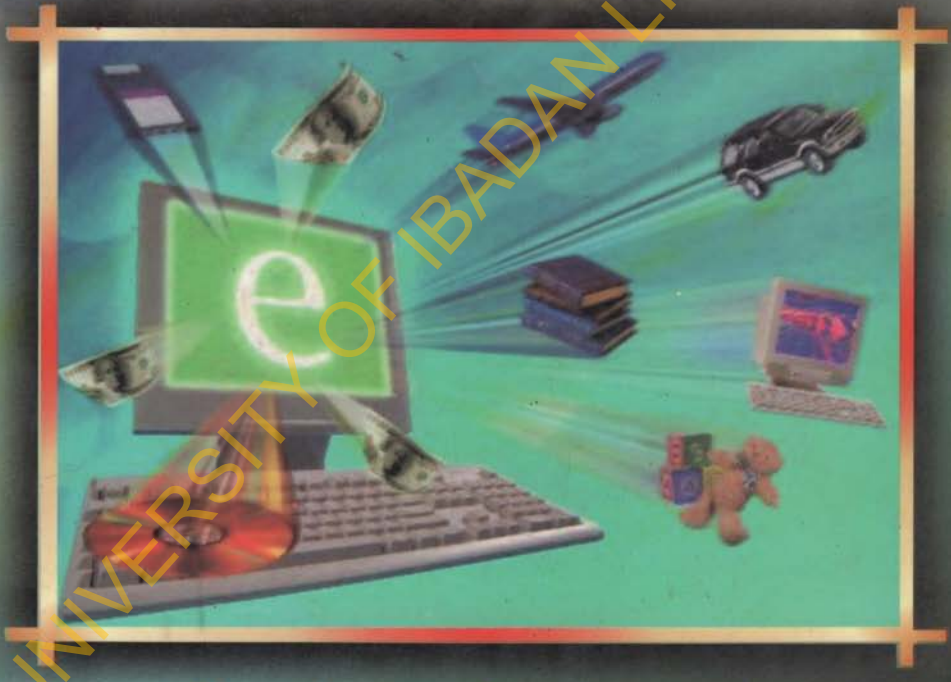
# Technology for Information Management and Service



## Modern Libraries and Information Centres in Developing Countries

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# Automation in Libraries: Retrospective Conversion Exercise

*O.E.L Eguavoen* and *Adeyemi, B. M. (Mrs.)*

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## Introduction

The processes of automation in libraries commenced systematically in the late 70's and was further boosted in the 90's in Nigeria in particular and Africa in general. Although most libraries in Nigeria have acquired and make use of computers, the use of the tools was at that time limited to administrative functions while only a few percentage of the computers were used for academic scientific purpose. The availability of computers has therefore provided the opportunities for university libraries and other types of libraries to carry out functions such as loan control, design and implementation of databases and many other activities in the libraries.

Automation as applied in libraries could be seen as a direct response to the need to offer adequate information services. Modern computer and communications technology now collectively referred to as information technology, have had an enormous impact on man's capacity to gather, organise, store, retrieve and disseminate vast quantities of information. At this point, it becomes pertinent to understand the term – library automation.

Library automation can be defined as the application of modern information technologies in carrying out library processes. Oketunji (1998) report that the application of computers to library processes is now firmly established in Nigerian libraries, and that they make it possible to analyse the whole operational system of the library and aid library services as well as decision making at various levels. He also defined computerisation as the use of mechanical or electronic devises to carry out operations which had been manually done. Kumber (1974) sees the computer as a machine not just for performing mathematical computation but for manipulating characters and steering them, as well as an invention of direct relevance to libraries prime concern – the acquisition, storage and exploitation of knowledge as recorded in documents of all kinds-in other words, character manipulation.

The introduction of automation implies that all the activities and acquisitions prior to the use of computers has to be converted in order to make library services faster, efficient and effective for the benefit of the clientele.

**Retrospective Conversion**

Retrospective conversion can be seen as a method of providing library records (present and past) on-line. According to Gredley and Hopkinson (1990) it is the conversion to machine-readable form, of record, which predates the automation of library's catalogue. This according to Ola and Eguavoen (2001) means the adding to automated catalogues, records of items that were originally catalogued manually. The ideal way of converting existing card or other printed catalogues would be to put them through, a machine that could read them and convert them into the MARC format. No such machine has been built.

Beaumont, and Cox (1989) however defined retrospective conversion as the conversion of a library's existing bibliographic records from manual to machine readable format according to specified policies and standards while Crawford (1984) in his book, `MARC for library use,' discussed retrospective conversation and its problems from a very practical view point. Though the focus was the North American audience, the lessons to be learnt also apply to libraries in Nigeria and Africa in general.

**The need for retro-conversion in Libraries**

Most libraries of the Third World like their counterparts in developed countries have increasingly developed plans to automate their services to bring about improved services to library users. By implication, the libraries cannot realize the full benefits of the use of computers unless large stores of bibliographic information are available in machine-readable form.

It is pertinent to note that libraries cannot base their products and services solely upon records to be created from the day the libraries commences automation and onwards; the bibliographic responsibilities of libraries extend to the past as well as the future. Therefore retrospective machine-readable data base will be needed to service these responsibilities.

In another development, Eguavoen (1999) pointed out that automation of library services will be inconclusive without the conversion of the backlog of library materials which had hitherto been manually processed. This according to Eguavoen (1999)

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becomes necessary so that library users can have access to broader array of materials to satisfy their information needs.

Besides, as part of library collections, materials acquired prior to the automation of library services needed to be converted into machine-readable catalogue to enhance the automation process aimed at satisfying users needs.

Retrospective conversion is a necessary activity in a library that is automated as it will enable such a library to provide library materials (present and past) on-line to library users. Peters and Butler (1984), submitted that the development of on-line catalogues and for on-line catalogue projects to be well established, the conversion of some or all of the bibliographic records to machine-readable form must be achieved. This is also in consonance with the submission of Ola and Eguavoen (2001) that Libraries can harvest the full advantage of computer technology and its impact on catalogue records only if the catalogue records are converted. They further point out that the necessity for on-line public Access Catalogue (OPAC) has provoked the automation of other library processes including the conversion of bibliographic records to machine–readable form in order to make it (OPAC) functional.

A library with very large collection needs to be automated so that the clientele can have easy access to the collections. One major way of achieving this objective will be to carry out retrospective conversion of the backlog records to facilitate easy retrieval of needed materials.

Retrospective conversion in libraries is a desirable programme because it will facilitate the communication and the sharing of bibliographic information by virtue of a common format. In addition, it will allow libraries participating in cooperative groups or networks to create a common data base conforming to recognized guidelines.

In a report by RECON Working Task Force (1970), retrospective conversion provide "instant" catalogues for the libraries.

The RECON Working Task Force (1970) also submitted that retrospective conversion in libraries is a necessary activity as it will provide a valuable data base for research purposes.

**Procedures involved in Retrospective Conversion.**

Retrospective conversion activities in libraries are carried out in different ways. The various methods that could be adopted in the exercise include the following:

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(i) *Cooperative effort.* This involves the Co-operation of many libraries in the conversion exercise. That is, the centralization of both human and material resources of the co-operating libraries in order to bring about standardization in records converted. This method is important in that it enhances exchange of information among the co-operating libraries.

(ii) *Use of Agents* This method involves the contracting of the retrospective conversion of library's records to an outside agent with specialization in Library automation. The outside agent usually work with the local committee set-up in the Library contracting out their retrospective conversion exercise.

(iii) *In-house Retrospective Conversion exercise.*
This is a process of carrying out the retrospective conversion of Library records in-house. In this case, the library has to apply all necessary tools for the activities, making use of staff and materials available in the Library. It is pertinent to note however that whatever method a library adopts in its reconversion programme, certain things has to be put into consideration and these include:

(a) Identification of the records to be converted. Since libraries are in different sizes and having varying catalogue records, like the main catalogue, shelf-list catalogue, union catalogue, subject catalogue, special collection, public ordinance to mention a few, it suffices that such library interested in retro-conversion should identify the records to be first converted and progressing to other records.

(b) *Organising the records.* The records to be converted has to be carefully and systematically arranged in order to achieve the needed results. This could be in terms of records acquired in the library over stated period, and whether with records classified with LC (Library of Congress), Dewey or Bliss Classification system.

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(c) *Funding*. This is particularly important because the project is capital intensive. To facilitate the successsful completion of the conversion exercise, Libraries embarking on reconversion project should therefore ensure the provision of adequate and needed funds.

(d) *Staffing*. The reconversion team should be adequately staffed with experienced hands who should be specialists to make the exercise a success.

**Procedure for In-house Retrospective Conversion**

When a library engages in retrospective conversion on its own and within the library, it becomes In-house. In this case, the library provides the needed fund, equipment and make use of its staff for the reconversion exercise. When this option is adopted various activities is expected to be carried out which are explained in the steps below:

***Step I***:

*Identification of records*. As explained earlier, identification of records is the first step to be taken by a library engaging in retrospective conversion project. Since libraries maintain various catalogues, a decision has to be taken as to the records to start with in the reconversion exercise. Such decision must be in the interest of the vast majority of users. When books on the shelves are identified as records to be reconverted first, it implies that the reconversion team should commence its work with the main shelf-list trays containing catalogue cards of materials on the shelves.

***Step II***:

*Editing and filing of cards in the Main shelf List Trays.*

The Main Shelf-List Trays should be edited to ensure its relevance in the conversion process. In editing the shelf-List trays the reconversion team set-up in the Library should:

(a) erase all inscriptions on the shelf list cards except the bibliographic information of the books they represent,
(b) Withdraw cards for titles in branch libraries which should be collated and sent to the branch libraries,
(c) Withdraw cards for materials in closed access which should be filed in trays meant for such cards,

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(d) Withdraw all duplicate cards in the trays to avoid confusion.

***Step III:***
*Stock taking, shelf reading and Weeding*
The procedure to be taken when shelf-reading include the following:

(a) The team should ensure that all books on the shelves are properly shelved.
(b) Carry shelf list trays to appropriate shelves for stock taking.
(c) Check the bibliographic information on the card against that on the physical materials on the shelf. This is to ascertain whether the book is still available in the library or whether it is missing.
(d) If the book is found but needs mending it has to be indicated on the card and on the book.
(e) When a book is found on the shelf and the card is not found in the tray, the bibliographic information of such book should be written and filed in the tray.
(f) The missing titles on the shelves should be taken to the Circulation Desk and the Bindery to confirm the status of such materials - whether on loan or undergoing mending.

*Weeding*
This is an important component of the above step. While shelf reading, the reconversion team are bound to come in contact with materials that may no longer be relevant to the library in its quest to meet the needs of library users.

Such materials would be expected to be withdrawn from the Stacks. The materials to be weeded will include:

(a) Volumes that have deteriorated beyond repairs.
(b) Un-needed duplicates.
(c) Older editions in the sciences and technology whose new editions are already acquired in the library.
(d) Very old titles.
(e) Titles in foreign languages not commonly used by readers.
(f) Titles that are found not to have been borrowed in the past ten years.

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***Step IV:***
*Data-entry.* At the end of the stock-taking exercise, the main shelf-list trays should be handed over to the data entry staff who will then input all the bibliographic information of all living titles in the Library's data base.

***Step V:***
*Final editing:* The data keyed in by the data entry staff should be finally edited by experts which include cataloguers before the records are made available on-line to Library users.

The procedure above should also be carried out for all other materials in the library not included in this phase of the recon-version exercise.

**Difficulties involved in retrospective conversion**
Retrospective conversion in libraries is an enormous activity requiring lots of planning and systematic execution of the project to make it a success. The conversion exercise could be faced with series of difficulties which are discussed below:

(1) *Finance*: This is one major problem which do affect the retrospective conversion exercise in libraries in developing countries. A lot of equipment and man-power are needed for a successful reconversion exercise. For example functioning computer terminals are required, employment and training of more staff as well as welfare of participants and purchase of stationeries. However since libraries in Africa and Nigeria in particular, are grossly underfunded, it will be difficult to make all the human and material resources needed for the project available.

(2) *Staffing*: It is essential that the right quality staff are involved in the conversion exercise but since libraries in Nigeria lacks the staff requirement, retrospective conversion projects will be adversely affected.

(3) *Problems of the systems*: The computer systems in virtually all libraries in the country occasionally broke-down and it often take several days and sometimes, few weeks before effecting repairs. The time lag resulting from break down of the systems will affect the recon-version exercise since there will be a halt in data entry as well as editing of records in the data base.

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(4) *Electricity problem*: Most times in the country, there is disruption in electric power supply and most libraries do not have alternative power supply when this situation persists, it will go a long way to adversely affect retrospective conversion activities in libraries.

(5) *Keying Manually*: Keying or Key boarding according to Ola and Equavoen (2001) is the most effective and accurate way of getting a library's 'catalogue into machine-readable form. It must be stated however that beautiful as the procedure may be, it is tasking and time-consuming. This also has its adverse effect on the conversion exercise.

(6) *Retrieval difficulties*: Difficulties could be encountered in retrieving needed records from the database. This will be the case when data entry is not adequately supervised. The implication of this is that records will be inadequately entered into the database. For example, when a space is given before a record is entered into the database, the computer will automatically store the affected record in a different place rather than in the alphabetical position. This hinders retrieval of such record when needed and further affect retrospective conversion exercise in Libraries.

**Conclusion**

Retrospective conversion is a necessary activity for libraries embarking on the automation of its functions with the view to improving its services to library users. To make the exercise meaningful and successful, proper planning should be made to clearly spell out the focus of the exercise, set-up a team of competent staff, make funds available, weigh and evaluate the various options for the exercise and to properly monitor the progress made from time to time, as the project progresses.

In addition, adequate provision should be made for the procurement of necessary equipment to facilitate the conversion project. Such equipment include, computers and its peripherals as well as stationeries.The availability of the needed equipment and other facilities will enhance the reconversion exercise and make the project to go on unhindered.

Retrospective conversion exercise will facilitate the input of sizeable numbers of records into a library's database, Faniran,

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Eguavoen and Adeyemi (2002). The records keyed into the database has to be adequately edited to conform with international standard which will in-turn, enhance easy retrieval of needed materials. It should be noted however that retrospective conversion activities in libraries will be faced with some difficulties which when minimised will bring about the needed success and enhance libraries abilities in providing improved services to library clientele. Reconversion also encourages proper shelf-reading and weeding which most libraries shy away from. This exercise therefore, puts the library's collection in order.

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