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Introduction:

From ancient ‘Gurukula’ System in which knowledge was transmitted orally from teacher to student; education has changed to a process of interaction between learners and sources of information. This change has greatly influenced library management and services. The proliferation of scientific literature has necessitated a systematic and professional approach in the management of libraries. According to one estimate, the volume of information is increasing at the rate of 13 per cent, virtually doubling in every seven years. Electronic databases and database management systems has become popular in order to handle the flood of information. Moreover, the micro level information requirements of users coupled with multidisciplinary nature of information makes the process of information handling more complex. Human brain along with artificial intelligence and expert systems can solve the problem effectively. Whatever be the intelligence artificially employed through computer technologies, human element is the basic component of all these technologies. Hence, personnel employed in the field of information processing and management requires scientific attention and leadership which brings the most conducive atmosphere for the adoption of modern technologies. The phenomenon of surpassing of the number of workers in the information sector with that in production and other service sectors in some of the developed countries has evolved a scientific practice of personnel management in the field.
The 1990s have been one of the longest periods of sustained economic growth all over the world since the World War II. This economic growth has impacted all the spheres of human life including higher education. The academic libraries have also grown over a period of time in India and elsewhere. In general, information professionals and librarians have been coping well and addressing the many changes brought about by the electronic information revolution. There are increasing debates, discussions, seminars and other intellectual exercises on academic library management. Efforts are also made to identify the strengths and drawbacks of academic library system with the fond hope of improving the status of academic libraries in the developed and developing nations.

The personnel management policies and practices in university and affiliated college libraries in Marathwada need thorough restructuring in the present context in order to make fit the library professionals to the modern sophisticated environment and for sustainable development of library and information systems. Constant reorganization and systematization of libraries is inevitable to achieve better bibliographical control over documents and offer efficient services to the user community. The researcher have made an attempt to present the salient features of academic libraries in India, focus the relevance of academic libraries in India and discuss the challenges and opportunities for academic libraries in India.
Historical Development:

The modern period in the history of education for librarianship began in the mid-1800s as librarians around the world recognized that systematic education and training were required so that order could be brought to the collections that had been growing in all libraries. The need for professionally qualified personnel to manage and run these libraries effectively and efficiently was duly recognized during the first half of the present and consequently, the library education programme had been started at several places much before Independence. The history of the education of library science in India may be traced far back as the year of 1911 with the starting of a short term training programme in library science in the Baroda State, under the patronage of Maharaj Sayajirao Gaekwar of Baaroda, who, impressed by the splendid work done by public libraries in the West, secured the services of an American librarian Mr. W. A. Borden as Director of the State Library Department. Mr. Bordon had been a pupil of Mr. Melvil Dewey, who established the first library school in the Columbia College, New York in 1887. In 1915, another student of Dewey, Mr. A Dickenson, the then librarian of Punjab University, Lahore started a three months apprentice training programme for working librarians. Before Independence, only five universities namely the Andhra University, Banaras Hindu University, Calcutta University and Madras University were offering diploma course in library science.
Library education was given a new status and design by Professor S. R. Ranganathan in 1920, when the first systematic programme in library education was started under the auspices of the Madras Library Association in collaboration with the Madras University. This library school was subsequently taken over by the Madras University in 1931 and in 1937 the course was converted into Postgraduate (PG) Diploma in Library Science. This was the first diploma programme in Library Science in India. University of Delhi was the first university to establish a full-fledged Department of Library Science just before independence in 1946, and started admitting students to the PG Diploma in 1947. In 1951, the diploma was changed to Master in Library Science (M.Lib.Sc). Later, between 1956 to 1959, six new LIS departments were established at Aligarh Muslim University, M.S.University of Baroda, Nagpur University, Osmania University, Pune University and Vikram University. Since 1960s, the number of LIS departments has continued to increase.

After Independence the stimulus for the growth and development of libraries and library science education has come from the progress in and extension of education, scientific research and programmes of socio-economic development which started in 1951 with the commencement of the First Five-Year Plan. As a result of these developments, Library and Information Science today is a well-recognized discipline of study and research at the post-graduate level in more than hundred universities in the country. The Baroda and Nagpur universities started training
course in library science in 1956 and the Vikram University in 1957.\footnote{5}

**Objectives of Library and Information Science (LIS) Education:**

The goal of library and information science education is the preparation of personnel for the task of successful performance at different levels of competence in different types of libraries with an insight into the role of these libraries in a fast changing society.\footnote{6} It should impart a thorough grounding in the intellectual foundations of the profession and competence in the technical and technological skills required for their day-to-day practice in different positions. In other words, education for library and information science should be both knowledge and theory oriented task or practice oriented. The two aspects of theory and practice should blend harmoniously in a sound programme of library and information science education because on this will depend the effectiveness and success of the programme. In achieving this objective the methods of teaching and evaluation employed are as important as the quality of the faculty.

The main objectives of LIS profession are to: provide training for building up leadership qualities among the LIS profession; develop knowledge on the latest techniques of information storage, transfer and retrieval; help to acquire necessary skills in handling, accessing and application of electronic resources, tools and media; and help to know the latest developments in the
Information Technology (IT)  To sum up, the basic aims of library and information science education may be as follows:

- To develop necessary technical skills;
- To develop administrative skills;
- To develop service orientation;
- To develop thorough knowledge of various sources of information, necessary to give the traditional and modern library services;
- To develop professional awareness.

**Knowledge Management**

Broadly speaking, *Knowledge Management* (KM) is a process of creating, storing, sharing and re-using organizational knowledge to enable an organization to achieve its goals and objectives of creating knowledgeable professionals and workforce. The advent of the e-revolution, through the growth of global networks has accelerated the use of knowledge management especially in academic libraries. In the 21st Century KM is increasingly becoming a crucial tool in providing a dynamic and effective service to library users in India and rest of the world. Management gurus, such as Peter Drucker asserted, that for industries and institutions “the most valuable assets of a 21st century institution, whether business or non-business, will be its knowledge workers and their productivity”. This affirmation was duly taken up by many academic libraries. Knowledge Management has already been successfully implemented in academic libraries and the policy makers, administrators, scientists
and researchers have been actively involved in ensuring knowledge management through academic libraries.

**Educational Revolution In India:**

Educational institutions around the world are undergoing a change and competing like business enterprises. Educational revolution is taking place in India too and all kinds and levels of educational institutions are mushrooming all over the country. Slow pace of changes in a number of government institutions has encouraged the private sector to invest in educational infrastructure, impart quality education, and take advantage of this great business opportunity. In the public sector too a few institutions of excellence exist in the area of engineering, management and science education, e.g. IITs, IIMs, NITs, IISc. These institutions have excellent infrastructure, follow rigorous evaluation system for admissions, impart state of the art education, witness 100 percent job placement of students, and contribute to the talent pool of the county. Their graduates are in demand all over the world. Many foreign companies are also setting up their R&D Centres in India because of the availability of highly competent engineering and management manpower and comparatively low cost of running such centers.  

Because of globalization, growing competition in the higher education sector and external pressure of market forces, the universities and educational institutions are undergoing change to stay current and competitive in their areas of operation. Every
component of the university in general and library and information services in particular is undergoing metamorphosis. They face funding problems as the cost of running them is constantly going up and the demands for developing additional resources and facilities and rendering more services are also ever growing. Universities are therefore, almost developing a corporate culture of management to cut costs, eliminate redundant functions, achieve their objectives through effective management and care for their customers.

Changes in the universities and educational institutions that are mainly triggered by the developments in information and communication technologies and fueled by the internet profoundly influence the way the universities function and perform difference jobs. With the growing importance of management of knowledge resources and providing knowledge-based solutions to various problems, the university and educational institutions libraries are supposed to play a pivotal role in the university and educational institutions instead of the peripheral role of assisting in information search and making available the documents having relevant information.

Ongoing advancements in ICTs and the growing necessity of managing knowledge resources have influenced almost every facet of university and educational institution’s libraries and set the process of restructuring, finding new models of planning of these organizations and remodeling of their services keeping in view the
new possibilities of meeting users information demands and providing greater conveniences to them. Because of accelerated pace of electronic publishing, digitization of documents, development of library networks and growing emphasis on the internet-based library services, providing just in time access to information on any subject is not a problem for university libraries. Quality filtering of enormous volume of information and trafficking the high quality information to work processes and information user communities of the university is in fact now a major challenge for university libraries.

In the highly competitive and growing market of electronic information resources, an important area for concern for libraries is, to how to individually or collectively and cost effectively acquire the best of information products and services. As electronic archives are being built and made available online, libraries are doing away with archival role for such information sources and buying online access for them instead of buying the source. On the basis of frequency of use of certain resources, the libraries are also considering paying as per usage instead of acquiring a source of information. A lot of useful information also exists in the open access electronic information resources and university libraries can collaboratively track, evaluate and pick up sources of common concern and thus create virtual information repositories designed and customized according to their requirements.
Role of Library in Higher Education and Research:

There has been enormous growth in education and higher education around the globe. Every country worth its name has developed a system of education and infrastructure to educate its people, and India is no exception. There has been a fast growth in institution of higher education since the dawn of twentieth century and more particularly, after India attained independence in 1947. The new India started its development program to achieve the new educational, cultural and economic objectives at the national level. Such developments at these institutions contributed to the development of more libraries, which in turn had to accept new responsibilities to meet society’s changing needs and demands. Libraries are recognized to play an important role in education, scientific research and social-economic development of a country. This envisages the need for professionally qualified personnel to manage and run the libraries and information centers effectively and efficiently. In order to feed the growing number of libraries, more trained library professionals were needed. For this purpose, library science departments started springing up, and library science developed into a distinct field of specialization with its own normative principles, theories, techniques, and practices that were deemed sufficient to meet the growing dimensions of library services.

Handling of recorded knowledge in modern libraries has given birth to the functional aspects of collecting, organizing and promoting the use of reading materials relevant to the users
through information transfer activities.\textsuperscript{12} These activities, no doubt, assist in defining the spectrum of studies for librarianship. The basic tenet of LIS education is to provide balanced training, integrating theory with practical exercises, and to cover all aspects of professional work with equal emphasis embracing new frontier of librarianship. LIS education aims at providing trained manpower to manage different types of libraries, information and documentation centers which, over a period of time have undergone changes in terms of needs, functions, types and range of services offered as well as tools and techniques being used when offering the services.

Research in library and information science in India is not deep rooted. In the beginning it was in the form of a trial and error method. It was Padamashee S R \textbf{Ranganathan} who lifted librarianship to the level of a science with the formulation of laws of library science, and establishment library schools and research centers. He even graded them as normative principles, fundamental laws, canons, principles and postulates. \textit{Ranganathan} cut new grounds and blazed new trails in library and information science initially by solo research. This is evidence from the published literature that Ranganathan era’s is characterized by a period of intellectual contribution to the library and information science, particularly library classification. The root of the library and information science research in India were offshoots from the country first LIS intellectual workshop instituted by the Dr SR Ranganathan a doyen of library science profession in India in 1946.
And the first research fruit in the library and information science in the country even in the commonwealth countries was awarded by the University of Delhi in 1957 to the DB Krishna Rao for his thesis ‘Facet Analysis and Depth Classification of Agriculture’ under the supervision of Dr. SR Ranganathan.\textsuperscript{13}

**Changing Face Of University Libraries:**

University and College libraries in India are hybrid libraries and will continue to act as brick and mortar libraries along with click and mortar libraries although the mix between paper and electronic materials will shift somewhat in the passage of time. Majority of the university libraries offer internet facilities to their users and some are having their web sites and offering web-based library and information services. The UGC’s Information and Library Network (INFLIBNET) provided initial grants and manpower to most Indian university libraries to initiate their automation work. These libraries are now integrated with the INFLIBNET. Some of them also have connectivity with the Developing Library Network (DELNET). Following the consortia approach, the UGC has also made available the access to a large number of costly e-journals to Indian universities under its Infonet programme along with necessary hardware such as V-SAT connectivity to these universities.\textsuperscript{14}

A number of universities and College have also spent enormous amounts of money from their own resources to fully automate their operations and introduce RFID technology. The
Indian university and College libraries are in the process of restructuring their facilities and work processes, remodeling their functions and re-engineering their services to facilitate their enhanced role in the new information environment. A number of libraries are digitizing their uniquely held collections. To facilitate compact storage of information, they are even converting their print archives of information to CD-ROMs and DVD-ROMs. Development of databases, application of expert systems, mobile computing and more focused flow of specific information through intranets is likely to have further impact the way services are offered to information user communities.

Several Indian networked university libraries have achieved the level of providing any information just at the time of demand. However, they are yet to initiate the next level of much desired service, i.e. just in time delivery of most appropriate and high quality information at the place where desired. University libraries handle scholarly information. On time delivery of any academic information anywhere is important. However, for the dissemination of information in the university library environment, the relevance and quality of information is equally important.

In the present information environment, both medium and message are important. User communities are themselves accessing the global information resources and chatting with their colleagues abroad through the Internet medium, university
libraries have a challenge to provide worthwhile, qualitative, most engaging, motivating and interesting information which even helps to integrate ideas, links related information and create insights for the generation of new knowledge. In the ever-growing ocean of information hooking and fishing out the worthwhile ideas and information is not a simple task.

The challenge for the university libraries and College is to separate relevant qualitative information from trash and make this information available on time to help information user communities to do and accomplish their tasks at hand.\textsuperscript{15} As a lot of electronic information is available in unbundled form, repacking of information according to institutional needs and its customization as per users’ requirements may become an important activity of university libraries. In the anticipated future, these libraries will not only be under pressure to invent new information products but also be innovating new services which ensure timely access to information according to requirements and conveniences of various categories of users. Maintaining unique and high quality collections, creation and marketing of databases of regional information and indigenous knowledge, constantly adding value and improving quality of services will be critical for Indian university libraries for their very survival in the internet era.

Indian university and College libraries also face a great challenge of preparing and empowering information user
communities by imparting need-based information literacy. For decades, India has not been able to make effective use of its manpower because of illiteracy. India will not be able to make most effective use of its literate manpower without imparting information literacy. The Indian university libraries are required to launch massive movement and programmes for imparting information literacy to enhance the capacities and competence of information users to make more effective use of information resources and services.

Library and information personnel play a key role in the development of resources and services of university and College libraries. Because of fluid information environment and rapidly changing work performance requirements, skill and competency gap is often created in employees. Any large organization today has to survive, grow and prosper in a highly competitive, dynamic, rapidly changing complex environment, where human obsolescence is as common as that of machines and where survival is only of the fittest”. To maintain the competitive level of university and College library professionals, continuing education and need-based training of library staff will be important requirement. Continuing education and training of staff will not only help to enhance their capacity for work performance and ensure efficiency but also help to quickly adopt and properly adapt with new information handling methods, knowledge management tools and technologies and make effective use of contemporary information systems and services. Keeping in view
the ever-expanding operations of libraries and new kind of service demands on one hand and limited financial resource on the other, libraries are developing a corporate culture of management.

**Academic Libraries in India:**

India is well known as the largest democracy in the world. Today there are a total of 237 universities, including 116 general universities, 12 science and technology universities, 7 open universities, 33 agricultural universities, five women’s universities, one language universities and 11 medical universities along with 12,600 colleges that provide education in all disciplines. The number of teachers is 3.1 million, and 7.8 million students are enrolled in higher education. Schools of library and information sciences are also established all over the country with a view to create trained information workforce in the country. Indian academic libraries are managed on the basis of tested, tried and trusted principles of management.

Academic libraries are the treasure trove of knowledge which cater to the needs of scholars, scientists, technocrats, researchers, students and others who are directly associated with the mainstream of higher education. In this competitive age, the policy makers have to rise to the occasion and create a new generation of knowledge workers. The information personnel of the academic libraries are also called upon to equip themselves with the best tools, techniques, procedures and practices. The ways in which people communicate, and acquire and share knowledge,
will inevitably have an impact on the library, its services, and its staff.

The academic libraries play an important role in the academic community by providing necessary forum and resources for faculty and students to do their research and advance their knowledge. In order to effectively meet the growing needs of the clients and achieve success in the management of academic libraries, the academic libraries need to actively address the many challenges for the design and delivery of innovative resources and services. Academic libraries are also required to play the role of scholarly partner in exploring new pathways to knowledge and acting upon this. It is widely acknowledged that meaningful reference work and research support is absolutely essential to ensure successful dissemination of knowledge to the clients on the basis of meaningful team spirit and work. It is imperative that subject reference workers adapt to the reality of dealing with socially networked clients. Reference interaction has always been a conversation; moving towards reference in the social environment is therefore a natural development that has been shown to be not only practically viable, but also to benefit the community of users in the field of higher education. Academic libraries are required to develop know how and show how systems which are highly essential elements of meaningful academic library management.
Information and Library Network (INFLIBNET):

The University Grants Commission has set up an autonomous Inter-University Centre in 1991 called INFLIBNET which is involved in modernizing university libraries in India. It connects the Indian libraries through a nation-wide high-speed data network. It promotes automation of libraries, develops standards, creates union catalogues of serials, theses, books, monographs and non-book materials; provides access to bibliographic information sources; creates database of projects, institutions, specialists; provides training, etc. Almost all academic libraries, especially university libraries, are members of INFLIBNET. It has also developed library automation software called SOUL (Software for University Libraries) which is distributed free of cost to its member libraries.

Besides INFLIBNET, a number of other national networks and various library networks have also been developed including NICNET (National Informatics Center’s network), INDONET, ERNET (Education and Research Network), CALIBNET (Calcutta Library Network), DELNET (Developing Library Network), etc. ADINET is associated with INFLIBNET, DELNET with NIC and MALIBNET with CFTRI. A good number of higher educational institutions are members of these networks. In particular, DELNET has 752 member libraries including 742 from India and 10 from outside which are engaged in compiling union catalogs, creating various databases of experts, providing training to library staff,
ILL, online facilities, reference service, assistance in retrospective conversion, etc.¹⁸

**Library Consortia:**

Many Indian university and college libraries are not in a position to subscribe to all the required journals and databases mainly due to lack of management support and financial constraints. The libraries are forming consortia in order to facilitate knowledge sharing at a much cheaper rate. Some special libraries and organizations like the Indian Institute of Astrophysics (IIA) Library, Inter-university Centre for Astronomy and Astrophysics (IUCAA) Library, National Centre for Radio Astrophysics (NCRA) Library, Physical Research Laboratory (PRL) Library, Raman Research Institute (RRI) Library, Tata Institute of Fundamental Research (TIFR) Library, Council of Scientific and Industrial Research, Department of Atomic Energy, etc., have established consortia to share electronic access to journal literature. NISCAIR is developing a consortium for CSIR labs for accessing e-journals. Consortia in India are still a new concept that requires proper guidelines and methodologies.

The UGC conducted a survey and found that about 142 university libraries had computer and Internet facilities which were interlinked to INFLIBNET. UGC has also launched a major initiative called UGCINFONET which provides high speed Internet connections in order to facilitate electronic access to professional literature including research journals, abstracts,
review publications, and databases from all areas in science, technology, social sciences and humanities, and so on. Today, a number of professional journals are available over UGC-INFONET to all universities. The subscription initiative under UGC Infonet is an important portal for sharing print as well as electronic resources amongst university libraries.\textsuperscript{19} INFLIBNET functions as a resource center with an aim to cater to the needs of its members for resources not accessible to them in electronic media or are available in print media.

\textbf{Involvement in Teaching and research}

Education can be defined as a process of learning, understanding, applying and utilizing knowledge for betterment of oneself, other individuals and the society as a whole. It is a process of interaction between learners and information sources. Education is a process for thinking, cognition and acquisition of knowledge which is directly based on the knowledge already created, gathered, stored, and disseminated by the society through a variety of media. Both teachers and library and information people measure and disseminate knowledge. A successful and growing teacher must have entered into companionship with the librarian. The law to be postulated is that nobody can become and succeed as a faculty member without support of the librarian. In an academic team of teachers and librarians no one is actually superior to the other. The Association of American Colleges and the Association of American University Professors have opined that, "\textit{Librarians perform a teaching and research role in as much they}
instruct student formally and informally and advise and assist faculty in their scholarly pursuits. The function of the librarian as participant in the process of teaching and research is the essential criterion of the faculty status.

This definition underlines the role of a librarian as faculty member in the teaching-learning process. Even though the UGC and ICAR have issued directions to involve librarians in the active process of teaching and research, this aspect did not get due weightage in the higher education institutions in India. As compared to other universities, non-agricultural universities have better implemented the direction. They have included the topic ‘Information Processing and Management’ as part of their course curriculum.

**Atmosphere for Technology Adoption:**

It is felt that the process of adaptation of libraries to the highly dynamic information world poses several problems. Lack of resources and technical competency, the inertia created by the existing structure and procedures, unwillingness and non-cooperation of the staff, lack of conviction on the part of the authorities and delay in decision making and changing the policies, etc., are the major contributing factors to the problem. Convinced authorities, technically competent and confident professionals, better motivation and morale of staff, adequately educated users and enough publicity for the technology oriented services can bring efficiency and service effectiveness. To create this atmosphere, strict orders of the government and the UGC/ICAR authorities are essential. Uniform and scientific
recruitment and career advancement schemes comparable to those prevailing in other sectors should be implemented. These are necessary to attract capable persons into the library and information service sector.

**Existing Library Staff Structure:**

The analysis of the existing staff position in various university libraries in India reveals that there is no uniformity or standards with regard to the library staff. The staff can be divided into four categories as follows:

1. Professionals - UGC/ICAR Cadre
2. Professionals - Non UGC/ICAR Cadre
3. Administrative Staff
4. Support Staff

There is to some extent uniformity in the qualifications, recruitment, promotion, scale of pay, etc., of the Professionals of UGC/ICAR Cadre. But for the remaining three categories there is no uniform pattern. Their qualifications, recruitment procedure and promotion policy are varies from university to university. All the Universities in Maharashtra State are following a common staff policy. But, a scientific and common criterion to find the number of staff does not exist in these universities. As a result, some universities are having excess staff, while others are starving for adequate number of staff. A scientific ratio between the UGC/ICAR and Non UGC/ICAR Cadres of posts is totally absent in almost all universities. Some universities in India are following
direct recruitment to the posts coming under UGC/ICAR schemes, but some others resort to their own policies in these aspects.

The staffing policy should be framed with utmost care to ensure maximum productivity and job satisfaction. The number of staff members should be optimum. The smooth flow of work will be affected both by the under estimation and over estimation of staff. There were several contributing factors to arrive at the required number of staff, of which the number of users, documents and services are important. In the changed situation, it is better to give importance to the number and volume of activities and services in a library. There will be some essential services to be offered by a university and college library and so the following departments should be there in a library – Acquisition, Periodicals, Technical Processing Database, Maintenance, Reference, Circulation, Documentation and Publication, Inter Library Services, Network and Online. Each department should be headed by a library faculty staff in the UGC Cadre. There should be adequate number of supporting professionals also for each department deployed on the basis of the services offered or programmes undertaken.

It is better to frame a standard for calculating the total number of professionals. In the changed technological environment, it is found that adoption of the available standards and formulae for this purpose need to be revised. The publishing technology has completely revolutionized the earlier concept of
the number of documents. Now, a single CD-ROM can occupy lakhs of pages of information. Hence, the calculation of quantum of staff based on the number of library documents has become irrelevant.

**Information Technology in Education**

The capacity and capability of librarians and information professionals in the present day context should be of the level required to guide the students and teachers. Information technology occupies a key role in the management of libraries and information centres. Management aspects like recruitment, induction, training, promotion, etc., are being affected considerably by these modern technologies. The renaming of libraries into information centres is an explicit example of this transformation. The modern equipments like computers, CD-ROM drives, printers, reprographic and other equipments, modem, V-SAT and other communication equipments, multimedia installations, barcode readers, etc., are completely revolutionized the practices and procedures followed in libraries. In order to cop up with this situation, libraries have to adopt the scientific staff management practices for achieving effective utilization of resources, user satisfaction and staff motivation.

The library and information field acknowledged a dynamic and explosive situation created by modern information technologies. In comparison with many other disciplines, the library and information science has completely revolutionized due
to the emergence of computer and communication technologies and their application in information systems. Indian universities and institutions behind in offering the knowledge of advanced technologies to the library and information professionals. There are various reasons ranging from the lack of resources to the non-cooperation of staff which is responsible for this situation. The technical incapacity due to this lacuna is ultimately reflecting in the service efficiency of the information systems which is leading to dissatisfaction among professions and a stage of inertia in services.

Faculty Improvement Programme:

A sound policy of technical training and faculty improvement programmes is to be framed to continuously induct the staff to the newly emerging technologies and methods. Participation in refresher courses, seminars, symposia, workshop, etc. will offer wide exposure which in turn will enhance the technical competency and efficiency of professionals. There should be a scientific human resources development policy in higher education sector to create an environment of regular technology updating in all institutions. Since library and information science is an area where explosive changes occur due to the emergence of new technologies, such a policy can provide greater effectiveness in information services.

A scientific policy on personnel is essential for the library and information professionals working in universities and
colleges. It should facilitate recruitment, induction and promotion of staff and getting required quantum of staff. A continuous effective training scheme is essential to constantly update the technical knowledge and competency of the staff recruited. Instead of the vacancy dependent ratio or time bound promotion, a Flexible Complementing Scheme of promotion is advocated. Continuous evaluation of staff by superiors using ACRs and assessment interview/test are recommended in a limited manner to ensure smooth flow of work and increase productivity. The universities have to change their existing obsolete staffing policies to enable their sustainable development.

**Challenges and Opportunities:**

The vision and mission of academic libraries are changing in India. These academic libraries now take on the key role of providing the competitive advantage to various universities, research and development organizations which play a pivotal role in the process of nation building. Academic libraries are positioning themselves to be the torchbearers and path makers of educational advancement by way of integrating knowledge systems and resources. These academic libraries are required to do serious introspection on their roles, responsibilities and contributions. Comments and observations are noted very frequently on their strengths and limitations in various national and international forums.
The vast literature gleaned from publications on academic libraries aptly reveals the changing roles and responsibilities of information professionals in the modern society. The academic libraries are also called upon to exploit all forms of digital and telecommunication technologies and explore new avenues and possibilities for the enhancement of knowledge resources which are available in different forms and places. The builders and managers of academic libraries are also required to enrich computer security and authentication techniques which promote information diffusion.

The information personnel are also required to enrich their professional competence and leadership qualities which would facilitate meaningful identification, location and evaluation of information resources in order to promote professional excellence among the user community. The user-centered paradigm has been adopted in the developed countries to create customizable interfaces and enrich the process of collection development in the academic libraries. The academic libraries really demand a well conceived, designed and maintained systems, practices and operations which would effectively meet the needs of different constituent groups and individual users. The administrators are mainly responsible for creating and sustaining software, hardware, human resources and data bases which would go a long way in promoting research and development in India. The proficiency of library information science (LIS) and information skills must be
complemented by hardware and software skills for working in an information technology (IT) intensive environment.

**Change Management And Staff Development:**

Rapid changes are taking place in the information environment and managing change in the libraries and information centers is the greatest challenge of libraries. Library personnel play key role in managing the process of change in the libraries. Change management and staff development go hand in hand. Evaluation and review processes of universities for grading and certifications also help universities to a great extent to manage change. The interest and initiatives of the university leader help to a considerable extent to facilitate desired changes. The university and college libraries may develop a corporate culture to plan their resources and organize their facilities but for rendering services to users, university libraries should maintain ethics, mitigate users’ problems and practice humanism in service.

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