# CAPACITY BUILDING FOR LIBRARY AND INFORMATION CENTRE PERSONNEL IN ICT ENVIRONMENT

**BY**

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**Abstract**
The paper examined the concepts "ICT environment' and 'digitized/virtual library and information centre' and discussed the features of digitized/virtual library and information centre and the need for capacity building especially in ICT-based libraries and information centres. It highlights the skills, competencies and training needs expected of personnel in typical digitized libraries and information centres, the avenues for their education and training and the basic questions to address in capacity building plans and strategies. The paper concluded by putting forward strategies to adopt to ensure the available of requisite relevant manpower in virtual libraries and information centres to cope with the changing needs of the time.

## Introduction

An Information and Communication Technology (ICT) environment can simply be referred to as an information system comprised of organized information managers and users, computer hardware and software, communication networks and data/information resources that acquires and collects, organizes and transform, stores and retrieves, as well as disseminates and transfers relevant information to the relevant users, regardless of their location, time of accesses and need, and in respective of their strata in the society. Thus, a library or information centre established in an ICT environment to serve as an information system or rather a veritable channel of communication will possess a variety ICT physical devices (hardwares) information processing and retrieval devices/instructions (software). Communications channels (networks) and stored data (information/data resources). A library and information centre of this nature can be said to be digitized, automated or virtual.

The basic functions of this type of ICT-based libraries and information centres are:

- to support the library operations
- support policy and managerial decision making
- support strategic competitive advantage in library and information service provision and delivery global wise.

## The Digital Library and Information Centre

An ICT driven and transformed libraries and information centres characteristically possesses the following features:

- computerized, digitized or automated systems operations and services
- have variety of ICT infrastructural facilities and devices
- networked operation environments
- Internet connectivity and web site
- Unlimited access points to information resources
- On-line and off-line (eg CD ROM) infrastructural facilities and devices for information resources and databases access and retrieval
- ICT-skilled staff and (to some extent) computer literate patrons
- Electronic/digitized information resources

Digital libraries with the above features will not only promote knowledge acquisition and enhanced educational attainment but they have the potentials to allow the users not to regard their location, format of the information resources, methodology of information access and time of access as immaterial, inconsequential and irrelevant to information access and utilization while commenting on the potentials of digital libraries, Sloane (1997) remarked that the digital libraries such as the www hold more useful, up-to-date and relevant (to many subjects) information than most university libraries and certainly than other categories of libraries. The digitized libraries and information centres tend to possess a wealth of rather simple information of direct applicability to every day subjects. Besides, they serve to support research environments and endeavours better; create self-motivated educational pursuits and environments, and satisfy the curiosity and life-long learning efforts of the individuals for repaid and enhanced development and growth.

**The Need for Capacity Building**

The basic function, duty and responsibility of a typical library and information centre personnel is to manage the human knowledge through, say, collection and acquisition of all available relevant information resources (printed and non printed), organization and manipulation of the information resources, preservation and storage of the information resources and retrieval and dissemination of the relevant information to the right users in the most appropriate package, channel location and time. However, the extent to which the library and information centre staff is able and capable of performing his/her duties and responsibility effectively and efficiently will be a function of several factors which include the acquisition of relevant skills, experiences, ideas education and training. Hence, the need for human capacity building in not only ICT-based library and information centre and environment but rather in all types of libraries, organizations and institutions.

The concept 'capacity building' also referred to as 'manpower development', 'human resource development', 'staff development', and 'personnel development' can be conceived as any conscious and deliberate effort, endeavour, facility and opportunity provided to the employees of an organization, establishment and outfit irrespective of their status to improve their skills, attitude, behaviour, experience, ideas knowledge, education and information acquisition with the view to enhance their performance and productivity for ensuring optimal success in achieving the overall objectives, goals, mission and aspirations of both the employer and the employee. Naturally, beside the availability of funds, information, technology and other relevant material infrastructure

and resources in an organization, human resources is needed to activate, coordinate, manage all the factors of production and the functions, operations systems and activities of the organization to survive and succeed in achieving its specific and overall objectives, goals and mission.

The quality of the staff in an organization will be a sine qua non to the extent to which it will achieve its objectives, goals and mission. Mohammed (2003) observed that the personnel in the 21`st century organizations and establishment, of which libraries and information centres are one, need more education, training, knowledge, skills, ideas, experiences, information and enlightenment now more than ever before in order to cope with the challenges of the time. He added that, the personnel who continue to improve in their knowledge, experience, education, information ideas and skills acquisition as well as grow positively in their attitudes, behaviours, performance and productivity in their work place, will eventually make a better employees with stronger feeling of self satisfaction and fulfillment about their work and assurance of ensuring the achievement of the objectives, goals and mission of their employers and of themselves. Diejomorah (1987) sees human resource training as the process which leads to the formation of values and attitudes, the development of the skills and the knowledge of a people, thereby contributing to the enhancement of an improvement in the quality of a nation's human resources of which a nation ultimately depends. Hence, the libraries and information centres in Nigeria and particularly the digitized ones cannot overlook the development, education and training of their personnel if they really want to survive and succeed in the competitive changing world environment, needs, and expectations. Else, they will dearly pay the price of not having effective and efficient labour force that will cope with the

competitions and continuing changes occurring in the technological, socio-economic, cultural and global politics of the 21st century where globalization syndrome is the order of the day.

**Capacity Building for ICT based Libraries and Information Centres**

The ICT-based libraries can be referred to as electronic library, virtual reality, digital library, community library, library without walls, the library of the future, etc. However, for simplicity, virtual library can be conceived as an organized collection of documented information resources not limited by physical structure and printed format but also including electronically stored information and information resources accessed physically and remotely irrespective of the time and the location of the user and /or the information resource with the assistance of the ICTs. A typical virtual library has no limit to its size, content, the nature of physical(tangible )and/or electronic information resource (intangible), and the type of user, time of access, and the need for and nature of use. By and large, it aims at promoting information access and sharing rather than ownership of the information resources per se, as they can easily be accessed irrespective of their location and ownership world wide using the ICTs.

The introduction of virtual libraries or the eventual conversion of the conventional libraries in the nation's educational institutions and indeed in other administrative set up into digitalized libraries should be seen as an attempt to ensure:

- The provision of opportunities to access and utilize information resources regardless of the location; time, nature of and need for the use; the location of the user; and format of the information resource.
- The Up-date of the collection of the libraries and increase their potentials to cope with the varying and increasing demands for their use.
- The availability of a platform for information sharing, dissemination and delivery around the libraries within and outside the country
- The creation of awareness for promoting 'invisible college' activities and dissemination of research output as well as sharing of knowledge, experiences and skills among academic colleagues to boost academic activities
- Effective means of preserving information resources in the libraries for existing and future use, as well as ease weeding of the collection to ensure relevance.
- Promotion of qualitative education in the face of quantitative demands for it and decline in funding potentials to support the education systems/institutions.

In the contemporary knowledge age, it could be said that the provision of information service could emanate from 2 types of libraries. These are:

(a) The conventional libraries stocked with physical (tangible) information resources. They could be either manually driven or automated to facilitate information/knowledge retrieval, dissemination, delivery and access. However, they may not assume the status of virtual libraries in the true sense of it.

(b) The contemporary(virtual/digitalized) libraries whose information resources are basically intangible and are usually stored in computer system and computer readable formats and forms to allow for easy manipulations, retrieval, access and

delivery regardless of the location of the user and the library with the assistance of ICTs.

The common feature between the conventional and contemporary types of libraries is the automation of their systems. Whereas, the dividing factor between them is the fact that while the conventional one allows the removal of the information resources from the shelves for use wherever and later returned, the contemporary one allows for the copying of the information resources to the user's computer, downloaded to a reading device or stored in the user's personal digital library, etc (having met the copyright obligations) leaving the original resource intact in the library systems. Thus, these complexities suggest the need for the training and re-training of the library and information workers to cope with the exigencies of the time. This call is even more pertinent when the technical skills for sourcing, and processing the knowledge assets, delivery and services as well as for handling the ICTs and other infrastructure are put into consideration.

On the other hand, the emergence and sustenance of the virtual library has been made possible with the advent of new ICTs such as the Smart Cards, object and image databases, videophone, copyright tracking and management systems/facilities, video streaming technologies, the Internet, the Intranet, and other forms of virtual reality technologies, services and resources such as the e-books, e-journals, e-mail, e-commerce and e-banking. The success of virtual library services is therefore not only hinged on the available knowledge resources and technology but also on the staff/personnel expertise, (know-how) time and dedication.

The fore goings point to the fact that the past and existing role of the library and information workers, particularly the librarians, has to change from the traditional

information/knowledge seekers and providers to information and knowledge coordinators, gateway and/or connectors with the needed information and knowledge. This implies that their ICT skills and technical know-how need to be greatly enhanced to cope with the needs of the day.

Some vital questions need to be addressed in any attempt for capacity building for virtual library information centre systems and services. Such questions include:

- What are the virtual library community needs?
- What type of ICTs need to be used or acquired for the virtual library?
- Who are the users of the virtual library?
- What type of services should be provided by the virtual library
- Which existing information services need to be modified or changed?
- What modifications or changes need to be made in the staff pattern and system architecture of the existing information system and services?
- To what extent is the new information system expected to affect the existing information use, access, and delivery?

The above questions point to the new perceived roles of the librarians to ensure the effectiveness and efficiency of the emerging virtual library meet the existing and anticipated varying needs of the virtual library community.

Some of the technical know-how and know-why as well as other relevant skills, expected of the **'new improved'** library and information workers for the virtual library and information centre systems and services include:

- Domain name registration

- Web publishing
- Web sight administration and maintenance
- Web sight design and web hosting
- Network systems administration and maintenance
- Bibliographic and full-text databases management
- CD-ROM technology application and management
- Management Information System
- Database construction, management and maintenance
- Knowledge management
- Communication and inter personal relations
- Reference and information services
- Marketing an public relation

Some of the ICT training needs for the virtual library and information centre personnel include:

- Ward processing and desk top publishing
- Computer programming
- Computer application packages
- Library application software packages
- Computer operation systems and operations software packages
- Internet browsing and on-line search strategies and techniques
- Computer appreciation and maintenance
- Database construction design and maintenance
- Systems analysis and design

- Presentation packages.

All categories of library and information workers marshaled for virtual library systems and services need to be educated, trained and retrained to conform with their new duties and responsibilities which include ability to:

- Digitize the library systems, operations and services
- Perform literature search in the Internet, text message (such as e-mail) and web browsing
- Print down loaded documents from the Net, from CD ROM databases and from other networked environments
- Design, create and maintain portals (gateways) and websites and pages
- Promote library activities globally through the Net, and dedicated websites
- Organize for easy retrieval, access and use all forms of electronic documents.

Some of the avenues readily available for capacity building in a typical information/knowledge centre include:

- full-time training programme in recognized educational institution
- part-time training programme in recognized educational institution
- on-the-job training especially within the establishment
- short-time training programme in specific area of interest to the success of the organization
- in-service training programme with all the accompanying financial and material benefits to the trainee
- self-sponsored training endeavour by the trainee especially for personal improvement in an area of interest

- conference, seminar and workshop attendance
- correspondence course of programme registration

The choice of which type of training programme should the library and information workers attend or benefit from will largely depend upon several factors in the organization which include:

- the human resource development policy
- the existing and anticipated skills and knowledge required of the staff
- the financial and material support available
- the existing avenues available for staff development
- the cost of the training programme in view
- the type of staff currently available in the systems/organisation.

What is however needed and necessary to facilitate capacity building for the emerging virtual library systems and services is the re-organization, restructuring and rejuvenation of the courses ,content and programmes of the library and information science schools and similar others to provide the much needed training and retraining to ensure the availability of the right crop of personnel that will cope with the challenges of Knowledge Management age.

**Concluding Remarks**

Definitely, the emergence of the virtual library has brought with it new challenges and expectations which require the education, training and retraining of the existing library and information workers. Unfortunately, a majority of the existing library and information workers trained and educated in Nigeria before the mid 1990s lack the

requisite ICT practical application skills, and the technical know-how and know-why principally due to the impoverished equipping of the library and information science schools as well as the shortages of experience and trained staff. The situation is compounded by the availability of the same situations in a majority of the libraries and information centre in the country even in the threshold of the 21st century (Mohammed: 2002:15). Certainty, this ugly situation will not augur well for the success and advancement of virtual library systems and services in Nigeria. What is therefore urgently needed is the deliberate effort by the relevant authorities, organizations schools and institutions to embark upon the provision of and promotion of human resource development agenda to ensure the availability of capable personnel to man the virtual library systems and services.

Cumming (1975) remarked that, the management of human resources, especially at the time of serious scarcity should be mainly concerned with obtaining the best possible staff… and having got them, look after them so that they will want to stay and give in their best to their jobs. Hence, in order to ensure the availability of the relevant needed manpower in the digitized libraries and information centres and indeed in other types of libraries and information centres with less difficulty and in a cost-effect manner, effort should be made to have manpower planning and control agenda, and strategies, human capacity utilization strategies to enhance and promote staff attachment and commitment to work and organizational goals, aspirations and mission; and also carry out cost benefit and cost effectiveness analysis of the library and information centre operations systems and services periodically, especially using the SWOT analysis

techniques in order to respond positively and quickly to the changing needs of the library and information centre, the personnel and time.

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