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Introduction
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University Library

A well-established library with an all-round and up-to-date collection suitable for study and research is a sine qua non for modern higher education, because in one way or the other, university libraries have proved to be significant partners in the development of scholarship throughout the world. In fact, university libraries have enriched higher education with all its diversities and embellishments and it is because of this reason, a university library has been described as the 'heart of a university' which circulates the life blood through the arteries of the whole university body by dissemination of knowledge through improved methods of communication of information to its clientele.

Today in an environment of information and publication explosion, it has become practically impossible for any library to remain self-reliant. In a situation of growing demands of the users and depleting levels of financial resources, no library is able to obtain all the material on demand. To overcome the situation, sharing computerization and networking is the only way.

Since a university library has been regarded as the heart of a university, the research is devoted to the study of the need of computer application in university library, considering the stages of development in University libraries in Gujarat state. It provides the guidelines for planning computerization and networking in university library.

1 Objectives of University Education

The objectives of an Indian university during the pre-independence period had been to strive to achieve the goals that were set by foreigners to promote their own interests. The earliest universities of modern India, i.e., Calcutta, Madras and Bombay, all founded in 1857, were established not for the advancement of learning and research but to conduct
examinations and award degrees as a hallmark of fitness for recruitment to the civil service of the country

Such a system of education cannot hold good for an independent country and in free India. We, therefore, could no longer rest contented by giving to our alumni a certain amount of information, a certain amount of skill to be harnessed to the attainment of ends set by others. We needed an education system which could strive to train our young generation, in both what to think, and how to think. The purpose of education is not indoctrination but the development of the power to form sound judgement.

In post-independent India, the Government of the country, which was alive to the benefits of higher education, set up the University Education Commission, under the able chairmanship of Dr S. Radhakrishnan (1948-49), which in its second chapter gives an illuminating analysis of the aims of university education in the context of historic events of the emergence of free and democratic India.

The University Education Commission suggests that our education system must find its guiding principles in the aims of a social order for which it prepares, in the nature of the civilisation it hopes to build. It suggests that ‘democracy’ depends for its very life on a high standard of general, vocational and professional education. Dissemination of learning, incessant search for new knowledge, unceasing effort to plumb the meaning of life, provision for professional education to satisfy the occupational needs of our society, are the vital tasks of higher education.

There must be sufficient unity of purpose in all this diversity to produce a community of values and ideas among educated men. Our policies and programmes must be brought into line with the social purposes which we profess to serve. We may use various institutional forms as time and circumstances may require, but we must be steadfastly

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2 Hussain, Zakir, Convocation address at University of Utkal, Cuttack, December 6, 1959.
3 India, University Education Commission (1948-49) (Chairman : S. Radhakrishnan), Report. 2v, Delhi, Manager of Publications. GOI, 1949, p. 35-67.
4 UGC (India), Report on Standards of University Education, New Delhi, UGC, 1965, p.1
loyal to the abiding elements of respect for human personality, freedom of belief and expression for all citizens, a deep obligation to promote human well being, faith in reason and humanity.

The accelerated economic growth of the country through the implementation of the five-year Plans which aimed at the cultural, economic, social and industrial development of the country vis-à-vis, surprisingly enough, the falling standards of education in the country, which had aroused the consciousness of notable educators and scholars of the country, compelled the Government of India to set up another commission under the chairmanship of Dr D.S. Kothari (1964-66), the then Chairman of the University Grants Commission. This Commission at length critically examined the entire educational system of the country i.e., from primary to adult, from academic to vocational, from general to special and recasted the objectives of higher education as under:  

"In broad terms, the functions of the universities in modern world may be said to be the following:

♦ To seek and cultivate kind of leadership to engage vigorously and fearlessly in the pursuit of truth, and to interpret old knowledge and beliefs in the light of new needs and discoveries;
♦ To provide the right kind of leadership in all walks of life, to identify gifted youth and help them develop their potential of the full by cultivating physical fitness, developing the powers of the mind and cultivating right interests, attitudes and moral and intellectual values;
♦ To provide society with competent men and women trained in agriculture, arts, medicine, science and technology and various other professions who will also be cultivated individuals, imbued with a sense of social purpose;
♦ To strive to promote equality and social justice, and to reduce social and cultural differences through diffusion of education; and

♦ To foster in the teachers and students, and through them in society generally, the attitudes, and values needed for developing the good life in individuals and society.

In addition to these broad functions, which they share in common with all universities, Indian universities will have to shoulder some special responsibilities in the present state of our social and educational development:

♦ They must learn to serve as the conscience of the nation; and from this point of view, they should encourage individuality, variety and dissent, within a climate of tolerance;

♦ They should develop programmes of adult education in a big way and to that end, evolve a widespread network of part-time and correspondence courses;

♦ They should assist the schools in their attempts at qualitative self-improvement;

♦ They should shake off the heavy load of their early tradition which gives a prominent place to examinations and strive to improve standards all round by a symbolic development of teaching and research; and

♦ They should create at least a few centres which would be comparable to those of their type in any other part of the world and thus help to bring back the 'centre of gravity' of Indian academic life within the country itself.

Nalini Ranjan Sarkar has suggested that education should have a three-fold aim i.e., (I) to get a living; (ii) to live a life; and (iii) to mould the world. For thousands of years over which its history and literature extend, India more than any other country perhaps has borne in mind what many of the western nations have forgotten that an essential aim of education is to enable a man to live a fuller life. It needs now to emphasise that part of education, which is designed to help men to get a living. How rapidly and
how completely it can do this will go far towards determining the part it plays in the third and final aim of education i.e., to mould the world.\textsuperscript{6}

Despite these bold statements; the higher education in India, which has been tailored to suit the elitist society, has seen no significant change so far. The balance is still overwhelmingly in favour of the rich and the privilege; for it is the sons of the rich who go to the best colleges and get the best attention. Thus education, specially the higher education in India, does not only help to maintain the elitist system, but being a replica of the system itself it also follows a similar mode of operation. A vital function of higher education has thus been to lead to way the unabashed carrerism as also to the goals of ugly affluence. Nevertheless, the educationists of the country are striving to replace this educational system, that has been imported to us from the former colonial power and that has proved inappropriate to our culture and social values, by the one which could contribute to the consolidation of new social structure and establish new ideologies\textsuperscript{7}. As a result of this desire our educational pattern is being subject to close scrutiny and re-evaluation. The National Education Conference held at Sevagram on 5\textsuperscript{th} October, 1972 has reset the goals of education, viz.; (I) Self-reliance, self-confidence and dignity of labour through the use of work as an integral part of educational programme; (II) a spirit of nationalism and social responsibility through involvement of students and teachers in meaningful programme of community service; and (III) inculcation of ethical and moral values and proper understanding of the essential unity of all religions.\textsuperscript{8}

2 Function of the University Library

Keeping in view these objectives of higher education in the country, the university library system has to shoulder onerous responsibilities. In order to achieve the objectives of university education, their activities in

\textsuperscript{6} Delhi University Magazine, v5, 1942, p.49-50
\textsuperscript{7} Grossin, William, Educational Strategies for building New Societies, UNESCO Features, 62627, 1972, p.2.
\textsuperscript{8} Hindustan Times, 17-10-1972.
such a way that they may prove to be significant partners in conservation of knowledge and ideas, teaching, research, publication, extension and service, and interpretation of results of research. The library exists not merely to help the instructional functions of the university, it does also a good deal in aid of research, which is another major function of the university. The library therefore performs a variety of functions, by way of helping students with textbooks, parallel studies, reference books and periodicals; by providing a large number of bibliographical tools and up-to-date literature on every subject for students, teachers and research worker; as well as by maintaining an efficient reference and information service. The objective ultimately reaches the noble height of helping produce leaders in the community-leaders in different fields of human activity, and it nurtures the inventor and discoverer-persons who create history.

The basic function of a library is educative. It is not merely storehouse of reading material collected for preservation, but it also functions as a dynamic instrument of education, to feed the intellect of the student, encourage the researches of the faculty and invite all who enter its house to partake fully of its intellectual and cultural contents. The simple fact is that if a university library fails to perform its function of communicating its contents to those who are in need of them, it turns out to be a bad library and that a bad library in turn tends to produce a bad university. A bad library is likely to effect the development of scholarship in its particular region or perhaps even compel its scholars to go elsewhere in search of what they need. It is for this reason, perhaps, that a university always need a great library, even if no student enters it, to meet the demands of the faculty; and as long as the library in a university is out-standing, it will have an extremely valuable advantage over other institutions in holding the best of scholars and teachers within its fold.

9 Mukerjee, A. K., Librarianship; its Philosophy and History, Bombay, Asia, 1967, p.43.
Realizing the importance of libraries in the fulfillment of the objectives of higher education, the University Education Commission says, 'the library is the heart of all the university's work, directly so, as regards its research work, and indirectly as regards its educational work, which derives its life from research work. Scientific research needs a library as well as its laboratories, while for humanistic research the library is both library and laboratory in one'.

As the dam stores millions of gallons of water to be distributed to individual fields through a well-knit irrigation system, the library stores reading material to be distributed to individual students, teachers and the research scholars through its various channels of communication. The phenomenon often referred to as the 'information explosion' and the 'literature explosion' has obvious repercussions on library provisions of universities. The sum of human knowledge is increasing at a much faster pace than anything that mankind has ever known. All over the world men are extending the traditional boundaries and lines of investigations and developing new ones, into all branches of learning, particularly in sciences. This has a bearing on the university library system in two ways viz., firstly university libraries must undertake the responsibility of collecting and supplying the right type of literature to the scholar at the appropriate time pin-pointedly, exhaustively and expeditiously and secondly, they must then endeavor as far as possible, to organise and give access to information and make the selection and control as easy, acceptable and quick as possible.

The Kothari Commission on Education (1964-66) has laid stress on the proper development of university library system in the country and has recommended that the library should

♦ provide resources necessary for research in fields of special interest to the university;

♦ aid the university teacher in keeping abreast of development in his field;

♦ provide library facilities and services necessary for the success of all
formal programmes of instruction;
♦ open the doors to the wide world of books that lie beyond the borders of
ones' own field of specialisation; and
♦ to bring books, students and scholars together under conditions which
encourage reading for pleasure, self-discovery, personal growth and the
sharpening of intellectual curiosity.\textsuperscript{15}

Laying stress on the role and utility of a university library, Paul
Buck\textsuperscript{16} has given the following credo:

\begin{quote}
'First, the library is the heart of education. Every educational
advance depends upon its resources and, in large measure, the degree of
advance is proportionate to the potential of the library to respond;

'Second, methods and fashions in education change from generation
to generation, but each generation uses the library as a means of realizing
its aims; hence the library remains a great conservator of learning. An
investment in a library is a permanent investment, guaranteeing returns for
centuries to come;

'Third, a quality education is impossible without a quality library;

'Fourth, you cannot have a quality faculty without a quality library;

'Fifth, a library is vital to proper exploitation of our intellectual
resources; and

'Sixth, the library is essential to maintenance of free access to ideas,
and to the functioning of untrammelled mind. Though control will never be
successful so long as books are freely and widely available. Here the
laboratory can never take the place of the library.

Thus the functions of the library in a university can be summed up;
that it serves the adult scholarship—that is the faculty to help them develop
the sense of first rate, and that to provide the young scholars, graduates
and post-graduates, with a type of reading material which may help them to

\textsuperscript{15}India, Education Commission (1964-65), op. cit., p. 512
\textsuperscript{16}Buck, Paul, op. cit., p. 9
gain the sense of first-rate, because 'the sense of the first rate will not be developed in students' minds through the minds of faculty members which are themselves second-rate'\textsuperscript{17}. And it is all this stage that the library comes to their help. It is the library that helps them of become productive scholars of one sort or other, or creative artists, musicians or writers, philosophers or scientists, engineers or technologists.

3 Factors necessary for the development of proper library system

In order to make the university library the heart of the institution, it is necessary that the authorities, the faculty, the librarian and the publishing-trade realise their obligations to the objectives of higher education and try to cooperate as much as possible. Their obligations may be distinguished as follows:\textsuperscript{18}

(a) the authority i.e., the university, the University Grants Commission and the Government-State as well as Central, should provide sufficient funds to library service with the conviction that, in its turn, it (library service) would help develop the scholarship and increase productive capacity of the nation;

(b) the faculty should give up the age old text-book-centered, examination-oriented and mass-talk method of teaching and should encourage library-centered, individual and group guidance method through tutorials, discussions and seminars etc., to make education really effective and worthwhile;

(c) the librarian should collaborate with the faculty and provide necessary literature, supplementary and parallel reading, keeping in view that library service does not merely aim at satisfying the immediate requirements of the reader, but also aims to assist the reader in strengthening his creativeness and satisfying his intellectual curiosity;

\textsuperscript{17} Burchard, John E., "The Libraries Function in Education, In: The Library in the University, Hamdon, Connecticut, Sheo String, 1967, p. 51
\textsuperscript{18} Powell, Lawrence Clark, "The Magnetic Field, In: The Library in the University, op. cit., p. 102.
the publishing trade, instead of producing text-books only, and easy question and answer series and other cheap books aimed at providing short-cuts to students to get through examinations, should try to publish standard works, informative books and periodicals and such other literature that may help to broaden the vision, to strengthen the intellectual capacity of the student. In this process, the Government may come up to help the authors as well as the publishing-trade by awarding well-written books and by framing a suitable policy for the supply of paper, printing and binding facility etc. It would be much better if Government sponsor the scheme of subsidising good and standard publications.

4 Elements for the functional layout of University Library System

The successful operation and functioning of a library is based on the premise that it would have adequate resources to support training and research, fully trained and qualified staff capable of organising the information contents in the most scientific and helpful order, and the readers who come to use the library and its resources. Books, staff and the trinity of librarianship as Dr S.R. Ranganathan has put it, are the basic ingredients for the working of any library—may, the university library.

Wilson and Tauber¹⁹ have stressed that, (I) resources for instruction, research and extension; (ii) a competent library staff, (iii) organisation of materials for use; (iv) adequate space and equipment; (v) integration of the library with administrative and educational policies; (vi) integration of the with community, state, regional, national and international library resources; (vii) adequate financial support; and (viii) a workable policy of library government, are essential and are fundamental to the successful operation and development of the university library system of a country.

Though Dr. Ranganathan Library Review Committee on University and college Library (1957) and other committees on higher education recommended the central role of library in academic Institutions, it is seen
that a tendency of ad hocism prevail in support to university library sector. The states' government and the UGC had not formulated any standard for financial support to the libraries it also have no special norms made to support maintenance of quality to library services and to modernise university library and to modernise its services.

Looking back to the history and development of university library system of the country we feel that even today, we have not been able to develop a sound system owing to reasons that are not far to seek.

5 Problems faced by University Libraries

Even after the recommendations of different committees and commissions, libraries are not given priority in performing its functions. All university libraries have various constraints viz.:

(a) Decreasing Library budget.
(b) Tremendous growth of print and non print literature in various forms.
(c) Rise in the cost of all types of reading materials.
(d) Abnormal Increase in number of users (e.g. students and faculty, researchers and research associates of university)
(e) Physical constraints-space problems
(f) Greater and more specialized demand-increase in specialization of subject area studies, etc.
(g) Need for professionally qualified personnel
(h) Need for resource sharing

These problems were compounded with the growing importance of multimedia, revolutionary changes in users demand, information explosion and the impact of electronic age, facts developments in the areas of computer, communication and Information Technology etc. These factors were not adequately foreseen by the Ranganathan Committee (1957), are hence were not discussed thoroughly by them. This made the university library’s efforts to provide relevant services in the presort context to their

10 Wilson, Louis, Round & Tauber, M. F., The University Library, New York, Columbia University, 1956
patron difficult. By the end of 1990s the university libraries had no proper plans drawn to face new issues and new challenges that had arisen.

6. Efforts by UGC

The UGC, taking into consideration the twin phenomena of information explosion and price rise, decided to face the challenges, by deciding to modernization university and college libraries in the country, and thus lead them in the new era. Dr. Yash Pal, the then Chairman of UGC, aptly remarked, "The most important feature of modern times – influencing Development, emergence of new goods and services, patterns of international competition, equations between countries and the changing world order – is that the rate of growth of information and knowledge is faster than ever before and still accelerating. While there are lot of local problems which can be solved using or slightly modifying existing information and knowledge, there are enormous numbers of new developments, both in applications and pure thought, which come only to those who can build on, add to and extend what has already been done. Therefore, a necessary condition for a modern productive economy, or distinction in the world of ideas, is that the educated and the creative members of that society should have quick access to whatever is happening in their own country and the world over. Quite often this in not easy because lot of information is either classified or is in the realm of patents and industrial secrets. Nevertheless, those who are well educated and current with the overall thrust in a field can learn to fill the gaps and develop a way of thinking where even the hidden can become available.

It has always been assumed that the academics in an institution of higher learning will have access though journals and books to the whole fund of knowledge generated in the world and will be current to within a few months of actual publication. This assumption is completely invalid in the circumstances that prevail in our country. A large number of universities have actually stopped subscribing to foreign journals for almost a decade.
Colleges have hardly any access to research publications. New books are so expensive that most of these institutions find it very difficult to buy even a small fraction of what should be on their library shelves.

It is true that we have several well funded institutions who can afford to have fairly good libraries – though even they are beginning to suffer in recent years. On the other hand, a large majority of our 4 million higher education students and 250000 teachers in the universities and colleges can read about what is new only old review journals and popular magazines and that too in a form which is not very useful to an active researcher; this will not give any one feeling of being a participant in the enterprise of creating new knowledge. An atmosphere of participation becomes possible if people can have quick access to what is being done in the country and aboard and are able to inter-act quickly and easily with co-workers all over the country irrespective of their own location or distance from the metropolitan centres.

We asked ourselves: is there an affordable way to ameliorate the present situation and introduce a mechanism through which the situation can be dramatically altered. In this report, prepared by a Working Group of librarians, academician, scientists and engineers from a large number of organisations within the country, one such solution has been evolved. In arriving at the specific solution presented in this report we have tried to build on the infrastructure we already have. We have looked at our capabilities and searched for an appropriate community-oriented modern technology information and communication system. It is suggested that we should set up an Information & Library Network (INFLIBNET) which can inter-connect the people and library- resources of all universities, institutes of higher education and research laboratories.

It should be possible through such a system to search for a book no matter where it exists in the country and ask for an inter-library loan – irrespective of whether you belong to a newly set-up university or laboratory and irrespective of your location. Whether you are in an isolated
institution in the foot-hills of Himalaya, middle, of a forest, sparsely populated regions of the North-East, western edges of the Rajasthan desert, Islands in the sea, or in a large metropolitan city, you should be able to search and get copies of the abstracts of the latest papers published in any major journal through the INFLIBNET facsimile service. Similarly, you should be able to get synposes of any of the ten thousand Ph. D theses written in the country every year. You should be able to reach and get information from specialised data banks put together by different agencies, including NISSAT, UGC and I hope, the Planning Commission. If one makes specific arrangements, it should also be possible to reach foreign data banks from anywhere in the country.

Beside all these library services, one should be able to inter-act with like-minded academics independent of distance and work together on common scientific problems. One can have a countrywide bulletin board announcing special meetings and conferences and even specific conclusions and recommendations of conferences and of course, special happenings in academic, scientific and technical world.\(^{20}\)

He set up a committee on "National Network System for Universities / College Libraries" (1988). The committee produced its report titled "Development of an Information and Library Network": A Report. recommended to set up a INFLIBNET centre\(^{21}\). Which would be a co-operative network with the aim to pooling and sharing of resources and services available in the Information centres, University and college libraries, R & D centres etc. in the country, through modernization of university and college libraries and thus to provide faster access to information and networking. Under this programme, INFLIBNET centre set up in Ahmedabad in 1991. It started service of programmes. It also provided funds to university libraries for purchase of hardware, software and other infrastructure facilities and for manpower training to participating

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\(^{20}\) UGC (India), Development of an Information and Library Network (INFLIBNET); Report of the Inter Agency Working Group, New Delhi, UGC, 1988, p.1-3.

\(^{21}\) Ibid.
university libraries. The INFLIBNET programme, thus conceived to help the users located at various corners of the country to have access and to satisfy their information needs as quickly as possible. As per the latest report the INFLIBNET had provided financial support to 123 university libraries out of 240 university in India. But though over seven years have passed hardly any of the university libraries "except two or three" are providing fully developed computer service and offer these facilities to their clients. In the last ten years, through a large fund were provided to the university libraries and other activities to help in automation, its spread is not much seen. A stage has come to find out the reasons what hinders the progress of modernization of university libraries and how to over-come hurdles that have arisen. It is in this context the researcher has undertaken the study, "Computerization of university: Libraries in Gujarat State: a plan"

7 Educational Features of the State

In the present century, Baroda is the pioneer in the field of literacy and education, which has adopted compulsory free primary education long back, much before the independence of India. Gujarat is one of the faster growing states of India in the field of education. The government is spending a huge amount to increase the primary, secondary and collegiate education in the state. There are ten universities, about 7800 college teachers are working in 300 colleges, and 2,02,660 school teachers in 33,200 schools of the state. To promote primary education in the state, text books and uniforms to the children are provided free in the backward and tribal areas of the state. In the whole state, free mid-day meals to the students of primary school are being made available. To promote higher education among the women it is being made free for them.

It was the great Maharaja Sayajirao III Gaykawar of Baroda is regarded as father of Library movement in India. It was intention of the Maharaja to make his state a modern one in India. The Maharaja of Baroda always wished that people must realise that education is also and
important need. They should be motivated to love book as their life long companions. He made every possible efforts’ to bring the people and books together. While on a visit to America the Maharaja Sayajirao III, Gaykwar of Baroda, invited William Alanson Borden to come his princely state for organising library development program, particularly, the public library. The Baroda public library system, undoubtedly, pared the way for establishing the public library network in the rest of India. Baroda was the first to offer modern library services in the country.

Gujarat state was curved in 1960. After Gujarat state has made lot of progress in the field of Industries, agriculture and other commercial sectors. Except in the field of library and Information sector. In the age of Information technology, there is very less use of technology in the university libraries of Gujarat State. The computer application in the university libraries is in initial stage.

8 Universities and University Libraries in Gujarat State
There are in all eleven universities in Gujarat. These universities were established under different Acts as mentioned below:

9. **Hypothesis**

The hypotheses are tentative proposition relating to investigate questions, we formulate them to be tested in our research. They describe the properties of variables or show the relationship between them. They aim at answering the research questions. They determine what facts will be sought and what research procedures will be used.

**Meaning of Hypothesis**

Lundberg defines hypothesis as "a tentative generalization, the validity of which remains to be tested." Goode and Hatt define it as "a proposition which can be put to a test to determine its validity."

Formulation of hypothesis plays an important part in the growth of knowledge in every field of science.

After effective literature survey, the researcher has formulated in clear terms the hypothesis. It provides focal point for the research.

Information Explosion is today a world wide phenomena. Acquisition of all documents, and in all formats, is a wild dream for any library. National

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priorities as we approaches the 21st century are shifting test. Government budgets and allocations are increasing for Defence, Communications, Agriculture, Irrigation, Health, Housing etc. but decreasing on the library front. Resources crunch and inelastic budgets have become a bane to the libraries. In the present scenario of reduced resources, increased cost of information, resource sharing and networking of libraries have become the necessity of the day. No library, however big can contain all information. Till the advent of information technology, most libraries remained like islands except for some minimal co-operation in inter-library loan. Information technology is the modern buzz word. It has provided facilities for the free flow of information. The world has become a global village. Information superhighways, information super markets are created through networks like Internet. This has facilities for the resource sharing among the libraries though they are separated by miles of distance. The concept of virtual libraries, OPAC, hypertext and teleconferences for the purpose of resource sharing and information exchange have become common.

Keeping in view the tremendous flow of information, to organise, and to disseminate in information systematic way, computerization is the answer. Computer - aided system is more convenient, more flexible and more comprehensive and in long run more economical.

UGC has provided finance, hardware, software, manpower training including all infrastructure facilities. Even though not a single university library is fully computerized in Gujarat State. In all the university libraries in Gujarat State, computerization and networking activities are at the initial stage. They do not have definite and systematic plan for computerization and networking. It is being adopted on adhoc basis.

Effective utilization of this infrastructure is the responsibility of individual library. This means the university libraries in Gujarat state should give highest priority to computerize their library and improving their services and thus ensuring easier and wider access to documents and information for their users. The only way university libraries in Gujarat state
cope with the rising cost of information materials is by better co-ordination, co-operation and sharing of resources with other university libraries at state, regional and national level. The networking of university libraries and the application of new technology for this, must obviously get high priority. A vital prerequisite for networking is computerization and conformity to common standards for library process. There should be a plan for computerization of university libraries in the state.

How-far the objectives of computerization and modernization of university libraries have been achieved is, what are its lacunas and how to overcome the difficulties faced by the university libraries in the state has compelled the present researcher the to select the topic of "Computerization of University libraries in Gujarat State: A plan."

Definition of terms

There are three important terms. Here the researcher has focused on “Computerization” and “University library”, and University library located in “Gujarat state” only.

“Computerization” means all the functions and services with the help of the computer have to be studied.

The application of computers can be grouped into those concerned with house keeping routines such as Acquisition, serial control, circulation control, cataloguing etc. and those directed towards information storage and retrieval. It can be applied in two way:

1) it can be used to build up an inhouse storage and retrieval which is limited to the resources available in the institution and information services to users.

2) Computer can be used an access tool to obtain information from externally operated information storage and retrieval systems.

“University Library” means the library belonging to university only are taken for studied, but not either types of libraries such as, college school, public, Research & special libraries.
A university library is a library attached to an Institution of higher learning, a function of which is research and advancement of knowledge in a wide variety of subjects and which in this subjects, offers a doctor’s degree. It supports teaching programmes and aids research activities. In university sector its collection is balanced and well organised. In general, it seeks to meet the intellectual concerns of the university community. It is a centre for organisation of a variety of activities to stimulate and promote intellectual development of academic community. Therefore, its resources as well as organisational effectiveness to meet the demands should be of a high order. Further focus is on general University Libraries located in “Gujarat state.”

10. Aim and Objectives

The university library must provide present and future requirements of the modern society, students, teachers and research scholars.

The researcher therefore proposes to examine:

1. The present position of automation of university libraries in the Gujarat state and the problems faced by them.
2. The progress of modernization of university libraries activities undertaken by the university libraries under the INFLIBNET programme specially since 1991.
3. To suggest an action plan for early computerization and networking of university libraries in the Gujarat state say in 18 months period.

It is in this context, the researcher proposes to develop an action plan to provide also for city network at Vallabhbhi Vidyanagar which would act as a model for other university libraries to in the Gujarat state follow and thus may lead to develop a regional and national academic information system. It may eventually help to develop an information based society in the Gujarat state.
11 Scope and the Limitation

In all there are eleven universities in Gujarat State. Out of these, two universities are of specialized nature. Their collections, services, clientele, requirements are of special types. These are Gujarat Ayurveda University, Jamnagar, and Gujarat Agricultural University, Dantiwada. They do not fall in the ‘general’ university category. The Ambedker University is also not covered in the study, because it is open university. This study does not cover these three universities.

The present study is therefore limited to computerization and networking of the remaining eight university libraries in Gujarat State i.e. Gujarat University, M. S. University, North Gujarat University, Bhavnagar University, South Gujarat University, Saurashtra University.

All important aspects of the above eight universities have been critically studied. It includes the users, collection, training of staff in the present stage of library computerization and networking, computer hardware, software, library services, Internet service, access to databases, standards etc. It covers the period from 1991 to 2001.

The researcher decided to study the present situation and suggest a plan for early systematic computerization of university libraries in Gujarat state.

12 Methodology

Method means the mode or rule of accomplishing an end. Methodology means a system of methods and rules applicable to research. It is connected basically with principles and techniques to be followed for collecting data, information and material for a given research project.

The research methodology followed in this study for achieving the aforesaid objectives is given below :-

1. Discussion with library professionals.
2. Discussion with computer experts in university library as well as computer centre, INFLIBNET, ADINET, etc.
3. The survey of literature on: the topic of (a) planning and development on innovative computer technology, (b) library automation, and (c) telematics in general at and National and International level.

4. By consolidating the suggestions got during discussion and by reviewing the literature, analyzing, and interpreting them.

5. Questionnaire was circulated to each university library for getting the primary data and their reactions, followed by

6. Secondary data were collected from the university budgets and reports for the last two years.

7. Random sampling method is used to collect the data regarding the adequacy and user's expectations.

Before the questionnaire was finalized the sample questionnaire was drawn and survey was conducted at Bhaikaka Library. Based on feedback received and discussing. Final questionnaire was drawn and sent to the eight university libraries for their remarks and collecting many of data. As the questions were incomplete replies were. Therefore researcher contacted the librarians concerned by phone and by personal visit.

While suggesting a plan for early computerization of university library the researcher has considered three aspects namely,

1. That once a particular library's function is automated, it is likely to remain automated. To change it or to bring amendments later on becomes a serious concern for the library staff.

2. Relates to time-scale allowed for the development of a particular library for bringing new changes, it is necessary to start planning of the project and complete at in a stipulated period. So time schedule has to be prepared in advance.

3. Third implication for planning to be kept in mind, is the rapid growth in computer science and communication fields at the national and international level has to be visualized. It should provide for updating programme and use of standardization.
13 Conspectus

The study is divided into eleven chapters.

Chapter – 1 deals with “Introduction” to the subject. It includes the study of role of university library in higher education, objectives of higher education, functions of university library, various problems faced by university libraries, hypotheses definition of terms, aims and objectives scope and limitations and methodology study.

Chapter – 2 deals with “Research Methodology.” It includes meaning of research, types of research, research process, research design methodology etc followed.

Chapter – 3 includes “Review of Literature” relevant to the research undertaken.

Chapter – 4 deals with History and development of university and university libraries till 21st century, role of various commissions and committees in the development of university libraries in India with the particular reference to the UGC programmes to modernization of university and college libraries with particular reference to INFLIBNET.

Chapter – 5 deals with “Impact of computer, communication and IT on libraries.” It deals with meaning and needs for computer, its characteristics, various generations, areas of computerization, functions of an automated acquisition control, circulation control, cataloguing and indexing. It also discusses effects of communication, new frontiers of IT, telecommunication, fiber optics and satellite communication, and their relevace.

Chapter – 6 discusses the importance of multimedia and the newer developments viz. digital libraries. It also covers various types of network like INFLIBNET, Internet, Intranet, Extranet and Web technology, IT task force other changes, etc.

Chapter – 7 deals with “Integrated Library Management Software”. It discusses application software, nature and types of software packages, use of software, software selection criteria, its evaluation criteria, library.
and information retrieval software, micro-computer software packages, discusses various library software packages comparison of more used Libsys and SOUL software.

Chapter – 8 brings out Analysis of Questionnaire.

Chapter – 9 “Conclusion and Recommendations” including action plan for computerization and Networking of University Libraries in Gujarat State.

Chapter – 10 provides bibliography of books periodicals articles, annual reports of various university libraries etc.

Appendices are annexed at the end.

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