
RE-ENGINEERING INFORMATION AND COMMUNICATION TECHNOLOGY (I.C.T) IN ACADEMIC LIBRARIES FOR EMPLOYMENT AND SELF PRODUCTIVITY IN NIGERIA

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Abstract

Academic libraries are radically undergoing technological revolution, as such, electronic resources used in the libraries are being redesigned to meet up with the trend of events and make these libraries more functional. It is in this realm that this paper x-rayed how ICT in academic libraries can be re-engineered for employment and self-productivity in Nigeria. It started with an introduction, where it defined the concept of ICT and re-engineering. It identified how ICT can be re-engineered in academic libraries, the impact of ICT in the society, and the role of ICT in employment and self-productivity. The possible challenges of academic libraries towards the use of ICT were identified and suggestions were postulated, after which conclusion was drawn.

High rate of adoption and the use of Information and Communication Technology (ICT) has resulted in the globalization of information and knowledge resources. However, Information and Communication Technology (ICT) have really transformed library and information services globally. The internet has provided universal access to information, while the technological innovation has dramatically increased the rate of conversion of knowledge, information and data into electronic format. Developments in the software arena have generated powerful knowledge management software which has transformed the way knowledge is organized, stored, accessed and retrieved (Tam & Robertson, 2002: 2).

The digital revolution driven by ICT innovation has transformed most academic libraries fundamentally. It has impacted on every sphere of academic library activities e.g. the form of the library, collection development strategies, library buildings and consortia (Wood and Walter, 2000: 173). The use of Information and Communication Technologies in academic libraries, have changed the library in a profound way. Computers and networked electronic resources have become an integral part of the academic library in the past decade. This has been underscored by the phenomenon of knowledge or information common in academic library, which refers to the specific environment in the libraries where a designated number of computers networked to

Academic Excellence

databases and other e-resources are made available to students (Bailin & Grafstein, 2005: 2).

Nevertheless, every sphere of the academic library is being affected by ICT quite radically. No longer is the library the untouchable custodian of information. It's custodian, has been reduced to that of being one of many information providers (Cheng, 2001: 32). Of all the information and communication technologies, the internet and particularly the 'world wide web' with it's graphical user interface, has had the greatest impact on the information revolution (Duff, 2003: 6). To this, libraries through the information they provide, make conscious effort to re-engineer the use of ICT in academic institutions, this can be done, by providing full access to information to their users, for employment and self productivity. The impact is that the use of ICT in these libraries, have changed the way information is gathered, organized and disseminated.

The concept Information and Communications Technologies (ICT), means technologies that enable the society to create, collect, consolidate, manage and process information in multimedia and various digital formats for different purposes i.e. computing and telecommunications technologies. Like the personal computer, CD-ROM, cable TV, cellular phones and the internet. Adeyoyin (2005: 2), cited Bayode who defined "Information and Communication Technology (ICT) as the acquisition, processing, storage, and dissemination of information by means of computers and other telecommunication equipment".

The Wikipedia Free Internet Encyclopedia defines "Information Technology (IT) or Information and Communication Technology (ICT)" as the "technology required for information processing in particular, the use of electronic computers and computer software to convert, store, protect, process, transmit, and retrieve information". The curriculum needs to be redesigned or enriched in order to be self productive.

Self-productive means for one to rely on ones own effort or abilities to make something. This is also the ability for an individual to have something doing.

To reengineer our educational system, means that the curriculum must be seriously considered first, because in the formal educational process, the curriculum occupies a unique position.

This is why the curriculum can be seen as the totality of learning experiences and opportunities planned for the learner under the guidance of the school. Ojerinde (1998) says that the curriculum derives much of its content from those cherished elements of the culture, which must be transmitted. It can be said that culture, curriculum and education are interrelated, and mutually interdependent.

How ICT can be Re-engineered in Academic Libraries

Every sphere of the academic library is being affected by ICT quite radically. No longer is the library the untouchable custodian of information. It is being shaken to its very foundation. The academic libraries traditional role of being the information custodian has been reduced to that of being one of many information providers (Cheng, 2001: 32). Of all the Information and Communication Technologies, the internet and particularly the World Wide Web (www) with it's graphical user interface, has had the greatest impact on the information revolution (Duff, 2003: 6).

Information or the number of electronic resources available on the internet is growing at a phenomenal rate. These electronic resources are being redesigned to meet up with the trend of events. For instance, in 1996, one of the major search engines Alta Vista was reported to index up to 30 million web pages, then by 1998, the number of the web pages indexed by this search engine has moved up to 90 million web pages. This update continues with the trend of event (Waldhart, Miller and Chan, 2000: 2).

Farrow (1997: 320) opined that the widespread publicity has lead to the assumptions that the internet will meet all user information needs and there will be no need for professional librarian intervention in future between user and information resources. While Moyo (2002: 2) stated that students expectations that al their research needs will be met online are on the increase. Not only do students expect to find the information they need online, they also expect it to be available in full text. With this notion, the academic libraries, work on the Information and Communication Technology facilities to meet up with these challenges.

However, most academic librarians have a good understanding of the tremendous value of printed and electronic resources available to students. But nevertheless, academic library users have a preference for web resources rather than visiting the library. While Moyo (2004: 2) in Smith (2005: 14) observed that there are some expectations of the academic library users. Among them are:

- ✓ All library resources should be available in full text and be printable.
- ✓ The library services should be fast, and easily accessible.
- ✓ The virtual reference services should always be available at all times.
- ✓ They wish to do all library transactions online.
- ✓ The need for an updated web resources and web search engine.

It is obvious that these users, are more convenient with the digital access, which is the internet. This preference for the internet, poses a challenge to move from the traditional method to the library where the users do not have to come physically to make use of the service.

Smith (2005) outlined some advantages of the electronic access.

- ✓ Multiple access – this means that, more than one user can access resources simultaneously.
- ✓ Lots of resources are available in full text.

Academic Excellence

- ✓ Users can access resources from anywhere, and at all times – 24/7 access.
- ✓ Fast and quick access of resources
- ✓ Easy retrieval of information.
- ✓ Provision of large information.

The Impact of ICT to the Society

Developments in ICT have brought about the merger of the computing, information communications, entertainment and mass media industries thereby providing a means of exchanging information anytime, anywhere in the digital format used by computers (David, 2001).

This technological convergence has brought about an enormous impact on the way we live, work, think and play. These changes are quite prevalent in our everyday lives such as the use of e-mail and cellular phones at home and in the working places and also linked to all facets of society business, education, military, recreation, transportation, communication, scientific exploration, knowledge management etc.

The Role of ICT in Employment and Self-Productivity

With the use of ICT, there is easy access to knowledge and information. They come through research with the use of ICT in libraries and other places. This in turn, helps in the economic sector. Because in industries and government parastatals, there are knowledge in increased production and availability of more powerful ICT hardware and software.

ICT also brings about the provision of more efficient national and global information infrastructures for more efficient access and delivering of information. Moreso, there is increased production and publication of multimedia digital information, which has resulted to more innovative and useful applications of technology in the corporate world and as consumer products.

When ICT is re-engineered, it will help to reduce the level of poverty to some certain degree due to the creation of employment for the students and graduates. For instance, Healthcote (2000) in Ekwueme (2011) opined that, ICT can be used to create employment, in terms of small business centres, such as typesetting and desktop publishing. It can also be used to create jobs for young graduates who may want to become computer literate. This is because with the computer as a type of ICT in the library, users can have access to programme packages in the computer like Microsoft Word or works, Word Perfect, Adobe Page Maker etc which will give them the awareness on the importance of computer to create employment.

The ICT if re-engineered, the computer will aid in helping some people to make their daily bread through repairing mobile phones, television sets, DVD and CD players. For instance, Ekwueme (2010) stated that a recent survey in Kano metropolis of Kano state, where it was discovered that, there was a location in a place called Farm

Re-engineering Information and...

Center set out for GSM repairs and sales. There, they have above 300 spots where GSMs are repaired and sold by youths. This aforementioned opportunities provided by ICT, are already helping in eradicating poverty and hunger among the youth, and creating employment for the unemployed.

Challenges of ICT

Due to the fact that libraries are faced with challenges, they tend not to carry out their functional activities with the use of ICT, among these challenges are:

Lack of ICT Facilities Some libraries are not well networked because they lack ICT facilities; this makes them to lack access to global information.

Insufficient Funding of the Libraries No library can discharge their duty without adequate funding. However, this problem still persists despite National Commission for Colleges of Education (NCCE) (1994) guidelines for running academic libraries. The guideline, states that libraries shall be allocated minimum of 10% of the parent institutions yearly recurrent expenditure”. However, most institutions have not really met this minimum requirement of funding. Therefore, this inadequate funding makes it almost impossible for academic libraries to meet the standard as contained in the guideline for running libraries. To this end, libraries should either embrace the new technology or risk being efficient, ineffective and irrelevant in the new dispensation of quest for fast delivery of information required.

Lack of Technological Facilities The lack of sufficient fund has lead to lack of ICT facilities, and this has in turn affected the pace of electronic connectivity in academic libraries in Nigeria.

Uninterrupted Power Supply Most academic libraries are faced with challenges of power supply, mostly because of poor funding from their parent institution, this in turn has made it difficult for ICT to effectively operate in academic libraries.

Others are lack of training and retraining of librarians in ICT skills. The lack of skilled manpower has really hindered the operation in some academic libraries.

Suggestions

There is need for sufficient fund to be given by parent institutions to academic libraries, so that they will be able to purchase enough facilities in their libraries.

There is need to provide uninterrupted power supply by government and their parent institutions. This will help the libraries to function well.

There is need for training and retraining of skilled manpower, who will be able to man the ICT facilities in the academic libraries.

There is need for the users to be educated on how to use the ICT facilities. This will help to facilitate it's usage and help to create employment through the knowledge they will acquire. To this end, the government can organize capacity training for the student and lecturers in these higher/tertiary institutions.

Conclusion

Due to the emergence of these powerful technologies vast amount of information in multimedia and other digital formats have emerged, with more technologically proficient users. The widening “digital gap” means that libraries and librarians are faced with the challenges of dealing with the information revolution. As such, librarians must have the knowledge, skills and tools for handling information to be efficient information providers.

When ICT services are re-engineered in the library, it will be more functional to provide the knowledge that will be able to make an individual to be employed and self-productive, thereby making the national economy functional.

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