materials, using library resources including e-learning, e-materials, etc, Understanding library catalogues (Card, OPAC, etc) and classification, Copyright and its implications, Database resources, Bibliographic citations and referencing. Development of modern ICT, Hardware technology, Software technology, Input devices, Storage devices, Output devices, Communication and Internet services, Word processing skills (typing, etc)’.

Students who partook in this information literacy programmes can independently use the computer and other online systems to perform search, evaluate, and determine the authenticity of health information on covid-19 and cannot be easily misled with fake information or conspiracy theories.

In this era of covid-19 infection, training for people on information literacy programmes outside interesting reading material should be accompanied with a Do-It-Yourself manual to encourage further reading and independent inquiry. In Botswana, as reported in Krolak (2005), Village Reading Rooms were established to support and extend library services to literacy graduates in rural areas. Libraries have been used to break the cycle of family illiteracy. The library is a perfect place to offer family literacy programmes as it provides materials and services to all age groups and reading levels. By using the library with their children, parents are setting a good example and help to establish a motivation for reading and a pattern for lifelong learning. In Slovenia, public libraries were among the first providers of intergenerational lifelong learning processes that included children, youth and adults who came together and learned from each other by exchanging knowledge, experiences and viewpoints (Adams, 2002). In view of the foregoing, all these library's information literacy programmes can be seen to have improved a set of competencies that equip individuals with the ability to do the following:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate related information into users' knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal and social issues surrounding the use of information, and access and use information ethically and legally (American Library Association. (1998).

### **Implications of poor health information literacy on covid-19 pandemic on the people**

There is a general parlance that says – information is power; he who is informed is powerful; he whom is not informed is deformed. This brings us to the fact that to be informed, one has to possess certain level of literacy in relevant field. With respect to the covid-19 infections, there is the need for people to be well informed and literate enough to determine when information is fake and misleading. Like a disease, disinformation and misinformation increases one's illiteracy level and they are problematic occurrences that can be contagious and hence, quite risky to the lives and well-being of the people. During a pandemic, such as the present covid-19 infections, poor health information literacy can lead to various health complications or death. For this reason, information literacy skills and competencies are foundational for all members of the society. It is more so because we are dependent upon each other to live and thrive in healthy information, media, and technological environments. Good information literacy on health information is necessary every day, but especially during turbulent times such as the covid-19 era when misinformation runs rampant.

In today's social media world, people are both producers and consumers of information. People who compose or share most of this information are not knowledgeable about the effects and contents therein. In Nigeria, in 2014 during the Ebola crises, information was spread online and on various quarters that salt bathing and drinking of salt water can prevent one from contracting the Ebola disease. Thousands of gullible Nigerians and illiterate ones absorb such information and perform same. This singular act killed over tens of thousands due to poor health information literacy. Also, the format and language barriers of the information are often being constraints for people with the low literacy level. Furthermore, according to DeLuca (2020), the abundant unreliable information (fake news/hoax) which has been greatly spreading exaggerates the confusedness, fear, and irrational behaviors among society.

Even though individuals possesses the right in accessing the needed information during COVID-19 pandemic, high level of illiteracy due to poor education can affect one from analyzing and carrying out research to find out the reliability of the health information on covid-19. The limited or inadequate literacy affects to the decrease of protective behavior adoption (Castro-Sánchez, Chang, Vila-Candel, Escobedo, &

Holmes, 2016). A study case in Europe showed that health literacy is a challenge for neglected society with more than one third citizens facing obstacles in discovering, understanding, evaluating, and utilizing information in managing their health. People with poor health information literacy are more at risk of being infected by COVID-19 (Okan, Sørensen & Messer, 2020; Sørensen, 2020). Individuals with poor health information literacy are more likely to suffer deprived health issue. Having lack of detail understanding of health information literacy will encourage people to spread unconfirmed health information which mislead other people to make detrimental decision for themselves and surrounding people (Sørensen et al., 2012). The low level of health literacy also affect the worst health status, bad comprehension of medical condition, medical information and preventive health services, as depraved as the increase of hospitalization rate and advance health care cost (MacLeod et al., 2017).

In view of the health crises that that was ushered in by the covid-19 infections, people with low levels of health literacy (manifested in the form of unhealthy lifestyles), mostly are people with low education, low economy, and older people (Protheroe et al., 2017). In Busan, Korea, the senior citizens (over 50 years old) are at risk group of society (Fendos, 2020). This may be due to their poor health information literacy. Individuals who have poor health information literacy are eligible to possess influences from individual factor and condition, health service response, as well as health service providers and organizations. Aside of their background and education, many people who lack sufficient health information literacy, do find hindrances in navigating health care system and often unable to understand the given information from health service providers and organizations (Lima, Vasconcelos, & Borba, 2019).

#### **Advantages of information literacy on covid-19 infections to the rural dwellers**

It has been observed that the society with adequate health literacy can control worst situations that may occur, which, in turn, enable them in comprehending the way they must protect themselves and the others through basic treatments. In the covid-19 pandemic situation, the well-informed individual with sufficient health information literacy is powerful and can live a healthy life. One's possession of health literacy is a crucial determinant in suppressing virus spread rate as considerable as decreasing COVID-19 effects (Okan, Sørensen, & Messer, 2020). Moreover, the right COVID-19 related information will greatly motivate one to discern from fake news from a reliable one, particularly, those which relates to current epidemiology and virology. With good health information literacy, one can learn how to recognize data resource features, collecting, verifying, serving, and spreading the data (Au, 2020). One's possession of good health literacy can serve as a considerable strategy in coping with the pandemic issue. Health information literacy enables one to have good comprehension about the disease and how to stay safe.

As the politicized hoax information have been spreading through social media such as WhatsApp, YouTube, Twitter, and Facebook (Nussbaumer, 2020), "Scientific literacy" is the minimum science essential to be possessed by every citizen in dealing with nowadays' world conditions (DeLuca, 2020). It is compulsory need to improve society health literacy. There is also the need to uphold and preserve the type of information environments that we want for the welfare of our families, communities, as well as for active citizenship, sustainable development, and viable democracies. By managing critically how we source for information, we must be sure of the sources and evaluate same mostly in times of health crisis.

#### **Challenges of librarians in enhancing information literacy during Covid 19 era**

In view of the covid-19 pandemic, there are numerous roles that the libraries and librarians have in developing information literacy. However, there have been myriad of challenges that have played host to their lack of capacity to carry out this mandate. The challenges which have been limiting their efforts according to Srikanth (2017) are:

- Lack of resources to conduct information literacy programs
- Poor public perception of the library's function
- Librarian's reluctance to assume a non traditional role
- Attitudes and beliefs of the librarians and library professionals towards information literacy concept



Other problems inhibiting effective information literacy education of people in the covid-19 era are:

- Insufficient funding for the information literacy programmes
- Lack of information literacy policy or standards
- Lack of library's or university commitment to the project
- Lack of computers and other teaching resources to facilitate information literacy programmes
- Lack of proactivity in spearheading or pushing information literacy initiatives by librarians
- Poor awareness among librarians on their roles as information literacy tutors in the library or university system
- Faculty unwillingness to incorporate information literacy into the curriculum
- Student apathy to the information literacy programme

### **Solutions to the challenges of librarians in enhancing information literacy**

Following the challenges that have affected librarians and libraries in enhancing information literacy in the covid-19 era, there are however, suggestions that can be offered to improve and develop an effective information literacy programs in this current state of poor health information literacy about covid-19. Information literacy should be enticing so as to attract young persons in the society to partake in it. Such programme should have materials and resources on educational and employment opportunities, IT skills and use of multimedia information sources, and personal health to improve the health information literacy and capabilities of youth. Other suggestions according to Srikanth (2017) are:

- Information literacy competency development programs for librarians & library users.
- Enhancing the user base
- Instituting prizes, awards
- Programs for youth
- Use of information & communication technology (ICT)

Furthermore, provision of sufficient funding for the information literacy programmes can be an advantage for librarians to meet up with this mandate. Also, the information literacy policy or standards should be well designed; libraries or university commitment to the project should be enhanced as well as adequacy of computers and other teaching resources to facilitate information literacy programmes. Librarians should be proactive in spearheading or pushing information literacy initiatives as well as creating wide awareness among librarians on their roles as information literacy tutors in the library or university system. Faculty willingness to incorporate information literacy into the curriculum should be visible and this can help to reduce student apathy to the information literacy programme.

In line with the foregoing which are aimed at enhancing information literacy, some library associations can bring out their newsletters and bulletins for their member librarians and disseminate various professional information. They can also take up the issue of information literacy competency for the librarians and library users. Library associations need to come forward and develop information literacy competency of the public librarians through organizing training programmes, workshops and seminars. The aims of the information literacy development programs for librarians can increase their confidence in using or carrying out information searching; improve their ability to apply the principles of scholarly communication to the problems of information handling; and also provide them with confidence in communicating, instructing & educating the users on information literacy.

### **Conclusion**

Enhancing information literacy in this covid-19 pandemic era is the most viable projects that libraries and librarians can offers as part of her effort to increase the skills and information search capacities of the people and other library users. Clearly information literacy is central to the acquisition of new skills in searching sourcing, evaluating and determining the reliability and authenticity of health information on covid-19. Most people have the wrong understanding about Covid-19, such as the role of vaccines, the types of symptoms, and the way Covid-19 is transmitted. There are still many people who have not been able to understand covid-19 properly. Some people may be curious of acquiring information about the Covid-19

outbreak and its preventive measures. Their acquisition of information literacy on health information on covid-19 will make them respond appropriately and immediately on any signs gotten that is similar to the Covid-19. Librarians have a pivotal role in this regard as they will be made to provide requisite skills, formalized and standardized information literacy programmes to all the users and seekers of health information on covid-19. With well organized and adequately taught information literacy to users and rural dwellers, librarians would have contributed in producing global citizens and lifelong learners who will make meaningful contributions to the world's developmental processes.

### **Recommendations**

With a view to enhancing information literacy during the covid-19 pandemic era by librarians, the following recommendations are provided:

- i. There should be good funding to libraries to enable them acquire tools and resources that will facilitate their task in enhancing information literacy of the masses
- ii. Librarians should be motivated as been done to their counterparts in the health sector so as to enable them get committed in improving the literacy level of the people as this will reduce the rate of transmission of the virus
- iii. Librarians should be provided with new skills and techniques as well as re-training on information literacy so as to enhance their transfer of such skills to the end users
- iv. Librarians should advocate for more institutional involvement and for stakeholders to buy-in to the importance of information literacy. This will help improve the implementation of information literacy programmes and the acquisition of adequate ICT infrastructure to drive it.
- v. Academic Librarians must therefore plan and lobby for effective implementation of information literacy standalone course content in universities.

### **REFERENCES**

- Adams S (2002) Libraries and Resource Centres: Celebrating Adult Learners every week of the year. *Convergence XXV* 2-3: 27-38.
- Agim, EC, Oraekwe, N.I, Chivuzo, CC & Emenari, BC (2020) Librarians' use of social media in disseminating health information on COVID-19. *International Journal of Research and Review*, 7(7): 443-454.
- Ajebomogun FO and Ajebomogun VO (2015). The library's role in developing information literacy and societal growth. *International Journal of Library and Information Science* 7(7): 124-129
- Allcott H, Gentzkow M, and Yu C (2019) *Trends in the diffusion of misinformation on social media*. doi:10.3386/w25500
- American Library Association. (1998). *Presidential committee on information literacy. Final report*. Chicago: American Library Association.
- Anyaoku EN, Ezeani CN and Osuigwe NE (2015) Information literacy practices of librarians in universities in South East Nigeria. *International Journal of Library and Information Science* 7(5): 96-102
- Ashrafi-rizi H and Kazempour Z (2020) Information typology in coronavirus (COVID-19) crisis; a commentary. *Arch Acad Emerg Medicine* 8:1-9.
- Association of College and Research Libraries Standards and Guidelines (2005). *Information Literacy Competency Standards for Higher Education*. From <http://www.alace.org/acr/standards/information>. Retrieved July 27, 2009
- Au R (2020) *Data literacy via COVID-19 - towards data science*. Retrieved April 2, 2020, from Towards Data Science website: <https://towardsdatascience.com/data-literacy-via-covid-19-38965538f390>
- Babalola ET (2002) Newspapers as Instruments for Building Literate Communities: The Nigerian Experience. *Nordic Journal of African Studies* 11 (3): 403-410.
- Bertelsmann S (2004) *Bundesverband Deutscher Bibliotheksverbände e. V. (eds.) Bibliothek 2007: Internationale Best-Practice Recherche*. Gütersloh, Bertelsmann Stiftung. 99.

- Boberg S, Quandt T, Schatto-Eckrodt T and Frischlich L (2020) *Pandemic populism: Facebook pages of alternative news media and the corona crisis—a computational content analysis*. <https://arxiv.org/pdf/2004.02566.pdf>. Accessed April 12, 2020.
- Bruce C (2003) *Seven faces of information literacy: Towards inviting students into new experiences*. <http://kennison.name/files/zopestore/uploads/libraries/bruce-7-faces.pdf>
- Campbell L (1991) *Victorian public libraries and adult literacy: a report of a project*. South Melbourne, Vic., Victorian Ministry for the Arts, vii: 53-74.
- Castro C (2020) *Epidemia de histeria por el coronavirus: por qué nos volvemos locos y cómo vencer el miedo* [online]. El Independiente; 2020 March 11. Available at: <https://www.elindependiente.com/vida-sana/2020/03/10/epidemia-de-histeria-por-el-coronavirus-por-que-nos-volvemos-locos-y-como-vencer-el-miedo/> (Accessed 11 April 2020)
- Castro-Sánchez E, Chang PWS, Vila-Candel R, Escobedo AA, and Holmes AH (2016) Health literacy and infectious diseases: Why does it matter? *International Journal of Infectious Diseases* 43: 103-110. <https://doi.org/10.1016/j.ijid.2015.12.019>
- DeLuca E (2020). *Countries with lower literacy levels need different COVID-19 communication strategies*. Retrieved April 1, 2020, from Translators without Borders website: <https://www.translatorswithoutborders.org/blog/literacy-levels-covid-19>
- Doyle C (2001). *Information literacy in an information society: A concept for the information age*. Syracuse, NY: ERI
- Dubicki E (2013). Faculty perceptions of students' information literacy skills competencies. *Journal of Information Literacy* 7(2): 97-125.
- Fendos J (2020) Lessons from South Korea's COVID-19 outbreak: The good, bad, and ugly. *The Diplomat*. Retrieved from <https://thediplomat.com/2020/03/lessons-from-south-koreas-covid-19-outbreak-the-good-bad-and-ugly/>
- Fister B (2013) The Library's Role in Learning: Information Literacy Revisited. *Library Issues: Briefings for Faculty and Administrators* 33 (4) <http://www.libraryissues.com/pub/PDF3304Mar2013.pdf>
- Fitzgibbons SA (2000) *Libraries and Literacy: A Preliminary Survey of the Literature*. Paper presented at the 66th IFLA Council and General Conference. 13-18. August, 2000. <http://www.ifla.org/IV/ifla66/papers/122-139e.htm>.
- IFAP (2008) *Information For All Programme: Strategic Plan (2008-2013): Discussion draft* (17): (Online). Retrieved from <http://porter.unesco.org/ci/en/file>
- Jogwu C (2010) Adult Illiteracy: The Root of African Underdevelopment. *Education* 130 (3).
- Krolak L (2005) *The role of libraries in the creation of literate environments*. Paper commissioned for the Education for All Global Monitoring Report 2006, Literacy for Life. 2006/ED/EFA/MRT/PI/50
- Ladan A, Haruna B and Madu AU (2020) COVID-19 Pandemic and Social Media News in Nigeria: The Role of Libraries and Library Associations in Information Dissemination. *International Journal of Innovation and Research in Educational Sciences* 7 (2): 125-133
- Li Q, Guan X, Wu P, Wang X, Zhou L, and Tong Y (2020) Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *National English Journal of Medicine*. <https://doi.org/10.1056/NEJMoa2001316>
- Lima MFG, Vasconcelos EMR, and Borba AK (2019) Instruments used to evaluate functional health literacy in elderly persons with chronic kidney disease: Integrative review. *Revista Brasileira de Geriatria e Gerontologia* 22(3): 1-11. <https://doi.org/10.1590/1981-22562019022.180198>
- Lupton M, Glanville C, McDonald P, and Selzer D (2004). *Information literacy toolkit*. Brisbane, Queensland: Griffith University. <http://www.griffith.edu.au/centre/gihe/> Griffith graduate
- MacLeod S, Musich S, Gulyas S, Cheng Y, Tkatch R, Cempellin D, and Yeh CS (2017). The impact of inadequate health literacy on patient satisfaction, healthcare utilization, and expenditures among older adults. *Geriatric Nursing* 38(4): 334-341. <https://doi.org/10.1016/j.gerinurse.2016.12.003>
- National Universities Commission (2007) *Benchmark Minimum Academic Standards for Undergraduate Programmes in Nigerian Universities*. [www.nuc.edu.ng/nucsite/File/DASS/BMAS%20-%20Arts.pdf](http://www.nuc.edu.ng/nucsite/File/DASS/BMAS%20-%20Arts.pdf)

- Nussbaumer N (2020). *Six essential media literacy skills for COVID-19 and other crises*. Retrieved April 3, 2020, from Buffalo Rising website: <https://www.buffalorising.com/2020/03/six-essential-media-literacy-skills-for-covid-19-and-other-crises/>
- Okan O, Sørensen K and Messer M (2020). *COVID-19: A guide to good practice on keeping people well informed*. Retrieved April 2, 2020, from The Conversation website: <https://theconversation.com/covid-19-a-guide-to-good-practice-on-keeping-people-well-informed-134046#comments-container>
- Øvern KM (2014). Faculty-library collaboration: two pedagogical approaches. *Journal of Information Literacy* 8(2): 36-55. <http://dx.doi.org/10.11645/8.2.1910>
- Protheroe J, Whittle R, Bartlam B, Estacio EV, Clark L and Kurth J (2017). Health literacy, associated lifestyle and demographic factors in adult population of an English city: A cross-sectional survey. *Health Expectations* 20(1): 112-119. <https://doi.org/10.1111/hex.12440>
- Ryu S and Chun BC (2020) Korean Society of Epidemiology 2019-nCoV Task Force Team. An interim review of the epidemiological characteristics of 2019 novel coronavirus. *Epidemiol Health* 42: e2020006. <https://doi.org/10.4178/>
- Sokey PP, Adjei E and Ankrah E (2018) Media use for health information dissemination to rural communities by the Ghana Health Service. *Journal of Information Science, Systems and Technology* 2 (1): 1 - 18
- Sørensen K (2020) *Covid-19: Digital health literacy is a key to saving time, costs and lives*. Retrieved April 2, 2020, from ICT & health website: <https://www.ictandhealth.com/news/covid-19-digital-health-literacy-is-a-key-to-saving-time-costs-and-lives/>
- Sørensen K, Van Den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z and Brand H (2012) Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health* 12(1): 1-13. <https://doi.org/10.1186/1471-2458-12-80>
- Srikanth C (2017) Role of public libraries: Information literacy in an information society. *IMPACT: International Journal of Research in Humanities, Arts and Literature (IMPACT: IJRHAL)* 5 (7): 55-60
- Thelwall M and Thelwall S (2020) *Retweeting for COVID-19: consensus building, information sharing, dissent, and lockdown life*. <https://arxiv.org/ftp/arxiv/papers/2004/2004.02793.pdf>. Accessed April 12, 2020
- Villegas-Chiroque M (2020) Pandemia de COVID-19: pelea o huye. *Rev Exp Med Hosp Reg Lamb* 6(1). <https://doi.org/10.37065/rem.v6i1.424>
- WHO (2020) *Coronavirus disease (COVID-19) pandemic: Numbers at a glance*. [https://www.who.int/emergencies/diseases/novel-coronavirus-2019?gclid=Cj0KCQjwreT8BRDTARIsAJLI0KL29TgTZBeet-BfaZJBO-zM97r2tgbUa50eundEV\\_e38rrTjF7QPO4aAj57EALw\\_wcB](https://www.who.int/emergencies/diseases/novel-coronavirus-2019?gclid=Cj0KCQjwreT8BRDTARIsAJLI0KL29TgTZBeet-BfaZJBO-zM97r2tgbUa50eundEV_e38rrTjF7QPO4aAj57EALw_wcB)
- WHO (2020a) *Novel Coronavirus—China*. <https://www.who.int/csr/don/12-january-2020-novel-coronavirus-china/en/>. Accessed 1 Feb 2020
- WMHC (2020). *Wuhan Municipal Health and Health Commission's Briefing on the Current Pneumonia Epidemic Situation in Our City*. <http://wjw.wuhan.gov.cn/front/web/showDetail/2019123108989>. Accessed 1 Feb 2020.
- World Health Organisation (2020b), *Coronavirus diseases 2019 (COVID 19), situational report - 66, 28th March 2020*. <https://www.who.int/docs/pdf>
- World Health Organisation (2020c), *Modes of transmission of virus causing COVID-19: Implications for IPC precaution recommendations*. [who.int/health-topics/coronavirus](https://www.who.int/health-topics/coronavirus). <https://www.who.int/health-topics/coronavirus>