REPOSITORY OF KNOWLEDGE AND LEARNING (ORIGIN OF THE LIBRARIES IN THE WORLD)

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Abstract

The present paper reflects the history of Libraries. The traditional libraries were firmly rooted in the physical transfer of information and knowledge. People came to the physical space to specifically look at a physical item: information was defined by physical limitations. Libraries are now focusing to deliver the information in the digital form through web, Online Public Access Catalogue (OPAC) via Internet. The development of Institutional repository by innovations of information technology has strengthened the libraries. This is why modern libraries are now called the knowledge library or the knowledge temple. Such a dramatic switch from print collections to digital collections has an impact on library users and users' perceptions of the library. This paper examines the ways in which information technology developments have changed the libraries over the last few decades, and speculates about further changes to come.

Keywords: Repository, Knowledge, Learning, ICT, OPAC.

1. Objectives

1. To know the origin of libraries and how records were preserved in ancient times.
2. To know the cause of transformation and the impact of ICT on libraries.

2. Methodology

The methodology used for the study is source method, participatory, observation and experiential method. The authors being associated with History, Education and Library & Information Science have consulted the primary and secondary sources as well as have experienced the techniques, technology & development of libraries wherever they were posted.

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3. Introduction

The life existed in this universe for some millions of years, and human culture for tens and hundreds of thousands of years throughout the world. The civilization was formed only within past 6,000 years. A civilization is a culture characterized by the building of cities, development of socio-political structure through class differentiation, and the evolution of an economic structure characterized by division of labor and craft specialization. Civilization implies the growth of tribal groups along with clan and kinship patterns[1]. One of the major components in the development of civilization was the invention of writing. The system of writing evolved with the purpose to leave massages and to keep track of financial and other transactions. With the ability to accumulate and preserve knowledge almost every aspect of the human life was transformed. Since human being is capable of profiting from the school of experience so humans of succeeding civilizations have borrowed from their predecessors and have profited from the mistakes of those who proceeded them[2]. As such the human being creative agent on earth learnt to pen down their experiences and felt a need to preserve whatever they wrote on different kinds of materials. The present study is an attempt to analyse the contribution of various people in building the repositories of knowledge, commonly known as 'Libraries'.

The earliest people considered knowledge as sacred,-God given gift and a magic. They were conscious of the fact that written material was the embodiment of great experiences which they could use at anytime. They were worried about their preservation against natural calamities and human conservatism. It is proved by the fact that when Hazrat Nuh's flood was declared inevitable by the astronomers the King Tehmares made arrangements for the preservation of written material which was found after thousands of year by the discovery of an underground building namely *San'iya* in Spain at Mountain Daiz Tellie in the 11th century A.D. The building contained records and fore castings of astronomers pertaining to the reign of Tehmares. Another such discovery was made during the Second World War when some Palestine boys were playing and started pelting stones at a cave which resulted in creating some sound. The boys were afraid and reported to their parents who found some valuable records hidden in the cave written on animal skin. The locals sold the material to some Americans and are at present preserved in New York library. These records belong to 1st century A.D. giving details about the Roman soldiers who were haunting some scholars. The later took their records of knowledge and kept them hidden in the cave along with the details about themselves before they were killed[3]. The history of the foundation of Libraries can be categorised into the periods as under:

- ✓ Libraries in Ancient Period
- ✓ Libraries in Medieval Period
- ✓ Libraries in Modern Period I
- ✓ Libraries in Post-Modern Period II

The world's most important first ancient libraries have been found in West Asia (also called Mesopotamia). One of the peculiar tower buildings called ***Ziggurat***[4] (high place) was built by the earliest people of Mesopotamia - the Sumerians in the city of Sumer-followed by the construction of ***Tower of Babel*** by the Amorites at Babylon. The archaeologists have excavated such buildings and the material remains of such constructions throw light on the then socio-economic, Religio-Political, conditions long with their literary activities. ***Ziggurat's*** a tower of diminishing cubical stories surrounded by external stairs had tier-terraces full of markets, banks, factories, storehouses of food grains and government offices - with a temple at the top of the building. One of the tier-terrace was kept exclusively for keeping records -official and private. It served them the purpose of a library[5]. Mesopotamians wrote on clay tablets with reed in ***Cunieform*** script (wedge-shaped) and their most of the earliest literature is available from 4500 B.C. Each clay tablet served as a page of the book which was arranged skillfully - the top most tablet served 'as a title page and the last as an index, bound together in a string. The excavations have brought to light the existence of a big chamber with books (clay-tablets) on all the four sides of the chamber with a big raised tower at the centre, the books arranged according to subject matter and content. The first page of the book contains the title, authors name and his picture though these are in faded condition[6].

The Royal library of Ashurbanipal (669-630 B.C.), Assyrian dynasty of Mesopotamia is an amazing example of a rich repository of knowledge. The King was a great patron of learning and literature and took keen interest in the subjects like religion, law, mathematics, astronomy, language. For this study, he made a collection of important works and records on different subjects from the great scholars of Mesopotamia. These records were available on clay-tablets in "***Cunieform***" script. Assurbanipal got those thousands of books arranged properly and preserved them in his royal library at Ninevah, his capital. The clay - tablets are a less perishable material; they have come down to us in a very intact position. The library presents a picture of a well organised and arranged system of books with the features which one can see in a 21st century library. The system of integral cataloguing, Indication cards, Referencing Codex and sequence were known to those people. The indexing and cataloguing was done on the clay – tablets[7].

The other ancient library has been found in Egypt where more care was taken for the preservation of books as compared to the books written in Mesopotamia. The Egyptians wrote on Papyrus[8] with reed pen which was liable to get perished due to climatic reasons and was also prone to book worms. The pharaohs of Egypt constructed huge structures to serve as royal tombs called the Pyramids with the help of the sciences like geometry, engineering and mathematics. The underground chambers of the pyramids served as rooms for keeping books of the Egyptians with some medicine applied as preservative on them, with the result these books have been found intact even today. The king Thutmorse -II organised plenty of books and established a library in Egypt in the 14th Century B.C[9].

At Asia Minor, in the city of Pergamum, the King Eumenes had constructed a library with thousands of books in 1st century B.C[10]. He wrote on fine and purified animal skin. This richest library was looted, by Mark Antony (Marcus Antonius 83-30 B.C.) in 47 B.C. who gave the collection as gift to Cleopatra who kept them in the Great library of Alexandria. But the devastating fire lit by the Roman emperor Theodosius on Alexandria destroyed all the remaining literature of Pergamum. The material remains of Pasargadae and Persepolis (Palaces) of Persia are a witness to the existence of some big library in ancient Iran. But the library founded by Nou Shervani-i-Aadil (Khusru I) was a rich repository of Persian and Sanskrit works (Punch tantra). King Shawpur I also founded a library at Baghdad, rich in scholarly works from India and China. Another library was founded by a physician Hakim Qayasias in 389-401 A.D. at Urud which was a rich repository on philosophy, spiritual studies, poetry, music and fine arts.[11]

The Ancient Greece became a great centre of learning by 5th century B.C. with Athens and Sparta as cradle of learned people. The great philosophers of Athens - Socrates, Plato and Aristotle Gilan might have founded some libraries but those are not traceable at present[12]. In Rome learning and literature progressed and the first public library was established by Aasiyu Neopoleo followed by the establishment of a large number of libraries by Emperor Augustus (63 B.C - 14 A.D.) but none of their material remains are now traceable. The most important unique and amazing feature of the Greco-Roman libraries was that owned Roaming and living books in the form of slaves possessed by some of the great scholars. These slaves were made to cramme sonic books and when their master scholars had any discussion or debate, they used to call their slaves for references who were always ready to narrate the book.[13] After the decline of Roman civilization the rise of Constantinople shows a remarkable growth of a library with books on various world religions- under the supervision of Julian De Apastiet. Once caught by fire in 475 A.D., revived but destroyed in 1204 A.D. by the christians[14]. In 1453 the turks under Sultan Saiah-ud-Din conquered Constantinople and took the remaining books to Istambul, by 10th to 15th century A.D. These libraries were maintained by the Shrines and monasteries. The most famous of such libraries were founded by Theo Dever and more than twenty libraries were founded in Aegean Mountains of Athens. It also prepared a bibliography of about 280 books with a commentary. The thirteenth century saw the rise of university education (19 in number) and by the period of Renaissance[15] there were more than 70 universities in Western Europe and libraries were the essential centers of repositories there.

Much of the literature of the Arabs was not written as it had passed from mouth to mouth for many generations. They took pride in reciting their poems. They produced a good literature and wherever they went brought the literature from that place and translated almost all the scholarly books. They were deeply interested in the scientific development of their language, worked out dictionaries, grammar, books on philosophy[16]. They collected a large number of works on all the world religions for comparative study and founded Great libraries in Damshak, Qahira, Kufa and Baghdad. They built universities and libraries in Spain"

Almajdes" library was unique one. The University of Salerno in Italy was one of the first to teach scientific medicine. The Arabs preserved the Greece-Roman classics and passed them on to the western world. The muslims established their libraries in organised way and they employed and patronized the experts in maintaining libraries irrespective of religion, caste, colour or creed. By eleventh century A.D. well established and organised libraries were the prominent features of the Islamic world[17]. In 1031 A.D. the Spanish Library, Almajdes, was brought to fire by the Christians and destroyed all the literature preserved there. The Arabs arranged the books properly with classifications according to subject matter, enlisted, catalogued (Abjad valued Alphabet attached to each book) and numbered them to make it easy to trace any book. The libraries were named as Biblio file in the 13th century and remarkable libraries were founded by Otto II, Fedrick II, and Emperor Bohemia Nicholas. In France Charles De Bold, Louis X and Charles V established the library now called Bibliotheque National library.

In medieval Europe the libraries were run by the monasteries and the churches or by rich nobles and the kings till 16th century A.D. where libraries too were influenced by Renaissance. However the contribution of Boccaccio (1313-1375 A.D.) and Bishop Richard De Bari was remarkable in the collection of rich literary material[18]. The concept of making arrangements in the construction of libraries in the style of a museum grew and first specimen of such a museum was constructed by French Prime Minister Pericegoier where he had collected thirty thousand books along with specimen from arts, crafts, pottery, and sculpture. The idea of the foundation of National Libraries originated and rich libraries were attached to Oxford, Cambridge, and London universities. The present day British Museum was founded in England in 1753 A.D. In Germany, Fedrick the Great collected a large number of books and in the 18th century, A.D. Dresden became the centre of many glorious libraries. The remarkable contribution of scholars Court Henich Huast and Christine Gatelite Haien and Gatingun of Germany towards the establishment of libraries and Research academy is worth mentioning. They collected numberless works on different branches of knowledge[19]. In 1691 A.D. Mesireen established St. Victor Library, Augustine, for public purposes. The organiser of the library Gabriel Nade collected forty five thousand books and in 1627 A.D. published the first book on library sciences. In 1739 A.D. Devil Louis Lavila Wehlier collected a huge number of books which were auctioned at his death and most of them are at present available in National Library of Paris[20]. The establishment of Public Libraries began in America in the 19th century A.D. The government raised a fund for the establishment of public libraries by collecting a library tax from the people under the leadership of Andviyo Karangi who spent the collected money on the foundation of two thousand libraries. The public library of New York is the repository of a rich literature along with the Collection of Henry E. Huntington in Mameo at Las Englcs, Now in the American State of California. Similar types of libraries are found in the famous Russian cities of Moscow, Lenin Guard, Kaif and Tashkent[21].

All the information and references of the books, authors and content of the works is available to the people on telephone service in Russia. The most interesting and unique feature of socialist Russia is that they have travelling or Roaming libraries. It is the duty of the government in Russia to serve food, clothing and shelter to its people and provide the public with education, information, knowledge, learning in every nook and corner of the country. India has a rich tradition of learning and literature in diverse languages. They regarded learning as a Canon, "A sacred compendium of all knowledge." They possessed famous educational institution with libraries attached to them as Nalanda university- a worldwide famous institution in Ancient times. The tradition of storing the records continued with the influx of foreign elements into India and added more to the literature and designing of the libraries. The Indian library is an example of a repository with books on diverse cultures, languages, religions.

Thus it appears from the above facts that the chief characteristic feature of human civilization which distinguished them from other creatures has been the invention of writing. The creative urge and capability in human beings made them to record their experiences and other transactions. The human beings used their brain power to create objects to lessen their burden. It gave them power of speech, language and memory; and capacity to organise their experiences with a historical sensibility. The human beings made concrete efforts to preserve their civilization with its all necessary features. They made arrangements to make repositories called the libraries for storing their experiences in written form. The ancient world presented a wonderful picture of human skill for preserving their records. The skill of book repository continued in medieval and modern times. Today the world has developed the scientific system for the repository of books and other informative material of human civilization. The advancement in technology and science has fulfilled the age old dream of human beings to save their experiences in written form and invented the storage of books in micro-films and computers. We cannot forget the role played by Mr. Benjamin Dancer, an Englishman of Manchester, and Mr. Harman Hall for the invention of Micro photo film and Needle Section card respectively. These techniques combined together made, possible the microfilming of the books- to save them from perishing. The computer has facilitated the work of the repository of knowledge and learning i.e. the library.

Modernization is a continuous process of change for the better through technological inputs, which is taking place in every field due to extensive use of ICT applications. In the 21st century, the digital revolution shows no signs of slowing. To remain relevant, any institution, including one as established as libraries, must evaluate its place in a world increasingly lived online. The good news is that many library professionals recognize this need and are driving adaptations designed to ensure that libraries remain an integral part of our society's commitment to education, equity, and access to information. Libraries are backbones to all the activities carried out in education, research, training, etc. Libraries assist users in developing proper background and base for the development of information society.

Traditional libraries mostly had the manuscripts and printed material which was kept in an organized manner in the libraries by using best practices available at that time, like cataloguing, classifying, indexing, abstracting etc. The information available in the libraries was made available to the users on demand. But later, due to factors like information explosion, varied demands of users; changing media of publications, the traditional practices used in libraries were not sufficient to manage the information in libraries. Libraries are thus facing challenges continuously and changing the practices to provide better services to the users. Libraries have to adapt new technologies to satisfy the needs of the users.

In modern ages Libraries are expected to perform pivotal roles in disseminating and sharing the culture of knowledge. These expectations are coming to the forefront which can be enumerated as:

- Libraries should be repositories of all the knowledge and information accumulated by humankind.
- Libraries should store all kinds and forms of material and information and disseminate beyond the geographical boundaries.
- Libraries should exchange knowledge and information with users inside and outside their country, thus going beyond their traditional reference and lending services.
- Libraries should upgrade their services by digitizing their resources for online use.
- Libraries should provide a good education and knowledge of high quality.
- Libraries should proactively promote and facilitate the creation of Digital Libraries that respond to the needs of the user communities.
- Libraries should assist users by providing, if necessary, the skills required to select, update and exploit the Digital Library content and services.

In the last four decades, computer technology has created a revolution as significant and far-reaching as the invention of the plow, electricity, the printing press etc. Each day brings new advances and new ideas. Given the scope and ubiquity of computer technology, it is easy to forget that most effective applications address specific needs, and that the value of each innovation and adaptation depends on its success in meeting the need it was designed to serve. However, the relevant library services are supposed to be driven by user needs. Rachel Singer Gordon notes that library planning and evolution often focus too much on the advent of new technologies rather than on their relevant uses in a library environment. She cites as an example the recent enthusiasm for a new generation of digital applications and abilities dubbed Web 2.0, which has given rise to the concept of Library 2.0. (The **Library 2.0** concept addresses the move to providing library services to users inside and outside the library, in physical spaces and online, with a focus on removing barriers to information.)[22]

Librarians and Librarianship have witnessed the revolutions in the LIS system and libraries are transformed from the manuscript libraries to virtual and cloud libraries. The revolutions have brought many changes in the professional activities as well as manpower

requirement. There are many challenges also faced by the library profession while adapting the rapidly changing environment in which librarians are expected to work differently than before. The information society is moving from industrial age to information age due to more usage of ICT. The revolutions in libraries transformed different phases of libraries like: temple libraries (oral communications), manuscript Libraries (primitive libraries), Paper/Print Libraries (Traditional libraries), microform libraries, electronic libraries, digital libraries, virtual libraries, networked libraries and cloud libraries etc. These transformations are basically due to application of technologies prevailing during the period.

The trends in the profession and its impact have been discussed by the different scholars since many years, viz. Fritz Machlup, Daniel Bell, Marc Porat, and others (Griffiths 1995). The traditional information access and management roles played by the information professions are expanding, particularly in the design and development of new information products and services and use tools to support information seeking and selection, analysis and synthesis of information content on behalf of users, and user instruction.[23]

The applications of ICT and other techniques in different activities of libraries are the basic causes of transforming traditional libraries. The functions of libraries though remained same but transformed its methods due to digital content environment and its management. The main transformation visualized in libraries because the publishers and create more and more bibliographies, guides, and higher-level abstractions of information content, directories, and so on, and increasingly involved in the creation information product activities. The overall change in the collection, organization, collection management, information staking, information retrieval and repackaging are the major areas in the modern libraries.

The ICT revolutionized the system of knowledge repository as information technology represents convergence of three strands of technologies, viz. computer, microelectronics and communications. There are many other technologies took part in addition to ICT like Internet technology, network technology, web technology, mobile technology, e-publishing, social networking etc. The components of transformation of the library system are due the developments of:

    Computer and communication technology,
    Library automation,
    Networking of libraries and information resources,
    Bar code, Smart card technology,
    Web and Internet technology,
    Social networking (Blogs, Facebook, Twitter, Apps, Skype, Wikipedia) etc,

Even in the post modern age of ICT Libraries are treated as 'Temples of knowledge', which is a store house of information and the librarian as its 'Custodian'. Today both libraries and librarians have witnessed a major transformation in their roles. The Library profession has

become a science and is constantly changing since the past two decades. It is possible for the libraries to use the information resources available over the internet in digital form. Users are benefited due to this new source of information collection and are relying on internet based information for their day to day tasks and spend considerable time in finding information. Books and journals are already available in electronic form along with other resources on the net. Due to this change, libraries are also shifting their collections, services, facilities and practices based on e-resources. Information Technology changed the scenario and eliminated the weaknesses of traditional libraries to the maximum level. The major benefits of ICT to libraries and users are:-

The development of databases and their integration for resource sharing,

Online search facilities of international databases,

OPAC and Web OPAC development,

Preservation of the rare documents in e-from with hyperlinks,

Consortium and e-journal subscriptions at economical prices, and

Better and efficient management of information and information services to users are the main features of present libraries.

The (CEC) Consortium for Educational Communication (inter-university centre on electronic media) has established the Learning Object Repository (LOR) and the Digital Video Repository (DVR) to provide worldwide access to these qualitative learning resources and this facility is a great boon to the students and teachers for face to face learning as well as to other users globally. IGNOU has initiated the establishment of a National Digital Repository of learning resources e-Gyankosh (www.egyankosh.ac.in, www.sakshat.ac.in). This e-repository of knowledge envisages storing, indexing, preserving, distributing and sharing the digital learning resources for open & distancing learning institutes. The repository supports seamless aggregation and integration of learning resources in different formats such as self-instructional study materials, audio-video programmes, and archives of radio and television-based live interactive sessions. The repository facilitates any time access to its collections (24×7×365).[24]

4. Conclusion

Libraries play an extraordinary role in educating and empowering people since ages. The tremendous changes were found in from traditional libraries to modern information repositories and particularly its needs on information provision. However, due to rapid growth of information technology, particularly, the Internet and associated technologies, has opened up an entirely new medium for providing improved information services and resources for the users. They help individuals and communities to become more knowledgeable, aware and imaginative. The digital environment has also led to a decline in the use of print books and a sharper drop off in the use of physical printed materials. The origin and development of these Knowledge Resource Centers has since ages helped the human beings to preserve their experiences, ideas and theories to be used by the future generations as torch bearers.

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