

University libraries in a changing environment: experiences and the way forward in the new e-learning environment in Zimbabwe

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Abstract

The paper looks at the reasons prompting academic librarians to embrace e-learning and the benefits that can be derived from using electronic information services. The authors came up with some suggestions that academic librarians can positively participate in e-learning by providing and advocating for the use of electronic books and journals, promoting the open access initiative, imparting information literacy skills, providing selective dissemination of information and document delivery services and establishing and promoting the use of institutional repositories. The paper ends by giving recommendations on how society can get ahead with e-learning by involving academic librarians in the development nexus.

Keywords

Academic libraries, open access, information literacy, electronic information services, institutional repositories

Preamble

Libraries have been functioning as repositories of books and other printed materials. At the same time, learning has been centred on printed sources of information particularly the book. The major factors triggering such a phenomenon include printed materials' browsability, portability; ease of use and of course easier storage.

The paper outlines how the emergence of various media and technologies such as the computer and its auxiliary devices such as compact diskettes and

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the Internet have brought in a new dimension through which information could be stored, retrieved and accessed.

The million-dollar question has been that these new media technologies that have emerged have a capability to be used and are in fact being used as information storage and dissemination media; so can the book and other print media be ignored? If yes, then what happens to the libraries and librarians? Does it mean the imminent closure of libraries and loss of jobs to librarians?

Background

Academic libraries have traditionally been structured to effectively facilitate the access, use and storage of mostly static, print-based research collections. In the midst of sweeping change, university libraries are attempting to re-imagine services, embrace emerging technologies, reallocate resources and provide proactive leadership in a new digital knowledge society.

Further, the provision of scholarly information is undergoing well-documented change, affecting libraries, publishers and researchers. The current paper-based systems in which libraries acquire resources, is increasingly becoming difficult for university libraries to support and sustain (Woodward, et al, 1997:159). Given the converging forces acting on libraries, there is little likelihood that academic libraries can remain in their current form. Academic libraries are moving steadily towards a new paradigm of scholarly communication because of a number of changes in the higher education sector which have exerted pressure upon the traditional role of the academic library.

Paradigm shift

The global electronic village where power and wealth are increasingly measured by how much access one has to information and by one's ability to obtain and use that information effectively has tended to trigger the move towards electronic information (Eastman & Iyer, 2004: 209). Taking an ordinary example, one can cite electronic commerce as an ideal case; buying

and selling is fast becoming Internet-based or rather network-based. It is from this angle that the 'electronic approach' to daily activities is spreading out to engulf other sectors of the society that include education.

Technology-supported learning has also drawn the attention of librarians to this effect. The teaching and learning environment is gradually moving away from the so-called 'talk-and-chalk' phenomenon to such an extent that teaching is becoming computer-based. Furthermore, the growing numbers of academic publications has prompted librarians to consider going the electronic way (Woodward, et al, 1997:160). A considerable number of publications are being produced, some of them electronically such that librarians simply have to embrace this new phenomenon than resisting it.

Of late, there has been a growth in non-traditional students, for example mature students and part-time students who have different needs and expectations from the eighteen year old school leaver (Liu, 2006: 583). These new groups of library users have completely different information searching behaviour as some of them, especially postgraduates who have shown keen interest in Internet-based research. Such a new development has drawn the attention of librarians particularly those who tend to put emphasis on library users' information behaviour.

Information famine in all forms (oral, audio-visual, printed and electronic) cannot be overemphasized (INASP, 2002). The shortage of information in some circles has been rescued by the emergence of electronic information. More and more information is becoming readily available in electronic format making it more ideal for librarians to simply incorporate it in their collections for their clientele. Availability of some information on open access has made the entire electronic information services provision playing field much more exciting since open access has facilitated the availability of information at relatively cheaper rates.

Library space

As print collections have continued to grow and students' enrolments going up, academic libraries' physical space has continued to worry library managers. Academic libraries are faced with the need to provide services to an increasing number of students, and to cope with huge rise in the cost of books and periodicals. The increasing difficulty in subscribing to core journals caused by price increases and the need to create more shelving space in the Library play a significant role in this paradigm shift as well (Woodward, et al, 1997:160). Provision of research information electronically is a positive development because the majority of the information can be accessed in the library itself, offices, students' halls of residence and even at home.

Media

Through electronic information services, the end user has a choice of either accessing the electronic information from its remote location, download and save on a computer or some auxiliary device or even print it. These features have made electronic information services fit well in the e-learning environment. Again, the choice to download, read and/or print articles as either portable document format (PDF) or hypertext markup language (HTML) format is an excellent development. For instance, PDF documents have a print equivalent appearance and when printed, they appear as a copy of the original document whereas documents in HTML format are faster to download and relatively easier to browse through.

Budgetary constraints

The continued dwindling budgetary allocations for university libraries and unprecedented increase in the cost of books and other print resources as well as their unavailability in local bookstores has prompted academic libraries to go the electronic information services way. This has further been necessitated by the change in the learning environment in which electronic resources have tended to take a centre stage. The possibility of cutting costs of purchasing library reading materials by subscribing to electronic information services providers and the availability of some of the information on open access

prompted this paradigm shift.

Furthermore, some electronic journals can be subscribed to as a consortium making it possible for libraries to cut costs significantly. As an example, the Zimbabwe University Libraries Consortium (ZULC) has been subscribing to electronic journal databases available through the Programme for the Enhancement of Research Information (PERI). Talking of the year 2007, ZULC members managed to have access to over 19,500 electronic journals available through the PERI initiative (Tevera & Mlambo, 2007:44). For 2008, each ZULC member paid US\$5,524 whereas annual subscription to one of the most popular journal titles with library patrons at Africa University cost about US\$695.

Some experiences

Electronic journals and books

Upon realizing that print materials alone cannot suffice the information needs of their clientele, academic librarians have gone further to acquire access rights to electronic journals and books. Most of the electronic journal databases are available through Electronic Information for Libraries (EIFL) and the International Network for the Availability of Scientific Publications' (INASP) PERI. These initiatives seek to promote access to research information at low cost or subsidized rates to developing countries (INASP, 2008). The following are just few examples of journal databases available through PERI:

- (i) EBSCO;
- (ii) Emerald;
- (iii) Wiley-Blackwell;
- (iv) Gale Cengage Learning;
- (v) Cambridge Journals Online;
- (vi) Oxford Journals Online;
- (vii) Sage Publications;
- (viii) Institute of Physics; and,

(ix) Taylor and Francis.

Furthermore, Cornell University together with the World Health organization (WHO), Food and Agricultural Organization of the United Nations and United Nations Environment Programme (UNEP) have been spearheading the provision of information on environmental sciences, health sciences and agricultural sciences through the following electronic journal databases:

- OARE;
- AGORA;
- HINARI; and,
- LANTEEAL (AGORA, 2008).

Renowned publishers such as Cambridge University Press and Blackwell have facilitated the availability of some of the books they publish electronically either on CD-ROM or online to libraries. Another notable advantage of the electronic journals has been the availability of online early editions of the print equivalent articles.

Open Access

Some electronic journals and books are available on open access to libraries especially those in Africa and the rest of the developing world. Typical examples that come to mind include the Directory of Open Access to Journals (DOAJ), available at <http://www.doaj.org/>, and the African Digital Library (ADL) available at <http://www.africaeducation.org/adl/>. DOAJ provides open access to journals online to any researcher worldwide whereas ADL provides access to electronic books to registered users in Africa. The greatest advantage of open access is that once one has access to the Internet then he or she can have access to the required research information.

Selective dissemination of information (SDI)

In this information age, some people are suffering from lack of information whilst others are affected by the so called information overload. However, academic librarians, and indeed other librarians, can chip in and offer great assistance in alleviating these challenges. One practical example is through

selective dissemination of information (SDI). SDI is whereby the librarian acts as an intermediary who searches and retrieves information on behalf of the client. In this case, the librarian's role is to retrieve information that is specifically needed by the client. SDI may also include repackaging the information into a format that is preferred by the end user.

Document delivery service

Closely related to SDI is the concept of document delivery. Through participating in document delivery services, academic libraries can outsource research information they do not have in their holdings. Currently, Zimbabwe university libraries are benefitting greatly through the document delivery service offered by African Journals Online (AJOL), available at: <http://www.ajol.info>. AJOL facilitates online searching on its website to find out any articles of interest. Once identified, say after reading through the abstract, the researcher or the librarian on behalf of his or her clients can then request the full text article. The full text article is then sent either as an email attachment, by post or fax. However, AJOL's article requests are a maximum of three articles per researcher per month. AJOL does not send articles published in the same country as the recipient, the reason being that it is presumed to be easy for the recipient to get the article since it is published within the same country. As an example a lecturer at the University of Zimbabwe is not expected to request for an article in the Southern African Journal of Science and Technology (SAJEST) published by Bindura University of Science Education in Zimbabwe as well.

Institutional repositories

There has risen a relatively new approach to archiving and providing research information in university libraries in the developing world especially in Africa known as the institutional repository (IR). Others refer the same the institutional repository as the digital library. A digital library can be defined as "a library in which a significant proportion of the resources are available in machine-readable format (as opposed to print or microform), accessible by means of computers" (Dictionary.com, 2006). The roles of an IR include

storing and providing access to research information especially on intranet. The information available includes articles by the university's researchers and scholars. Such articles could include pre- and post-prints of journal articles, conference papers, conference proceedings, research reports, seminar papers, newspaper and magazine articles, books, departmental technical reports or working papers, past examination papers, theses and dissertations (Tevera & Mlambo, 2007:44). IRs' major advantages include the promotion of scholarly publishing among researchers and making research information easily accessible. IRs can also be used as an information repackaging tool. Since they are internally managed, IRs present lesser challenges with regards to Internet congestion. Software packages such as DSpace and Greenstone are being used to develop and manage IRs. DSpace is being used at the University of Zimbabwe whilst Greenstone is being used at the National University of Science and Technology (NUST) and Africa University (AU). Both DSpace and Greenstone are open source software packages.

Information literacy skills

Earlier on, it was mentioned that this current information age is characterized by both an information overload to some people and a 'hunger' for information to others. Having realized this, academic librarians have come up with what is known as information literacy skills (ILS) training. The American Library Association (2006) defined ILS as "the ability to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information". As the definition reveals, ILS plays a pivotal role in today's electronic environment by ensuring that society as a whole reaches a stage whereby each information-literate individual is able to:

- (i) Independently identify his or her information need;
- (ii) Search and locate information to cater for that need;
- (iii) Evaluate the information; and,
- (iv) Effectively and efficiently use the information in an ethical manner.

In this e-learning environment some researchers, due to unawareness, have tended to use any information they get hold of without properly evaluating it.

Some have even developed the 'copy-and-paste' tendency which is very unethical since each information source used has to be acknowledged appropriately. Through the impartation of ILS, the librarian comes up with effective ways of not only searching the information but how to use it ethically.

Conclusion and recommendations

The authors strongly feel academic libraries have a role to play in today's e-learning environment. There is also a need to emphasize the necessity of ensuring that detailed studies are done on this subject. It is also crucial to mention that authors are of the opinion that if academic librarians fail to participate in the e-learning development nexus, then they risk falling into redundancy. In other words, academic librarians ought to take a proactive stance in e-learning.

Based on the discussion above, the authors would like to make the following recommendations:

- (i) It is highly recommended that ILS becomes part of universities curricula and should be offered as a university-wide course. Librarians ought to work together with faculty in providing ILS training so as to develop an information literate society. In fact, there is need to train and adequately equip librarians with the necessary skills enabling them to participate in ILS training;
- (ii) More resources should be timely channeled towards the acquisition, development, access and management of electronic information services (EIS) in libraries. It is important to point out that considerable ground work has been done and some information and communication technology (ICT) infrastructure is now in place to set the ball rolling;
- (iii) IRs are an important concept that each academic institution should adopt for reasons earlier mentioned, that is, promoting research and alleviating bandwidth-related challenges;
- (iv) Cooperation among ICT experts, researchers, publishers and librarians is encouraged. Publishers are expected to avail more materials electronically and more importantly on open access to developing

countries. Researchers and librarians are expected to accept and changeover to these new technological requirements. A teamwork approach is highly recommended;

- (v) Universities, governments and the corporate world are encouraged to avail funding for research and development of EIS and their access;
- (vi) There is need for the improvement in bandwidth and ICT infrastructure. This would facilitate an easier and less frustrating way of accessing EIS in an e-learning environment; and,
- (vii) Publishers, researchers, librarians and the faculty must lobby for the use of EIS because this would ensure that e-learning becomes sustainable.

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