CHAPTER 1
INTRODUCTION
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1.0 Introduction:

Education and library have been inseparables since centuries and civilizations. Evidences are plenty where library has been one integral part of all education, more so in the institutions of higher learning. In India, Nalanda and Takshashila Universities and even the gurukula type of education has highly dependent on their libraries. The library of Mohammed Gawan of Bidar contextually is the best example as how importance was given to libraries in higher education.

Libraries in the West in equal terms were the part of monasteries - the centers of learning. The history of library movement in U.K. in this context emphasizes the monastic libraries as the signposts of this mutual conjugality.

The mutuality between education and libraries has thus been perpetuating since man attained the sense of learning. Libraries of today have assumed a new role in modern society, by that they integrate educational technology, information and communication technology and the new media.

The libraries since their existence have also adapted to changes that have influenced them from outside as well as within. The moveable type brought the first landmark change in the content of libraries. Since that time the libraries started acquiring new media and also a new role to support academic programmes of all educational Institutions. Libraries with changing media enhanced the needs and wants of the learners and the facilitators of learning – the teacher and the librarian. This implies, the changes seen in the education have definite impact and brought transformation in every domain of libraries. The knowledge resources of libraries have changed from time to time, the methods of handling have also undergone significant change, with the changing media and the users also adopted this process of continuous change. Needless to say that the new media in which knowledge resources are emerging are equally accepted by the users of today.
The library in an educational institution is now considered as actively participating medium between the learners and the vast store of knowledge resources, between classroom lecture and the vast sources of information where the content of the lectures are drawn. The librarian has an extended role from keeper of knowledge resources to become a true friend and a perfect guide for the learners in an academic setting. Dissemination of knowledge in any academic institution is attained by means of (i) Teaching, (ii) Publication, and (iii) Extension programmes. Library being a treasure house of ever-increasing universe of knowledge supplements towards the better performance of all the above three activities. Academic library is an integral part of the entire academic system; it promotes teaching, research, learning, and problem solving and provides endless services to the real education; and ascertains that it is a veritable center of academic learning for self-achievement.

The gist of the above deliberation is to highlight that libraries continue to adopt new media from time to time- from manuscript to electronic media. Similarly the media has also influenced the learners and the learners of different dimensions. Today the distance education is growth oriented and is also becoming a popular form of education. It is also largely dependent on new media, and has successfully adopted the technological developments. The new education technology becoming part of every education has also become the part and parcel of distance education. So the institution like libraries have influencing factors to both formal and non-formal type of education by adopting the contemporary changes.

The role of Education Commissions appointed from the time to time, Since the time of British rule can also be brought to force, on formulating education policies and their influence not only on development of curriculum but also on supporting services like the libraries. The education policies in India therefore are in perpetual development, and this is particularly with higher education.
Calcutta University Commission (1917-1919): It is right and proper that the University should provide greater libraries and greater laboratories of research with greater scholars to direct them.

Radhakrishnan Commission on University Education (1948-49): The library is the heart of all the University's work directly so as regards its research work, and indirectly so regards its educational work, which devices its life from research. Scientific research needs a library as well as its laboratories while for humanities research, the library is both library and the laboratory in one. Both for Humanities and Scientific studies, a first class library is essential in a University.

Kothari Education Commission (1964-66): "Nothing could be more damaging to a growing department than to neglect its library or give it a low priority. On the contrary, the library should be an important center of attraction on the college and the University Campus.

The National Policy on Education (N.P.E) 1986 states that the aim of Higher Education is to facilitate the process of nation development through its manifold tasks of generation, dissemination, utilization and expansion of knowledge. The aims or goals of the higher education have also been changed due to the rapid change and oriented to the changing trends of the modern society. The new educational policy of the Government of India has announced that the colleges and universities should offer only work-oriented or socially relevant courses, catering to carefully identified tasks, which usually have a multi-disciplinary character. It seems essential to juxtapose the scenario of the education system against the internal dynamics of a society, in which 64% of the population is illiterate. To escape from this problem Government of India launched the programmes of non-formal or distant education system to increase the literacy percentage, which is the prerequisite of a democratic, set up. The stress here is on synthesis rather than on mere analysis. The objective has been to develop
system thinking and to suggest the possible corrective measures to solve the existing operational problems in order to achieve the broader objectives of education. Similar Commissions were also appointed in countries like United Kingdom. The UGC of the UK in particular was for the overall development of the academic libraries. The gist of UGC-UK's note is mentioned here below:

The University Grants Committee of the United Kingdom –1971: “The Character and efficiency of a university may be gauged by its treatment of its central organ the Library. We regard the fullest provision for library maintains as the primary and most vital need in the equipment of a university. An adequate library is not only the basis of all teaching and study; it is the essential conditions of research, without which addition cannot be made to the sum of Human knowledge.

In the above sections a brief account of various commissions reports that have highlighted role of libraries in education, is presented.

The Higher Education in India, during the last fifty years or so has been expanding primarily for social and political reasons rather than on economic and manpower considerations. On December 28,1953 The University Grants Commission (UGC) was established in India on the model of the University Grants Committee of Great Britain. U.G.C brought out reforms in college education by relaxing several colleges from the rigid regimentation of traditional course structure. As a result of the schemes initiated for restructuring courses in its Sixth Plan Development proposals, there has been a great expansion of libraries in most colleges on the development of following collection during the last twenty years. The UGC provided generous funds for purchase of reference books and textbooks as well as grants for library buildings. The UGC also sponsored the College Humanities and Social Science Programme (COHSSIP) and College Science Improvement Programme (COSIP). As a result, the classroom teaching using latest teaching methods and techniques, which provides exhaustive
knowledge of the subject to the students. The UGC has also provided assistance for introducing community Service Scheme and Summer Institute for development of college libraries in India. A well-established library with qualitative collection suitable for study and research is a sine-qua-non for modern higher education like in University. There are many college libraries, which provide education to the students up to graduation levels in order to achieve the objective of college education. College libraries should redesign their activities in such a way that they may prove to be significant partners in conservation of knowledge in the form of information.

1.1 Computerization/Library-Networks:

Advent of Computers in Libraries:

The changing facets observed earlier were primarily on the internal structure and contents of libraries. A new wave of influence marked by advent of computers in libraries has created a long lasting transformation not only in structure and content but also in the concept of services. The users who are accustomed to study by reading and referring to books are now to browse and navigate on the screens of the computer. This will open up for a new framework that is to be adopted by the libraries.

The convergence of computer and communication technologies has made the libraries to work in new environment—the Library Networks. They are growing in number in every part of the world and are providing access to information sources from remote places. The influence of communication media in this context need not be reemphasized and the library networks play a greater role eventually.

The primary objective of any information system is to provide its users with timely access to the information they need, so that, it may be exploited by
the users to the maximum benefit. In recent years, due to advances in Computer and Telecommunication Technology, access to primary literature has vastly improved. A large number of information services ranging from broad disciplines to highly specialized subject fields have emerged. These inform and alert the users as to what is happening in their areas of interest. In other words, it has become easier for anyone to be aware of published information in one’s narrow field of activity and interest as well as to be alerted about what is likely to be published. This has resulted in the increased demand for original documents.

The networks have also facilitated on-line access to information. From the document delivery point of view, the on-line system to a database system would be a welcome. A user can order document from his terminal and the document can be sent to him electronically. On-line access to libraries book holdings will become commonplace. The automatic circulation data will provide this quite regularly. Some studies on the effect of on-line networks significantly increased inter-library loan activity. In on-line circulation systems the status of each items availability is current at all time. The systems also eliminate paper work. The computerized text storage can also provide translated version of foreign languages through machine translations. This will reduce the time lag in overcoming language barrier. Thus, translated documents can be provided in a short span of time. However, the machine aided translations of language may need editorial touch ups. it is already continuously improved for automated on-line editing.

1.2 Media Transformation from Print to Multimedia:

(a) Print media: The invention of printing was the first major contribution to civilization. John Guttenberg’s moveable types added a significant dimension to the printed world, which today stands unmanageable. Paper and printed media although unrivalled today’s technological studies fear the extinction of printed media in future. The paper is still a strong contender for stability, legibility and
total acceptance. The cost of production, increasing stress on storage space and the maintenance overheads are pressing for a search of an alternative media.

The growth of paper media is often compared to that of population explosion. The Microforms have come in a situation where they can afford some kind of solution to this crisis. Many statements in evidence to their advent in libraries are given in number of sources. It is stated, since 1930's prophecies have warned that microfilm revolution will soon render books obsolete.

(b) Microform: John Benjamin Dancer introduced Microphotography during 1839's and many scholars define media as any person, material, or event that establishes conditions, which enabled the learner to acquire knowledge, skills and attitudes. So media implies as agency or carrier to message or use of technology to transmit intended message to the receiver. It is helpful for placing the relationship of teacher-medium-student in proper perspective and establishes conditions, which enable the learner to acquire the learning objective. Hence a medium is a means to an end and not an end in itself. Media forms are also useful for information and motivational purposes. Their value extends beyond the instructional intent of the label ‘instructional media’! Instructional media is broadly as all means through which stimuli are presented to provide the events of instruction. So it is a physical means by which an instructional message is communicated.

(c) Instructional media: In other words the instructional media is simply a means of transmitting instructions, communicating, instructional message and thus serves as the channel through which content stimuli are presented to the learner. There can be no doubt that properly designed instructional media can enhance and promote learning and support teacher based instruction. All media are effective for learning. Learning media have several definable functions. They are presenting the stimulus, directing and controlling the student’s attention, creating readiness in the learners for participating in the learning experience, producing new learning.
stimuli and activating student's responses providing clarity, precision and accuracy of the information processed. Media are not supplementary to or in support of instruction but are the instructional input in them. Determination must be made of the type of media, in a suitable form and at the right moment will most effectively and efficiently provide the best experience for learners.

(d) **Multimedia:** Multimedia libraries are defined as the new way of carrying out the functions of libraries encompassing new types of information resources, new approaches to acquisition, new approaches to classification and cataloguing, intensive use of electronic systems and networks and dramatic shifts in intellectual, organizational and electronic practices. From the beginning of the present century the place of library in higher education has been emphasized again and again by almost all the deliberative bodies setup in India or abroad to review the need, pace and future plan for the spread of higher education.

Multimedia means 'many-media'. The term 'Multimedia instructional system' refers to the uses of appropriate and carefully selected varieties of learning experiences which are presented to the learner through selected teaching strategies which reinforce and strengthen one another so that the learner will achieve predetermined and desired behavioural objectives. Many define Multimedia as 'more than one media' used in a single communication either sequentially or simultaneously. Experts are of the opinion that different media serve different educational functions, so that various media should not be used in isolation, instead they should be integrated. Certain instructional situations require the use of more than one medium to achieve their objectives. When several media are used, it conveys to the learners a message that for all practical purpose cannot be conveyed by any single media. Most learning events if not all are multi-mediated. When systematically planned, multi-mediated learning events are more predictable of product, are more effectively refillable and are easier to produce and control than single mediated learning events.
Multimedia learning experience represents a natural way for learning to take place. Involving maximum number of senses can accelerate learning pace. Sensory experience forms the foundation of intellectual activity within any formal school situation; learners differ in the effectiveness of their sense reception. Multimedia learning experiences have the advantage of appealing to the individual, the learner’s pace, interests and readiness. Besides, cognition and conceptualization it depends on a chain of events, which begin with the learner’s perception of stimuli, be they auditory, visual, tactile and olfactory. It is important that these initial learning experiences be accurate, dependable and understandable.

Unless the learner’s initial sensory impressions are accurate, it will be impossible for them to have reliable conceptualization and understandings. With the numerous kinds of existing aids, carefully organized presentation of information, through a variety of media should occupy the learner’s conscious attention to living stimuli.

The libraries have been organizing themselves to offer to user a variety of services – old and new. The manpower and training there of have been taken care of. Buildings and other infrastructure facilities for libraries have been given attention. There are now more users of libraries than before. The use of libraries has also increased considerably. Thus, the progress in library development is not to be under-rated” (Lim HT).

Looking at academic libraries, a glaring contrast in ideas and practice can be noticed. The most unfortunate aspect of the problem is the persistence of the state of affairs for almost a century now. One of the greatest weaknesses of the existing system is the extra ordinarily un-important part in it, which is played by the library. It is found that it is impossible to resist the conviction that in some colleges the library is regarded not as an essential part of teaching equipment but mainly as more or less useless conventional annexure. One thing that strikes out
from this comment is that the neglect of the academic library is not entirely due to financial inadequacy rather it refers to the attitude and habits, which govern the academic community. The persistence in the state of affairs is borne out from the observations for University Education Commission. It was distressing to find that in most colleges and universities the library facilities were very poor indeed.

Library is the center of any academic setting. While classroom teaching provides a glimpse of knowledge, the libraries disseminate a wide range of knowledge, which are required to attain intellectual heights. Libraries supplement the instructional work of classrooms and carry forward the ideals of education. Real education can only be achieved through the libraries. Thus, the libraries are the providers of informal education, guiding the learners to search vast range of material available. The libraries are gradually being recognized for their academic services, and they are occupying prominent position in educational programmes throughout the world.

The importance of library's role in imparting and disseminating knowledge has, of late, been enhanced by developments in continuing education, distance education, and the open system. The library in any educational institution is no longer considered as the storehouse of knowledge; the libraries disseminate a wide range of knowledge. It is actively participating as the medium between the learners and the vast knowledge. It is actively participating as the medium between the learners and the vast knowledge resources, between classroom lecture and the source of lecture. The librarian is no longer considered as a mere keeper of library collection. He has to make his unique contribution to new methods of information dissemination. He should try to become a true friend and a perfect guide for the learners in the academic setting.
1.3 Statement of the problem:

In the above sections an attempt has been made to bring a relation between the academic libraries and the media changes. This has been broadly deliberated to know about certain factors that the academic libraries lack in adoption of the new media. It is also important to examine whether the academic libraries have the suitability, in terms of their structure and framework to adopt the contemporary changes and challenges. It is also necessary to investigate as how library professionals are prepared or getting prepared to these fast-changing events of technology. Hence, a research under the topic entitled “Organizational Framework of the Academic Libraries as Multimedia Centres: Assessment and Analysis of Emerging Trends in Information Sources and Communication Media” has been undertaken to study the problems under the purview of academic libraries.

The research study with a view to access the selection, collection and organization of multimedia has intended to examine the media convergence and also to direct the policy makers and planners to take appropriate action wherever warranted for effecting changes in the academic library structure and framework.

1.4 Need for the study:

The growth of knowledge and increase in the number of documents published in various fields, growth in number of users, would create a greater demand of information with multidisciplinary in nature. The path breaking developments in the field of multimedia has provided the much-needed relief to overcome many problems in the libraries.

Initially Non-book materials, then microforms added new dimensions to libraries, in handling the new media. First exercises were made for nearly two decades to organize them and these gradually gave way for new communication
media—Strongly emphasized as Electronic media. The Magnetic media still rule the information handling in the form of databases and as a Store-home for Networked libraries.

The time was not far-off when Magnetic tapes had made a similar influence. Today the Compact disk, the digital papyrus that has opened a new era in publishing field that took the libraries and information centers by storm. It has become the preferred medium for Abstracting and Indexing periodicals as well as many reference works like Encyclopedias, Directories, Dictionaries, Yearbooks, Almanacs, Statistical sources of information, Geographical, Biographical and Bibliographical, Current reference sources. Now primary journals in full text also are available in this medium. Considerable abilities are developed to provide electronic access to materials including graphics, which was earlier limited to printing materials.

The past experiences have revealed that the conditions in transforming traditional library to a model multimedia center in academic environment in India are not conducive, due to:

(a) User explosion. (b) Information explosion. (c) Jacking prices.

(d) Decreasing library budgets, (e) Lack of training and infrastructure

Libraries attached to any academic, research institutions and centres of higher learning have not started providing access to Multimedia publications for all the levels of users and in particular academicians and researchers. The titles of publications in Science, Social Science, Arts and Humanities in multimedia form are studiedly growing with variation in their Content and format.

Libraries are attempting to satisfy the demands of modern society by expanding their activities to serve the new needs of a more varied clientele. However, the transition from the traditional library to the multimedia library is
not easy. Budget needs are greater, but available budget provisions are often less. The sheer bulk of available materials in every type of media pose new challenges of selection, materials control, utilization, and professional skills.

It is observed that University library is subscribing to the multimedia concept by building separate collections of non-print materials for specific departments. Establishing learning centres is the method more often chosen by the community college library. The school library is the forerunner in the implementation of the multimedia concept and is becoming a media centre. Even through the Academic libraries may implement the multimedia concept differently, their interpretation of it is based on a core of fundamental issues that is common to all.

Identifying these fundamental demands a rethinking of the purpose and functions of the library within the framework of the multimedia concept. Successful implementation of multimedia services requires a dynamic management that systematically analyzes, structures, and evaluates by perpetuating change and progress. All these factors have demanded for a comprehensive study and investigation in the problems of infrastructure framework for a multimedia academic library.

1.4.1 Need for Developing Multimedia Collection in Academic Libraries:

The concept of utilizing media in combination is not new. The use of multimedia presentation and packages in education derives from the belief that differences in learning modalities of students can be matched in some way to the provision of audio, audiovisual and textual versions of a particular topic. A further factor that would indicate the use of a variety of media is the content to be transmitted. A third viewpoint is that certain media can teach more effectively than others.
Historically libraries have depended on what materials were available to build collections. The evolution of libraries in antiquity involved the search for a material durable enough to survive as a permanent record and relatively easy to use.

1.5 Objectives:

The specific objectives of the present study are:

(i) To Study the trend of development in Information and Communication Media.

(ii) To examine the impact of the new media on academic libraries.

(iii) To assess the suitability of the existing Organizational frame work of academic libraries in handling the new media.

(iv) To study the facilities available to use the multimedia

(v) To suggest methods and procedures that can be undertaken to develop skills among library staff to use the multimedia.

(vi) To study how the academic libraries are fast emerging as multimedia centres;

(vii) To ascertain the process of multimedia resources collection in the academic library;

(viii) To examine the existing policy and procedures in the multimedia collection development.
1.6 Hypothesis:

1. The multimedia sources are essential components of any academic library and that to the University Library to supplement the pedagogical work.

2. The Multimedia resources from their traditional form are undergoing serious conceptual change as new forms are emerging due to the impact of IT especially new storage devices.

3. The concept of Multimedia is changing in form and magnitude; hence the organizational framework of a multimedia centre of an academic library also needs change.

4. The organizational and management framework for a multimedia centre of an Academic Library has to deal with traditional and emerging multimedia resources.

5. The existing organizational structure of a multimedia centre of academic libraries is not suitable to deal with multimedia sources and emerging media based on communication technologies.

6. University libraries and college libraries posses’ multimedia collection in the traditional sense.

7. The academic libraries are continuously facing challenges of handling varieties of media from paper based to electronic.

8. Academic libraries do need systematic guidelines and procedures for collection and maintaining of multimedia and also to handle the communication media.

9. The library clientele require basic and specialized training to use the traditional and modern media.

10. The academic libraries in the changing context of media change need a structured organizational framework for handling traditional and emerging multimedia.
University libraries and college libraries possess' multimedia collection in the traditional sense.

The academic libraries are continuously facing challenges of handling varieties of media from paper based to electronic.

Academic libraries do need systematic guidelines and procedures for collection and maintaining of multimedia and also to handle the communication media.

The library clientele require basic and specialized training to use the traditional and modern media.

The academic libraries in the changing context of media change need a structured organizational framework for handling traditional and emerging multimedia.

1.7 Methodology:

The study adopts a combined methodology of theory and fieldwork in order to examine the trends of developments compatible with the prevailing conditions of academic libraries in adopting the new media. In this context a survey of literature to profile the trends in Information and Communication Technology has been conducted.

Profuse use of published literature is made for the study. Several databases available like ERIC, LISA, and International Dissertations Abstracts etc are searched to get the published documents. A structured questionnaire is designed to collect the basic facts required for the gathering the data for existing multimedia collection and the possible polices and programmes in the University Libraries of Karnataka State. Repeated visits are made to the selected libraries to make on the spot observation. Also, series of discussions were held with the professionals, experts and fellow researchers to get the clear picture of the concept i.e. academic
library as a multimedia center and the related aspects. Therefore this research work has used multi methods to collect, analyze and consolidate the data.

1.8 Limitations:

The scope of this study is limited to Karnataka State. Universities located at Bangalore, Dharwad, Gulbarga, Hampi, Mangalore, Mysore, Shankarghatta are mainly covered in this study. However some selected college libraries are also included to extend the scope of study. Further the study concentrates on the multimedia resources as specified in the introductory pages of the thesis. As the situation with regards to multimedia collection and use is grim in all university libraries, and there are hardly very few studies in this respect, the study focuses on assessment and analysis of the emerging trends to highlight the importance of multimedia in higher education.

1.9 Chapterization:

The study is organized in five chapters. The brief account of each chapter is given below:

Chapter 1 Introduction, Need, Objectives, Hypotheses. Methodology. Limitation of the study.

Chapter 2 Multimedia Information Sources: Changing Concepts, Scope and Trends.

Chapter 3 Multimedia Library/Information Centre: Organizational and Management

Chapter 4 Data collection, Analysis and Interpretation

Chapter 5 Multimedia Centre Organizational Framework: Some Thoughts.

Chapter 6 Conclusion and Points for Further Study.
1.10 Conclusion:

Libraries these days are involved in a wide range of media, and the librarian is compelled to be aware of the emerging media. In fact the library of the recent past was not like the library of today, and obviously the library of the future will be quite different from what it is today. In the information society, Information has been considered as one of the key factors of production. A library is the main source of information. The purpose of this Study is to highlight the need for multimedia information approach and to think seriously about this information media and its optimum use for the promotion of education and learning.

Academic libraries are in transition due to changes in socio-economic, cultural and technological fields. Recent trends have profoundly reshaped the library service landscape. As a dynamic institution, academic library must continue to evolve with reference to the changing scenario. For the past three–four decades the development of Information Technology has been responsible in changing every aspect of library services. Today library professionals must be proactive to new changes by maintaining the flexibility, creativity and making easy access to information to meet the increasing demands of the users at different level.

The age of Electronic libraries has arrived. The primary role of helping the users to find the needed information remains the same in the information age also the importance of education and information literacy is widely recognized across the institutions of higher learning in the world. Library in general and academic libraries in particular are facing the budgetary constraints too.

Multimedia is promising some solutions to the growing complexity. Adaptation of Information Technology is forced on all the professions. The use of Multimedia will become vital in the days to come with help of Information Technology. Therefore preparation to face the challenges of the future is becoming inevitable.
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