AUTOMATION IN NATIONAL LIBRARY OF NIGERIA

Being a paper presented at the National Library of Nigeria Senior Staff Seminar on 4th November, 1981 by Omolola Ajibola (Mrs) Programmer National Library of Nigeria

INTRODUCTION

The development of computer is the result of scientific and technological advances. Many operations and projects that were formally carried out manually and mentally have now been computerised with less strain, limited time and better results. Computer is now introduced into many Industries, Government Establishments, Institutions, Corporations and Firms. For example many industries have introduced the computer to take care of their accounting system, inventory and statistics, etc. This type of development is known as automation. Examples of offices where automation is being practised in Nigeria are as follows:-

(i) National Population Commission; for Population Count.

(ii) Federal Office of Statistics; for Statistical Records.

(iii) National Electric Power Authority; for Distribution of electric bills.

(iv) Nigerian General Motors; for Inventory of stock.

The need for automation in the National Library has become very important and urgent as it will not only serve as a model to other Libraries in Nigeria but will also enable it to compare favourably with other Libraries in the developed countries. Introduction of automation in the National Library will make for effective utilization of the Library personnel, improve services and satisfy Library clientele. Automation will logically analyse the present system, evaluate the existing methods and thereby make procedures easily measured against the established goals of the Library.

AUTOMATION IN THE NATIONAL LIBRARY

The National Library Act of 1970 provides that, the publisher of every book published in Nigeria, shall within one month after the publication deliver at his own expense to the National Library three copies of such a book. In effect, this means that books sent to the National Library should be processed quickly enough and made available to readers. The National Library of Nigeria has about 0.7 million volumes of books and it is recommended by Library automation experts that Libraries with over 25,000 titles in stack will certainly benefit from automation.

One of the objectives of the National Library of Nigeria is to receive and utilize the machine readable records of other National Libraries and also make available to other Libraries its own machine readable records. This objective is facilitated by the concept of Universal Bibliographic Control, whereby each National Library creates for its own National Publications and accepts corresponding records of other National Libraries. The

OMOLOLA AJIBOLA

National Library of Nigeria maintains a National Union Catalogue of holdings of over 50 major libraries in the country. These entries are currently on cards and many of them remain unfiled, whereas in the developed countries the entries are put in machine readable forms. The most effective way of maintaining and updating the National Union Catalogue is therefore to put the entries in machine readable form. The National Libraries, issuing national bibliographies in machine readable form, have done so through the design of national "Machine Readable Cataloguing Formats" (MARC). Although these formats are based on a standard communication form (ISO 2709), they differ as to bibliographic content and content designation. To facilitate international exchange of bibliographic information therefore, a new standard Marc Formats called UNIMARC has been designed by current MARC users, as the format to be used by National Agencies when exchanging bibliographic records.

ADOPTION OF UNIMARC BY THE NATIONAL LIBRARY OF NIGERIA

The National Library of Nigeria has accepted the Unimarc Format. Even though it is universal, it is also capable of reflecting individual needs. The UNIMARC format is deemed useful in Nigeria for the following reasons:-

(a) It is the acceptable format in which to translate foreign machine readable records for dissemination and use by the National Library.

(b) It is also required for use in recording the Nigerian publications of the *National Bibliography of Nigeria* (NBN), so as to conform to international standards.

(c) It will be used for transmitting entries to the National Union Catalogue (NUC) by the National Library.

AUTOMATION AND HUMAN REQUIREMENTS

The role of professional cataloguers cannot be overlooked even when Library automation is introduced. The professional cataloguers have to prepare catalogue entries according to Library rules before such entries can be used by the computer. They have to ensure that there are no errors in the records of entries to be fed into the computer. Automation cannot replace the Librarian or make for the Librarian any decision involving professional judgement. A conspicuous example is in the assignment of subject headings; obviously this must be assigned by trained cataloguers. Also for any programmer to write programmes for solving problems, one needs to understand the problems very well. That is why the programmers have to understand what Librarians are doing manually, before embarking on their work. Again, automation cannot be a substitute for the interaction that exists between the general public and professional Librarians.

Since the introduction of automation in this library, we have faced one form of problem or the other. This is particularly in the areas of equipment and personnel. However, these teething problems are normal with any new installation. These notwithstanding, much has been achieved. We have for instance, been able to design a standard Unimarc format for the purpose of coding data to be fed into the machine.
This Unimarc format will however, be modified from time to time. We have also written series of programmes which have been run and tested. The objectives of these programmes are to have the input in Unimarc format and output in *National Bibliography of Nigeria* (NBN) order. The former will be on tape for purpose of exchange with other libraries all over the world. In the search for our software development in automation, the following programmes have been successfully tested and run:

(a) The programme to read information from cards and store them on tapes in Unimarc order.
(b) The programme to remove the generated codes from the output (a) above;
(c) The programme to sort output of (a);
(d) The programme to remove both Unimarc tag numbers and generated codes from the output of (c) above, in order to have N.B.N. format.

The successful run of (d) above marks a significant break-through in the development of software in our efforts at automation. But there remains a programme to make the picture complete. This is the programme to remove the dollar signs ($), and replace them with the appropriate punctuation marks. This will be achieved in due course of time.

PERSONNEL REQUIREMENTS

Ideally the type of people to be recommended for the Library automation should be people with both Library and computer training which may be rare to come by. The National Library of Nigeria has decided to use both programmers and Librarians to handle the Library automation project, because of the problem of getting the right personnel. With the presence of programmers

and librarians, it is easy to achieve satisfactory results for library automation. Apart from the programmers, we still need experienced system analysts who will plan the project and also train the programmers. Although it is usually believed that an analyst is an experienced programmer, this is not always true. However, a programmer could become an analyst after several years of experience. Someone could be train directly to become an analyst by pursuing the relevant courses at the University level. If this type of personnel starts a project, there will be less errors and much more will be achieved within a limited time. In the National Library there is still need for a system analyst who is better qualified to direct the project. He will not only develop the present project but also help to extend automation to other functions of the Library such as accounting, personnel and so on. I strongly plead that this be done, because anything worth doing at all is worth doing well. We have spent so much on acquiring our machine and we shall still spend more acquiring our mainframe in future. Therefore, we should not hesitate to spend some more money in making the machine or whatever hardware we acquire work effectively. We need to spend more on training the staff working on the Library automation project in order to have a smooth and efficient system. The equipment we have now is a data entry machine, which only accepts data on disk and later stores on tapes. These tapes are then processed with external bureaus on agreed charges.

RECOMMENDED USES OF THE COMPUTER IN THE NATIONAL LIBRARY OF NIGERIA

The computer can be made to perform the following types of clerical work in the preparation of catalogue cards.

(i) Sorting the finished cards into alphabetical order for later manual interfiling into existing card catalogue.
(ii) Printing one or more copies of a card into one or more catalogues.
(iii) Making authority files, subject files and author files. Programmes can be written to cross-check the "see" and "see also" heading under the main heading.
(iv) Compilation of bibliographies and indexes.
(v) Updating records of serial holdings and automatic claims.

Although the National Library of Nigeria does not operate a loan system, the computer can also be used to operate a circulation control listing the following:-
(a) items charged i.e. all books borrowed by the users.
(b) reserves pending i.e. all books that are being reserved which cannot be given out to the users.
(c) overdue items i.e. all the books that have been given out and not yet returned when due.
(d) extended loan i.e. Loans extended beyond the date due.
(e) Other types of charges. (Inter Library Loans).

Automation of these processes will provide one source of information as to the status of all items in circulation, thereby easing Library management work. The list is usually updated and printed from time to time. In many Libraries it is printed daily so that it is always

up-to-date as at the end of the previous day's processing.

THE FUTURE NEEDS OF NATIONAL LIBRARY AUTOMATION PROGRAMME:

For a long-term benefit, we need a main-frame in our environment which we can always play around with. The frustration experienced in buying time will be out of the way. There will be effective utilization of the personnel. The job will be more interesting and the Library will be able to retain its staff much longer. Urgent requests will be attended to without any problem. For example, if by 3.30 p.m. of a particular day the Director wants to retrieve certain information from the system, and he wants this before 4.00 p.m., he can only obtain it if the system is in our environment.

CONCLUSION

Several feasibility studies took place before automation was introduced into the National Library about 3 years ago. I will seize this opportunity to praise the efforts of those who took it upon themselves to see that automation is introduced into the system. It is a laudable step taken and, all things being equal, they will be happy they had made the move.

Automation makes it possible for the Central Library holdings to be distributed among the branches. Libraries having their records in machine-readable forms, can exchange their catalogue files and prepare union catalogues. Corporate Libraries exchanging files can greatly increase the usefulness of machine

literature searches. It is possible to make additional copies, if catalogues are printed in book form for other Libraries to facilitate inter Library loans. Such exchanges are particularly valuable to large libraries as well as to smaller ones or libraries with holdings of specialized stack. Union lists of serials, or of any type of holding can be easily prepared for metropolitan areas or other regional groupings.

There are no serious disadvantages in library automation. However, it is important to avoid purchasing a system which is obsolete due to development in technology. The advantages of automation are much more than any disadvantages usually ascribed to it. As the retrieval of information from a large collection for a growing number of users becomes increasingly difficult and complex; the only way out is automation. Increased volumes of work necessitates more staff to be able to handle increasing volume of service requests. It is generally preferable to meet the needs for increasing service by increasing the use of equipment where possible rather than increasing the number of personnel employed.

REFERENCES

1. DOAGHERTY, Richard M. Scientific Management of Library Operations.
2. KOCHEN, Manfered. Information for Action.
3. SWIHART, J. Computer Systems in the Library.
4. AWAD, Elias M. Automatic Data Processing Principle Procedures.
5. International Federation of Library Associations and Institutions: *Working Group on Content Designators*. UNIMARC. 1980.