

TRANSFORMING LIBRARY OPERATIONS WITH ICT TOOLS IN NIGERIA



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CHAPTER FOURTEEN

Perspectives in Information Literacy in Nigerian Universities

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Abstract

Access to information is central to national development. The emergence of information and communication technologies (ICTs) has brought significant transformation in accessibility and utilization of information in libraries and other information retrieval systems. Information literacy presupposes that people possess the ability to search, access, evaluate and use information. It encompasses the ability of people to use ICT facilities to access and utilize information. This chapter focuses on the relevance of information literacy to support accessibility and utilization of information by library users in Nigeria. Also, the core model of information literacy is examined as this facilitates the acquisition of relevant information literacy skills by library users. The chapter concludes with the need for the application of ICTs in libraries to support wider access to information in the information age while libraries are challenged to provide relevant information literacy to patrons towards optimal access and use of library resources.

Introduction

Information plays a significant role in our daily professional and personal lives and we are constantly challenged to take charge of the information that we need for work, fun and everyday decisions and tasks. Information has now grown in scale and complexity. The information society is characterized by a wider access to

information, and citizens of such society are distinguished by the possession of a high degree of proficiency in information literacy. Hence, for effectiveness and efficiency in accessibility and utilization of information in teaching, learning and research in academic institutions in Nigeria, it is imperative that library users are knowledgeable in information literacy. According to Kinengyere (2007), effectiveness and efficiency in learning in a digital age rely on the level of information literacy of individual students and on the nature of information accessible to them. Information can be delivered orally or visually as data, text or graphics. It is needed by the students to solve their routine academic or related problems such as social and health issues. Information literacy provides library patrons with the requisite skills to access the needed information to attend to their academic issues. Thus, with the emerging electronic information environment, information literacy is a vital and prerequisite tool that staff/students in Nigerian Universities need for active participation in the competitive global academic community or information society (Ani, 2013).

With the advent of electronic publishing, academic resources are now on the Internet and digital technologies, thus leading to a paradigm shift globally in information seeking. With the emergence of electronic library to supplement information resources in the conventional library, library users (staff/students) need new orientations on how to acquire the skills that would enhance their capacity to access electronic information resources in the library to support their teaching, learning and research process. According to Ani and Edem (2015), information and communication technologies (ICTs) and electronic resources are comparatively new educational and learning tools in Nigerian universities. Hence, librarians should develop relevant information literacy programs to enable them teach library users (staff/students) to acquire information literacy skills toward

enhanced access and use of library resources (information sources) and be integrated into the information society (Ani & Ottong, 2010).

Information Literacy Overview

Information literacy is often defined as the ability to search, select, critically-evaluate and use information for solving problems in various contexts, such as academic assignments or research projects. The emphasis on seeking and selecting information sources in various programs of information literacy instruction is indicative of the long tradition of library use education primarily focused on sources, search techniques and the evaluation of information (Bawden, 2001; Sundin, 2008). The concept of *information literacy* has been mainly used in the context of library practice. Recently, it has attracted increased attention due to the complex nature of digital technologies and electronic resources. Given librarians' long-term engagement in information literacy, it is worth observing that the term 'information literacy' was not originally coined from the world of librarianship. The first instance of the use of the term is by Paul Zurkowski, in his 1974 report on future needs for various competences in work life in business and industry in the United States of America (Bawden, 2001; Bruce, 1997; Kapitzke, 2003). The emergence of information literacy is, therefore, attributed to Paul Zurkowski, the then president of Information Industry Association of United States of America (USA). He propounded the concept which is part of a proposal he submitted to the National Commission for Libraries and Information Science of USA. According to him, people trained in the application of information resources to their work can be called information literates. They have learned techniques and skills for utilizing the wide range of information tools as well as primary sources in molding information solutions to their problems.

Information literacy has also been described as a way of learning (Bruce, 2008). This interpretation relates information literacy to the

concept of lifelong learning (Bruce, 2003). Information literacy is a set of competencies required to effectively and efficiently find, use, manage, and communicate information for specific purposes. It is an intellectual framework for understanding, finding, evaluating and using information, which is made up of interrelated components such as:

- knowledge of information sources, the organization of information, and the nature of knowing—the attributes of scholarly knowledge;
- skills in finding, evaluating, using, and effectively communicating information;
- generalization of knowledge and skills to various applied settings with a positive disposition towards the use of new and extant information sources and information technologies; and
- various contexts for the use of information, equal access to information, and the dissemination of knowledge.

Thus, one must have the ability to know when information is needed, formulate an effective search strategy in a variety of sources, once retrieved, critically evaluate the content, its accuracy and source of the information and, thereafter, effectively use that information to meet one's goals (Kinyanjui & Ocholla, 2012). That is when one can be referred to as being information literate as s/he knows how knowledge is organized and how to find/use information. Therefore, an information literate person can determine the need for information, access, evaluate and use the information for addressing his/her information-related challenges. Such a person can always find the information needed for any task or decision at hand. This implies that s/he has knowledge of different information (online) sources, how information is structured and organized, strategies of information search and retrieval, mechanisms for evaluation of information sources, as

well as understanding of ethical issues associated with information utilization and application.

Information

In library science, information is a core concept; yet it is neither simple nor unambiguous. For the purpose of this chapter we shall confine ourselves to some characteristic features of the ways in which the term is used in research that is relevant for information literacy studies. In its most conventional meaning, the term information in information literacy context refers to primarily different information sources published in print or digital form. Buckland's (1991) classic conceptual analysis of 'information' serves information literacy purposes well. Buckland makes a distinction of information as *process* (the activity of informing or being informed), information as *knowledge* (that which is imparted through the process), and information as *physical entity*. This means that information has several dimensions. It is related to and embedded in specific activities and refers to content. It has a material form and existence.

Literacy

In a review of historical changes in the curricula goals of reading education, Bates (2010) notes that today's requirements for functional literacy are very high, compared to 'earlier periods in history. The meaning of literacy has expanded from the skill of reading and writing to a web of abilities and competences. For instance, UNESCO's Literacy Assessment and Monitoring Programme (LAMP, 2005) defines literacy as the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning enabling an individual to achieve his or her goals, develop his or her knowledge or potentials, and to participate fully in the community and wider society (UNESCO, 2005).

Literacy is here not simply the ability to read and write, since people also need to understand, interpret and assess texts, to evaluate statements, and to take standpoints when faced with flows of contradictory messages via various media and different types of sources. The point of departure of the UNESCO (2005) definition is the empowering nature of literacy. Literacy transforms not only individuals but also the condition for individuals' power to transform society. Literacy, therefore, extends from a mechanical skill to the ability to think critically and challenge dominant ideologies.

Bibliographic instruction

Bibliographic instruction is the process whereby librarians help users to gain access to information, both by formal instructional methods and training on the spot. A variety of techniques will be used, including multimedia and interactive systems. According to Stevenson (1997), bibliographic instruction is the process of introducing library users to a variety of information resources available in particular subject disciplines and the techniques of making use of those resources. Barton and Mary (2005) stated that bibliographic instruction is meant to help library users take maximum advantage of library resources to meet their information needs. To achieve this goal, bibliographic instruction program must be designed to improve users' skills in making effective use of library collections, services, and staff and to increase users' abilities to make independent use of these resources.

Bibliographic instruction may be discipline-specific library instruction or general instructions to facilitate access and use of library resources. They can include detailed instructions on using discipline specific online databases such as ScienceDirect, JSTOR, etc. or general databases such as library OPAC, selection of materials on research topics and specific searching for information on the Internet.

Interest profiling

Interest profiling is a means to ascertain the information needs of users in a library. This consists of creating profiles of the users who are to be provided with bibliographic instruction. A profile consists of: names of users, category of users, department/institution, mailing address, contact numbers, e-mail address, specific topic of research/areas of subject interest, other topics/areas of interest, preferred author(s), preferred journal(s), etc. Gathering of information for a profile is an important step. A proforma or profile card is designed with the information given above. Each user should be requested to fill up the proforma. The filled up proforma will act as the baseline data for the user education program. Recently, the whole process of interest profiling has been automated.

Course programme

Miller (1978) states that a library instruction program is a procedure whereby library users are taught to use library devices such as the card catalogue, OPAC and bibliographical tools: periodical indexes, subject reference sources, etc. and to utilize effective search strategies in the library. Thus, a user education or user instruction program aims to teach users library devices, bibliographical tools and how to utilize effective research strategies in a library.

The courses include library instruction, which focuses on particular skills and tools that are helpful for a particular assignment or search; course integrated library instruction, which refers to library instruction that is incorporated into regular academic program; and formal course in bibliography, in which users may be instructed on the use of the library by means of acquiring skills on bibliography.

Methods and media of user education

A number of methods are available for imparting information literacy programs in libraries. A single method may be suitable for effective instruction. However, a combination methods may be adopted based on the type of population and the objectivity of the course content. The methods of user education can be categorized into direct and indirect methods. The direct methods are:

- i. Orientation lectures/courses;
- ii. Library tour;
- iii. Reader-librarian dialogue while rendering reference service or when reader is browsing the catalogue;
- iv. Librarian's participation in the reader's writing, and
- v. Informal meetings at educational or cultural functions

The indirect methods include:

- i. Library Guides
- ii. Displays
- iii. Circulation of documentation lists
- iv. Technological gatekeepers, and
- v. Audio-visual aids.

Fjallbrant (1978) has given the following classification for group instruction, individual instruction and both group and individual instruction. Group instruction methods include lecture method, seminar method and guided tour, while individual instruction methods include practical exercise, self-instructional materials, individual help, etc.

Programmed instruction

Programmed instruction is a course of instruction in which the subject matter to be instructed is divided into a logical sequence of short items. The steps involved in learning each item allow a library user to immediately check the correctness or suitability of his/her response. Programmed instruction can be carried out

through a workbook, handbook, library path finder, audio-visual programs or computer-aided learning/instruction.

Computer-Assisted Learning (CAL) or Computer-Assisted Instruction (CAI) is a useful means of programmed instruction for teaching library users on how to apply more complex bibliographic tools. Whereas point-of-use instruction is generally limited to a basic explanation of a tool, with CAI, the computer may be used to demonstrate solutions to problems, to test the user's comprehension of the explanation, and provide feedback to the users on the correctness of their answers, thus reinforcing learning. The use of CAI in information literacy program is critical for libraries in Nigeria to adopt to support effectiveness and efficiency in access and the use of library resources and services.

Evaluation

Systematic evaluation of the process of user education programs should be an essential aspect of user education. Immediate effects of user education programs have been measured successfully but techniques for measuring its long term effect have not been developed fully. There are three basic methods that are used for the evaluation of user education programs which include: comparative evaluation, normative evaluation, and illuminative or responsive evaluation.

Comparative evaluation: This is also known as psychometric evaluation. A group of users or target population is tested before the course and then submitted to different instructional methods. Users are, again, post tested. For testing, psychometric tests consisting of achievement tests or attitude scales are made use of.

Normative evaluation: This type of evaluation program is done on the basis of prescribed normative criteria. It may take the form of objectives. This is based on how far the program is able to achieve the formulated objectives.

Illuminative evaluation: is a rich and creative development. Webber and Johnstone (2000) stated that the aims of illuminative evaluation

are to 'study the innovatory project, how it operates, how it is influenced by the various school situations in which it is applied, what those directly concerned regard as its advantages and disadvantages, and how students' intellectual tasks and academic experiences are most affected. It aims to discover and document what it is like to participate in the scheme, whether as teacher or pupil; and, in addition, to discern and discuss the innovation's most significant features and critical process. In short, it seeks to address and illuminate a complex array of questions.

Information and communication technology (ICT) literacy

The rapid development of information and communication technologies (ICTs) and new media during the last decades has further increased the need for expanding the definitions of information literacy. The new skill requirements related to the emergence of new technologies and media have been given names and labels, such as digital literacy and media literacy, etc. Information literacy is closely-related to contemporary society and linked to the ongoing development of ICTs and digital media. So library should design different training programs of ICT literacy to enable library users acquire appropriate ICT skills to access and use library resources and services (Ani, 2013).

One major form of ICT literacy is digital literacy. This is the ability of library users to use digital technologies (computer, Internet, digital camera, scanner, CD-ROM, DVD, digital networks, etc.) to access and use library resources. Digital literacy skills explore the ability of individuals in the digital era to find, use, summarize, evaluate, create, and communicate information with the use of digital technologies, such as computer systems, communication devices, and multimedia platforms. It is the capacity to use digital technology, communication tools or networks to locate, evaluate, use and create information. It is also seen as a person's ability to perform tasks effectively in a digital environment, which involves finding, evaluating, utilizing, sharing, creating and

managing content using ICT components and accessories. Such literacy also includes the ability to read and interpret media, to reproduce data and images through digital manipulation, and to evaluate and apply new knowledge gained from digital environments (Ani, 2015). Computing is an important part of everyday life, and has changed the way we work and live. Computers are a key part of every profession and business today, making it more efficient and easy to conduct day-to-day business transactions. Knowing how to use the mouse and keyboard is the first step towards exploring the digital world. Digital literacy skills include:

- knowledge of computer basics, which involves understanding computing fundamentals, components of a computer, operating system basics, and how to use a mouse and a keyboard;
- The Internet, cloud services, and World Wide Web, which involves how to connect to people, information, and resources around the world, using websites, search engines, e-mail and other communication platforms;
- Productivity programs, such as knowledge of word processing, spreadsheets, presentations and databases;
- Computer security and privacy, such as how to identify and protect one's computer and data from threats;
- Digital lifestyles, involving knowledge of how new digital technologies like smart phones and digital cameras are creating new career opportunities and shaping the world we live in; and
- Knowledge of cyber-ethics, which are ethical regulations and legal issues associated with the use of the Internet.

Library literacy

This is the ability of library users to acquire the requisite skills to access and use the available and relevant library resources and

services to support their learning. Library literacy requires that different categories of library users are taught the skills of using different library resources and services which include: skills to use library catalogue/Online Public Access Catalogue (OPAC) to access information, how to use books from reserved collections or how to use Recall/Selective Dissemination of Information (SDI) services. Library literate users (teaching staff/students) should know about the location of different divisions/units (such as Reference Library, World Bank Unit, Africana Library, etc.) in academic libraries where they can access relevant information to support their teaching, learning and research or know the opening hours of the library, rules and regulations governing the use of library resources/services. It is difficult for a particular user to access and use library resources and services effectively without being library literate. Library literate users may request quick processing of library resources that are available in technical sections of the library such as Acquisition or Cataloguing Section. Library literacy also includes the ability of library users to know how to access information in different media (computer, CD-ROM, etc.) that are used in information storage, especially in the electronic library (Woolwine, 2010).

Financial information literacy

Financial information literacy is a necessary skill for all library users (students/staff) in tertiary institutions in Nigeria. Developing financial literacy skills enables one to take control of one's personal/professional finances, thereby preparing the path to financial security for an individual or the library. Financial literacy is the ability to use knowledge and skills to manage one's or a library's financial resources effectively for lifetime financial security. Financial literacy refers to an evolving state of competency that enables each individual/librarian to respond effectively to ever-changing personal/professional and economic circumstances. It emphasizes the importance of having the skill

sets and knowledge to make informed financial decisions by individuals/librarians.

Being financially-literate allows one (librarian) to earn more, spend less, and get the things he (the library) really wants, especially relevant ICT tools to support access to information as well as getting personal/institutional subscription to a variety of information sources (electronic resources: electronic journals, online databases, etc.). The National Financial Educators Council (2013) defined financial literacy as possessing the skills and knowledge on financial matters to confidently take effective action that best fulfils an individual's personal, family, and professional goals. There are several other descriptions and explanations of financial literacy, but they share similar components. For instance, financial literacy is seen as the ability to make informed judgments and to take effective actions regarding the current and future use and management of money, especially in relation to librarianship. It includes the ability to understand financial choices, professional planning for the future, spending wisely, and managing the challenges associated with job stress. Furthermore, financial literacy can also be described as personal/professional financial principles and methods that individuals/librarians use to acquire and manage the income and assets of libraries.

Understanding financial literacy is of huge benefit to both librarians and library users. Librarians with good knowledge of financial literacy would have the ability to manage library finances, thereby acquiring appropriate information resources (print or e-resources) for the libraries to meet the information needs of their users. Hence, financial literacy is imperative for the optimal management of library budgets by librarians. This will involve allocation of funds for subscription of electronic collection development, buying of relevant books or ICT tools (computers, printers, etc.) plus recruitment of personnel, especially ICT experts.

Conclusion

The digital age is characterized with the transition of information from print to digital form due to the emergence of ICTs, particularly, the Internet. ICTs have transformed the process of information creation/generation, storage, retrieval and handling. The Internet has made electronic publishing possible; hence, information can now be accessed in electronic form such as the e-books, e-journals, among others, commonly referred to as electronic resources. The Internet has significantly changed information seeking behaviors of library users (teaching staff/students) in academic institutions and has posed enormous challenge to librarians on the need to teach library users information literacy to enable them acquire information in its newer format. In view of the imperative of ICTs in the acquisition, processing, and dissemination of information, librarians should integrate relevant ICT facilities to enhance effectiveness and efficiency in accessibility and utilization of library resources. Consequently, library users should be taught appropriate information literacy skills, particularly ICT literacy skills, to support access to library resources and services. Generally, the chapter emphasizes the imperative of information literacy as a tool to support effectiveness and efficiency in accessibility and utilization of library resources to support teaching, learning and research in tertiary institutions in Nigeria.

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