

INFORMATION AND COMMUNICATION TECHNOLOGY (I.C.T.) AS IT RELATES TO LIBRARY EDUCATION

Jane Ngozi Ekwueme

Abstract

The use of Information and Communication Technologies (ICTs) in our educational system, acts as a catalyst for change. This is because, technology has the capacity of promoting and encouraging the transformation of education to a higher level. Hence the use of ICT as it relates to various aspects of education. Based on this, this paper examined ICTs as it relates to library education. It started with an introduction, conceptually examined ICTs and the facilities in schools and the library, x-rayed information and communication technology as it relates to library education, mentioned the impact of ICTs in libraries. Highlighted the peculiar challenges faced by libraries in their use of ICTs, postulated recommendations, and conclusions were finally drawn.

Information and Communication Technology (ICT) has become common in all aspect of life. In the past few years, ICT has not really created an impact in our society, but as the world gets globalized, the impact of ICT is felt in all aspects of life. ICT has changed all areas of the economy, business, governance and also the educational sector. The use of ICT is glaringly seen in the educational research process. However, with the application of ICT in the educational research process, the library comes into play. This is because adequate research can only be perfectly done, through the library.

The library is seen as an agency of information which has been so designed to conserve knowledge, preserve our cultural heritage, support education, research and serve as a place for recreation. Therefore since the

library is an information provider, it must be able to educate librarians to meet up with the challenges of being able to collect, organize, preserve and disseminate information to their users. When the librarians are well trained, they will be able to also educate the users on the process of sighting, locating and retrieving information in the library through the use of ICT. Therefore for proper processing of information in the library, the librarians and users must be trained which means that library education must be related to information and communication technology for easy storage and retrieval of information materials.

ICT must be well taught in library schools so that it can be well applied in the libraries, because, with the application of ICT, data sets and library resources can be shared by institutions in different locations, and educational researchers will have easy access to current literature materials and data sets irrespective of the size, information can be stored and retrieved when needed.

The Concept of ICT and the Types of ICT Facilities Used in Schools and Libraries

It is important to explain the components of ICT for better understanding. The word information is derived from the Latin word "Informue" which means to form matter, just like the potters that uses the raw material to form shapes 'inform' has the commutation of 'to mould' the mind, or to give the mind proper direction or to instruct the mind (Egbule, 2011). While the Webster Dictionary states that, information can be a knowledge acquired through study or experience of instruction. It can

also be a data, which is a collection of facts from which conclusions may be drawn. 'Communication' has its origin from a Latin word 'communicare', meaning to share or establish commonness. Communication could therefore be from person to person.

Ogili (2005), cited Eze (1998) describing communications as a social process of establishing commonness of ideas, taught, and information: A social process that uses signs, symbols, languages and other means to bring about inter-exchange of thought and meaning between and among individuals and groups for better understanding and relationship.

While technology means the use of electronic arts and applied sciences to perform practical task. From all the explanations, Information and Communication Technology (ICT) is an integral package of data (raw information) gathered organized, processed and stored and made available to users. ICT therefore, can be defined as the technologies people use to share, distribute, gather information and communicate through computers and computer networks (Ekwueme, 2010). It also represents a cluster of associated technologies defined by their functional usage in information access and communication of which one embodiment is the internet.

The use of ICT facilities has enhanced the achievements of the librarians in library sciences and has become one of the basic bedrock in all areas of academic research and knowledge acquisition. Such facilities include:

1. **Computer:** This is an electronic device that has the ability to compute and analyse data.
2. **Telephone:** An instrument used for communication.
3. **Television:** It is a medium which can be used to educate the public on various topics and subjects. The television operation is less complex when compared with computers, and is more economical than the computer.

4. **Internet:** The internet is a global network of computers with a gigantic database, used in communicating under one set of guidelines, formally called the transmission control protocol/ internet protocol (TCP/IP). The internet is more than a physical network of wires linking individual computers to one another. It is also a network of people and information resources. The internet does not belong to specific people, or company, or service we only get connected through the computer.

5. **Radio:** This is a media through which we can reach out to large population of people at a time. It is easily accessible, cheaper and easier to maintain, it can be operate with the dry cell batteries in the rural areas, where they lack power supply.

6. **Video tape and VCD:** This can be used with the television.

7. **Projectors:** These are the opaque projectors, video projectors, overhead projector, slide projector and multimedia projectors.

Hassan (2009) outlined other types of ICT facilities that can be found in the libraries.

- i. Library worldwide wave
- ii. Online catalogues and electronic database.
- iii. E-mail communication
- iv. Digital library.

Information and Communication Technology (ICT) as it Relates to Library Education

The advancement of ICTs in our educational system is both an opportunity – to overcome inherent and historical disabilities in education, and a challenge to ensure that developing countries are not left behind the developed world. Liverpool (2002), cited in Egbule (2011) opined that, while ICTs have already invaded and dominated education in the developed world, its invasion into the education systems in most developing countries has been painfully slow.

In Nigeria, there is a judgment of challenges confronting the application of ICTs in library education, and this has really brought a slowdown in the implementation of ICT in library services. This ICT knowledge is important to librarians, because, when the librarians are not vast in knowledge in the use of ICTs, it will be very difficult for them to use it to disseminate information to users.

Information and Communication Technologies (ICTs) has to do with the provision of information by exchanging information anytime or anywhere in the digital format used by computers. The developments in CIT have brought about the merger of the computing, information, communications, entertainment, and mass media industries, thereby providing a means of exchanging information at anytime. Therefore, libraries as information centres, need to embrace ICTs, because of the possibilities of ICTs to create information in digital format, online access and file transfer, and the networking and sharing of information resources. It is important to note that the shift from print to digital information has a high impact on libraries and information centers, and the librarians must work towards meeting up with these challenges by including ICT education in the library school curriculum. Since these trained librarians in library education are the ones that will work in information centers to provide information to users.

As earlier mentioned, David (2001) stated that, the shift from print to digital information is generally attributed to the merging of computing, telecommunication technologies and other industries. Computers have permeated society because of their ability to perform high volume error-free repetitive tasks at speeds much faster than human beings, while recent and emerging developments in the area of computing, telecommunications, networking and resource sharing make access to information anytime and anywhere possible.

The digital information materials have positive impacts on libraries in these areas:

- a. Digital information can be sent in multiple copies simultaneously over information networks in fractions of a minute or even of a second. There is no need for users with their personal computers (PCs) attached to the network to physically go to the library, they can easily access the information via their PCs.
- b. Digital information can be cut and copies pasted from one documents to another.
- c. Digital information may be free or cheaper than print equivalents.
- d. Digital information often modifies librarians' roles in various ways.

The Impact of ICT on Librarians and Library Education

The emergence of these powerful technologies (ICTs) has brought about vast amounts of information in multimedia and other digital formats, more technologically proficient users and the widening "digital gap" (David, 2001), which means that libraries and librarians in particular are faced with the great challenge of dealing with this information revolution.

However, the recent developments in the capability of computers to store, locate, retrieve, and transfer huge amounts of digital data at high speed, have contributed to the evolution of an information-based society. Libraries must respond to this development in order to remain relevant and important to the society they aim to serve. However, libraries and librarians must first educate and equip themselves with the necessary knowledge and skills before they can deal with this serious challenge.

Due to the great impact ICTs have on librarianship, David (2001) outlined the roles of librarians in an information society.

- i. Creators, developers and producers of information products and services.
- ii. Collectors and recorders of information.

- iii. Collection development
- iv. Resource sharing through networking.
- v. Faster direct communicating among scientists and researchers
- vi. Information management.

Challenges

It is obvious that librarians are faced with lots of challenges in their use of ICTs in libraries and library schools. Among these challenges are:

- i. Lack of adequate ICT facilities in libraries and insufficient number of computers and peripheral devices inhibits developments of ICTs by librarians and the unavailability of some ICT components in the libraries hampered lecturers to use ICTs.
- ii. Under-funding: Insufficient facilities are due to under-funding of libraries and library schools by their stakeholders, and so, they lack enough money to buy these facilities.
- iii. High cost of ICT facilities; cost is another services challenges the information centres are facing. The cost of computers with high specification is too high for most libraries to afford, monthly internet rate are exorbitant. All these are due to insufficient funding.
- iv. Inadequate ICT manpower: The libraries lack manpower to man the use of ICTs and these untrained librarians help to hinder the supply of current and updated information because of skill manpower.
- v. Poor ICT policy and government implementation policy.
Egbule (2011), citing Ian (2001) and Okebukola (1997), and stated that the federal government 1988 policy on use of ICT in schools introduced computer education to schools. This policy was implemented by giving grants and computers to some academic institutions, which were never used for computer education in some of these schools.

The federal government planned to integrate ICT into the school curriculum and provide schools with the infrastructures and facilities, but up till now, there are no facilities and trained personnel in some of these schools and most schools do not offer ICT training programme. Despite the ICT role in improving education yet it remained a low financial priority in most educational system in Africa.

- vi. Frequent electricity interruption. Electricity failure has become one of the persistent problems militating against the use of ICT in libraries and library schools, hence, this makes it impossible for libraries to use ICT regularly.

Conclusion

The application of ICTs in our libraries and library schools has helped to enhance the provision of information to users, however, libraries and librarians must cope with the demands of an information society, which means, they must have knowledge, skills and tools for handling digital information so that they will be efficient creators, collectors, consolidators and communicators of information.

Librarians with the knowledge and skills of ICT, required of information professionals in an information society, will be the key success factors in enabling the library to perform its roles as an information provider, and it will in turn enhance our educational system, since information is power.

Recommendations

- i. Libraries and library schools need to be adequately funded by government and their parent bodies, so that the schools will have enough ICT facilities and peripheral devices that will be used for the training of librarians, since their role in the provision of information cannot be over emphasized.

- ii. When ICTs are available in libraries and library schools, librarians will be well equipped with enough knowledge and skills, to handle these facilities, and thus filling the gap of the manpower required in the use of ICTs in the libraries.
 - iii. Every regime should make sure that policies and projects are implemented and carried out, instead of allowing it to a political jingle or lip services.
 - iv. Uninterrupted power supply should be supplied to libraries and library schools to help the ICTs facilities to function regularly.
 - v. The need for training and retraining of librarians on the use of ICTs, as this will help them know how to get updated and current information for the users.
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Jane Ngozi Ekwueme
Chief Librarian,
Federal College of Education,
Kano.

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