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# **RETROSPECTIVE CATALOGUE CONVERSION IN SELECTED FEDERAL UNIVERSITY LIBRARIES IN SOUTHERN NIGERIA**

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## **Abstract**

This study examined the process of retrospective catalogue conversion (RCC) in selected federal university libraries in Nigeria. The specific purposes aimed identifying the resources for RCC, methods employed, competency possessed by the library staff for the process, problems associated with it and the appropriate strategies. The design of the study is descriptive survey, areas of the study were University of Nigeria, Nsukka, Enugu State, University of Lagos, Lagos State and University of Port Harcourt, Rivers State and the population consisted of 42 professional and paraprofessional librarians. Findings reveal thus: basic resources are networked computers, scanners and printers; proficiency in use of computer is the basic competency; problems include inadequate computer systems, frequent change in technology and poor internet connectivity. It recommended that Nigerian university libraries will fare better when adequate computer systems are made available, as well as training of staff, dedicated internet bandwidth among others.

**Key Words:** Database, Information and Communication Technology, Librarian, Library Catalogue, Retrospective Catalogue Conversion

## Introduction

The library catalogue is an essential tool. It is an index or a key to the collection, containing an entry representing each item (Clark, 2000). The catalogue also tells where in the library a book is located (Apotiade, 2002). However the introduction of computers into library activities has been a turning point that suggest for change from the traditional cataloguing process and output. There is need therefore for library catalogues to provide access to more content and to offer significantly enhanced functionality based on the features of popular search engines. More users want, expect, and pursue full text. In increasing numbers, they look beyond the catalogue when searching for electronic journals, databases and websites. For this reason federal university libraries in Southern Nigeria have embarked on automation starting with retrospective catalogue conversion (RCC).

The word “Retrospective indicates that the process is only for already existing records, and the meaning of the word “conversion” refers to the form and format of the record changing something from one form to another. Thus, retrospective conversion in library and information center means “changing already existing catalogue from traditional form to a machine-readable form (Dabas, 2004). Retrospective conversion according to ALA Glossary of Library and Information Science has been defined as the process of converting the database of a library holding from non-machine-readable form to machine-readable form and that are not converted during day to day process. This process in the library is executed in with some methods and steps. Dabas (2004) identified some methods of retrospective conversion as follows: a) In-House Conversion: in in-house conversion, the conversion is completed by the existing library staff that leads to high quality and control, as the staff understands the users’ needs, quality requirements, and the objectives of the conversion well; b) Outsourced In-House Conversion: in outsourced in-house conversion, the conversion is completed by outside contracted persons within the library premises; c) Outsourced Off-Site Conversion: in outsourced off-site conversion, the process is completed by an agency away from the library or information center.

Similarly, Oni (2009) also identified three main options for retrospective catalogue conversion as follows: RCC by an Outside Agency- letting an outside bureau take care of such a comprehensive task seems to be attractive to some librarians; Deriving record from External Databases- this option uses existing databases from outside the library. An example is the employment of the database of a library which has a similar collection profile. A copy of such a database can be used as a basis for one’s own data-conversion; In-house Conversion- this option is perhaps the best one available to libraries in this part of the world. More so, the following steps are adopted for retrospective conversion according to Ola (2000): Keying manually- though it is the most accurate way of getting libraries database into machine – readable form, but the process is time consuming and needs both properly trained people as well as experts supervision; Optical character recognition- this is synonymous to scanning. It requires expensive equipment and properly formatted cards. The danger involve with the use of this equipment is that just like any machine, they cannot make sensible decisions therefore records created by a scanner may not be properly indexed; Resource database: This involves a library approaching resource databases when engaging in Retrospective catalogue conversion (RCC). This system of RCC involves the matching of records through the use of International Standard Book Number (ISBN) or Library of Congress Classification Number (LCCN) or uses other bibliographic particulars as authors, titles, publication data and other data elements; Editing: This has to do with ensuring that converted records are properly edited to ensure that converted records are consistent with local practice. In the same vein, Dabas (2004) observed that the three basic steps in retrospective

conversion are filling of data input sheets/worksheets, entering data into software and editing the database. There are certain tools required to carry out this steps and methods in retrospective conversion.

For retrospective catalogue conversion to be possible, infrastructure needs to be in place. Very efficient electrical wiring that will support all the required equipment has to be in place. Power supply should always be available and reliable. A high number of computers and accessories need to be procured. Information and telecommunication gadgets, Local Area Networks (LAN), software and bandwidth are other requirements for an effective online cataloguing to be in place (Arkoful, 2007). The service of library staff is also required as a resource for RCC. These resources are expected to be handled with some level of competency.

The competencies possessed by library staff for RCC borders on ICT skills and knowledge of traditional cataloguing skills. According to Nwachukwu (2005), in the modern age of information explosion, no library can satisfy client demand with the manual library process. This he contends, is especially the case of university libraries where speed and versatility in making their bibliographic searches, as such computer skill among librarians should be seen as a valuable prerequisite that would help facilitate library computerization efforts and functions in order to meet the demand of ever-growing clients. Nicholas (1998) simply describes computer competencies as having a basic understanding of what computer is and how it can be used as a resource. Following this definition, Csapo (2001) enumerated some of the basic computer skill required in a work place as: using the computer and managing files, word processing, spreadsheet, database, internet and e-mail. Tetarte et al (cited in Manaf et al, 2009) grouped cataloguing and classification competencies as follows: Basic knowledge of cataloguing tools, Working knowledge of cataloguing tools, Library of Congress Rule interpretations, knowledge of MARC format, Library of Congress Classification, Dewey Decimal Classification, Library of Congress Subject Headings as well as Knowledge of relevant national and international cataloguing standards.

The process of RCC has some problems that pose a challenge to its success. Oketunji (cited in Okoroma, 2010) opines that the major problems that can face libraries as they become progressively involved with the use of technologies may be summarized as follows: General inadequacy in the level of relevant infrastructure, particularly Telecommunication facilities and human resources supply; A large exploitative local computer market is unsatisfactory after sales in maintenance and support; An adequate pool of relevant technical staff and problems of recruitment and retention; The potential of library staff resistance to the introduction of computer technology; The potential of user resistance and failure to adapt to the use of on-line information; The database conversion problems and Frequent changes in technology. There are minimal problems of power failure, internet downtime and slow cyber-speed. These do all act as constraints to using the online cataloguing process. However minimal the outage may be, it translates into internet downtime which in the long term affects productivity and staff output. In addition, the bandwidth of the network connection within the universities is low compared to the number of users of the network, and hence there can be a slow cyber-speed, which obviously impedes the speed at which a web page can be opened (Adeleke and Olorunsola, 2007). These challenges can be addressed with proper measures.

Gibbarelli (1996) suggested that an automation exercise should start with the acquisition of software. Supporting this assertion, Ajala (1997) opined that the most important decision in automation are the hardware and the software requirement, and which of software development and use of software packages should be adopted in the automation. Byrd et al (2006)

recommends some strategic directions cataloguing departments can cope with the changes in the library cataloguing arrangement in the following points: Form new partnerships between cataloging departments and other units, both internal and external to the libraries; Actively seek ways to utilize existing cataloguers' expertise by expanding their work in other forms of metadata and Continue to review internal cataloging operations with the goal of realizing improved efficiency. Vellucci (1998) noted that the skills and understanding of professional catalogers enables them to design and restructure bibliographic tools in response to evolving needs, and renders catalogers indispensable in the changing information environment. They should be educated to work in the digital arena. She observed that instead of being trained in a single cataloging code and format, they should be skilled in applying the appropriate metadata format to a particular situation. Other strategies that may suffice include provision of adequate fund for the RCC project, proper planning, and provision of alternative power supply and outsourcing of the project in cases when adequate expertise is not available in the library.

### **Purpose of the Study**

The study is aimed at examining the process of retrospective catalogue conversion (RCC) in selected federal university libraries in Southern Nigeria.

The specific purposes of the study are to:

1. identify the resources available for RCC in these libraries;
2. ascertain the methods employed by these libraries in RCC;
3. identify the competencies possessed by these library staff for RCC;
4. identify the problems associated with RCC in these libraries;
5. recommend strategies for effective RCC in these libraries.

### **Research Methods**

The design of the study was descriptive survey research design. The universities studied were University of Nigeria, Nsukka, University of Port Harcourt and University of Lagos. Professional and paraprofessional cataloguers working in the libraries of selected federal university libraries in Southern Nigeria constituted the population of the study. In the University of Nigeria, Nsukka library, the population is 16 with 10 professionals and 6 paraprofessionals; the University of Port Harcourt has 11 professionals and 2 paraprofessionals and the University of Lagos has 9 professional and 4 paraprofessionals. They are 42 in all. The instruments for data collection were questionnaire, interview schedule and observation checklist and data from these instruments were analyzed with mean in tables and prose narration.

### **Result**

Thirty (30) copies of questionnaire were distributed to professional cataloguers who formed the respondents in the three university libraries and twenty-six (26) copies were filled and retrieved. This shows a percentage of 86.6% which the researcher considered appropriate for use. 5 persons namely Chief Cataloguers, software experts and supervisors of retrospective conversion in the three libraries were interviewed to support the questionnaire response. DEL is abbreviation for Donald Ekong Library, University of Port Harcourt, NAL represents Nnamdi Azikiwe Library, University of Nigeria, Nsukka and UL represents University of Lagos Library.

**Table 1: Checklist results of material resources available for retrospective catalogue conversion in selected federal universities in Southern Nigeria**

S/N	Material Resources for online cataloguing	DEL		NAL		UL	
		A	NA	A	NA	A	NA
1	Stand Alone Computers	√		√		√	
2	Networked computers	√		√		√	
3	Scanners	√		√		√	
4	Digital Camera	√		√		√	
5	Printers	√		√		√	
6	Servers for internet connectivity	√		√		√	
7	Generators	√		√		√	
8	Software eg Millennium, Koha, etc	√		√		√	

**Key: Available (A) Not Available (NA)**

Table 1 above reveals from observation that the material resources required for retrospective catalogue conversion are available in the three libraries. During further investigation, it was discovered that in DEL, while networked computers, scanners, printers, and software are sufficient, materials such as standalone computers and digital cameras are not. In NAL, sufficient materials include standalone computers, networked computers, scanners and generator, but digital camera, servers and printers are not. In UL, the sufficient materials are servers, networked computers, standalone computers, printers and software, while the insufficient ones are digital cameras and scanners. In all these, the libraries share similar insufficiency in digital camera.

**Table 2: Checklist result of human resources available for retrospective catalogue conversion in the university libraries.**

S/N	Human Resources for online cataloguing	DEL		NAL		UL	
		A	NA	A	NA	A	NA
1	Professional Cataloguers	√		√		√	
2	Paraprofessional Cataloguers	√		√		√	
3	Software Experts		√	√			√
4	System Engineers	√		√			√

For the human resources, the table reveals that in DEL both professional and paraprofessional cataloguers are available as well as the system engineers, but the library has no software expert. In NAL, it was discovered that all the category of staff as checked are available but all cataloguers are sufficient among them. In UL, findings show that both category of cataloguers are available and sufficient, but the library has neither a software expert nor a system engineer. Upon further enquiry, it was found out that the duties of these latter human resources are outsourced by the library.

**Table 3: Mean score on methods employed in retrospective catalogue conversion**

S/ N	Method adopted for online cataloguing	$\bar{x}$	DEL		$\bar{x}$	NAL		$\bar{x}$	UL		O M
			Rmk	Rnk		Rmk	Rnk		Rmk	Rnk	
1	Manually keying library catalogue into MARC format	3.63	A	5 <sup>th</sup>	3.3	A	2 <sup>nd</sup>	2.8	A	4 <sup>th</sup>	3.26
2	Scanning of library catalogue	3.00	A	6 <sup>th</sup>	1.4	R	5 <sup>th</sup>	1.5	R	10 <sup>th</sup>	1.98
3	Editing the converted catalogue record	3.90	A	2 <sup>nd</sup>	3.2	A	3 <sup>rd</sup>	2.1	R	7 <sup>th</sup>	3.09
4	Matching records using ISBN or LCCN	4.00	A	1 <sup>st</sup>	3.2	A	3 <sup>rd</sup>	2.6	A	5 <sup>th</sup>	3.29
5	Searching for records in already created database	3.81	A	3 <sup>rd</sup>	3.5	A	1 <sup>st</sup>	3.1	A	2 <sup>nd</sup>	3.50
6	Validating record	4.00	A	1 <sup>st</sup>	2.7	A	4 <sup>th</sup>	2.1	R	7 <sup>th</sup>	2.97
7	Saving the record in the library management system	3.72	A	4 <sup>th</sup>	2.7	A	4 <sup>th</sup>	3.3	A	1 <sup>st</sup>	3.27

**Key: Remark (Rmk) Rank (Rnk) Overall Mean (O M) Accepted (A) Reject (R)**

The table above shows that all the methods are adopted in DEL with highest emphasis on matching record using ISBN or LCCN and then validating it. In NAL, the scanning of library catalogue was rejected, while others were accepted. In UL, three methods under item 2, 3 and 6 were rejected and others accepted as methods being employed. The searching of records in already created database formed the highest overall mean of 3.50. Interview response opined that this method is adopted as a means of verification of an already created database to avoid repetition and time wastage in the process of retrospective conversion. Interview responses also revealed that UL and DEL have completed their retrospective catalogue conversion. Whereas, UL completed theirs in 2005, DEL completed theirs in 2012. NAL on their own part has recently begun theirs in 2012 and are still in the process.

**Table 4: Mean score on competencies possessed by library staff for Retrospective catalogue conversion in the university libraries.**

S/ N	Competencies possessed by librarians	DEL		NAL		UL		O M
		$\bar{x}$	Rnk	$\bar{x}$	Rnk	$\bar{x}$	Rnk	
1	Proficiency in the use of computer	3.81	1 <sup>st</sup>	3.77	1 <sup>st</sup>	3.33	1 <sup>st</sup>	3.63
2	Knowledge of internet search skill	3.63	3 <sup>rd</sup>	3.66	2 <sup>nd</sup>	3.33	1 <sup>st</sup>	3.54
3	Database management skill	3.54	4 <sup>th</sup>	3.33	3 <sup>rd</sup>	3.16	2 <sup>nd</sup>	3.34
4	Skill in metadata creation	2.45	7 <sup>th</sup>	3.22	4 <sup>th</sup>	2.00	3 <sup>rd</sup>	2.55
5	Knowledge of skill in MARC record creation	3.36	5 <sup>th</sup>	3.22	4 <sup>th</sup>	2.00	3 <sup>rd</sup>	2.86
6	Retrospective catalogue conversion skill	2.90	6 <sup>th</sup>	3.11	5 <sup>th</sup>	1.66	4 <sup>th</sup>	2.55
7	Editing of records from other libraries	3.72	2 <sup>nd</sup>	3.11	5 <sup>th</sup>	2.00	3 <sup>rd</sup>	2.94

Table 4 shows that all the skills and competencies mentioned above are possessed by the library staff of the three libraries. However, the overall mean pointed out proficiency in the use of computer as the most possessed competency among these university libraries.

**Table 5: Mean score on problems associated with retrospective catalogue conversion.**

S/ N	Problems	DEL		NAL		UL		Overall Mean
		$\bar{x}$	Rnk	$\bar{x}$	Rnk	$\bar{x}$	Rnk	
1	Inadequate level of computer system	3.00	5 <sup>th</sup>	3.33	2 <sup>nd</sup>	2.33	3 <sup>rd</sup>	2.88
2	Inadequate pool of relevant technical staff	3.09	4 <sup>th</sup>	3.22	3 <sup>rd</sup>	2.33	3 <sup>rd</sup>	2.88
3	Database conversion problem	3.36	3 <sup>rd</sup>	3.11	4 <sup>th</sup>	2.16	4 <sup>th</sup>	2.87
4	Frequent change in technology	3.09	4 <sup>th</sup>	3.11	4 <sup>th</sup>	3.16	1 <sup>st</sup>	3.12
5	Poor internet connectivity	3.72	1 <sup>st</sup>	3.44	1 <sup>st</sup>	3.16	1 <sup>st</sup>	3.44
6	Frequent power failure	3.54	2 <sup>nd</sup>	3.33	2 <sup>nd</sup>	2.83	2 <sup>nd</sup>	3.23
7	Poor funding of libraries	3.72	1 <sup>st</sup>	3.33	2 <sup>nd</sup>	3.16	1 <sup>st</sup>	3.40

Table 5 above reveals that all the problems named in the table is being faced by DEL and NAL. In these two libraries, there is a common problem which is poor internet connectivity as shown by the mean of 3.72 for DEL and 3.44 for NAL. These problems are however not the same in UL whose response rejected inadequate level of computer system, inadequate pool of relevant technical staff and database conversion problem. Apart the weight of mean for frequent change in technology and poor funding of libraries as major problem in UL, interview response revealed the challenges of software adequacy which has made the library to change software over the years and eventually settled for *Millennium*. In all, poor internet connectivity is the common problem of all the libraries with the overall mean of 3.44.

**Table 6: Mean score on strategies for improving retrospective catalogue conversion in university libraries.**

S/ N	Strategies	DEL		NAL		UL		Overall Mean
		$\bar{x}$	Rnk	$\bar{x}$	Rnk	$\bar{x}$	Rnk	
1	Provision of computer systems by library administration	4.00	1 <sup>st</sup>	3.77	2 <sup>nd</sup>	3.33	2 <sup>nd</sup>	3.70
2	Training and retraining of cataloguing staff	4.00	1 <sup>st</sup>	3.77	2 <sup>nd</sup>	3.50	1 <sup>st</sup>	3.75
3	Selection of appropriate Database Management System	3.90	2 <sup>nd</sup>	3.77	2 <sup>nd</sup>	3.50	1 <sup>st</sup>	3.72
4	System maintenance and upgrade by library systems unit	3.90	2 <sup>nd</sup>	3.33	5 <sup>th</sup>	3.16	3 <sup>rd</sup>	3.46
5	Accessing open source software like Koha, DSPACE	3.54	3 <sup>rd</sup>	3.44	4 <sup>th</sup>	2.50	5 <sup>th</sup>	3.16
6	Increasing internet bandwidth by the university administration	4.00	1 <sup>st</sup>	3.88	1 <sup>st</sup>	3.00	4 <sup>th</sup>	3.62
7	Power supplement using standby generators	3.90	2 <sup>nd</sup>	3.66	3 <sup>rd</sup>	3.33	2 <sup>nd</sup>	3.63
8	Establishing a cooperative online resource catalogue among Nigerian Universities	4.00	1 <sup>st</sup>	3.22	6 <sup>th</sup>	2.50	5 <sup>th</sup>	3.24
9	Outsourcing RECON activities	3.27	4 <sup>th</sup>	2.77	7 <sup>th</sup>	1.50	6 <sup>th</sup>	2.51



The above table reveals the acceptance of all the strategies by the libraries. In DEL, greater emphasis was laid on training and retraining of cataloguing staff, increasing internet bandwidth and establishing a cooperative online resource catalogue among Nigerian university libraries. For NAL, increasing internet bandwidth which recorded highest mean would solve the problem of frequent internet failure. UL in a mean of 3.75 is of the view that training and retraining of cataloguing staff is of immense value in the process of retrospective catalogue conversion. In the interview, UL further opined the necessity to understudy library software before making move to purchase them into the library. This is arising from the difficulty the library has experienced in software use during retrospective catalogue conversion..

## **Conclusion**

Literature as well as practice has emphatically reechoed the crucial place and role of cataloguing in the library. Retrospective catalogue conversion is a current trend in the practice. The study has shown that the libraries under study have experiences of retrospective catalogue conversion. UL plays a leading role in the process with a commencement dating back to 1992 and eventual completion in 2005. DEL followed suite and then NAL who are currently on theirs. The required resources for this process are available in these libraries and the required skills possessed. However, there are problems that beset these libraries in their quest and chief among them is poor internet connectivity, so the popular strategy is the dedication of internet bandwidth for the use of the library. Suffice it to say that placing the library catalogue online through retrospective conversion is a major step toward creating the pathway a library's visibility online. Therefore, the efforts of these libraries are commendable. Nevertheless, more are yet to be done as the world today is experiencing a massive explosion in knowledge and the need arises for university libraries to take the leading role in the cataloguing of internet resources beyond just what is available within the library. This is a task that is worthwhile.

## **Recommendation**

1. The university administration should vote adequate fund for the university libraries through avenues like Tertiary Education Trust Fund (TETFund) and Petroleum Trust Development Fund (PTDF). These are trust funds established to provide necessary financial backing for the development of manpower in Nigerian public institution of higher learning. This will enable the university libraries to be able to secure funds in order to acquire the resources needed for the facilitation of online cataloguing and use of online public access catalogue.
2. Librarians, especially cataloguers should by exposed to skill acquisition platforms such as workshops, seminars and symposia in order to acquire the competencies required for online cataloguing and use of OPACs.
3. The advances in cataloguing and knowledge of the tools for online cataloguing such as metadata, Resource description and Access (RDA) among others should be included in the curricula of library schools in Nigeria in order to produce graduates who are knowledgeable of the cutting edge in cataloguing.

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