Librarians Use of Information Literacy Strategic Tools for Teaching Students in Nigeria Universities to Combat Fake News and Misinformation

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Abstract:

The research assessed the extent of use of Information literacy tools by librarians in Nigeria for teaching undergraduate students skills to combat fake news. The research method was document analysis. The research analysed forty-four course materials currently used by Librarians for teaching an information literacy course coded GST 121 (Use of Library, Study Skills and Information Communication Technology. The research also examined library websites of 20 universities in Nigeria to determine availability of fake news content. Findings show there were no module or chapter on fake news and misinformation in the 44 course materials reviewed. Equally, there was no content on fake news on the library websites. However, the course materials included media and information literacy modules which are underlining competencies that are important in guarding against fake news and misinformation. The librarians provided instructional units on online bibliographic databases in more than half (56.8%) of the course materials. There were added units on database literature search (38.6%) and search engine information search (27.6%). Only a small percentage had units on evaluating information (11.4%). It is recommended that librarians should review the GST 121 curriculum and include distinct modules on evaluating information, fact-checking, spotting and combating fake news and misinformation.

Keywords: Librarians, Fake news, Misinformation, Disinformation, Media and information literacy.

Introduction

Information is essential commodity needed to make informed decision in all spheres of human endeavours: education, health, commerce, finance, and development. However, accuracy and quality of information are fundamental issues of concern in the digital age. There is unprecedented amplification and spread of fake news and misinformation through the Internet and social media sources. The sprouting of fake news is of concern because when juxtaposed with facts, it creates problem of information access and clouds citizens' reception of

trustworthy information. This unregulated spread of false and misleading information has become current social malaise potentially affecting individual's wellbeing and societal harmony.

Information disorders are of various forms. Fake news is false information presented as news which has potential to be harmful to the recipient or projected as advertisement for revenue generation by the sender. Misinformation is false information which may cause harm, but not created with the intention of causing harm. Disinformation is false information deliberately created to harm an entity, individual, group of people or a country. False and misleading information on the internet may range from fabricated information, false claims to dangerous remedies intentionally or unintentional published for public consumption. While fake news has historically existed in the society, evolution of the internet and social media has led to their amplification and wide dissemination with immediate reach to a global audience.

In Nigeria, social media sites have become the vehicles for unregulated spread of false messages, fake photos, false audios, edited videos, old and unrelated videos which are widely shared and circulated in the abundant social media groups existing in the country. This spread of false and misleading information has become a social malady, causing panic, tension, fear, distrust and social disharmony (Anderson, 2019). According to UNDP (2021) fake news has become a "prevalent phenomenon with dangerous repercussions such as distorting awareness and knowledge and instigating and mobilizing public opinion as a result of selective, distorted, or fabricated content. It can possibly entail falsification of history, events, and reality leading to ignorance of facts and reality. It has a direct impact on social stability and plays a pivotal role in conflicts and confrontations, often leading to rising tensions."

Students Competency Needs for Combating Fake News

The major sources of information for undergraduate students who are mainly young people are the internet and social media. They are everyday tools they use for education, class assignments, term papers, research projects, connecting with peers, sharing information, communicating, playing music, viewing videos, playing games and entertaining in a variety of ways (Anyaoku 2019). Considering the quantity of fake news and misinformation available online, these predominant online activities make students susceptible to fake news. Stein-Smith (2017) reported that while it is tempting to believe that fake news is obvious, and that it would be easy to recognize, students have difficulty judging the credibility of information online and often do not have the requisite knowledge to identify good sources, bad sources, authority of writer or speaker.

The active approach to combating fake news among students requires they develop the ability to evaluate and identify biased, false, and misleading information that are being presented as facts. Skills such as critical thinking, knowledge of quality information sources, good search skills and capacity to evaluate sources and content are needed by students to navigate the Internet and select reliable information. Critical thinking is the art of making clear, reasoned judgments based on interpreting, understanding, applying and synthesizing evidence gathered from observation, reading and experimentation (Burns & Sinfield, 2016). Donnchaidh (2022) stated "The first and most important aspect of learning how to spot fake news is developing a critical mindset. This is an active skill that requires students to engage their rational and reflective minds every time they read or hear something. To do this, they must ask questions – and lots of them! According to Council of Europe (2022) "Critical thinking is invaluable for

citizens and especially for young learners, who also need to be able to solve problems, find information, form opinions, evaluate sources and more."

There is therefore a pressing need to educate students to develop consciousness of fake news when navigating the internet and social media sites for academic and other information needs. This education is also important to help students develop critical skills for detecting fake news and misleading information and developing high resilience to rejecting erroneous information and its manipulative effect on behaviour. According to Georgiadou and Rahanu (2018) awareness of the dangers of fake news, and the means of discerning the truth and credibility of information, are of paramount importance. By far the best strategy for dealing with these problems is the development of critical thinking and critical literacy as early as possible within formal education.

Information and Media literacy for Combating Fake News

Media and information literacy are prescribed as the main antidote to combating the scourge of fake news (UNESCO 2022, Council of Europe, 2022). Information literacy is a core competency that enables people to recognize their information needs, identify type of information needed, have ability to find the needed information, access, evaluate and use the information for decision-making. Media literacy is defined by Martínez-Cerdá, Torrent-Sellens, and Caprino (2016) as the ability to access, analyse, evaluate and produce media content on all analogue and digital media, including television, movies, radio, music, media, internet and all kinds of digital technology designed for communication. Media literacy promotes critical thinking, effective use of diverse sources to access and verify information content that will help students stay safe from misinformation and manipulation of content helping to immunize people against undue persuasion and false information (UNDP 2021, Gallagher and Magid, 2017).

The prescription of media and information literacy as tools to combat fake news has raised the question of how librarians can join the fight against fake news. What information quality and fake news indicators do they need to teach to help students learn to identify what is true and what is false on the Internet?

Librarians' Roles in Combating Fake News

Information literacy education is not an emerging field for librarians. It has historically been a core duty of librarians. Many library professionals have been involved in teaching information literacy in higher education institutions. The training programmes offer a platform for equipping students with media and information literacy skills to retrieve and critically evaluate information for quality and accuracy. Rose-Wiles (2018) noted that through information and media literacy skills, academic librarians have been engaged in teaching students how to negotiate increasingly complex information environments for centuries. They are trained to think critically about how to evaluate a wide range of information sources for accuracy, whether that be a book, an article, a webpage, or a news story.

In line with the current efforts to stem the tides of fake news and misinformation, librarians have extended their information literacy roles to increasing awareness of fake news among their users. Information literacy training has been sharpened to include distinct modules on fake news with practical instructions and activities. IFLA (2018) stated, Libraries have an institutional and ethical commitment to help users access reliable and authentic information. This role is as important as ever in an era when "fake news" is a seemingly growing phenomenon.

Librarians' roles include providing information through quality sources. Collections of libraries include bibliographic databases from reputable proprietors where contents consist of peer reviewed and verified information. Equally, many library websites have been updated to include fake news content. Innovatively adopting library and research guides, library websites are now windows for disseminating and providing good instructions on combating fake news.

Research reports outlined some actions currently being carried out by librarians to counteract misinformation,
- Information literacy instructions.
- Library guides on library websites projecting varied open access resources, including
- Audio-visual materials (videos, audios, interactive, and quizzes),
- Guidelines (guidelines to identify informational disorders, on how to evaluate the credibility of a source,
- Discourse explaining phenomenon on fake news discourse: nature, effect, how to spot, how to evaluate information
- Checklist approaches to detecting fake news or evaluating news sources. (Herrero-Diz, and López-Rufino, 2021; Lim, 2020)

In Nigeria, there are current initiatives that indicate a rising awareness of librarians' roles in combating fake news. Three high level workshops were recently organized by a Library Association and a University Library. The workshops were organized to equip librarians with the requisite skills for fact-checking, and countering fake news and misinformation.

GST 121 - Use of Library, Study Skills and Information Communication Technology

The Nigerian National Universities Commission (NUC) Benchmark Minimum Academic Standards (BMA) for Undergraduate Programmes (2007) designates for universities a compulsory 2 credit unit course coded GST 121 and titled Use of Library, Study Skills and Information Communication Technology (ICT). This General Studies user education and information literacy course is fully implemented in many universities. Some universities though assign a different code number to the course but the title remains basically the same. The course offers a platform for equipping students with media and information literacy skills to access and use information.

How have the librarians harnessed the GST course and their library websites to educate students to join the fight against fake news?

Objectives:

The general objective of the research was to find out the extent librarians use information literacy tools for teaching students in Nigeria universities to combat fake news and misinformation
Specifically, the research

1. Determined availability of fake news specific content in GST 121 course materials and university library websites.
2. Identified media literacy topics captured in the information literacy tools for imparting skills for combating fake news.
3. Identified information literacy topics captured in the information literacy tools for imparting skills for combating fake news.
4. Highlighted the items of information quality assessment indicators for combating fake news that can be integrated into information literacy tools.
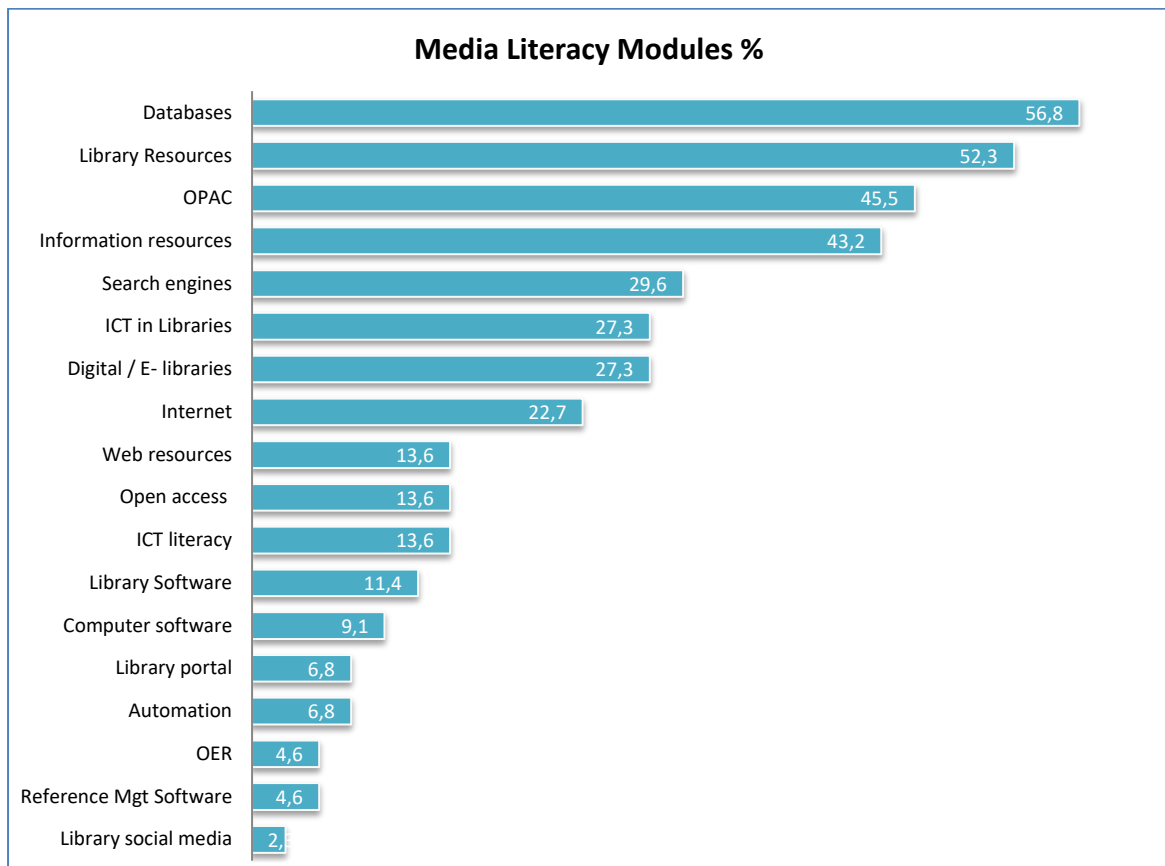
Methods:

The research method employed to obtain results was document analysis. The researchers collected forty – four course materials of GST 121 published by librarians in universities in Nigeria and currently used in the teaching of the GST 121 course. The materials included full text lecture notes (16: 36.4%), course outlines, (15:34.1%) and published books (13:29.6%). The materials were obtained from online sources and physically from librarians coordinating the courses in the universities. The materials were reviewed and data was collected based on the research questions. in addition, the researchers visited the websites of twenty university libraries and searched for fake news content.

Results:

Review of 44 course materials produced and used by librarians for teaching GST 121 course did not identify any module, unit or chapter on fake news. Equally, the 20 library websites examined revealed no fake news content. However, the GST 121 course materials included media and information literacy modules which underlining competencies are important in guarding against fake news and misinformation (UNESCO 2022; Council of Europe 2022). Figure 1 shows media literacy modules captured in the course materials.
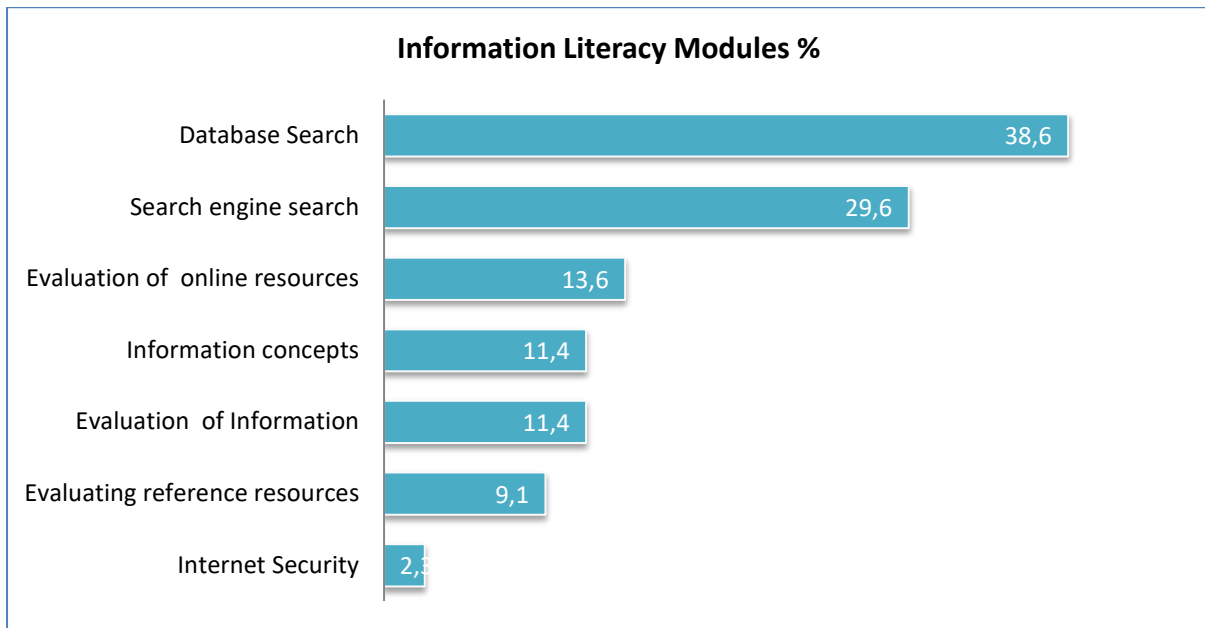
Figure 1: Media Literacy Topics Captured in GST 121 Course Materials

Media Literacy Modules %

Topic	%
Databases	56,8
Library Resources	52,3
OPAC	45,5
Information resources	43,2
Search engines	29,6
ICT in Libraries	27,3
Digital / E- libraries	27,3
Internet	22,7
Web resources	13,6
Open access	13,6
ICT literacy	13,6
Library Software	11,4
Computer software	9,1
Library portal	6,8
Automation	6,8
OER	4,6
Reference Mgt Software	4,6
Library social media	2,

N=44

Figure 1 presents media literacy topics captured in the teaching modules of GST 121 course materials. Over half the resources (25:56.8%) provided instructional units or chapters on online bibliographic databases and listed relevant databases to be consulted by the students for quality information. In addition, (6:13.6%) provided list of open access databases. There were units on online public access catalogue in 20 (45.5%) of the course materials, distinguishing it with card catalogues and stating its advantages in discovering library materials. About half (23: 52.3%) of the course materials contains chapters or modules on library resources describing print, electronic, non -print and audio-visual resources found in the library. In addition, 19 (43.2%) provided instruction on information resources, creating awareness of primary, secondary and tertiary information resources and outlining their sources. Less than one third had units or chapters on ICT in libraries (12: 27.3%) and   Digital / Virtual /E- libraries (12:27.3 %). Other topics covered in the materials are ICT (6:13.6%), automation (3:6.8%), computer software (4:9.1%), library software (3:6.8%). reference management software (2:4.6%), Open Education Resources (OER) (3:6.8%), and social media use in library (1:2.3%).

Figure2: Information Literacy Topics Captured in GST 121 Course Materials

Information Literacy Modules %

Module	%
Database Search	38,6
Search engine search	29,6
Evaluation of online resources	13,6
Information concepts	11,4
Evaluation of Information	11,4
Evaluating reference resources	9,1
Internet Security	2,3

N=44

Table 1. Specific Topics of Information Literacy

Module	Topics
Information	- Definition of information - Concepts of data, knowledge, communication and relationship to information - Characteristics of information - Qualities of good information - Uses of information
Database and Search engine Search	- Search strategies - Boolean logic - Basic search tips - Search query
Evaluation of information resources	- Criteria for evaluating online recourses - Criteria for evaluating print resources - Criteria for evaluating Search - Criteria for evaluating reference sources

Figure 2 and Table 1 reveal information literacy topics in the GST 121 course materials. About one third of the resources provided instructional unit on bibliographic database literature search (17: 38.6%) and search engine information search (13: 27.6%). The topics captured were search

strategies, Boolean search and search tips. Some percentage had units on evaluation of Information (5:11.4%) such as print resources, evaluation of online resources (4:13.6%) and evaluation of reference resources (4:9.1%). They listed different criteria for assessing information and sources. Some of the course materials (5:11.4%) also had units on information which conceptualised information, discussed various attributes of information including characteristics and qualities of good information. One of the resources added a unit on internet security teaching students the extent they can trust information on websites.

Discussion

The research sought to find out the extent librarians use information literacy tools for teaching students in Nigeria universities to combat fake news and misinformation. This was to present documented evidence of their involvement in the current efforts to combat fake news. Forty – four course materials including books, lecture notes and course outlines were obtained and analysed. Twenty university library websites were also examined for fake news content. Results show that there was no specific mention of fake news and misinformation in the documents reviewed. The University Library websites examined had no content on fake news and misinformation. For library website, this result is in contrast to practices noted on websites of academic libraries in many other countries where they have been adopted as vehicles to teach and impart skills for combating fake news. These libraries are increasing using library and research guides to offer trainings on combating fake news and provide varied information on how to sport fake news, and fact checking information (Lim, 2020).

Findings showed that even though there were no mention of fake news in the GST 121 course materials, there were media and information literacy topics which underlining competencies are important in guarding against fake news and misinformation. More than half the resources recorded modules on online bibliographic databases. About half documented chapters on database literature search including training on OPAC for discovering information materials. Some percentage provided units on evaluation of information (11.4%) evaluation of online resources (9.1%) and evaluation of reference resources (6.8%).

However, the percentage coverage on evaluation of information topics is not optimum as maybe expected of publications on information literacy in the digital age. This is because evaluation of information is at the core of information literacy education and activities. As noted by Rose-Wiles, and Courtney the ability to evaluate information and use it wisely is a central skill of information literacy. Considering the perennial issues of poor quality information in circulation and the increasing discussion of fake news in the public sphere, all the documents of GST 121 are expected to have provided instructional units on modalities for evaluating information.

It is pertinent to note that all the resources analysed emanated from universities and therefore indicates the availability of a nationally approved formal learning platform for information literacy education. Consequently, the librarians need to maximize the opportunity provided by this forum to join in the fight against fake news for social progress and survival.

The non-capturing of fake news topics and absence of library guides on the library websites implies that these librarians are not yet fully exploiting this important tool for providing information on essential skills needed to help fight the information disorder scourge. Library

websites are not unchangeable publications. There are meant to be constantly updated to accommodate new developments in the library and in the information scene.

Findings of the study shows the need for librarians to reorient their approach and maximize the use of information literacy tools to train students to fight fake news. Courtney noted that "many academic librarians agree that the current prominence of fake news in the public conversation has presented librarians with the opportunity and responsibility to assume a leadership role as trained information professionals in providing relevant information literacy instruction to students and to develop collaborative partnerships with the teaching faculty across the disciplines." The ultimate goal is to make information quality assessment an integral part of the information literacy curriculum, therefore helping students to develop the innate ability to evaluate and identify biased, false, and misleading information. This consequently will enable them avoid the pitfalls associated with fake news.

Recommendations:

1. The results of the study show that there is need for the National Universities Commission in conjunction with librarians to review the GST 121 curriculum as published in the Benchmark Minimum Academic Standards (BMA) for undergraduate programmes. The new curriculum should reflect the current realties in the information scene by adding information literacy components on evaluation of information and management of information disorders.

   The following items of information quality assessment indicators for combating fake news should be fully integrated into the reviewed GST 121 course curriculum:
   - Bibliographic Databases: general and subject based
   - Database literature search and retrieval
   - Internet Information search and retrieval
   - OPAC information search and retrieval
   - Evaluating information and sources
   - Evaluating online information
   - Internet security
   - Library websites as information source and gateway to library content
   - Information disorders - Spotting and combating fake news and misinformation.
   - Fact checking information sources, internet information, social media, images, videos, and websites and other sources.

2. Librarians should upgrade their library website design and content to enable them serve as online tool that can provide contents as well as instructions on information literacy. Library guides on evaluating information and trainings on combating fake news should be prominently displayed for the benefits of students in the fight against fake news. Importantly the websites should be publicized to create awareness of the resources for increased access by students.

Conclusion

Librarians have pivotal roles in mitigating the effect of fake news on young people. One way is through organized information literacy programmes with content focused on developing students critical thinking for combating fake news. The study revealed that there was no fake news content in the course materials for GST 121 an information literacy course taught by librarians to undergraduate students in Nigerian university. There was also no fake news content on library websites examined. However, some media and information literacy topics such as instructions on bibliographic databases and information search skills were captured in about half of the course materials. Some percentage of the resource also presented evaluation of information resources. It is pertinent to state that librarians need to review the content of the GST course curriculum to make it relevant to the needs of the 21st century learner and hence serve to contribute positively to the current societal efforts to combat fake news.

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