INFORMATION AND COMMUNICATION TECHNOLOGY: A PANACEA FOR EFFECTIVE TECHNICAL SERVICES IN NIGERIA ACADEMIC LIBRARIES

Aina, A. J.
Fatiu Ademola Akesode Library
Lagos State University, Ojo, Lagos, Nigeria
E-mail: adebowale.aina@yahoo.com
Aiyegunle, S. A.
Adeniran Ogunsanya College of Educatio
Oto Ijanikin, Lagos. Nigeria
Ogunbgo, W. O.
Fatiu Ademola Akesode Library
Lagos State University, Ojo, Lagos, Nigeria
E-mail: adebowale.aina@yahoo.com
Aribatise, H. O.
Nigeria Army School of Administration and Finance
Apapa Lagos Nigeria
E-mail: Lara_2003@yahoo.com

ABSTRACT

This study investigated the effectiveness of information and communication technology (ICT) as a panacea for effective technical services in Nigeria academic libraries. ICTs when carefully employed and executed served as an integral part and measure of effectiveness of library services. The study was restricted to the four selected higher institutions technical service department of academic libraries in Lagos State of Nigeria. A total of 100 respondents (librarians) were used as sample for the purpose of this study. Data were collected through 18 items questionnaire of which were developed based on planned behavioural objectives adopted. The findings revealed that significant difference exists between factors influencing libraries' choice of ICTs deployment facilities, its usefulness and problems hindering the effectiveness of ICT deployment for technical services. It was therefore recommended that cataloguers in Nigeria academics libraries should adopt the use of ICTs deployable facilities and hence implement by combining ICTs as strategy with manual technical services procedure, in effect technical services will be further enhanced.

Keywords: Information communication, effectiveness, panacea, technical services, academic libraries

INTRODUCTION

The evolving information and knowledge-based economy has resulted in a climate of transition and change especially in academic libraries around the world, including Nigeria as universities, polytechnics and colleges make the transformation to learning organizations. Academic libraries as constituent of their larger parent organizations are rethinking and exploring new ways to reposition themselves in the campus environment in view of higher expectations of their various stakeholders.

Pervasiveness of information technology, increased availability and focus on electronic resources and services, and the need to become learning and research centers to support a wide range of educational initiatives become imperative for any library that worth its salt should strive to alien with at this age of information explosion.

This phenomenon has been made possible by the emergence of Information and Communication Technology (ICTs) especially computer and its associated devices. The computer technologies improve the mode of doing research, publishing, processing, storing, retrieving and discriminating large quantity of information Krusner-Khant (2007). The main goal of any library and librarian is to make users have quick access to information. Hence, such information must be well organized. This is where cataloguers, classifiers and indexers come in and provide positive roles. The advent of ICT into library services has now revolutionized the way technical services are being carried out in libraries. Websiter's New Collegiate Dictionary (1976) defines automation as "the technique of making an apparatus, a processes or a system to operate automatically. According to Burgstahler (2009) automation is the application of computer to library house keeping operations and services this is why Hays (2005) identifies four fundamental incentives of automation in any organization or information center to includes; cost reduction, service improvement, performance effectiveness, and bandwagon.

According to Aina, Aiyegunle and Akindoju (2008) the term library automation is used interchangeable with terms such as electronic library, library without walls, virtual library and digital library as the conflicting and overlapping concepts used to describe the integration of the new information technology in the library services. The use of digital technologies to acquire, process, store, preserve and provide access to information and material originally published in the digital form or digitized from existing print audio-visual or other forms is inevitable for any library that worth its-salt can ignored. The introduction of computers in handling data and information has actually revolutionized access to information all over the world.

CATALOGING AND CLASSIFICATION

When we talk about technical services, we usually refer to activities and services going on in some library departments such as cataloging and classification, acquisition and serials. However, library collections dated back to the Alexander library. Since then cataloging and classification have gone through many stages. These operations have always form significant parts of library operations and services. Cataloging and classification goals are to enable users locate library resources quickly. This is important because the main purpose of any library is to provide access to information in all its forms and format and to provide multi-channel assistance to users in locating specific pieces of that information.

At the initial stage: The operations in cataloging department were very simple

because all items had unique information. They were few and few identifying elements sufficed to distinguish objects in a collection. What were required then were inventory lists and simple access points were sufficient for distinguishing and finding information in small collections. Works were organized by subjects, with alphabetical listing, which typically did not go well. In the middle age: What was obtained was list of brief titles with authors, which serves as inventory record with self-arrangement. On other hand, early classification was according to the use of the documents and various classification schemes have been used and still being used to classify library materials.

Table 1: The chronology of activities, document and scheme in cataloging and classification

YEAR	ACTIVITIES
1389	First cataloguers that listed call number and indicator of fixed location
1400	Advent of printing press and multiple copies emerged a need for edition
1800	Publication of Charles Gutter Rules for printing dictionary catalogue
1876	Invention of the Dewey Decimal Classification scheme (DDC)
1901	Invention OF Library of Congress (LC) Classification scheme
1905	Also, the invention of Universal Decimal Classification (UDC)
1908	First international cataloging code created by British and American
1931	The vertical code came out
1935	Invention of the Bliss Bibliography Classification (BBC)
1967	The Anglo American Cataloging Rules came out (AACR)
1978	The (AACR2) came into operation with principles of non-book materials, machine process of Bibliography etc.

Other tools used in cataloging department are subject heading such as library of Congress subject headings (SEARS) and Medical Subject Heading (MESH) and Thesauri. All the operations and services in the cataloging department were carried out completely by manually until the advent of library automation with card catalogue as the end product of the various documents, of this operation.

ICT AND TECHNICAL SERVICE DEPARTMENT

Technical services materials are not just document, schemes and subject heading as prescribed above, according to Idowu (2009), there are vast enabling, technologies deployed, using Hyper Text Markup Language (HTML), Extensible Markup Language (XML), Cascading Styles Sheets (CSS) and web scripting languages such as java script, responsive bandwith, virtual library services and digital resources over the internet which depends on good and responsive network operating system running on web server computers. Computing facilities in the technical services department must be appropriate, the Hardware and Software adequate and the bandwith must be accommodating looking at the population of users. Carefully planning, well thought-out investment considerations are all it takes to have a good technical services ICT deployment. Burgstahlar (2009) offers the following advice "seek high level support within the library organization" and build on the expertise and experience of others. The application of (ICTs) or library automation did not come over night. It was a long process, libraries exist for many centuries without

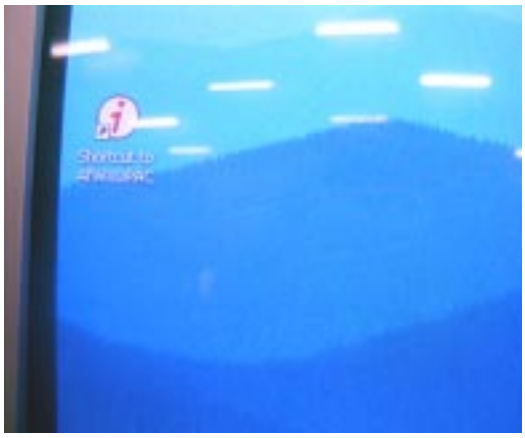
automation, but as technology emerged in the world at large, libraries embraced these tools as a means to avoid of the menial tasks inherent to the large amount of cataloging data available due to the cataloguing of the same publications in the thousands of libraries, the repetitive nature of cataloging, and the desirability of having consistent cataloging information in all libraries combined to make cataloging the first operation for the application of computer and its associated devices. According to Ajibero (2003) many developments assisted the application of ICTs to technical services these includes:

- The development of the Machine Readable Cataloging (MARA) format in the 1960s by the library of congress made it technically possible for libraries to device and preserves cataloging copy using computer technology, does create an international standardization for bibliographic description.
- The development of Online Computer Library Center (OCLC) data base containing nearly 40 million unique records, and consistency includes 26, participate libraries in 64 countries spread all over the world has also played a signification role in that it contains almost all works that have been published that all participating libraries now derive their cataloging information directly from the Database.
- The Research Library Group (RLG) is another large bibliography utility that has substantial international membership and a databased that - Others are Research Libraries Information Network (RLIN), Western Library Network (WLN) University of Toronto Library Automation System (UTLAS) and recently the Online Public Access Catalogue (OPAC)

ONLINE PUBLIC ACCESS CATALOGUE (OPAC)

Below are the steps towards library online public access catalogue (OPAC)

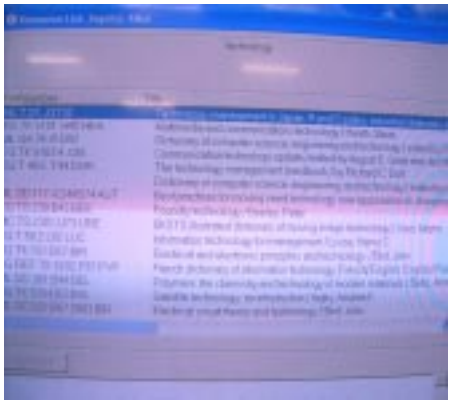
STEP 1:
- On the desktop you will find an icon AfwXOPAC
- Double click the icon you have on your screen.



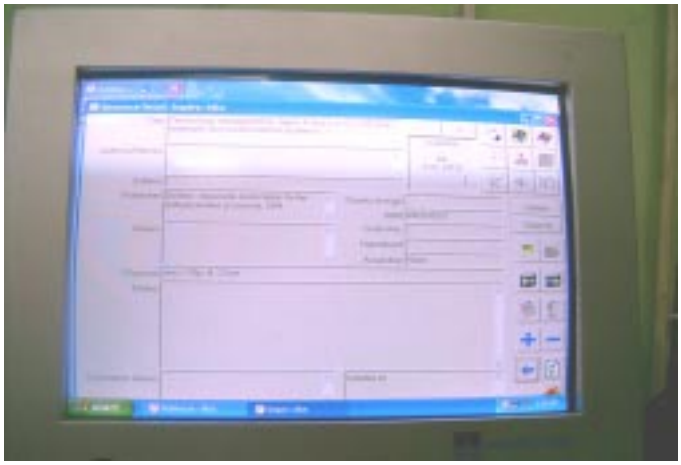
STEP 2: You have this page which says: welcome to Lagos State University Library - Nigeria. Type a terminology (E.g. technology) where the icon is blinking, Press the enter key.

STEP 3: You have various options to scroll and choose from but one will be highlighted.

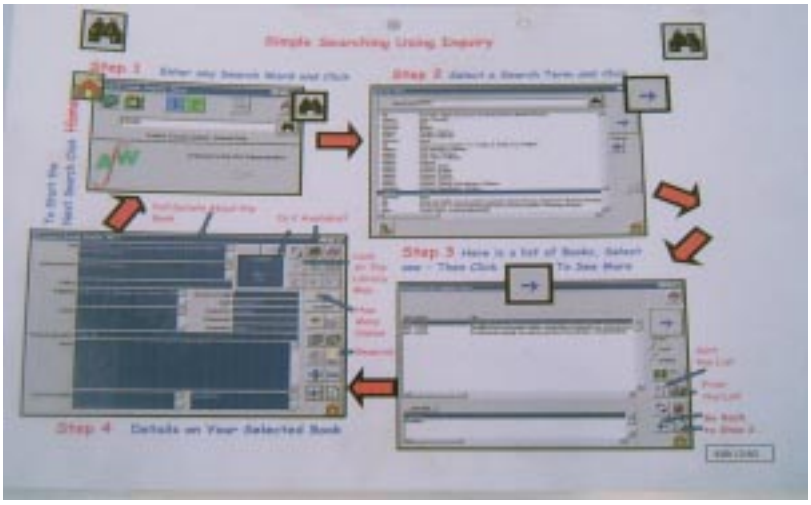
STEP 4: If you press enter key again, you will have more detailed information about the titles of books in the library which discuss the word highlighted



STEP 5: Press the enter key again & you have more information about the location of the book title you click on-e.g. call mark, availability and details about the publication, author, publisher, title, number of pages, & year of publication with the ISBN number.



A simple four step processing gives you details of your selected book



LIBRARY DATABASE

- Provision of Collection of all the materials acquired in the library is online
- The Library is on a functional Local Area Network with server located in the Library Management Information Service room.

However, cataloguer can now find high percentage of the titles waiting cataloging in some database. Online access to the database makes it possible to know whether a particular library has an item, and suggested call number also the ICT have made it possible for libraries to catalogue online and modify the cataloguing as necessary for local requirements. With all these access to cataloging data online, very little original cataloging is done in libraries especially in the developed countries.

Majority of people consider ICTs in cataloguing and classification to be unimportant and have no relevance, it is considered to be frivolous and a kind of accidental accomplishment. It is customary to assume that ICT has a relatively minor role in accomplishment of work in the technical services department. These feelings are wrong, because in all academic organization of higher learning, patrons often request for online services. Even some librarians do not only sort the net nor learn new skill but also engaged in online cataloguing and classification using library software. Thus everyone knows about library automation because of its integration for global library services trends for on-line catalogue, indexes and data including full text electronic resources through connection to local, regional and global networks and by securing materials for numerous users. The emerging concepts, technology and strategies are to enhance the library information services delivery to numerous users, e-learners and widely distance patrons all over the world. In line with these purpose of the study, technical service supposed to be full of activities. Using computers and its associate devices will promote effective technical services; increase the student interest and participation in the library.

The researcher recognizes other techniques used in presenting information, principles and skills in processing library materials. The inefficient application of ICTs skills to library services is a problem in technical service department and librarians especially cataloguers who have not been introduced to this area of processing technique. The peculiar circumstance that prevails in the use of ICT for technical services can make cataloguing and classification process easy, faster and reduce the backlogs experienced in most libraries. In an attempt to solve this problem, the following hypotheses were formulated:

1. Factor influencing cataloguer's choice of ICTs devices will not significantly affect its cataloguing and classification strategy for effective library services
2. The usefulness of ICT as strategy for technical service will not have any significant impact on cataloguing and classification for effective service delivery at this century.
3. There is no significant effect between the problems hindering the effectiveness of ICTs deployment devices and its choice of use as cataloguing and classification tools.

METHODOLOGY

The study is a survey aimed at cataloguers' use of ICTs in technical services department. The population of the study consist of all the cataloguers in all the academic libraries in Lagos State. Purposive random sampling technique was used in selecting four academic libraries from higher institutions in Lagos State. A total of 120 respondents (30 respondents per school) comprising male and female were selected from the four higher institutions and administered questionniare which was made up of 18 items. A four points likert scale rating was used to get the respondents' opinion. The validation and reliability of the instrument was achieved by expert examination, criticism and correction while simple frequency count and chi-square

tool were used for data analysis.The distribution of the respondent samples in each academic library is as tabulated below:

Name of school	No of Librarians
Lagos State University (LASU), Ojo Lagos	30
Nigerian Army School of Finance and Administration (NASFA). Apapa, Lagos	30
Yaba College of Technology (YABATECH)	30
Adeniran Ogunsanya College of Education (AOCOED) Oto Ijanikin Lagos	30
Total	120

RESULTS AND DISCUSSION

Based on the analysis, it was discovered on Table 1 that at 15 degree of freedom and 15% level of significance, that is X^2 table value that this, T X^2cal. Therefore, the null hypothesis which states that "inadequacy of factors that influence technical staff choice of ICTs devices will not have any significant effect on" "technical services delivery and processes" is hereby rejected. The reasons for this could have ranged from factors highlighted on table one i.e. credibility of manufacturer, ease of use, availability, users friendly, cost of purchase or production and ability of the ICTs devices to meet the objective of the study. This is in line with the view of Hays, (2005) which states that the onus of the use of ICTs devices such as computers and its associate devices rests on the library management to support in the ICT device deployment and training through adequate funding, human and material resources for technical services department.

On table 2, it was discovered that at 15 degree of freedom and 5% of significance, X^2cal was greater than X^2tab, therefore, the null hypothesis was rejected. This in effect revealed that usefulness of ICT devices has a significant effect on technical services department reason for this could have been the level of its usefulness vis-à-vis time taken to process, catalogue, edit process work, and provide OPAC, increases efficiency, elimination of uninteresting and repetitive concept, quality of service delivery, contribution to the objective of the department, and its effectiveness in term of accuracy, time and usefulness among others. This in effect helps the cataloguers to achieve the mastery of the ICTs devices for effective technical services.

It was evident from the finding on table 3 that there is a significant effect on problem hindering the effectiveness of ICTs deployment to technical services department. This is evident as the X^2cal was greater than X^2tab value. The reasons for the rejection of the hypothesis could have range from and between inadequate personnel services in schools, inadequate training facilities, poor attitude of staff and learners to training, high cost of ICTs devices, and lack of supports from the management of libraries. This may be as a result that, ICTs has been implemented into some library technical service department. Hence, the cataloguer had not know its significant, many cataloguers are said to be incapable of assisting students to

perceive clearly a picture of the world of work in using ICT because users have different cataloguing style coupled with the above inadequacy levels.

CONCLUSION AND RECOMMENDATIONS

Going by the data presented and discussions made on the analysed data, it can be concluded that factor influencing the use of library ICT as strategies to improve library services and operations indicated a significant difference between the variables tested for the study as they were all rejected based on the analysis of data presented for the study.

Based on the findings of this study when cataloguers therefore adopt the use of ICTs for technical services, he/she must first write the behavioural objective to be achieved, then plan the design phase and procedure, with this, cataloguers will be able to think well ahead of the services to be rendered and plan, design a simple if possible look for credible vendor and hence implement by combining ICTs devices as strategy with manual technical services procedure, in effect technical services will be further enhanced.

Table 1: Chi-Square Analysis of Hypothesis 1 - Factors influencing cataloguer's choice of ICT devices will not significantly affect technical services delivery and processes.

Factors Influencing ICT	SA	A	SD	D	N	Df	S1	X^2Cal	X^2tab
Credibility of the manufacturer.	2	2	66	30	100				
Ease of use of the ICTs devices	3	2	61	34	100				
Availability of the devices	4	6	60	30	100				
It is users friendly	3	5	72	20	100				
Cost of the ICTs devices	4	10	64	22	100				
Ability to meet the objectives	5	6	70	19	100				
Total	**21**	**31**	**393**	**155**	**600**	**15**	**.05**	**24.21**	**25.00**

Source: Survey 2009

Table 2: Chi-Square Analysis of Hypothesis 2: The usefulness of ICT as strategy for technical service will not have any significant impact on cataloguing and classification.

Usefulness of ICT	SA	A	SD	D	N	Df	S1	X2Cal	X2tab
It takes shorter time to study and understand ICTs devices.	64	60	2	4	100				
It increases efficiency	60	34	3	3	100				
It eliminates uninteresting and repetitive cataloguing process.	57	30	3	10	100				
It promotes good quality of technical service delivery.	70	20	3	7	100				
It contributes to the objectivefor which the department was set up.	60	30	4	6	100				
It has proved effective in terms of accuracy, timeless and usefulness.	71	20	4	5	100				
Total	**382**	**164**	**19**	**35**	**600**	**15**	**0.05**	**50.34**	**25.00**

Source: Survey 2009

Table 3: Chi-Square Analysis of Hypothesis 3: There is no significant effect between the problems hindering the effectiveness of ICTs deployment devices and its choice of use.

Problems hindering ICT	**SA**	**A**	**SD**	**D**	**N**	**Df**	**S1**	**X^2Cal**	**X^2tab**
Inadequate personnel services	70	1	1	1	100				
Poor attitude of users of training	75	23	1	1	100				
High cost of ICTs devices, design and maintenance	80	17	1	2	100				
Insufficient knowledge of users to the use of ICTs devices	40	20	30	10	100				
Lack of support from the school management		70	26	1	1	100			
Inadequate training facilities	72	26	1	1	100				
Total	**407**	**140**	**35**	**18**	**600**	**15**	**0.05**	**164.7**	**25.00**

Source: Survey 2009

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