

## Impact of Library Automation in Nigerian Universities

Luqman Ayanlola Atanda

*Federal University Otuoke, Library Department, Yenagoa, Bayelsa State, Nigeria.*

*\*Corresponding Authors: Luqman Ayanlola Atanda, Federal University Otuoke, Library Department, Yenagoa, Bayelsa State, Nigeria.*

### ABSTRACT

*This paper discuss about the impact of library automation in Nigerian universities. The term automation is introduced used first D.S. Harder in 1936. Harder defined automation as the handling of parts between progressive production processes. Nok (2006) observes that the success of automation in the university library depends largely on the ability of staff to facilitate and implement the process. Proper, frequent, and regular in-house information technology training is a necessity if the maximum benefit is to be gained from the automation of library services. In Nigeria universities, librarians are normally put in place of information and communication technology facilities to enhance the library automation process. And the use of automation in Nigeria University promotes the libraries in their daily routines. These encourage both librarians and clientele in the library patronage and usage.*

**Keywords:** *Automation, Library, Universities, Library Automation, Information and Communication Technology.*

### INTRODUCTION

Library Automation is the use of automatic and semi-automatic data processing machines (computer) to perform traditional library activities such as acquisition, circulation, cataloguing, reference and serial although these activities are not necessarily perform in traditional ways, the activities themselves are those traditionally associated with libraries; library automation may thus be distinguished from related fields such as information retrieval fields, automatic indexing and abstracting and automatic textual analysis. In short Library Automation means the use of computers to perform the different routines, repetitive and clerical jobs involved in the functions and services of the libraries. The term automation is introduced used first D.S. Harder in 1936. He defined it as, “the automation is handling of parts between progressive production processes”. Since then the term has been applied to a wide variety of automatic machinery and automatic systems. And is action for human efforts of intelligence. Dilroshan (1998) says that automating a library is only the first step. Keeping up with new trends in information and communication technology is also of paramount importance. If the libraries fail to meet these challenges successfully the tremendous investment that universities have made in their library collections and facilities will be seriously

undermined. Nok (2006) observes that the success of automation in the university library depends largely on the ability of staff to facilitate and implement the process. Proper, frequent, and regular in-house information technology training is a necessity if the maximum benefit is to be gained from the automation of library services. Agha (1986) observed while carrying out a survey observed that Nigeria Universities library workers are enthusiastic about and willing to use new technologies. In spite of this interest, findings on automated services in Nigerian universities by Sani and Tiamiyu (2002) revealed that the services were far from adequate and that of about 29 different automated services that one will expect from a modern university, only 40% were available and utilized. Tamuno and Ojedokun (1997) observed that once a library is computerised there are some intangible benefits that staff and students gain such as computer literacy, introduction of new services such as internet searches, online database searches, CD-ROM searches and so on.

Exposure, the methods of storage and dissemination of information are changing fast, so no library can store all published information and can provide efficient services with its old manual operations (Alabi 1984). Therefore, Automation is important and necessary to handle the vast amount of information and for

## Impact of Library Automation in Nigerian Universities

providing faster, accurate, precise, efficient, and effective information and services as well. Kadiri (2004) also stated that automation of library will address the problem of manual processing of materials with short comings of filling and typing errors, retrieval errors, time consumption and drudgery. He stated further that the advantages of library automation includes less drudgery, easy generation of records, space conservation, improvement of information services, and easy retrieval among others.

## APPLICATION OF COMPUTER IN UNIVERSITY LIBRARIES

The automation can be applied profitably in various processes of institute or university libraries. The following are the aspects of library working which can be automated.

### Library Housekeeping Operations

- Acquisition
- Classification and Classification
- Circulation
- Serial
- Reference

### Information Services

- OPAC
- Internet Services
- E-mail Services

### Library Networking

- Inter Library Networking (WAN)
- Intra Library Networking (LAN)

### Need for Library Automation

There are several reasons for automation. A considerable saving in effort, Time and resources involved in manual processing can be achieved. The other reasons are:

- To improve control over collection.
- To have an entries control over the entire operation.
- To improve the existing services as well as introduce new services.
- To avoid duplicate of work.
- To use services of the existing staff effectively.

From the library point of view automation in the library is also necessary because:

- Largely textual nature.
- Bibliographic record is of variable length.

- A field in a record may repeat many times.
- File size is usually very large.
- Updating of files is done almost every day.
- To record the date accurately, special devices are required.

### Basic Requirement of Library Automation

The following are the basic requirements for the automation of libraries through the computer:

- Adequate collection
- Financial assistance
- Computer hardware
- Library software
- Training of the staff
- Maintenance of development

### ADVANTAGES OF LIBRARY AUTOMATION

There are several advantages of Library Automation a Machine Readable Catalogue (MARC) prepared at the time of acquisition may be required respectively for number of purposes. Automation has the following advantages.

- Professional staff need not spend much time to do the routine library work.
- Eliminates human errors while performing routine library work.
- Improved control covers library collection.
- Increase computer awareness among users.
- Cataloguing is faster, instant access to non records.
- Excellent control over circulation.

### USE OF AUTOMATED LIBRARY SERVICES IN TERTIARY INSTITUTIONS

Two distinct models guide current efforts to make use of the internet in higher education. The first approach seeks to improve existing forms and structures of post secondary instructions to create "better, faster, cheaper" versions of today's courses and curricula by means of the internet as it is done through an automated library service.

This model emphasizes building an on-campus information infrastructure that provides (or will provide) high-speed internet connectivity to all students, faculty, administrators, and staff.

Faculty then can use this infrastructure to improve and supplement traditional courses and degree programs. Library holdings can be digitized and made available both on-and-off campuses.

### DEVELOPMENT OF TECHNOLOGY WITHIN UNIVERSITY LIBRARIES

University libraries are generally, the most developed libraries in Nigeria as they are the core of any university and therefore are at least minimally sustained with university funding.

The first Nigerian university library, the Yaba Higher College Library, opened in 1934 and was later transferred to University of Ibadan (UI) in 1947, where it formed the nucleus of the Ibadan University Library. Other Universities such as the University of Nigeria at Nsukka (UNN), Ahmadu Bello University (ABU) in Zaria, and Universities in Lagos and Ile-Ife developed fledgling libraries in the 1960s.

Early technological developments included the computerization of the serial holdings at University of Ibadan (UI) where they were then printed and used in a book format by 1975. By 1979, a computer-generated list of serials held by the Ahmadu Bello University (ABU) Library complex was produced. Libraries at University of Nigeria Nsukka (UNN), UI and ABU all produced computerized lists of serials in the 1970s and the Nigeria Library Association initiated a project to coordinate these automated lists, however, this was discontinued in 1984.

At ABU a circulation system was initialized in 1976, but constraints from power interruptions and machine breakdown prevented rapid progress. A Plessey microcomputer system was installed in the Lagos University Library in 1982 but because of the lack of replacement parts progress on this project was stalled. Many initial projects have been started with high hopes in Nigeria but have not been sustainable.

The Nigerian University Commission (NUC) had made plans for a network (NuNet) to provide internet connectivity and e-mail to University Libraries. A feasibility study was done in 2000 by Kensar Telecommunications at great cost, but the project has not proven to be sustainable as “the e-mail system experiences downtimes that stretch into weeks and even the NUC Headquarters has little to show for the years of effort: though the building was built with network wiring in every room and a sophisticated backbone and an emergency power supply, only a handful of computers are attached to the network and the only network service is TELNET email access”.

### LIBRARY MANAGEMENT SOFTWARE

Libraries utilize software designed to manage different library routines and processes. Most of

this software are integrated and have modules for the different activities or tasks carried out in the library like cataloguing, statistics, acquisition processes, serials control etc. Some examples of such software are CDS/ISIS, GLAS, ALICE for Windows, X-Lib, SOUL, LIBSY and SLAM. SLAM is used in the University Library FUTA and Federal University Otuoke, Bayelsa State and stands for (Strategic Library Automation Management).

### INTEGRATED LIBRARY SYSTEMS

An integrated library system (ILS) with its various modules is the core of library automation and these systems are slowly being implemented in libraries in Nigeria; most of them are in place in university or special libraries. In the late 1980s several University libraries were provided with PCs and TINLIB DOS-based software by the NUC but because of lack of training, infrastructure and human capital many attempts to implement these early systems failed.

Several other attempts at introducing early integrated systems were tried but failed because of lack of expertise or support from the companies offering the systems. Early versions of some of the early library systems such as TINLIB, CDS/ISIS or WINISIS provided by UNESCO, Bibliofile by ITS for Windows and Alice from Softlink were not very sophisticated, not always based on MARC records, had few modules and were not web-accessible. The newer generations of library systems is all web-accessible and are based on MARC records and inter-operability.

Examples of these systems are Millennium from III, Virtua from VTLIS, Liberty/Alice from Softlink and Koha, an open-source system developed by Katipo in New Zealand. Retrospective conversion from the less sophisticated non-MARC systems to the next generation of MARC based catalogs has posed problems and libraries should be encouraged to begin with a system which offers standard international formats which can easily be upgraded and converted and which are compatible with other integrated library systems which are being used in Nigeria.

One recent automation project that deserves special mention is the Carnegie/MacArthur funded implementation of integrated library systems for six of the larger government universities in Nigeria (ABU, BUK, OAU, UI, the University of Jos (UNIJOS), and the University of Port Harcourt (UNIPORT). These

## Impact of Library Automation in Nigerian Universities

university libraries are all in the process of implementing VTLS's Virtua integrated Library system with the assistance of training from the Mortenson Center at the University of Illinois. They have signed an initial agreement for 5 years of support from VTLS and have Nigerian support provided by Olayinka Fatoki at UI. When these systems go live in 2010 they will provide national knowledge bases regarding ICT use in libraries in Nigeria for others to learn from.

### CONSTRAINTS ON THE IMPLEMENTATION OF ICT IN UNIVERSITY LIBRARIES

There are many constraints to any kind of development in Nigeria. It is not an easy environment in which to move ahead for the following reasons which have hindered efforts to computerize library services in Nigeria.

#### Erratic Power Supply and an Inadequate National Power Grid.

The consequences of this problem cannot be overemphasized. Lack of available and affordable electric power is holding back economic development and crippling the country. This is a difficult problem to address, as a solution depends on governmental action, but in order to move ahead now libraries need to make arrangements for generators and back-up power so that servers can be run on a continual basis; the only way that information and communication technologies can be fully utilized in Nigeria in 2010.

Erratic power supply can also result in the burning of some electronic components which cannot easily be replaced.

#### Low Bandwidth and Internet Connectivity Problems.

The lack of affordable Internet service providers and their inability to provide wide bandwidth and strong connectivity means that even if a library were ready to connect to the Internet super-highway they might not be able to count on enough bandwidth to effectively access and download the online resources. Internet service providers are not as numerous or reliable as the demand requires and the bandwidth is often narrow and the connections generally slow.

#### Lack of Trained Personnel for Sustainable Capacity Building.

Trained personnel are essential for any implementation of ICT to take place and be effectively sustained. There is a need to build on a framework of a well-trained information

technology workforce. It is not enough to have trainers visit and give superficial training at great cost and then fly out without leaving some back-up capacity on the ground. Personnel problems can result from the sudden departure of the university computing expert as Alabi witnessed when an expert who had been handling a project on behalf of the university library left and was not replaced, causing a lack of continuity in the project; and lack of library personnel to understudy and follow the automation project to its conclusion.

#### Limited Financial Resources

The lack of adequate funding is a very critical problem for all libraries. University libraries are often not getting the percentage of the University budget that NUC and other agencies mandate and so they are not able to carry out their ICT plans. The funding of print-based libraries requires funding but supporting digital or virtual libraries requires even more funding since they require the purchase and replacement of software, electronic databases and equipment as well as generators and fuel, VSATs and ISP fees in order to operate.

#### Lack of Co-operative Ventures

Cooperation and resource sharing is also crucially important as a way forward in times of economic constraints. NULIB (Nigerian Universities Library Consortium), a subcommittee of the Committee of University Librarians (CULNU), has worked to offer opportunities for the reduced purchase of electronic databases to Nigerian libraries. This is the kind of effort that needs to be strengthened in order for all libraries to move ahead in the quest to offer affordable new digital products to their own clientele.

### CONCLUSION

The application of automation to library services delivery of the Nigeria Universities still has room for improvement, thereby making its impact limited. Several problems were identified for this condition—inadequate funding; insufficient facilities and constant power failure; among others; hindering the maximization of its expected benefits. Aramide and Bolarinwa (2010) corroborated the prevalence of these problems at the National Open University of Nigeria (NOUN), Ibadan Study Centre where they found that “the major constraints hindering the use of audiovisual and electronic resources include poor power supply, poor infrastructure, and lack of adequate skill, high cost, and unavailability”.

### RECOMMENDATIONS

- Provision of funds on a regular basis. The mandatory 10% of the budgetary allocation of the University set aside for the University Library should be so disbursed and monitored for judicious utilization. If this is realized, the Library Management should make automation top on its priority list and pursued conscientiously and to a logical and beneficial end.
- There should be provision for alternative power supply by having a dedicated generating plant for the library use to offset the adverse effects of constant power outage that has come to stay in Nigeria. This is especially important because of the total dependence of the IT use on electric power supply.
- Students also need to be trained on how to use these facilities towards achieving academic excellence. This may be through continuous orientation and the inclusion of such courses like: Use of computer for Information retrieval, Use of Internet/world wide web and IT applications.

### REFERENCES

- [1] Aramide, K.A. and Bolarin, O.M. (2010). Availability and Use of Audiovisual and Electronic Resources by Distance Learning Students in Nigerian Universities: a Case Study of National Open University of Nigeria (NOUN), Ibadan Study Centre. *Library Philosophy and Practice*. Available at : <http://unllib.unl.edu/LPP/aramide.htm>. Retrieved July 7 2010.
- [2] Dilroshan, T.L. Chrishantha (1998). Identification of problems faced by university libraries in The process of automation: with special reference to the libraries of Moratuwa and Colombo Universities. *Sri-Lanka Journal of Librarianship and Information Management* Vol. 1, No.2
- [3] Nok, Grace (2006). The challenges of computerizing a University Library in Nigeria: The case of Kashim Ibrahim Library, Ahmadu Bello University, Zaria. *Library Philosophy and Practice (e-journal)*, Vol.2 No. 8 pp. 6 Available: <http://digitalcommonsunl.edu/cgi=1078&context=libphiiprac.pdf>
- [4] Otunla, A.O. and Akanmu-Adeyemo E.A. (2010). Library Automation in Nigeria: The Bowen
- [5] University Experience. *Afr.J. Lib, Arch. & Inf. Sc.* Vol. 20. No2 (2010) 93-102.
- [6] Rajput P.S. and Gautam J.N. (2010). Automation and problems in their implementation: An
- [7] Investigation of special libraries Indore, India. *International Journal of Library and Information Science* Vol. 2(7) pp. 143-147
- [8] Shahaji S. Waghmode and Shri Giri Vikram Vithal. *EPRINT Library Automation*.

**Citation:** Luqman Ayanlola Atanda. "Impact of Library Automation in Nigerian Universities." *Research Journal of Library and Information Science*, 2(4), pp.21-25

**Copyright:** © 2018 Luqman Ayanlola Atanda. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.