

17

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# A Survey of Librarians' Attitudes to Training Programmes on ICT Application to Cataloguing and Classification Workshops in Nigeria

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## Abstract

*A survey of 84 participants at the Cataloguing, Classification and Indexing Group of the Nigeria Library Association workshop in 2004 was carried out with a view to determining the impact of the annual workshop on the application of information and communications technologies (ICT) to cataloguing and classification in Nigerian libraries. The work covered 43 libraries – universities, polytechnics, colleges of education, research institutes and ministries/parastatals/agencies which cut across the 6 geopolitical zones of Nigeria (North-East, North-West, North-Central, South-West, South-East and South-South):- The data analysed showed that the workshops organised in recent years had spurred the action of the participants at those workshops to further pursue ICT (78%). The findings also revealed that the workshops have had positive impact on the participants with respect to the application of ICT to cataloguing and classification. Recommendations for libraries that intend to computerise their catalogues were proffered.*

## Introduction

Cataloguing practice is as old as librarianship. As commerce is the lifeblood of any given nation, cataloguing is the foundation on which entire library system rests and depends upon. Adeyemi (2001) sees cataloguing and classification as intellectual pillar on which the practice of the library profession rests, as well as constituting the scientific basis for librarians' claim to professionalism. Without cataloguing and classification, the goal of making materials and information available would have been difficult to accomplish. Taylor et al. (1992) define catalogue as an organised set of bibliographic records that represent the holdings of a particular collection. Increasingly, however, a catalogue represents the holdings of more than one library, as libraries form consortiums and link their catalogues for the purpose of inter-library sharing. The importance of information and communications technologies (ICTs) cannot be over emphasised in the organisation of information so there is a need for libraries to computerise their services, especially information retrieval tools such as catalogues.

Librarians in Nigeria are in the race of shifting from traditional methods of information representation to the machines types while others are still maintaining the old practice. Adedeji (2001) is of the view that technological application in Nigerian libraries since 1960 to date was and is still largely mechanical. Several scholars such as Chapman (1994), Ola (2002) Egberongbe (1999, 2003), Sonaike (2001), Adedeji (2001), Tiamiyu, et.al. (2002) and Adeyemi (2001) have made clarion calls to librarians to eliminate apathy and develop interest in the use of information technologies in their libraries. They highlighted the gains in the use of information technology to include the following:



- High storage information capacity
- Flexibility in data manipulation
- Very high operational speed
- Economies of scale, that is, cost-effectiveness in service delivery
- Time-saving device
- Easy retrieval and errors reduced
- Eradicate tedious task of filing
- Catalogue records are now made with more accuracy, quickness in compilation and reproduction of records.
- Shelf list limitations is being taken over by OPAC
- Records can be networked.

### Statement of the Problem

The adoption of information technologies in Nigerian libraries is still at infant level. The practice of manual cataloguing, classification, and indexing and other retrieval systems are still maintained. This old method of information representation is time-consuming and subject to perennial backlogs and errors in card production and filing. Their effectiveness as retrieval tools is also problematic. In the light of this, there is a need for a better alternative to curb the shortcomings of the manual practices in Nigerian libraries.

This study, therefore, explores the workshops/conferences/seminars organised by the Cataloguing, Classification and Indexing Section of Nigerian Library Association in recent years, in the area of information and communication technologies and the impact the activities have had on the participants of the workshops (the cataloguers).

### Objectives of the Study

The study was carried out to:

- know whether these workshops on ICT helped in one way or the other in improving the understanding of Nigerian cataloguers and other information specialists of the field of ICT.
- find out whether their libraries have commenced computerisation drives.
- investigate the degree of the mastery of the software installed for library operations in their libraries.
- identify factors militating against the effective computerisation of their libraries.

### An Overview of Cataloguing, Classification and Indexing Section of the Nigerian Library Association

Cataloguing, Classification and Indexing section (CCI) is a technically oriented group of the Nigerian Library Association which was inaugurated in 1972 at the University of Ibadan. It comprises of cataloguers and other librarians that are involved in the art of organisation of knowledge in libraries. CCI was established due to the technical nature of librarianship, and the need for an arm of the Nigerian Library Association to organise workshops and conferences to train and retrain cataloguers, information specialists and teachers/librarians nationwide with a view to advancing their techniques of organisation of knowledge (Lasisi, 1999, 2001). This body (CCI) has over the years concentrated its efforts in the area of information technologies, treating various themes and sub-themes ranging from computer appreciation, computer maintenance, software and hardware choice parameters for cataloguing in Nigerian libraries, to retrospective conversion of cataloguing records (RCC). Practical training on some software (CDS/ISIS, TINLIB, XLib, Notepad, Catalog/Epsed) are also covered. Table 1 below shows the workshops and titles and sub-themes held between 1998 and 2004.

Some highlights of the issues discussed at these workshops are summarised and reviewed below.

### Retrospective Conversion of Catalogues

The presenters in these workshops agreed that one of the major hurdles to be faced in the library was retrospective conversion of catalogues (RCC). The RCC implies transfer of the old catalogue records of the library to the machine readable format (MARC). This is a great challenge for Nigerian libraries. Ola (2001) and Adio (2003) declare that RCC requires a thorough planning and patience, and that while planning for this exercise, the following should be borne in mind:

- Availability of competent staff to handle the project
- Availability of funds
- Weighing different options – the use of consultancy versus internal arrangement
- Management should be responsible for monitoring the progress made
- The need to consider equipment and supplies.

**Table 1: Workshops and Titles and Sub-Themes**

Year	Place	Title	Sub-themes
October 1998	Ilorin (Kwara State)	Automation in the 21st Century: The Role of Cataloguers	<ul style="list-style-type: none"> <li>*Managing computers in catalogue records</li> <li>*Assessing application software for cataloguing</li> <li>*The continuing relevance of AACR 2 in automation</li> <li>*Retrospective conversion</li> </ul>
October 1999	Jos (Plateau State)	Coping with New Information Technologies in Libraries in the Next Millennium	<ul style="list-style-type: none"> <li>*Computerisation of library functions (planning implementation &amp; management)</li> <li>*Choosing appropriate software for cataloguing</li> <li>*Strategies for retrospective conversion of catalogue entries</li> <li>*The year 2000 Bug: implications</li> </ul>
May 2000	Ikeja (Lagos State)	Cataloguing and Classification Practical Workshop on UNESCO Micro CDS/ISIS	
October 2000	Enugu (Enugu State)	Information Explosion and Challenges of Packaging in the New Millennium	
October 2001	Akure (Ondo State)	Software Choice Parameters for Cataloguing in Nigerian Libraries	<ul style="list-style-type: none"> <li>*General choice parameters for library automation software</li> <li>*Hardware requirements and networking of library application software</li> <li>*Sustainability of library automation project</li> <li>*Education of librarians in an electronically-oriented society</li> </ul>
October 2002	Benin (Edo State)	Sustainability of Library Automation Projects: The Way Forward	<ul style="list-style-type: none"> <li>*Computerisation of library operations – necessary considerations</li> <li>*Staff training needs: pre/post computerisation</li> <li>*Hardware requirement/returning and peripherals</li> <li>*Choice of library application software and their sustainability</li> </ul>
October 2003	Ilorin (Kwara State)	Current Trends in Technical Services: the Role of ICT	<ul style="list-style-type: none"> <li>*The impact of software integration on acquisitions and cataloguing in an automated library</li> <li>*Handling of government publications</li> <li>*Creation and utilisation of web-based library catalogue</li> <li>*System configuration for libraries</li> </ul>
October 2004	Lokoja (Kogi State)	Strategies for Managing Technical Services in Libraries and information Centres	<ul style="list-style-type: none"> <li>*Library resources development and the role of ICT</li> <li>*subject cataloguing and computerisation: current trends</li> <li>*Basics of computers and computing</li> <li>*Home made classification for government documents</li> <li>*CDS/ISIS practical.</li> </ul>

**Software Choice Parameters**

There are a few number of library software that are available in the Nigerian market. Popular among them are the TINLIB, X-Lib, GLAS, Micro-CDS/ISIS, Q Series, Oracle, Cardbox Plus, Paradox, D

Base, Microsoft Access, Fox Base and Alice for Windows. Nkhoma (2003) listed those ones in Southern Africa to Include Erudite Information System, Stylis and In Magic. Therefore, before any choice is made, the librarian needs to perform an



evaluation based on some parameters suggested by Faniran (2001), Oketunji (2001), Omotosho (2001) and others. These are:

1. Supplies: Whether it is dedicated (i.e. dealing with library software only) or portfolio (dealing with several products).
2. Origin of the system: a library-designed software is likely to do better than a system that has to be customised.
3. User Interface (menu driven/ command by function key)
4. Integration: If the consideration is for modular system, then integration of the software is very important.
5. Parameterisation: That is, the options provided to configure the system in order to meet the operational requirement.

#### **Mastery of Library and other Software**

Cataloguers need to have knowledge in general computing and be proficient in the library software introduced into the library. They should be able to accomplish the following tasks, (Adeyemi, 2001).

- Turn on the computer and call up the cataloguing worksheet
- Complete the fields using all facilities
- Verify/revise the information as the case may be
- Store the record and proceed to input others
- Print where necessary according to pre-determined format resident on the computer
- Log off the system.

The major software includes:

- TINLIB (The Information Navigator Library Management) software is an application software, a product of Electronic Online Systems International Ltd, London.

#### **The Strengths**

- Has structured fields
- It is a third generation-software system available for single user, multi-user and networking environment
- It is highly flexible in design with only hardware limitations
- It runs on virtually all types and sizes of IBMPC compatible hardware
- Tinlib comes in versions. Thus, it is revised.

X-LIB software was completed in 1996 and installed on the network of the Raw Materials Research and Development Council, Nigeria's Network.

#### **The Strengths**

- The fields are structured
- The software has four modules (Acquisition, Catalogue, Circulation and Enquiries/ Reports)
- It is user-friendly, i.e. Windows-based
- Has network capacity
- Has provision for photographs and sound recordings.

CDS/ISIS software. The Computerised Documentation System/Integrated Set of Information System (CDS/ISIS) was developed in 1985 to meet the needs of many institutions especially in developing countries. Giampaolo Del Bigio of UNESCO was the brain behind the CDS/ISIS.

#### **The Strengths**

- This software is menu-driven.
- Flexible and can be customised to meet the in-house needs of any given library
- It is revised periodically
- Has networking capability.

CDS/ISIS is distributed free of charge by UNESCO.

#### **Networking**

Egberongbe (2003) sees the technical service workstation as "evolving technology primarily concerned with networking of computers capable of advanced editing, inputting, with features customised for technical services and able to access and manipulate data in online catalogues and other pertinent resources file both local and remote." With effective networking in place, cataloguers can move in and out of various operations, thereby providing ease of access to the computed information resources of that particular Local Area Network (LAN) and Wide Area Network (WAN).

Ola (2002) encourages cataloguers to be more result-oriented and focused on networking so as to ease the sharing of bibliographic records through the electronic form. He advocates for Online National Bibliographic Network (ONBN) in Nigeria. This strategy will boost online access to international



databases like Online Catalogue Library of Congress (OCLC). Jagboro (2003) and Oketunji (2001) point out that libraries can access Telnet, worldwide web (wwwaccess) and 239.50.

## Methodology

One hundred and thirty two copies of the questionnaire designed for this study were distributed among the 132 cataloguing librarians information specialists that attended the October 2004 workshop held in Lokoja, Kogi State. The participants came from across the six geo-political zones of Nigeria (North-East, North-West, North-Central, South-West, South-East and South-South). The participants were drawn from 43 libraries of universities (Federal/state/private), polytechnics, colleges of education, research institutes and ministries/parastatals/ across the country. The distribution of the questionnaire was as follows: universities (40) (responses rate 87.5%); polytechnics (20) (responses rate 90%); colleges of education 20 (responses rate 80%); research Institutes 10 (responses rate 80%), and the ministries/ parastatals/ agencies 10 (responses rate 70%), 84 responses were received overall.

## Findings and Discussions

The study evaluated the impact the previous workshops, seminars as well as conferences had on the cataloguing librarians and other information specialists in the areas of information and communication technologies between 1998 and 2004. The sex distribution of the respondents showed that the females were 50%, the male were 47.6% response while 2.4% did not indicate. Furthermore, the age distribution indicated that those between the ages of 20-40 years constituted 55.9%. This group of employees fell within the highly most active age bracket and were likely to be able bodied, agile and might be more determined to pursue their careers as well as blending it effectively with ICT. Other age group (41-49 years) constituted 34.5%. This group, on the other hand, might have a lot of responsibilities and therefore were not well prepared to pursue adequately the use of information technologies. For the age group (20-40), there is a likelihood that librarians and other information specialists in this group might see the race for computerisation as a must and therefore likely to act as champions for the realisation of computerisation drives in the libraries

studied if other favourable conditions were put in place.

Of the 84 respondents, 51% of them declared that they attended the workshops regularly, whilst 22.6% of them had not been attending regularly. Others maintained an indifferent position. Most of the respondents (82%) agreed that the workshops held in recent years helped to improve their understanding of ICT as a means of improving library service, while 4.7% of them disagreed, 8.3% strongly disagreed and 4.7% maintained an indifferent position. Sequel to the perceived roles the workshops/seminars/conferences played in promoting knowledge in the field of librarianship, 73.8% of the cataloguing librarians were of the view that they should be allowed to attend the workshop every year, 23.8% preferred once in 2 years, whilst an insignificant proportion of them, 2.4%, said once in 3 years. Library managers need to consider this seriously.

## Training

Training and re-training in the field of ICT is very necessary to allow librarians keep abreast of newly emerging technologies. From the analysis, 66 respondents (78.6%) indicated that the workshops had spurred them into taking further training in the area of ICT, 15.5% said their actions were not spurred, while 5.9% maintained an indifferent position. The data gathered indicate that there are spill-over effects of the workshops on the cataloguers in their respective libraries. Many of the librarians (59.6%) affirmed that they had been organising in-house workshops in their libraries for all ranks and file, while some (20%) were, however, yet to organise any seminars/workshops.

Organising ICT-oriented workshops for all the categories of library staff is very paramount for the smooth take-off of the computerisation venture. This will pave the way for mutual understanding and promote a sense of belonging among the lower cadre of staff. In other words, the exercise should be all inclusive and/or non-exclusive.

## Software

Software is the term used, in contrast to hardware, to describe all programs that are used in a particular computer installation (French 1996). Therefore this research surveyed the software in use in Nigerian libraries. As earlier mentioned there are quite a number of library software in the Nigerian market,



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amongst which are X-Lib, GLAS, TINLIB, In Magic, Alice for Windows, ITS, Micro-CDS/ISIS (distributed freely by UNESCO), etc. The findings show that CDS/IS/IS was most used software in Nigerian libraries (44%), followed by TINLIB (33%). X-Lib on the other hand recorded 18%, whilst other software accounted for 3.7%. The distributions are demonstrated in the pie-chart (Fig. 1).

The research investigated the possible problems being encountered in using software in libraries. It appears that the type of software interface in use may create problems where the know-how is inadequate. For instance, a command-driven interface requires the following from the user:

- a knowledge of what commands are available and what they do;
  - the rules governing how the commands should be typed; and
  - extensive knowledge of computer operation, with such a person operating at a level of a computer operator/programmer, or someone who has continually worked with similar programs and has gained the mastery of the commands.
- To make commands friendly the following need to be observed (French 1996):
- The command words used should be VERBS, e.g. DELETE, COPY, PRINT
  - The format should observe a simple and consistent set of rules, e.g. PRINT report 1, PRINT report 2, PRINT report 3.
  - Unique abbreviations should be provided for more experienced users, e.g. PRI, COP, DEL

Menu driven interfaces on the other hand provide users with options and means of selecting between them. The interface is most convenient and suitable for beginners. Therefore, for effective navigation, a menu-driven option is necessary to avoid the difficulties faced in the use of command driven interfaces. Results show that 77.7% of the software being used in the libraries used was menu-driven software, whilst 18.3% continued with commands-driven interfaces.

### Mastery of the Software Installed

The study also attempted to find out the number of cataloguers who had attended the workshops that could perform the whole or part of the operations, including: turn on the computer, call up the cataloguing worksheet, complete all the fields, verify/edit data

Fig. 1: Software Distribution Based on their Use

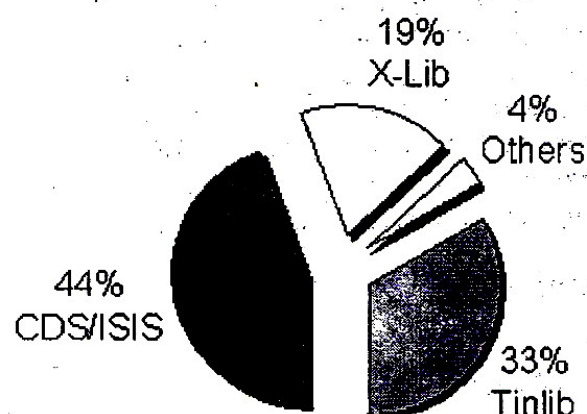


Table 2: Respondents' Mastery of the Operations of Installed Computer

Operation	Frequency	Proportion of Respondents (%)
Can effectively turn on the computer	60	71
Can log off the system	58	69
Can search the information stored	50	59
Can call up the cataloguing worksheet	48	57
Can display information keyed in	48	57
Can back up data into floppy disk	45	53
Can print where necessary	43	51
Can complete all the fields	42	50
Can verify/revise/edit data keyed in	40	47

N = 84



keyed in, print, search information, back up data and log off the program. The responses are displayed in table 2.

Table 2 shows that 71% of the cataloguers surveyed could effectively turn on the system, 57% could get to the template and 50% were able to complete all the fields in the computer worksheet. Additionally, 47% were able to verify and edit data keyed in, 57% could display records from the database, whilst 51% could print. Also, 53% could back up records in the system and 69% were able to log off the program.

### Internet Connectivity

Now that the whole world is being bridged through the Internet, the libraries that are connected have very much to gain in terms of access and provision of online information. The study went further to establish the number of libraries studied that were connected to the Internet. This study shows that only 14% of the libraries were connected, with 4.7% having their catalogue records online. Others were yet to do so.

The study investigated the factors militating against the computerisation of cataloguing the libraries studied. There were quite a number of problems encountered by the cataloguing librarians. Table 3 summarises the problems.

Majority of the respondents (62%) were of the view that there was inadequate supply of micro-computers (PCs) in their libraries. Another distinguishable problem was the management's lukewarm attitude which 61% of the respondents identified. These were followed by poor

telecommunication facilities that impede networking/Internet connectivity (59%), inadequate supply of electricity (56%). Cost of maintaining the software and hardware was mentioned as a problem by 54% of the respondents, followed by training received by cataloguers is not enough to master all the intricacies of the installed software (52%).

Finally, the study investigated solutions to these problems. One of the suggested solutions made in previous workshops was that libraries should form users group as an avenue for solving problems as they arise. Alas! Only four percent of the respondents believed that libraries had acted positively in this direction. While most libraries were yet to explore this avenue, 19% of the libraries studied made use of consultants, while 37% relied on cooperation from sister libraries to solve their teething software problems. Also, 44% of them preferred in-house brainstorming on technical issues.

### Conclusion

This study has revealed the efforts which the Cataloguing, Classification and Indexing Section of the Nigerian Library Association has been making towards a shift by Nigerian libraries from manual practices to electronic library operations. The study has emphasised the need for the technical staff of Nigerian libraries to cultivate and develop in the area of information and communication technologies, software choice parameters used in procuring software and the level of mastery of installed software.

The results of the data analysis clearly show that

**Table 3: Identified Problems Encountered in Cataloguing Automation**

Problems	Frequency	Proportion of Respondents (%)
Inadequate supply of micro computers	52	62
Managements indifferent attitude	51	61
Poor telecommunication facilities	50	59
Inadequate supply of electricity	47	56
Cost of maintaining the software/hardware is enormous	46	54
Training received is not enough to master all the intricacies of the system	44	52
Apathy on the part of the librarians	40	47
Available computers are obsolete	20	24



the workshops organised between 1995 and 2004 had spurred the actions of the participants to further pursue ICT application in their libraries (78.7%). Secondly, out of the 84 respondents, 54 declared that their libraries had joined the race for computerisation. Also, more than 50% of the respondents had mastered and can effectively work on computers. But only 14% of the libraries had their catalogue records online. Some of the identified problems were the enormity of cost of maintaining software and hardware, inadequate supply of micro-computers and in some cases, obsolescence of the available computers. Others include: inadequacy of training received, managements' indifferent attitude, apathy on the part of librarians, the epileptic electricity supply and poor telecommunication facilities. To combat these teething problems, some strategies were evolved, such as, cooperation with fellow libraries, use of consultants and internal arrangements.

## Recommendations

Appropriate steps and procedures in the selection and procurement of the software to be used in a library are highly desirable. The choice must be carefully made so as to avoid running into trouble with the management of such institution. It is expected that the earlier discussed choice parameters be followed. Dedicated and menu-driven software is desirable. Additionally, chosen software should be amenable to integration with other library operations.

When the choice of a software is to be made, it is advisable that a library pays visits to neighbouring libraries which use similar software to study its operation for a period of time in order to have thorough knowledge of the intricacies of the software – techniques for installation, input and its functions, facilities for editing/verifying and displaying records. Others include the printing of records, and how to backup and merge records.

Furthermore, it is recommended that in-house training be carried out for all levels of staff to get them acquainted with new software. Consultants or other experts in the field can be hired to organise training programmes.

Similarly, library managers should support their cataloguers to regularly attend the annual workshop of the Cataloguing Classification and Indexing Section of the Library Association of Nigeria. It is a forum

where experts are brought together and experiences discussed and shared.

Finally, libraries need to form users' groups an avenue for solving their technical problems. This strategy should be employed to complement internal arrangements and the use of outside consultants.

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