

## CREATIVITY AND INVENTIONS IN LIBRARY SCIENCE: THE ROLE OF ICT IN LIBRARY SERVICE DELIVERY TO LIBRARY USERS

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### Abstract

Library Science as a field of study had witnessed significant changes in shaping human behavior and creation of ideas for development. The paper focused on creativity and inventions and the role of Information and Communication Technology in Library Service delivery to library users. The conceptual development of Librarianship was discussed. The emerging trends in creativity and inventions and the application of Information and Communication Technology in Library services were discussed. The paper amongst others recommends the provision of modern information resources and facilities in Library and information services to achieve the desired development for national development goals. Governments and institutions are therefore urged to give priority attention to library services in terms of funding and facilities provision in order to sustain the innovations and changes brought by creativity and invention into Library Science in the 21<sup>st</sup> century.

Education is the process of imparting knowledge, skills and judgment to the learners or individuals. It is a continuum, that is a continuous

process in knowledge acquisition and it is seen as a lifelong process. There are informal and formal systems of educational methods. All that were

discussed in this paper have formal educational system in mind. Formal educational method usually takes place in an organization or institution where there are learning facilities like classrooms, libraries, students, teachers and researchers as the case may be.

In a normal library services setting, a user goes into the library, looking for information with a topic in mind and approaches the library personnel for assistance in accessing the needed information resources or the actual information needed for such a user to consult. With recent development in the information age, creative and inventive minds or thinkers have created and invented novel systems in information service like the internet which have also led to the development of Information and Communication Technology (ICT) which have made the world to become a global village which enables a user in the remotest area in the world, developing countries inclusive to access information in any library or organization in the world, provided they are internet connected.

This system has therefore, greatly reduced the problems of information unavailability worldwide. However, there are some limiting factors to using these new information facilities – information and communication technology, especially in the developing countries. These include dearth of technical personnel, inadequate funding of ICT facilities and inadequate infrastructures among others.

### **Concept of Creativity**

Runco (1999) and Sternberg (1999) were of the view that most ancient cultures, including thinkers of ancient Greek, ancient China and India believed that lack of the concept of creativity, saw art as a form of discovering and not creation. It was commonly argued that the notion of “creativity” originated in western culture through Christianity, as a matter of divine inspiration. The early western concept of creativity was the biblical story of the creation given in the book of Genesis. Mumford (2003) observed that the general agreement amongst researchers saw creativity as that which involves the production of novel and useful products. While Albert and Runco, (1999) observed that creativity in the modern sense is beyond the biblical story. An individual was therefore not seen as the cause of creation until the renaissance time. Researchers believed that it was during the renaissance era that creativity was first seen, not as a conduit for the divine, but the abilities of great men. Torrance (1974) described creativity as “a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies and identifying the problems or difficulty. Creativity, in a common definition is therefore, a phenomenon whereby something new or novel and somehow valuable is formed, such as an idea, a scientific theory, an invention, a literary work, a painting, a musical composition, a joke etc. The new encyclopedia Britannica (2003)

sees creativity as the ability to make or otherwise bring into existence something new, whether a new solution to a problem, a new method or device or new artistic object. Psychologists have observed over the years that creativity is usually the product of intelligence in the ordinary sense of the word; but very often, a creative person is not the most intelligent person and therefore, there is little correlation between intelligence and creativity. Therefore, a highly intelligent person may not be as highly creative and vice versa. It is believed by psychologists that the single most important element in the creative process is, however, the originality and uniqueness of products produced.

#### **Invention**

The encyclopedia Britannica opined that the exact meaning of the word 'invention' has never been given. However, the Oxford English mini dictionary (1999) defines invention as the ability of one to think things up, the act of discovering or finding out things with the outcome being novel in nature

#### **Concept of Library Science**

Library science was often termed library studies or library and information science. While Dewey Decimal Classification (DDC) used the term "Library economy" for class 19 in its first edition from 1876 up to 1942. From the 15<sup>th</sup> edition, 1951, class 20 was termed library science, which was used up to 1965 when it was replaced by "Library and Information Science" (LIS)

from 1971 to date. Mohammed (1998) defined library science as a scientific discipline aimed at applying scientific knowledge, skills, understanding and methodology of collecting, organizing and transmitting knowledge, ideas and information necessary for the actualization of the needs and aspirations of the individual and the society.

The collection, organization, preservation, and dissemination of information resources are the main focus of libraries wherever they are found. This is so in order to enable the parent organizations where the libraries are located achieve the set goals and objectives of the organizations. In the 21<sup>st</sup> century, which is the information age, came about as a result of creative thinking of some intelligent personalities which have revolutionized information services worldwide leading the whole world into a global village with a global economy.

#### **The Role of Information and Communication Technology in Library Services Delivery to Library Users**

Information and Communication Technology (ICT) is an extended synonym for Information Technology (IT). The concept of ICT is often used interchangeably with Information Technology. Bappah (2010) defined Information and Communication Technology as a broad term that encompasses the acquisition, packaging, storage and retrieval of information that

can be in textual or numerical, pictorial and vocal forms or a combination of computers and Telecommunication. Anyakoha (2005) and Aliyu (2007) viewed ICT as the electronic means of capturing, processing, storing and disseminating information. They noted that internet as an off-shoot of ICT is the main medium through which different services with ICT work in libraries.

Advances in Information and communication technology in Libraries have impacted significantly in meeting the information needs of library users. Libraries have achieved far reaching development in the application of ICT in serving their target population. Libraries are not only equipped with information resources in traditional format but in digital format. Solarin (2013) noted that before the emergence of ICT, libraries function has been time wasting, cumbersome and rigid. Oketunji (2004) affirms that the internet and other ICTs provide a golden opportunity for the provision of value added services by libraries in many areas which facilitate learning among target population.

#### **Rationale for ICT Application in Library and Information Services Delivery**

The application of ICT in library operations and services has become a reality and no doubt becomes the core tools used in serving library patrons in the 21<sup>st</sup> century libraries. Ekoja (2011) noted that ICTs facilities are needed for efficient and effective library services. Omekwu and Echezona (2008) affirmed

that libraries have obligation to provide ICT based information services to support the educational, recreational, economic and political endeavours of their clientele.

#### **Areas of ICT Application in Library and Information Centres**

It is fashionable to commend the daring invention recorded in the use of ICT for the provision of information services in contemporary libraries. Chunli and Jinmen (2011) remarked that librarians and libraries have to innovate and use ICT in reference and information services to meet the clients changing needs. Zaid and Oyelude (2012) stated that ICT is applied in array of information services. These include electronic reservation, incorporating web 2.0, e-resources management and instant messaging.

It is noteworthy to state that library users are given the privilege to make suggestions on new titles to be acquired by libraries. Youngman (1999) aptly posits that ICT has given librarians and library users more choices in collection development. Librarians use a multiplicity of ICT tools such as internet, e-mails, websites etc to communicate book publishers and book vendors.

In a related development, libraries offer internet services to their clients. Ndukwe (2003) noted that the internet has become a universal library where books, journals, articles and other materials can be accessed. Today, libraries offer online services. Edem

(2007) stated that libraries now offer online services, internet, networking and other related services. Oketunji (2001) noted that library and information activities in Nigeria are mainly in the area of computer application in CD – ROM searching, library networks, electro-copying and internet connection. Obasuyi (1997) as cited by Edem (2007) identified six major areas for which ICT could be applied in libraries. These are cataloguing, acquisition, circulation, serials control, indexing and administrative duties. Holder (2009) revealed that library resources are shifting from paper-based documents to predominantly digital documents.

In order to remain proactive and creative in service delivery, Library and information professionals have braced up with new tools and technologies. Some of the modern ICT tools used for service provision which promote participatory information sharing among library clientele include web 2.0, web 3.0, library 2.0, librarian 2.0, my space, face book etc. These modern ICT tools permit library users to interact and collaborate with each other in social media and virtual community. Stuart (2007) stated that web 2.0 contains features that link users to areas such as book reviews and catalogs.

Another notable ICT tool used for information service delivery targeted at meeting library patrons information needs is information common. Information common as captured by Ekoja (2011) is a cluster of network access points and associated information

technology tools situated in the context of physical, digital, human, and social resources organized in support of learning. It is crystal clear from the foregoing that information common open windows of opportunities for library patrons to conduct research and learn via group discussion in an electronic environment. Libraries use these tools to market their services by informing library users about new arrivals, new services and products.

The benefits of using web 2.0 in libraries have been documented. Kwanya, Stilwell and Underwood (2012) included provision of wider access to information and knowledge; lower cost of disseminating information; facilitating quick and ready access to information; easy update of information and services; supporting social networking which aids knowledge generation and use ; enhanced interactivity between users and librarians and in the process facilitating seamless communication and feedback; taking the library services to where the user community is already hanging out; creating an information sharing culture; enriching the information services with multimedia experience; creating a library environment which is fun to work in; empowering the users to contribute library content and facilitating the users to participate in the management of libraries by making suggestions. Nigerian Libraries should as a matter of urgency incorporate web 2.0 in order to harness the benefits highlighted above. The presence of

Nigerian Library services must be felt in the virtual community in order to enhance participatory learning, teaching and research.

### **The impact of ICT Application on Information Service Delivery**

Information and Community Technology has brought significant changes in the way library services are provided to the target population. Today, ICT has become an “idol” in Library and information centres. It is the global online and offline service mantra and slogan among library and Information Professionals. Aliyu (2007) stated that the application of ICT in networking in libraries make teaching, learning and research entertaining. ICT utilization by Library patrons enable library users know better the current trends in their fields of study and outside their chosen fields of study. Okonoko, Ufuoma and Promise (2013) established that Information and Communication Technology brings about the visible improvement in the accessibility to the informational materials needed by the library patrons. They further asserted that using ICT to manage information for effective service delivery to library users is today performed with speed, minimal cost, time and with ease. Madu (2004) affirmed that ICT application in libraries facilitate easy management of library operations.

In response to the global trends in ICT based service provision to library users, Eze and Uzigwe (2012) remarked that applying ICT in library services

delivery enhances access to knowledge as well as improving the curriculum of schools. Yusuf (2006) also noted that ICT application in libraries promotes needed interactions between service providers and learners. Afebuameh (2011) established that ICT has brought far reaching impact on various facets of human endeavours. Obasuyi (2005) noted that there are positive impacts and improvements ICT have created in the operations and services offered by Libraries to library patrons.

### **Conclusion**

Library services delivery to target population is no doubt ICT driven in contemporary library and information centres. The impact of ICT on library services is huge. It is obvious that ICT application for services delivery have proven to be effective and efficient in meeting the information needs of users. ICT application in library service has enhanced learning, teaching, research and human capital development. Information providers will continue to exploit ICT in Nigerian libraries for service delivery to our esteemed patrons. By so doing, libraries will remain proactive and relevant agents for information service delivery to the 21<sup>st</sup> century information seekers.

### **Recommendations**

Based on the issues discussed in this paper, the following recommendations were made.

1. There is the need for government at all levels, donor agencies,

educational regulatory bodies to give top priority to library services in the area of adequate funding of ICT projects, facilities and the maintenance of ICT facilities in tandem with global best practices.

2. There is the need to sustain the novel innovations and dramatic change that accompanied ICT application in Nigerian libraries. Library service providers should remain flexible in adopting change they are likely to expect in the future.

3. There is the compelling need to train and retrain library personnel on how to handle and manage modern ICT tools in Nigerian libraries. In this regard, there is the need to address the challenge associated with ICT technical know-how in Nigerian libraries.

4. There is the need to address the problem of erratic power supply through the provision of standby power plants in order to ensure uninterrupted access to online library services by library patrons.

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