Chapter – 1

INTRODUCTION

1.1 INTRODUCTION

Education has been recognized by all as an instrument for social change. The UNESCO (United Nations Educational, Scientific and Cultural Organization) World Conference on Higher Education in 1998 declared, ‘education is a fundamental pillar of human rights, democracy, sustainable development and peace’ (Saha 2004 10). The future of the society in the 21st century will be determined by the vision and the role that is assigned to education in general and to higher education in particular. The higher education system occupies a pivotal position as the most important producer of knowledge and as an instrument of human resource development. The aim of the higher education is to impart advanced and specialized knowledge to students and enable them to acquire competence and skills in various fields of human activity meant for all round social progress and the enrichment of human life. The progress of higher education in a society shaped the advancement of technology and enhances the skill of human resources to scale the peak of human development. The university as an institute of higher learning functions as the focal centre of higher education rendering varied functions – teaching, research, consultancy and extension. By imparting and inculcating values and morals in young minds, universities help to create useful citizens. They produce men of talent and scientific temper, which contribute to the cultural, economic, and social development of the nation. University education provides political, scientific, social and professional
leadership to the country. The role of universities in societal formation, nation building and scientific development is immense and pervasive. The progress of a nation; economic and social development of the people of a nation; welfare and security of the life of human beings; scientific and technological basis of the world are dependent upon the quality of the higher education provided by the universities of the nation (Siwatch :1999 :16).

Modern age is the age of continuing development of education and libraries play a great role in achieving this objective. The literate, neo-literate, educated and highly educated all need a steady supply of information for various purposes. Library is the only social institution suited to perform the function beyond education to keep continuity in the cultural pursuit of man. To educate the people is an active function of the library for the society in which it exists. The library functions as an educational, cultural, economic and recreational institution in the society. It renders a variety of services to the society in order to fulfill its obligation as a social institution in the community.

An academic library is the library, which attached to the educational institute. Its main objective is to support the academic programmes of the parent institution to which it attached and caters the information need of the academic community. A well-equipped and well-managed library is the foundation of the modern educational infrastructure and without the library support; no academic institution can implement its academic activity fruitfully. The importance of library in education can be measured properly, if we understand the changing concept of modern education. In the modern age education is not only surrounded within the four walls of the classroom and the classroom teaching is to be well supported by a
well-equipped library. Education and library services are twin sisters and one cannot live apart from the other.

The university, being an institute of higher education, cannot transform its objectives fruitfully until and unless it has a strong library support at its centre. The university library is an integral part of the university education. Education Commissions constituted after independence to improve the standard and quality of higher education in India also made strong recommendations that the higher education system cannot produce better result without having a strong library support at its centre. The university library has to support the teaching, research, extension and other academic programmes of the university. A good university library serves as an invaluable aid in the conservation of knowledge and ideas by acquiring and processing reading materials and making available the collection of recorded knowledge to teachers, research scholars, student and staffs.

The users of the university library usually demand for varied information of multidisciplinary in nature for their study, teaching and research purposes. Due to the exponential growth of knowledge, in recent times, in printed, non-printed, electronic and multimedia form as well as their demand by the growing university community, it becomes very difficult for the university librarian to collect and organize the reading materials in such a way so as to disseminate them properly. The exponential growth of literature in all forms made it difficult for the researchers to find out the required information and it becomes the responsibility of the librarian to satisfy their needs by devising new ways and new means. The university libraries of the present age are facing new types of demand from their clients, which they cannot imagine a decade ago. In order to cope up with the changing environment, the
university libraries should reorganize their systems and procedures and should adopt modern techniques in order to survive in the environment of continuing technological development. There is an urgent need for the university libraries to re-invent their conventional procedures and methods practiced for organization and dissemination of knowledge in order to adapt in the recent technological changes.

The university libraries of the present age should have access to any document at any time available in any format anywhere in the world so as to fulfill the growing information need of the university community. Emergence of new technology makes it possible as documents is now becoming available in digital form globally through Internet. Libraries of present age are no longer confined to the four walls of the library and they are gradually changing their field of operation from manually operated conventional system to online automated system. In this age, the university library should be a part of the global information infrastructure where institution and users are link together through Internet. To be a part of the global information infrastructure, libraries of the present age are gradually started digitization of their available printed resources in order to provide access to full text documents, in addition to bibliographic and cataloguing services. The libraries are slowly creating full text digital data with multi-media application in order to provide fast access to desired information. The libraries, institutions, agencies etc. of many countries are now busy in digitization of full text of various types all over the world. Reference may be given in this connection to a number of successful digitization projects viz. the British Library's Digital library programme, electronic library (eLib) programme in U.K, the German Digital Libraries Project, University of Waikato Digitization Project, New Zealand etc.
The explosion of information in various forms – print, digital, multimedia etc. – creates both challenges and opportunities for the university libraries of the region. The new technologies change the things done in the past and created unprecedented new means for storage, retrieval and communication of information. As the technology advances we found an unprecedented changes in teaching, learning and research methods in higher education. New modes of delivery in teaching with Web based interactions are found in the present higher education system, which replaces the traditional method of lecture-based teaching. The changes take place in the universities as a result of technological advances, which widen the scope and demand for library services, facilities, and resources. Changes in the university must be matched with the availability of information infrastructure in the university library. The information infrastructure of the library should support the academic and scholarship side of the university. The university library must anticipate the information needs of the growing academic community of the university through new means. In this type of environment, the library cannot function merely as a passive repository of materials. Rather, it should functions as an active institution, which can provide information services, instruction, and resources to the growing complex academic world. The new technologies offer extraordinary capabilities that can enable university libraries of North East region to adapt to and respond to the changing needs of the entire university community. Libraries add value and quality information – especially information accessible via the Internet – by determining the needs of the various user groups in the extended university community and then methodically collecting, organizing, and storing information and resources in order to facilitate effective access and use (Eisenberg : 2001) The university libraries of present age should transform themselves from a static, passive
repository of information to a dynamic, active entity committed to information services and orientation of resources.

In this age, the manually operated old pattern university libraries are at crossroads. The application of new technologies for various library activities and handling of information make them under tremendous pressure. They are also under pressure because of their inability to handle the growing number of published records, users varied demand for information of basic, interdisciplinary, and multidisciplinary in nature for research and other purposes and the impact of new technologies for remote access to information.

The application of new technologies for handling of enormous growth of information on one hand and inadequate finance, lack of trained staff and insufficient space, on the other hand, make the condition of the old pattern university libraries of this region more sympathetic. The University Grants Commission (UGC), through Information and Library Network Centre (INFLIBNET), is making a suitable effort to automate and networking the university libraries of this region. The university libraries of this region are participating in the INFLIBNET programme but the progress of automation in some of the university library viz. Gauhati University, Mizoram University, Nagaland University etc are not up to the expectation. The university libraries of this region whether modernized or not are need to be given a new orientation. They should not only join in library networks to access more information but also should get converted themselves in to knowledge centre so that user can get access to knowledge available on a particular issue or concept without facing any barrier. The university libraries are to be transformed in to knowledge centres in order to make the best use of the available knowledge. By
automating the document description procedures and by converting the manual catalogs into machine-readable form, the university libraries can transform themselves into a knowledge centre.

1.2 THE PROBLEM

The documents contain information and knowledge which society needs to progress. Documents can be categorized in to printed, non-printed, electronic, and multimedia forms which include books, manuscripts, periodicals, microfilms, photographs, gramophone records, tape records, magnetic tapes, video books, computer files, CD-ROMS, Internet resources, databases etc. These documents are usually housed in the libraries and archives for use and preservation. The modern library acquires various types of documents in its collection and listed them in an organized and scientific way so as to meet the information needs of the users.

The documents become the record of all intellectual activities of the past and it is regarded as an instrument for the development of the present and future intellectual activities. The technological innovations in information storage and transfer, the electronic reformatting of documents for instantaneous accessibility is making a growing demand for documents and information. The ever-increasing needs and requirements of information cause the proliferation of publications in various physical formats, which made the exponential growth of documents. These documents are the records of intellectual endeavours on one hand and on the other these are the vehicles of communication for transmission of concepts and information.
Document description involves the process of listing the creator of a work and its text, the title given to the text, the version, edition of the text; the publisher, the size, shape, format and medium of the document, and listing of similar notable characteristics of the document. It is a process of bringing the cognizance element of a document to describe its identity, content, location, access and retrieval of information contained in that document. The purpose of description is to surrogate a document in such a way so that a searcher can access any bibliographic information about the document. It is a process of recording, listing, and indexing library materials available in the collection of a library or of a group of libraries for the purpose of retrieval of information in order to meet the information needs of the user community. In order to make the process of document description unique, uniform, standardized, and worth the purpose, it is necessary to adopt certain rules of cataloguing to avoid inconsistency in practice. Adoption of a catalogue code for describing documents available in the collection of a library brought uniformity in cataloguing practice, which help in retrieval of information as per the users need without which it becomes difficult to identify and locate information. It is for that reason, since from the time of Anthony Panizzi, librarians, information scientists, institutions, societies and conferences etc., made several attempts to develop codes for document description vis-à-vis cataloguing of documents in a library.

The library catalogue lists, records, describes and indexes the holdings of a library making its resources easily accessible to the users. It is the most effective tool for retrieval of documents, which communicates information about the graphic materials it records. The conventional manually operated card form of catalogue still practicing for document description in some of the university libraries viz. Gauhati University, Tripura University, Mizoram University etc. of N.E. India has its
limitation in meeting the basic objectives of the catalogue as a tool for indexing documents and retrieval of information. This manual practice of document description is incapable of handling the increased volume of information covering basic, inter-disciplinary and multi-disciplinary subjects on one hand and users specialized needs on the other. The university libraries of North East those are still practicing the conventional method of cataloguing must be re-invented their methods of cataloguing to survive in the climate of continuing organizational and technological changes. The university libraries of twenty first century should well-equipped with Information Technology (IT) in order to move from giving access to limited resources to giving access to unlimited resources. The application of IT helps the libraries in collecting, storing, and preserving available information in digital form and to put them in network for access by the users of the library. There is an urgent need to re-invent the traditional cataloguing practice of the university libraries because of the emergence of recent technology. A much more fundamental challenge to catalogues as a result of technological development is found from networked full-text electronic publications.

The traditional method of document description is to be given a new approach in order to cope up with the multi-faceted growth of knowledge on one hand, and users' growing demand for information on the other. The practice of conventional card catalogue cannot fulfill the information needs of the university community and it is found to be an un-suitable practice in the environment of constant technological changes.

The conventional manual cataloguing practice has many limitations in terms of retrieval and few of them are mentioned bellow:
• Conventional cataloguing practice concentrates on listing the contents of the collection of a particular library and it retrieve only a small portion of the individual bibliographical items available in the collection. Monographs are covered but not their contents; serial titles are covered but not individual articles and also there is very little analytical access to the contents.

• Practice of manual catalogues in the library needs much more space. Preparation of multiple cards to provide different access points to users for a single book require much space in the catalogue cabinets Besides, time required for preparation as well as filing of cards in the catalogue cabinets are the significant disadvantages of manual practice.

• Cataloguing is very much a ‘back-room’ activity in most of the cases. There is usually a distinct cataloguing department, cataloguing professional, technical and clerical staff. They are separated from any direct contact with users and with the way in which the catalogue is used. It is found that the activity of cataloguing is separate from the activity of retrieval. The university libraries have invested heavily in the staff and resources needed to maintain the cataloguing services and produce such type of catalogue, which, cannot serve the purpose of the users.

Over the last decade, cataloguing departments of the university libraries have been facing tremendous pressure from the user community, which force them to
change and re-examine their cataloguing practice. The traditional cataloguing practice has lost much of its professional nature as inventory list.

My present study is to ponder over the present situation and existing practice of document description vis-à-vis cataloguing in the university libraries in North East India. This is the main area, which has a direct impact on the optimum use of library resources as cataloguing is regarded as a basic tool of retrieval of information of a library. It is found that some of the university libraries in North East region are still in manual mode. These university libraries are needed to be shifted their mode of operation from the manual to the automated mode with use of modern communication tools and gadgets in order to survive in the present age of technological revolution. These university libraries also have rarely maintained the uniformity in manual cataloguing practice. A university library follows different cataloguing code for document description at different times without changing the already prepared catalogue entries. The Gauhati University library, for example, had been practiced first ALA then CCC and now following AACR-2 in preparation of entries to its resources. This situation is prevalent in other manually operated university libraries of North East India. As a result, users are very much confused while searching information on the catalogue cards and also lack of uniformity make it difficult to participate university libraries of the region in resource sharing.

The conventional practice of document description is incapable of giving access to variety of information as per user’s need, besides being unreliable and time consuming. For this, libraries are now in search of some methods wherein automation of document description process is found to be an appropriate step. The
application of computer will bring the uniformity, precision and compatibility of document description process.

The study intends to identify the limitation of practice of conventional manual method; to investigate the problems and to suggest some effective measures to be undertaken to overcome the problem. The study also looks into the user's satisfaction from the existing practice of document description in the university libraries in North East India.

1.3 NEED AND SCOPE OF THE STUDY

Catalogue entries in different university libraries are prepared following different codes – first ALA then AACR-1 and now AACR-2. When a library shifted to another code viz. ALA to AACR-1 and then AACR-2, then the cataloguing activities from one code to another specifically the catalogue cards prepared according to earlier code(s) have not been replaced resulting inconsistency. This has certainly affects the catalogue users adversely. Users are very much confused while searching information in the catalogues. Discussion has been made here in the light of the problem arises out of this complex situation.

The study is undertaken to make aware the library professionals and users about the various benefits of automated catalogues and Online Public Access Catalogue (OPAC) over the manual catalogues. It is a matter of great satisfaction that these libraries are phase-wise switching over to automated catalogue, which have enough potentialities of information retrieval. It is the time for the librarians and users to avail these facilities for optimum utilization of library resources. The
study will explore the possible impact of automated catalogue for the overall improvements in functioning of university libraries in North East India.

Though it is an important area inviting special attention for the library professionals, we have seen a very little effort in study and research covering this particular area specially in the North Eastern region. Ofcourse Narendra Lahkar (Lahkar: 1997) has worked on ‘Prospect of Automated Catalogue in the three university libraries in Assam: based on users approach under major catalogue codes’ and the study established a very little use of card catalogues (about 4 percent). He further suggested that the automation of cataloguing procedures is the only solution to improve the use of library resources. Another piece of study is felt necessary to examine the existing practices of cataloguing in the university libraries in North East so as to provide suitable suggestions to improve the existing situation.

It becomes necessary to conduct the study on the impact of library catalogues for the overall improvement of the library services and also to make the users aware about the various benefits of catalogue use, especially in the university libraries of North East India where catalogue use is at minimum level.

The scope of this study is limited to the cataloguing practices and uses in the twelve university libraries in North East and it excludes two other university libraries of the region viz. Sikkim Manipal University library and Central Agricultural University library, Imphal from the purview of the study.

1.4 OBJECTIVES OF THE STUDY

In conducting this study researcher has attempted to achieve the following objectives:
1. To study the university library system in North East and to find out whether the present practices are providing satisfactory services to the users.

2. To study the existing practices of document description in the university libraries in North East India.

3. To identify the limitations of the conventional manual catalogues.

4. To study the extent of users' satisfaction from the existing practice of document description in the university libraries in North East in manual, partly-automated and automated environment.

5. To study the current status of library automation and to suggest for implementing university library network for the entire North East.

1.5 LIMITATION

There are fourteen universities, including one IIT, exist in the North Eastern region. Out of these fourteen universities the study has been undertaken in the twelve university libraries. Out of them only three universities viz. Gauhati University, Dibrugarh University and Assam Agricultural University, all in the state of Assam, are state university and remaining are central university. The study of document description process in these university libraries is confined according to the availability and use of catalogues in different physical forms i.e. manual card catalogue, automated catalogue and online public access catalogue (OPAC). Responses of the users are receipt on the basis of the available physical form of catalogue of the respective library. The study covers three categories of users' viz. faculty member, research scholars and students (Chapter – 6).
The trends of development of digital web resources are gaining momentum but organizations of these resources are not done using standard metadata format in the university libraries under study. The present study on document description excludes these resources though theoretical study on metadata has been discussed in brief at chapter – 4.

1.6 HYPOTHESES

The hypotheses of the study are proposed as:

1) The conventional card catalogue prepared manually has a very limited use by the library users. These catalogue cards are neither regularly updated nor maintained properly.

2) The automated catalogue is found to be sufficiently used by the library users. It has its various searching capabilities, which facilitates a number of access points.

3) Introduction of OPAC in a university library has improved the use of library resources to a certain level. Facilities available in library software packages have contributed immensely for such improvements.

1.7 RESEARCH QUESTIONS

In conducting this study the following questions are addressed:

1. How, and in what aspects, the conventional manual cataloguing practice could satisfy the varied information need of the growing university community, specially in the age where Information Technology (IT) is widely used for organization and dissemination of information?
2. What are the limitations of the conventional manual catalogue practice in terms of access/retrieval of information as per users need?

3. How the capabilities of computers and Information Communication Technology (ICT) have influenced the effectiveness of cataloguing practices? In terms of searching, retrieval and display of bibliographic data, do the features and capabilities of automated catalogues have any impact on manual cataloguing practices?

1.8 METHODOLOGY

In order to make the study comprehensive and powerful, relevant data on the field of study are collected by adopting following methods:

Primary Sources and Direct Personal Observation

1. Report of the Committees / Commissions; annual reports of the university libraries under study are taken as primary sources for the study.

2. Survey report (Analysis of the survey) based on information received through questionnaires distributed to:

   a) The university libraries in the North East India under study in order to collect data related to the present functioning highlighting the cataloguing practices and future plan of the libraries.

   b) To the different categories of users of these universities under study about their satisfaction of library services and other aspects with special emphasis on the cataloguing activities of these libraries in questions.
3. Interviews, interaction made with library managers, library professionals and the users of the university libraries of this region by visiting the university libraries personally.

4. Personal observation on the existing cataloguing practices in the university libraries in North East.

Secondary Sources

A major source of information for this investigation is the published and unpublished literatures. Attempts have been made to cover comprehensively the primary and secondary writings on the subject of study. A number of documents studied for this research were identified and acquired through different sources and important Web sites relevant to the study such as web site of the Library of Congress; The British Library; web site of Joint Steering Committee, AACR; OCLC website; Dublin Core etc. were surfed. In terms of citation in the writing, the researcher has attempted to include important citation of renowned authors relevant to the study in proper place in the thesis.

It should be pointed out that, due to the nature of this research, several issues have been repeated in more than one chapter but always from different perspectives. Because discussions in different chapters are based on a number of basic cataloguing concepts, some repetition of those concepts is unavoidable in sketching the context of topics raised in other chapters.

1.9 THE ORGANIZATION OF THE THESIS

The study has been divided in to seven chapters including the Introduction and Conclusion.
In the first chapter Introduction, the subject of the study has been introduced wherein the problem; the need and scope of the study; objectives of the study; limitation; significance of the study; hypotheses of the study; research questions; and methodology have been discussed.

The second chapter discusses the review of the related literature

In the third chapter, history and development of modern cataloguing codes from the period of Panizzi’s code to the latest development in document description in the 21st century such as emergence of metadata schema has been discussed in brief. Review of some of the major concepts and principles in modern descriptive cataloguing codes of the last two centuries are discussed here.

In chapter four library automation, advantages of automation and automated cataloguing; various standard exchange formats highlighting MARC 21; the record structure of ISO 2709 and its necessity in exchanging bibliographic data between different bibliographic agencies and the role of INFLIBNET in automating university libraries in India, have been discussed. The chapter also discusses the features of library software using for automating document description as well as the automated document description trends are also included in this chapter.

In the chapter five, a discussion on the university library system in the North East India has been made, highlighting the status of the higher education system in the region. A detail discussion on the existing practices of cataloguing in the university libraries of this region has been made on the basis of data analysis carried out through distributing questionnaires.
In chapter six, a detailed discussion on the users satisfaction from the existing cataloguing practices in the university libraries in North Eastern region have been made on the basis of data analysis made through distributing questionnaires to different categories of users.

Chapter seven lists the findings of the study systematically and provides overall conclusion and suggestions to be adopted to improve the cataloguing system in the university libraries in North East India.