

AUTOMATION IN LIBRARIES: THE CASE OF ADEOLA ODUTOLA LAW LIBRARY

O.E.L. Eguavo

Law Librarian University of Ibadan, Ibadan.

Abstract

This paper reviewed the automation in libraries using Adeola Odutola Law Library as a case study. The processes involved in library automation were discussed as well as various stages and the factors to be considered in choosing software for information management in libraries. The stages of library automation discussed include library cataloguing system, housekeeping operations and networking, development of CD-ROM library/ products as well as internet use. The constraints encountered during the automation process were examined while the approaches used in tackling them were also discussed. Some factors were considered in choosing software for information management and services. It was thus concluded that libraries and librarians should keep a watch on the developments of automation and to choose appropriate technology depending on the needs.

Key Words: Automation, Libraries, Adeola Odutola Law Library.

Introduction

The existence of libraries is basically to provide information services and information-bearing resources to users in the fastest possible time.

Libraries create access by providing descriptors that serve as pointers to the vast universe of knowledge. It is a known fact that knowledge is not static since it grows in leaps and bounds, so also the devices for managing the vast growing knowledge. Librarians and information scientist strive to keep pace with the technology for creating access to knowledge and providing easy gateway to needed information.

The global trend now is the use of information communication technology for delivering library services.

Information and Communication Technologies (ICTs) have become inevitable with current and future social and organisational development. Libraries and information centres have been using ICT

based resources and services to satisfy the diverse information needs of their users. The role of these technologies in national development is undeniably significant. As the positive effects of ICT have continually been noted in developed countries, it has become critically important for developing countries of Africa to embrace these technologies. The United Nations Development Programme (2001: section 2.1.1) refers to ICT as a “powerful enabler of development” because of the significant impact on the economic, scientific, academic, social, political, cultural and other aspects of life. In higher education and human capacity building, there are significant patterns of change because ICT is impetus for change in traditional concepts of teaching and learning, as well as prime motivation behind the change in scholarly and professional activities.

Legal education has witnessed increasing globalization of legal resources and law libraries all over the world have extended information dissemination and management beyond traditional, institutional, national and regional boundaries. This globalization environment has made it important for law libraries to strive to improve their quality of services, on the one hand to be able to participate in educational networks and develop innovative strategies in planning and transformation of legal education, and on the other hand, to produce graduates whose workplace spans the whole world. Thus it is in this regard that library automation is significant in the attainment of legal educational goals/objectives and thus enhances efficient performance of the primary tasks of law libraries. As a result, there was need for greater infusion of ICT knowledge and skills into users and staff of law libraries to facilitate effective service delivery, as well as thorough diffusion of ICT competencies into law library staff and students.

The accelerated adoption and use of Information and Communication Technology (ICT) according to Chisenga (2004) has resulted in the globalization of information and knowledge resources. Bibliographic databases, full-text documents, and digital library collections are always available to users in automated libraries.

Law libraries have characteristics that make them very different from all other academic libraries in that it serves as a laboratory for law students, lawyers, law lecturers and other users. According to Arms (2000), a convenient argument would be that the different libraries in

sciences and law libraries and libraries in social sciences and humanities are so fundamental that automated digital libraries will never extend beyond a few specialized fields. This argument lacks depth since the distinction is a matter of timing. However, there appear to be no fundamental reason why automated libraries cannot be effective in any field where a substantial proportion of the source materials are available in digital formats. Although, there are technical and organizational problems, all these can be overcome in a matter of years of library automation.

Objectives

The objectives of this study are to:

- examine automation process in libraries
- compare library automation with conventional library services
- review automation procedure adopted in Adeola Odutola Law Library.

Literature Review

The library automation is gradually taking place in most libraries in Nigeria.

Library automation can simply be described as a means which uses computer technology to reduce routine tasks in conventional libraries.

According to Eguavoen and Adeyemi (2002), library automation is the application of modern computer technologies in carrying out library processes. Oketunji (1998) defined computerization as the use of mechanical or electronic devices to carry out operations which had been manually done. In a research conducted by Oketunji (1998), it was reported that the application of computer to library processes is now firmly established in Nigerian libraries, and that they make it possible to analyse the whole operational system of the library and aid library services as well as decision making at various levels. While justifying need for library automation more than cost-effectiveness the benefits derived by the library users become the major consideration. (Manjunath, 2007).

The introduction of automation in libraries implies that all the activities and acquisition prior to the use of computers have to be converted in order to make library services faster, efficient and effective for the benefit of the clientele. Library automation does not

imply a situation where computer programs substitute for the intellectually demanding tasks that are traditionally carried out by skilled professionals. These tasks include selection, cataloguing and indexing, seeking for information, reference services, and so on. (Salton and McGill, 1983; Manjunath, 2007)

The process of searching or locating a title is made easier as a result of library automation. Arms (2000) stated that the introduction of automated digital libraries is a continual process, much of it happening outside conventional libraries. He further explained that quality of service in automated digital libraries will not come from replicating the procedures of classical librarianship. The contrast between web search engines and conventional abstracting and indexing services or library catalogs is an illustration of this fact. The selection of which materials to index by a web search engine relies on arbitrary considerations, the indexing records are crude at best, authority control is non-existent, and the elimination of duplicates leaves much to be desired. On the other hand, web search services are strong in ways that catalogs are weak. While cataloguing is expensive, indexing the web is cheap. The leading web search engines index several hundred million web pages every month, more than the total number of MARC records that have ever been created. It is wrong to claim that conventional catalogs or indexes are superior because of their quality control, and it is equally wrong to claim that the web search services are superior because of their coverage and currency. The value to users depends on what the user wants to achieve. (Arms 2000).

Stages of Library Automation

Since a library does not have to be an economic entity, its benefits need to be examined in a different way. To appreciate the advantages, it becomes necessary to highlight the different levels of library automation. According to Manjunath (2007), library automation can be visualized at four levels; namely:

- Library cataloging system
- House keeping operations and networking
- Development of CD-ROM library / products
- E-mail system and internet

The library catalogue or index to the collection forms the base for most of the library activities such as acquisition, reference, bibliographic

service, inter-library loan and so on. The users of library card catalogue will appreciate how fast the retrieval is, search and printing in automated environment. If the same system is available in network environment, users can have simultaneous access to the same database. From the library staff point of view the cumbersome job of printing the cards and their subsequent filing gets eliminated. Also, it conserves space and saves stationary.

The next phase of the automation is to use software which can handle the entire house keeping operations of the library such as acquisition, circulation and serial control thus creating a network within the library or becoming part of the existing network of the institution. Networking of computers within an organization helps the users to browse the cataloguing system from any of the workstation/ terminal.

A very handy technology available for library is the CD-ROM products which can be considered at the third level. The development of CD-ROM collection not only conserves space but also provides multi-user access in network environment. There are many self-tutorial CD-ROMS available with multi-media effect. The incidence of mutilation of library materials will reduce drastically with availability of CD ROM. Hence libraries with high incidence of mutilation of materials will benefit from such electronic products. Also people doing empirical research can download data and directly take it to other software platform for analysis and making graphical presentation.

The e-mail system is another technology which forms part of library automation. This not only reduces the recurring expenditure but it is also effective and fast. Sending reminders for non-receipt of journals by e-mail has proved to be very cost-effective. In addition to this, sharing of resources among libraries becomes easy. Few public domain e-mail software are available and there will be no additional expenditure incurred.

Manjunath (2007) stated that the development of internet has revolutionized the information world. Subscribers of internet, in addition to getting access to various public domain databases and services, will also get free e-mail and fax facility. Some publishers have started giving content pages of journals and libraries having subscription to such journals can also have full text of the articles. Many academic and research institutes have given free access to their working papers.

Automated libraries will provide users with equivalent services that are fundamentally different in the way that they are delivered. For example, within the foreseeable future, computer programs are unlikely to be much good at applying the Anglo American Cataloguing Rules to monographs. But cataloguing rules are a means to an end, not the end itself. They exist to provide services to users, notably information discovery.

Automatic methods for information discovery may not need traditional cataloguing rules. The criterion for evaluating the new methods is whether the users find what the information that they require.

Brief History of Adeola Odutola Law Library

Adeola Odutola law library is an arm of Kenneth Dike Library, University of Ibadan, Nigeria. The Law Library, like other faculty libraries at the University of Ibadan houses a selective but basic level and balanced academic materials collection sufficient to support curricular offerings and foster an appreciation of the roles of subject disciplines in students' socio-cultural and intellectual development and preparation to use knowledge in productive careers as determined by the faculty mission, goals and objectives. Materials collection in the library include such resources as law dictionaries, a vast collection of law textbooks, journals and periodicals, encyclopedias, legislations, law reports-foreign and locally published, biographies, newspapers and bulletins, students' projects and dissertations and such other materials relating to law in various formats including print and electronic. Beyond the scope and content of the collection, other factors as usability and currency also determine acquisition priorities. The library is established to provide adequate information services in support of learning, teaching and research in the legal jurisdictions at the Faculty of Law, University of Ibadan. The library was named after a philanthropist - the Late Chief Adeola Odutola who donated the library building.

Change is incontrovertibly central in the growth and development of any organization. Today, the rate of change in the technology arena is frequently the driving force for change at every level of information service delivery. As an information provider, Adeola Odutola Law Library is acquiescent to recent developments and changes in its approach to information service delivery. Since change

represents a strategy to the achievement of goals, and not an end in itself, the library believes that targeted goals should represent the shared value of the institution and product of change which should be pursued with all sincerity. In pursuance of meaningful change, the need to improve the research capacity of the individual academics and the professional credibility of the faculty, and being aware of the fact that as users develop their information literacy skills and increase their reliance on the internet as a research tool, it must constantly evolve and employ new technologies for information and dissemination so as to remain relevant and attractive, the library has integrated the virtual dimensions to library and information services. Following this developments, computers and databases relevant for legal research and education were procured. This process has now led to the automation of the Adeola Odutola Law Library.

Automation in Adeola Odutola Law Library

The automation of Adeola Odutola Law Library began with the resolve of the mother library – the Kenneth Dike Library (KDL) - which started its automation in the 1980s experimenting with the serials. In 1993, KDL adopted CDS/ISIS software that was developed and distributed freely by UNESCO. The law library was part of this arrangement when its cataloguing records were being computerized. Although the software has a dynamic feature that makes it flexible and customizable which could be tailored to specific needs, according to Ola (2010) in KDL News, the enormity of KDL records made it necessary to migrate to a software with modules and integrated features. Gradually Adeola Odutola Law Library began its automation with the support of a grant from Macarthur foundation.

In addition to the software used in the processing of library materials, much hardware were procured along with other information and communication technology equipments to enable the law library keep with the global trend.

The e-Library/Virtual Section

This is a section of Adeola Odutola law library which houses electronic resources. This e-library consists of 15 computers which are connected to internet. Here electronic databases are accessible as well as electronic resources from Westlaw and LexisNexis. These are legal

materials comprising cases, law reports, journal articles, research work, judgments which cut across countries of the world. The information in these is being updated on daily basis. We have Jstor as well as other electronic databases where users are adequately informed on the most recent developments in their field of interest. Other technology which the library makes use of is the e-mail system. This not only reduces the recurring expenditure but also be effective and fast. Sending reminders for non-receipt of journals by e-mail has proved to be very cost-effective. In addition to this, sharing of resources among libraries becomes easy. Few public domain e-mail software are available and there will be no additional expenditure incurred.

Another technology which has revolutionized the information world is the development of internet. Subscribers of internet, in addition to getting access to various public domain databases and services, will also get free e-mail and fax facility. Some publishers have started giving content pages of journals and libraries having subscription to such journals can also have full text of the articles. The internet connectivity in the virtual section of the library is available to both the users and staff.

Table 1: Electronic Database

Name	Source	Type
Jstor	IP regulated	Electronic journal store accessible by user
West Law	www.ui.edu.ng/faculty/law/westlaw	Online database comprising journal, law reports, cases, judgments, statutes etc
LexisNexis	www.ui.edu.ng/faculty/law/LexisNexis	Online database comprising journal, law reports, cases, judgments, statutes etc
Justis	www.justis.com	It is a full text online for legal library
African Journals Online	http://www.ajol.info	Provides access to African published research and increases

		worldwide knowledge of indigenous scholarship
Nigerian Virtual Library	IP regulated	Provides access to local and international resources
WILSON WEB OMNIFILE	http://vnweb.hvwilsonweb.com	Full text mega edition for legal resources

Current Affairs Room

This is a multimedia unit of the library set aside for library users where there is a large television set connected to digital satellite television DSTV. This provides the library users with the opportunity to have firsthand information on current happenings in the world. Newspapers are also provided in this section of the library. It serves as a mini chartroom where library users take time to chat and discuss.

Table 1: ICT Facilities in the Library

ICT	USAGE	NUMBER
Computers	Administrative/Technical services	4
Printer	Admin/user' services	1
CD ROM	Admin/technical services	
Scanner	Admin/technical services	1
Photocopier	User' services	2
Flash Drive	Administrative/users' services	
Computers connected to internet	User information services	16
CD ROM Drive	User services	32
DSTV	User information services	2

Circulation/Reference section

The circulation section of any library is the first point of call for most library users. According to Akinyode (2010) circulation section is the nearest to the library entrance where new library users are registered. General enquiries services are rendered at the circulation section of law library. In order to maintain prompt and efficient service delivery in this section Adeola Odutola Law Library is in the process of computerizing

its Circulation/Reference Section where user's records, loan records as well as catalogue system will be managed in a locally developed database.

Major Constraints Automating Adeola Odutola Law Library

There were so many constraints encountered in the course of automating Adeola Odutola law library. Prominent among these are: inadequate supply of electricity, fear of adverse impact on employment, cost, the need to train the staff extensively and the problems associated with retrospective conversion.

The erratic nature of power supply is one major constraint encountered during the automation of Adeola Odutola law library. It adversely affected a lot of things. Staff and users find it neither difficult to work with the systems nor able to access relevant information needed for their studies and research work. As a result, request was recently made for alternative power supply to facilitate effective use of the systems in the library.

Apart from the above mentioned constraint, if the various jobs such as book acquisition, technical processing, circulation and reference service are analyzed, one can conclude that human interference is necessary at each and every step. The only area where substantial manpower can be saved is the cataloguing. The data entered at the time of ordering can be used for cataloging with some updating and this would eliminate multiple card preparation and subsequent filing. The manpower thus saved can be utilized in retrospective conversion and later on for analytical cataloguing or introducing new services. Therefore, the fear expressed by the staff regarding job loss was eliminated and there was no adverse effect on employment in Adeola Odutola Law Library as a result of automation. More hands were being solicited for to man the technical aspect of the virtual library.

In addition, there was an apprehension that the technology, both hardware and software would be expensive and unaffordable. The cost of hardware and software depends on the level of automation.

However, the problem was overcome by the Macarthur grant which was used in procuring the hardware. From the user point of view cataloguing system is most important and also forms the base for other library activities. Keeping these two points in view, it was decided that the UNESCO - developed PC based software titled 'CDS/ISIS' be used

since it is available at a very nominal price to all the libraries in developing countries.

This software which works on a simple IBM compatible PC/XT is also available on UNIX and NOVELL platform. Recently the WINDOWS version has also been released. This software can export data in ISO 2709 format and therefore at later stage if one decides to go in for some other software, data transfer poses no problem.

The in-house training for handling the software is usually provided by the developers and one can choose the software that can suit their budget. The training of library staff also depends on the level of automation. If one decides to go only for cataloguing, a minimum training of three or four week's duration will enable the librarians to develop a database and maintain it. With this basic training one can easily transfer the same data on a server/main machine in a network environment. The job becomes easy as most of the institutions have systems department with computer professionals maintaining the network.

The constraints associated with retrospective conversion of data were tackled by utilizing the manpower saved as a result of computerization of routine tasks. As mentioned earlier, the manpower saved could be utilized for retrospective conversion and later on for analytical cataloguing.

Choosing the Library Software for Adeola Odutola Law Library

As mentioned earlier, if a library wants to make a beginning; CDS/ISIS is best suited as it involves minimum investment on both hardware and software. Once a database with bibliographic details was developed, the same data will be used for circulation activities. Here the selection of software becomes crucial because CDS/ISIS can efficiently handle only the cataloguing system. The following criteria were used in selecting the right software for some other operations in the library.

The library considered the reputation of the developers of such software with a view to ascertaining whether an institution, or reputed company or few individuals. The preference is for institution and second preference is for the reputed company.

How many times the software has been revised since the time of its first launch.

The library also considered the number of parameters available for each module because the more the parameters the better the flexibility and needs no or minimum customization.

Facility to import bibliographic data available in ISO2709 format and similarly export of data in this format was considered

- The need for training and guidance after installation
- The availability on major operating systems.
- The possibility of interfacing such software with the e-mail system of the campus network.
- The feasibility to offer OPAC and different rights to different logins

Having critically examined the factors above, it was decided that CDS/ISIS be used for database management and circulation as well as OPAC. Since automation in Adeola Odutola law library is a continuous process, efforts are being made to improve on database management and networking in the circulation area of law library.

Conclusion

This paper has discussed some idea for beginners in library automation using Adeola Odutola Law Library as case study. Even though wide range of technology/products is available, it is necessary for librarians to keep a watch on the developments and to choose appropriate technology depending on the needs. Also, it is important for librarians to interact with experts in computer technologies as the library automation at all levels needs good co-ordination among librarians and the professionals.

Furthermore, libraries which are yet to be automated should do so especially in academic libraries as this will bring about improved services where the users and the library personnel will benefit maximally from the opportunities offered by information technology.

References

- Akinyode, S.A (2010), Sections/units of Kenneth Dike Library KDL News: a biannual publication of the Kenneth Dike Library, University of Ibadan, Nigeria vol.1 No.1
- Arms, William Y (2000), Automated Digital Libraries: How Effectively Can Computers Be Used for the Skilled Tasks of Professional Librarianship? D-LIB Magazine July/August vol. 6 number 7/8
- Eguavoen, O.E.L and Adeyemi, B.M. (2003), Automation in Libraries

- Retrospective Conversion Exercise. In E.C. Madu (Ed) Technology for Information Management and Services. Ibadan: Evi-Coleman publications. pp 31-40.
- Feigenbaum, Edward A. and Feldman, Julian (1963), Computers and Thought. MIT Press.
- Garfield, Eugene (1979), Citation Indexing: Its Theory and Application in Science, Technology, and Humanities. Wiley, New York,
- Herbert Van de Sompel and Hotchstenbach, P (1999), Reference linking in a hybrid library environment, part 1: frameworks for linking; D-Lib Magazine. <http://www.dlib.org/dlib/april99/van_de_sompel/04van_de_sompelpt1.html>http://www.dlib.org/dlib/april99/van_de_sompel/04van_de_sompel-pt2.html (Accessed 2010, April 8th)
- Licklider, J. C. R. (1965), Libraries of the Future. MIT Press
- Manjunath G.K. (2007), Library automation: Why and How
- Oketunji, I. (1998), Managing a computerized cataloguing department. Paper presented at the National Library Association (NLA), Cataloguing and Classification section, 18th annual national seminar/workshop on automation in the 21st century. (Unpublished).
- Ola, C.O. (2010), the development of virtual integrated library system software for managing library resources in University of Ibadan. KDL News: a biannual publication of the Kenneth Dike Library, University of Ibadan, Nigeria vol.1 No.1
- Salton, Gerald and McGill, Michael J. (1983), Introduction to modern information retrieval, McGraw-Hill.