CHAPTER 1 : INTRODUCTION

In recent years, there have been tremendous modifications and transformations in the field of education to enhance its prospective practical efficacy and efficiency. The innovative and ground-breaking advancements due to electronics era education is changing in its political, economic, societal and technological context. It has been flying at a rapid pace with the advancements from conventional classroom settings, face-to-face teaching and distance education to web-based learning, mobile learning and online education during the past decade. Among the different technological equipments available the Internet has turned into the most widely used in all spheres of education including libraries. The web has enhanced and increased the area of conventional education and traditional distance education. Now, it includes e-learning, video conferencing, virtual courses etc. Another important advent is in particular reference to electronic libraries. These recent and original forms of teaching and learning, web-based instruction or online learning through libraries, have gained momentum in higher education improving its present status to a high profile learning. Thus electronic / digital trend is playing a pivotal role in the modernization of library and information science.

The courses in digital libraries or virtual libraries have been infused into the library and information science curriculum to make them emphatic and consistent technological focus. The web has become an all powerful tool in the delivery of content, making content accessible to the users and to provide a platform for research and counseling. Web-based instruction strives to integrate the information and technological skills. It offers enormous potential for delivering useful library instruction, and also enhances information literacy skills of the students. It helps the students and users of libraries to become globally competitive and to update their potentialities to contest and face the throat-cut competition. Students are encouraged to
participate in a practical and virtual debate and discussion, communicate through the e-mails, and engage in collaborative learning with their peers, Sacchanand (2004).

Some of the important factors which determine the quality of library service include: offering OPAC and web OPAC, access to bibliographic files, contents, databases, full text databases, electronic journal etc. Roysri (2010). There is a strong need to train the librarians to adjust according to this advancement and transformation so that they may be familiar and become accustomed with these foundational changes and its impact so that they should effortlessly shift from the conservative and traditional paper based access to digital access.

CHANGING STRUCTURE AND ROLES OF LIBRARIES

The dawn of the information revolution is considered to be one of the marvels of 21st century. The new technology has not only created and developed modern libraries but also transformed various existing libraries in recent shape. We are living in an era which lays much stress and emphasis on the significance of information resources. The 21st century is witnessing the revolutionary impact of digitization of the publishing and information delivery systems due to the inception and the emergence of the Internet; particularly the www which is a new medium of information storage and delivery. A significant change in the worldwide information process has been noticed in the publication of journals and other important information resources in electronic form. Most of the electronic journals started during mid 1990's have started creating an impact on the appearance of citations. Currently, all journals, especially the foreign journals are accessible in electronic form. At the same time general population (in general or population at large) has become increasingly aware of the usefulness and capabilities of computer technology for education, research and recreation. Users have been
demanding broader variety of information services, tailored to their requirements. They are also demanding better quality of such services. The proliferation of e-resources in the networked society has resulted in the growth of 'shared subscription' or 'consortium based subscription' to journals everywhere in the world. Shared subscription to e-resources through the consortium of libraries is a viable policy to meet pressures such as diminishing budget, increased users demand, growing expenses of journals. This justifies the efforts made by Indian libraries towards the development of consortia of resources for ensuring their trouble-free access, Jayaprakash (2005).

The management, technical and medical journals are undergoing remarkable modifications and alterations in the libraries. Due to increase in the price of print subscriptions, the number of subscriptions in print media has declined with a rapid rate. In recent times electronic journals are acting as alternatives to print journals. Electronic journals include electronic peer review versions of traditional journals from the same publishers or from e-prints servers. Many research studies over the past decade show that print media journals have been replaced with electronic journals increasingly and the researchers/ doctors have developed more and more inclination and liking towards their adoption, Tenopir (2004). According to Meadows (1974), traditionally, in the print world, medical professionals had relied heavily on scholarly journals, placing importance on specific journal titles in their sub-disciplines. The main purpose of medical science libraries is to build and maintain a knowledge base and to provide timely access to collective memory for the purposes of learning, teaching, caring for patients, conducting research or even managing an organization. The design and representation of the knowledge base are changing rapidly, as there are process and techniques for gaining access to information. Medical libraries have also used library management software's for cataloguing and controlling records but are now shifting to acquiring, managing and distributing bibliographic and full-text information, Matheson (1986).
E-print servers, such as arxiv.org, offered access to separate articles that may be pre-prints of articles which are submitted to refereed/juried journals by the writer, post-prints (copies of articles that are also published in journals), or papers that will never be submitted to traditional journals. The open archives initiative promotes common interoperability to permit organizations or persons to develop e-print repositories. Electronic mode of conventional journals modifies the publication style, as they merely provide more convenient access to subscription-based journals, Tyagi (2011). Tenopir and King (2003) discovered that medical faculty might be more resistant to change than faculty in other disciplines, because, traditionally, they use journals for much of their professional development and to stay current with progress and trends in their field.

TRADITIONAL PRINT JOURNALS

Print resources still dominate in academic publications, but the fast and rapidly changing technological environment contains inherent future risks for researchers in medical libraries. The same creativity that spawns advancement and development also slows or prevents the adoption of stable standards in format, laws, and pricing. An environment that blossomed under constant change does not react well to restriction, and doing research or development up to a particular standard would result in stagnation. The world of information gathering is in a transition phase and users have shown a marked preference and reliance on technology, which, if not stable, will undoubtedly continue to thrive. Libraries, as information agent, cannot refuse data simply as it fails to comply with the existing expectations, or because its layout of transmission is not yet totally developed. Instead, they must seek to harness its strengths and to educate users on its weaknesses, Michelle M. Wu (2005).

IMPORTANT CHARACTERISTICS OF PRINT JOURNALS

The core purpose of a medical library is to serve the needs not only of
today's users but also of the potential future users. It follows that the medical library must have an adequate collection of resources that is accessible and meaningful to both current and future scholars. For many reasons, physical formats will remain in operation and use for many years to come. Though the world had seen the era of radio and later on the introduction of television debut, the invention of a new medium possibly cannot annul the former ones. Hence print media is a time-tested format that furnishes to quench the quest of aspirants that technology cannot yet cope-up. Therefore, the significance and utility of print mode is likely to sustain for all times to come without any doubt.

- **Stability**

Almost all the sites, public domain or fee-based support the addition and elimination of information without the approval of its users. Whereas such freedom is necessary to keep the updated information, it also provide the unannounced deletion of valuable documents. Secondly, library authorities are still struggling to answer the various challenges, particularly troubles of scholars and educationalist caused by electronic data. However, in their decision making, they can alter the library user's current and future rights with respect to electronic data.

- **Permanence and Completeness**

Traditional journals patterns cannot become extinct completely from databases by the publishers, suppliers or hackers as in the case of online journals for causes range from a desire to keep the database up to date. In case of printed journals, libraries can subscribe them immediately or later through inter library loan (ILL). On the other hand, as the journals are published electronically, publishers' wish to provide only the most recent information may require it to overwrite the draft documents. However, only a very few publishers, knowingly and actively preserve electronic records of
deliberations and drafts. Once the print journals are published, the material carries a greater promise of stability. Its data (print journals) is complete in all aspects as compared to the online version where the information is available in fragments.

**ADVANTAGES OF PRINT JOURNALS**

Print journals have been popular among students, faculty, doctors and researchers of medical libraries, due to the varied advantages like:

- Print journals can be preserved and consulted by user's whenever required.
- They can be carried out at home, labs, departments etc. in bags and accessed easily.
- Students or faculty can consult many journals at the same time.
- There are no technological/mechanical hurdles like loss of data.
- They do not need the technical support, even a layman can use them.
- Print Journals provide the most dependable facets of research.

**ELECTRONIC JOURNALS**

Electronic journals are the source or mode of information in which the end product can be obtained online through the Internet. Some medical research projects considered how publishers and libraries could work in collaboration to provide an electronic version of printed journals. The journal which is available through storage devices such as CD-ROM would never constitute as an electronic or online journal.

E-journal is an online mode of an academic research journal which can be found or accessed on the internet in different forms like html, pdf, text etc. Online access to e-journals is available either of no cost against print subscription or for a nominal charges along with print subscription. It is very clear from previous experiences that no single library can obtain all journals in
a stream. With the emergence of information technology applications particularly the Internet, there has been a tremendous move from established print journals to e-journals. Electronic journals are offering various possibilities and benefits over print journals like ease of use, anywhere and anytime accessibility, sharing ability, hyperlink to related text or multimedia content. E-journals also offer a solution to other major logistic troubles confronted and faced by libraries such as track up of missing issues, binding/repair, shelving etc., Sundareswari (2013). E-journals have now become a major source of information for doctors, researchers, scholars etc. Their timely production, delivery incorporation of multimedia, hyperlinking and searching facility has attracted the attention of researchers, Tekale (2012).

**ELECTRONIC JOURNAL FORMATS**

The present era is the generation of compact version of library holdings i.e. books, journals theses etc. E-journals are dominating over traditional printed journals due to existence of multimedia, searching facilities, interactive presentations and even direct access to the data and references at a click. The main formats are:

- HTML
- PDF
- SGML
- ASCII and bitmaps
- TEX and LATEX
- Post Script

Some of the formats given above can support different multimedia properties such as sounds, picture clips, figures and interactivity. PDF and HTML are the two major modes which are used more often in electronic or online journals.
Electronic journals are generally worked on Internet, network and web technology. As a huge quantity of electronic journals is now available online, it becomes effortless and trouble free for different medical libraries to subscribe, as these journals are simple to access, requires a lesser amount of the subscription fee and also make available full text articles, figures, tables and reviews to all the medical library users.

**ACCESS of E-JOURNALS**

Some publishers give complimentary or economical online access to their print subscribers. Serials/ periodical agents send a catalog of subscriptions that includes free of charge online access. A number of international publishers offer awesome packages of all their electronic journals at a reasonable price to the institute. Unlike print subscriptions, the rate for online access can vary a great deal from library to library. Publishers can frequently mould the price for their entire online package. If the library can afford to incur small funds, then it might be able to gain online access to hundreds to thousands of e-journals for a small part of their list price. Various medical library consortia sprang into existence in the late 2001. The most of the publishers like to bargain with one individual on behalf of many libraries / librarians, and by offering unusual cluster discounts; they can transmit and send out their journals into more libraries than ever before. A larger client base does not multiply making costs as it does for print journals. Maximum visibility and higher citation tariff finally resulted into the increase in worth of a publisher's journals, so sometimes smaller libraries will be granted access to a bulky package through a consortium at almost no additional/ supplementary cost.

Cost is one of the major and important factor or issue in the selection and procurement because of the ongoing decline in the trend of library buying capacity. Although the foreign currency (Dollar/Pond/Euro) value is higher,
the library buying power has been considerably reduced in relation to what it was since one or two decades before.

The value of preserving a print/paper collection goes well beyond the subscription cost. Libraries must also take into consideration the aspect of the costs involved in processing, shelving, cataloging, binding, repair and maintenance of deteriorating collections, maintenance of suitable environmental factors, etc. The possibility is that by moving to electronic formats the subscription cost are reduced and lessened due to the cut of the processing, cataloging, shelving, repair, and maintenance costs of the print journals. The library is also looking for solutions to problems generated by reducing buying capacity and staff through consortia arrangements for resource allocation, low-cost improvements of inter-library loan and document delivery operations.

The libraries are determined and committed to taking advantage of internet technology to provide broader, more extensive electronic access, and to support integration of online resources and information technology into the syllabus. The libraries can also provide a series of access terminals to electronic resources, like full catalogue and accessibility, browsing by title, linkages and integration between resources.

ADVANTAGES OF ELECTRONIC JOURNALS

- **Availability:** Electronic/online journals are accessed from the college campus/library or off campus at any time. Once the electronic journals are introduced in the library than there is no need to visit everytime to the library to access the journals.

- **Speed:** One of the prominent advantages is the speed with which it delivers the content to the researchers, faculty or doctors. For the medical community, speed is an significant feature of electronic journals as they find lesser time in searching relevant material in the libraries. Papers are uploaded
on online portal by the publishers as soon as they become ready, without
delaying in publication and postal time as in the print mode. The American
Chemical Society place manuscripts or article on their website 'as soon as
publishable' which can be up to 70 to 80 days before in actual print. Hence the
information is much more up-to-date than can be achieved with paper or any
other way.

- **Easier:** Electronic/online journals are the fastest mode to provide
  information. The relevant updated information through electronic versions
  can be searched in lesser span of time as compared to print versions. That's why
  search ability is one of the most important feature of a digital format. Easier to
  find, the fewer duplicated experimentation, less wastage of time are the other
  side by advantages of e-journals. However, some authors raises the problem
  of information overload.

- **Dissemination:** The papers available in electronic format can be
  studied, commented on by the readers, and amended more rapidly than can be
  done with print. So very quickly that the article can be sent through e-mail, or
  forms can be filled means that there can be much response through the web.

- **Accessibility:** Another important feature of electronic journals is its
  accessibility. Many authors argued that it is far cheaper for the researchers to
  get one computer with Internet access than to subscribe too many journals.
  Subsequently, electronic journals, would be a better tool for breaking down
  the obstacles to democratic research. For any type of researcher, availability of
  a desktop computer means a significant increase in accessibility feature,
  specially for those who not able to work within easy reach of the library. Davis
  (1997) also keen on the fact that entire archives will be available, several
  people can read an issue at once, and they cannot go missing. Also different
  layers of access can be provided to various kind of persons with no more extra
  efforts, e.g. subscription access to abstracts only, or full multimedia etc.
**INTRODUCTION**

- **Links:** Links are relatively important aspect of the hypertext formats. Not only articles can link to those they have cited, but with little more effort, they can be linked to those that cited them. In a recent it has been described how electronic transactions on artificial intelligence focused on the bibliographic part of publishing.

  Harnad and his co-workers declared that a 70% saving over print costs can be made, while Whisler argued in opposite manner that only a 20% saving can be made as distribution costs are a low proportion of the final price, and even that saving will be eaten up by extra costs afforded by new features. So, it can be said that electronic formats are comparatively cheaper than the print one.

- **Flexibility:** E-journals ensure a greater degree of flexibility in terms of formats by which they are made available to the users. It has been observed that e-journals are being able to evolve quickly as they are not tied to a printed or distribution network. They are independent of the type of print hence flexible.

**DISADVANTAGES OF ELECTRONIC JOURNALS**

  In spite of the several pros of electronic journals, they tend to carry some cons which have to be also taken into account.

  The main drawback of online or electronic information system is the limitation of the computer monitors. This inturn generates difficulty with reading. This is a major constraint found in the development of e-journals. At the moment most library users photocopy library journal articles for own use. The soft copies of text are not easy to read and accessible. Every time a target group wants to read the article, he has to switch on the computer monitor. It also becomes hectic to read the text from the screen of the computer directly every time.
Should the publishers or library archive the digital data?, Whose accountability would be to upgrade old data to recent one? If the publisher or the editor of an self-regulating journal or periodical gets fed up or withdraws the assignment, what will happen to the archive? Without answered suitably, the role of the scholarly journals as an archival record will always be compromised.

Once printed, the details of articles remain constant, durable, easy to access and straightforward. However, websites change their links or frequently disappear altogether. Therefore, data in electronic or digital form is vulnerable and its accessibility on the internet cannot be guaranteed over a long period of time.

Hutten Locher (2000) stated about the ‘malleability of content in electronic form’ and felt concerned about establishing the source of material in general, although he thought that e-journals would only survive if they pursue potential readers of their credibility. Technology brings with it, so many difficulties like duplication of data and resources. Thus, it becomes difficult to provide clean chit to the authenticity of information on the internet or web.

**CHANGING USER PERCEPTIONS IN RECENT YEARS**

Changes in computer and information technology ensure that, over a comparatively short time frame, formats of older digital / online materials would become unusable. Keeping digital or electronic library resources accessible for use by future generations requires conscious and sustained efforts along with frequent investment.

In the health care field, scholarly research and statement depends upon perpetual access to the published patents or innovation of the history. Before the inception and start of online journals, health libraries subscribed to traditional well tested printed journals, provided access to and preserved these bibliographic resources to maintain the research and learning needs of their
research and mentor communities. The introduction of web based electronic journals has transformed intellectual communication in many ways making it possible to communicate and disseminate research outcomes more quickly, to make available hyperlink access to cited publications. Clearly, a close liaison and collaboration of researchers, doctors, publishers and librarians is required to ensure that the developments in today's health field will be available with easy access to researchers of the future.

**TRANSITION FROM PRINT TO ELECTRONIC**

Technology has transformed libraries to providers of a huge storeroom of information on different types and the technique/method in which they offer their services. Proxy servers and virtual private networks permit users to join to library resources remotely. Hyper linking with integrated library systems publicizes the location of resources. Adaptive hardware and software, such as voice recognition software, enable disabled patrons to interpret resources without requiring the library to present a human reader or interpreter. Technology increases a library's holdings to beyond just purchase or licenses, diminishes the physical boundaries of the medical library, and authorizes its users to retrieve resources independent of location, Michelle (2005).

Technology has also reduced the average time span of the learning both in conditions of the time to journey to remoter resource repositories and the time spent with the research material themselves.

Printed traditional documents or any physical unit, occupy extra space. Similarly, data also need adequate space, but the level on which space is needed is extremely little compared to material/physical objects. The physical material library cannot be easily shifted from one location to another, whereas handheld devices such as memory keys (CDs, Pen Drives etc.), and laptops envision an extremely portable virtual library. When referenced matter
is in electronic or soft shape, it can be simply disseminated to the researcher's job.

Twin format publishing is on the increase, and born of digital and electronic documents already outnumber traditional or print ones. Even in the academic and scholarly environment the number of resources published exclusively electronically is increasing. This increase was prompted by the quick boost in publisher print pricing, and propelled further by lesser allocation costs, technology's evolution, and users' demand.

INFORMATION NEEDS IN MEDICAL EDUCATION

Today's health library users' information requirements can be met through a number of options. They need not to approach to the institute library to use the medical journals/ magazines, books and other print traditional resources, but can stay at hospital, home or hostel and access online library e-resources and services via different online sources at any time. Health/medical information to the doctors, students and faculty should be accessible easily, accurately, reliable and timely. Due to the changing scenario in technology, the requirements of medical community for valuable, fast and authentic information, medical health libraries have been foremost adopters of electronic or online access of health resources to provide reliable and rapid information.

Electronic resources have outshined and excelled in attraction and utility. Doctors, students, researchers and other medical professionals' can permit innovation in teaching, treatment as this improve the level of research as well as increase the scope of invention in the area of medical science. Other many reasons for the medical teaching community to use e-journals include pertain to increase more computer educated students and keeping them abreast with the advancement in their discipline. The latter is important for those with clinical practice as more of the clients who use e-journals to keep them well informed about the updates in health science.
Medical faculty and doctors, due to the environment of their work, teaching, research, and clinical practices should have prepared access to the most recent clinical experiments. Education technique of the health experts and course requirements, they influence the use of the medical library collection and students' perception of the library. Computer educated users may feel more easy using electronic journals and thus increase more knowledge from using them. The library plays a more important task in faculty-library relationships and in instructional services such as orientation, guidance and training in the use of library assets. If practical and constructive use of the library's resources is to be made, then user guidance can lead to enhancing the passion and coverage. It is essential to keep in mind that the capability and competency of library staff to keep up to date is compulsory and therefore, training for them is imperative as well.

ROLE OF ELECTRONIC JOURNALS IN MEDICAL LIBRARIES

A vast change has been witnessed in the past decade in the direction of medical libraries both in its viewpoint and functions. Many library users and health professionals have consider medical information recourses as the backbone of the medical libraries these days. The main objective is to see the future prospects of the electronic/online medical periodicals in the country. Medical librarian's must ensure that the health care providers can easily access to appropriate, correct, consistent, latest published information that helps to improve the worth of the medical libraries. There is a dire need for the doctors and medical professionals to enhance the quality of research materials i.e. journals, books etc. that can be used in the medical libraries in the form of e-resources. As the present century is known as the digital information civilization therefore there is quick growth of information so to overcome the innovative challenges to these libraries. This brought giant change in the information seeking behavior of the medical users in the health science libraries. The responsibility of the information seekers has led to the
transformation of the librarians into the medical professionals. In the old days the traditional print format users had no alternative and followed the similar old means of searching the data in the institutes libraries such as journals, theses, books, archives etc. which proved to be very time consuming. With the intention of electronic or online materials, users felt so free and comfortable as now journals, theses, books and archives of periodicals are just far at the click of a mouse. There are various types of e-resources some of them are e-books, e-journals, various open source databases like PUBMED, MEDLINE, and publisher databases like OVID Cluster Collection, MD Consult, etc. which prove to be supportive in searching the medical data. In the age of 'e' researchers' demands have become more important as they need an article, manuscript, review or topic to gain the relevant information but at the same time they prefer to choose search online web publishers' databases so that their hunger of gaining research data can be fulfilled.

CONSORTIUM

The consortium is a Latin word, representing 'partnership, association or society. According to Oxford Dictionary, “Consortium means a temporary association of a number of countries, companies, banks etc. for a common purpose”. An academic library consortium is a amalgamated efforts of a cluster of libraries towards a common objective of sharing information resources. Consortium is a society of two or more publishers or information agencies which have properly decided to coordinate and cooperative of two or more libraries which have officially agreed to coordinate, cooperate or consolidate certain task to achieve joint objectives. In other words it is an alliance of a set of academic libraries to achieve mutual benefits, to provide most electronic or online periodicals to the health libraries.

A consortium is an admirable method in the practice of collection, digitizing, organizing and making accessible the electronic and online information
resources. The proposal of library cooperation, resource sharing, and networking was in reality any such efforts in the past. The medical research journals play a key role in the information and dissemination of knowledge to the medical society. Online mode of publications has brought a revolution in periodical publication, subscription, and access and delivery mechanism of information and knowledge. The facility to access and delivery journals electronically has led to an innovative and still evolving, form of co-operation among medical research libraries and document delivery centers. Almost all individual library subscribes to a lesser number of medical journals, generally those most relevant to their researchers, professionals and the libraries then come mutually to share a big holding of journals ‘online’ through a consortium. This is an extremely striking choice to counter the escalating costs and depleting budgets of the medical institutions and universities. The consortium helps the medical research libraries to get wider access to electronic/web resources at reasonable cost. The core objectives of library consortium is for enhanced resource sharing to reduce information costs, for instant delivery of research contents to keep abreast of innovative developments and as well co-ordinate in expansion of library facilities and services.

WHO ROLE TO MEDICAL LIBRARY CONSORTIUM

Extra Med Consortium

It was created in 1993 on the initiative of the World Health Organization, which brought together the publishers of biomedical journals from all over the world into the Extra Med Consortium. It offers all journals abstracts and bibliographic data from the WHO initiative. Articles provide a unique perspective on all human health and biomedical issues.

HINARI

HINARI provides free or very little price online or electronic access to the
medical journals and related social sciences to local, not-for-profit organizations in the developing countries.

Health Inter Network Access to Research Initiative (HINARI) was launched in January 2002, with approximate 1500 medical journals from international repute major publishers i.e. Blackwell, Elsevier, MD Consult, Harcourt, Worldwide STM Group, Wolter Kluwers International, Springer, Verlag, John Wiley etc. Today more than 150 medical journal publishers are offering their content in HINARI.

NNLM
A National Network of Library of Medicine (NNLM) network is administered by the National Library of Medicine (NLM). It consists of eight regional medical libraries (Major institutions under contract with the National Library of Medicine), more than 160 resources libraries (Primary at medical schools), and some 4,762 primary access libraries (Primarily at hospitals). The mission of the National Network of Libraries of Medicine is to advance the progress of medicine and improve the public health by providing all U.S. Health Professionals.

MEDICAL LIBRARIES AND THEIR CHARACTERISTICS
In the early past century there were financial, insurance museum and technology libraries which were known as special libraries. In the 1940's with the development of penicillin and other important drugs, medical health libraries came into existence as an urgent requirement for the medico community. In 1950's medical libraries were given the status of special libraries.

Today the word health library exists in at least two senses i.e. the general medical libraries which include medical libraries with a collection of all purpose health information and the specific medical libraries including libraries providing specific information services to the medical researchers,
super speciality professionals and R&D units. It is particularly important to point out that communication of medical science information occurs in a variety of formal and informal modes e.g. informal statement among colleges by phone and correspondence, and face to face talk in laboratories and conferences, meetings and seminars, progress reports of research, through formal publications, such as research journals, conference proceedings, books and preprints, electronic documents or non prints.

In the broad sense, medical health libraries are considered as special libraries, even though they are a division of general academic and research institutions. Another feature of medical college libraries which distinguishes them from other libraries is the nature of books, journal and technical series and reports of WHO etc. The collection of medical health libraries contains more periodicals and technical reports.

Medical libraries have embraced online periodicals/journals because of their accessibility and convenience. Users can instantly retrieve several full length documents from databases with the convenience of electronic access.

MEDICAL COLLEGES OF HARYANA, CHANDIGARH AND DELHI

Pt. Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences (PGIMS), Rohtak

PGIMS, Rohtak is situated at a distance of about 70 km from Delhi on Delhi-Fazilka National Highway. It is the most important college and hospital for medical education and specialized health care services not only to the people of the state of Haryana, but also to those from Rajasthan, Delhi and western U.P. In the subsequent years, all-around expansion measures transformed the medical college into a entirely developed hub of medical education and research in all the most important streams of Medicine. Today PGIMS, Rohtak is a well-known organization not only for medical science teaching
and learning but also for the health concern services for the society.

The PGIMS library was opened in 1956 and facilitates of access to traditional print formats as well as electronic information resources. The library plays a crucial job in ensuring that these print as well as e- resources are effectively and efficiently used. PGIMS library has a total floor area of 3,000 Sqm. with 250 seats and 24 carrels and is fully air-conditioned. Special facilities include seminar rooms and an audiovisual group-viewing room, each with seating for 25 students/ staff/ doctors, as well as a training room equipped to facilitate the library's Information Literacy Program, and a volume storage capacity of app. 70,000 items. Equipments available at the medical library includes photocopiers, LCD projector, overhead projectors, video cassette recorders, a slide projector, screens, a microscope, an X-ray reader, printers, a scanner, and a multimedia projector.

The collection comprises app. 48000 books, 1600 reports/ patents, 120 audiovisual, 1250 CD/DVD, 450 print and electronic current journals, 53,500 bound serial volumes, and 1,140 multimedia items. The collection has 11 CD-ROM databases, including MEDLINE. The subject areas covered are Dentistry, Medicine, Pharmacy, as well, Nursing.

The online public access catalog (OPAC) is available through the LAN in the central medical library. Forty networked computers/ terminals including internet access are available to all the library users, and another stand-alone units provide access to online journals, research contents, CD-ROM databases, library study material and the multimedia collection. Maximum computers are used for accessing the online journals, library's study materials, searching medical computerized databases, and accessing the web and as teaching resources.
- Maharaja Agrasen Institute of Medical Education and Research (MAIMER), Agroha

MAIMER envelops a region of 270 acres, covering the Agroha Temple, Mound and the Sheetla Mata Temple face college across the road. Maharaj Agrasen Medical Education and Scientific Research Society was documented in the year 1988 to examine the on goings of the College. The library of the institute houses more than 10000 books on various streams of medical science education. In addition, the library also subscribes to more than 150 national and international medical education journals. The college library provides the Internet access facility for the staff, doctors and students of the Institute. The opening times of the library are 7 am to 9 pm during summers and 9 am to 9 pm during winters. In addition, the reading room attached to the library provides a peaceful and serene environment for the students to study.

- MM Institute of Medical Sciences & Research (MMIMSR), Mullana

MM Institute of Medical Sciences and Research, Mullana was established in 2003. It is the first unaided private medical college in the state of Haryana having magnificent and spacious structure/buildings with the lush green huge campus.

The Institute has most modern, centrally air-conditioned OTs and intensive care units which are fully equipped with latest and state-of-the-art medical care equipments and other infrastructure. The different departments of Anatomy, Physiology, Bio-Chemistry, Pathology, Microbiology, Pharmacology, Forensic Medicine, Community Medicine, Ophthalmology, ENT, Obst. & Gynecology, Surgery, Anesthesia, Orthopedics, Medicine, Dermatology, Psychiatry, Chest & TB, and Radio diagnosis are fully equipped with latest infrastructure and have highly competent and reputed faculty. In
addition to Dental college with provisions of Post Graduate (MDS) classes, the College is supported by the Post Graduate Institutes of Physiotherapy, Nursing, Pharmacy as also 850 beds hospital having OPD of over thousand of patients. Assisted by qualified paramedical staff, the hospital provides facilities of Ultrasound, MRI, CT Scan, Blood Bank, 24 hours emergency services including world class Cath lab for heart care, post mortem, and well equipped Biochemistry, Pathology and Microbiology labs with equipments.

Besides departmental libraries, the institute has a well stocked air-conditioned computerized library with a seating capacity of more than 450 students and cabins for teachers and post graduate students. The MMIMSR Library houses more than 18,000 books, bound journals, theses, educational CDs and audio-visual cassettes. A prosperous collection of textbooks, reference books, national and international journals in addition to magazines, etc. of common interest finds place in the central library. It subscribes to 504 journals which include 114 international journals and 225 e-journals. Topics on various subjects have also been covered in CD-ROMs for the benefit of the students and doctors. Internet facility with audio visual hall, Medlars, 48 computers etc. are other facilities of attraction of the library.

- **Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh**

Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh was come into existence in 1960 as a center of excellence which would undertake to increase patterns of teaching in post graduate medical education in almost all branches of medicine.

PGIMER Library offers a wide range of following facilities to its users are: reference service, online journals, internet browsing service, wi-fi internet service, electronic document delivery service, current awareness service, selective dissemination of information, inter-library loan or document
delivery service, online medical journal database search, web OPAC search etc. The collection of the library includes around 55000 bound journals, more than 45500 books, CDs, 4000 theses, app. 435 foreign journal subscriptions, 95 Indian journal subscriptions and subscribes to 494 online journals.

- **Government Medical College and Hospital (GMC), Chandigarh**

  In view of the ever increasing residents of the city of Chandigarh, a second 500 bedded General Hospital had become a requirement not only for catering to the needs of patients of the city but also to cater for patients from the outside of the city beautiful. The Postgraduate Institute of Medical Education & Research, Chandigarh was conceived as a leader referral centre for the northern states of India. The Government Medical College, Chandigarh was started during the year 1991.

  GMCH library is automated with a very rich collection of books and latest journals. GMCH library is also a member of NML consortia, under which library has access to more than 2800 online journals of various disciplines through different publishers.

- **All India Institute of Medical Sciences (AIIMS), New Delhi**

  All India Institute of Medical Sciences (AIIMS) was established as an institution of national level to develop models of teaching and learning in undergraduate and postgraduate medical science education in all its streams. The Institute has complete facilities for teaching, research and patient treatment. Teaching and research are conducted in more than 40 disciplines.

  The information and knowledge needs related to updates in the medical sciences of the faculty members, doctors, students and researchers are met by the central library which came into the existence in 1957.

  The Central Library consists of two floors with a carpet area of 27000 Sqf. and seating capacity of more than 300 users. For the benefit of the undergraduate students, a caring contribution made by a philanthropist has made possible the
setting of a medical Book Bank. Since August, 2003 the library remains open seven days a week including Sundays and holidays except national holidays. Its current collection consists of more than 72000 books, 66000 bound journals, 5300 thesis and 17000 pamphlets. The library is at present subscribing to app. 950 journals (Print + Online). The library has been using bar code techniques for transaction of books and electro magnetic security system (RFID) for anti-theft of books. The Wi-Fi internet network facility has also been provided to the students and faculty by the library for accessing to e-journals/ e-books and other learning material in the library.

- **Army College of Medical Sciences (ACMS), New Delhi**

Army College of Medical Sciences (ACMS) has been established by Army Welfare Education Society with the objective of providing excellent medical education to the wards/children's of eligible serving army personnel, ex-army personnel and war widows of the army of India. Qualified doctors are encouraged to join defense services after completion of courses. The clinical training and internship of the students is carried out in base hospital, Delhi Cantt, which is a prestigious hospital with more than 1000 beds, having all specialties and equipped with state of the art diagnostic, therapeutic and research equipments of all medical departments. The college compound has aesthetically designed buildings, green landscaping and a striking ambience. Well equipped and well stocked library of the college has the ample seating capacity for students and staff. The library collection includes more than 6500 books and the library subscribes ample number of print and electronic journals.

- **University College of Medical Sciences (UCMS), New Delhi**

University College of Medical Science is affiliated to Delhi University. It is a energetic and development oriented medical college to facilitate and promote studies and research with focus on professional medical education in emerging areas of health education in the disciplines of medicine, pharmacy,
nursing aiming to produce quality products.

Information Resources Centre (Library) of the college acquires, preserves and make available print, non-print and electronic resources to support the academic, instructional, research and intellectual needs of the medical community. The IRC is aware of the impact of electronic technology on the services it provides and is striving to set up active links to the world class resources available through consortia, subject bundle access and open access archives through the web. The library also has Xerox facilities and document delivery services to serve the users. The library at present serves about 1200 members with fully air-conditioned reading/consultation rooms and provides a healthy environment for its users.

To meet its objectives library developed reasonably qualitative book collection and print and online subscription to journals. The dawn of new technologies and users' rapid demand for current medical information initiated the collection development of e-resources, which complimented the print mode and gave birth to a hybrid (both print and online) collection within the library. The library also, keeping tempo with the latest technologies, has connected quite a very few national level consortia. The medical college library has also approved a guideline for e-journal collection development in order to make available efficient services to the library users with their faultless accessibility.

These e-resources are inclusive of INFONET (more than fifteen publishers, over 3500 journals), Science Direct, Nature, and free online against print subscription. UIRC initiated a survey in order to understand users' behaviour and manner when they use these e-journals collection for their teaching, learning, study and research purpose. The Library has membership of ERMED (Electronic Resources in Medicine)-INDIA, e-journal consortium started by the national medical library.
Lady Hardinge Medical College (LHMC), Delhi

Lady Hardinge Medical College (LHMC) for Women was established in 1914. Lady Hardinge, was the first to take the proposal for starting a medical school for women, as the lack of health education of women made it more or less impossible for Indian women to study health science. The foundation stone of this medical institution was laid by Lady Hardinge on 17th March, 1914. Unfortunately this great woman died later in the same year and on the suggestion of Queen Mary the institute and the hospital was named after Lady Hardinge to perpetuate the memory of its initiator.

Since 1950, the college has been affiliated to the University of Delhi. In view of considerable demand of bachelor students for post graduate study, master courses were started in 1954 in association with P.U. Chandigarh and later on with the University of Delhi in 1956. To start with only girl students were admitted, but since 1970 both boy and girl students are being enrolled in various PG disciplines. The college library has more than 30000 books on medical and other related subjects. Presently the library is subscribes 160 journals in both mode i.e. print and electronic.

The library is providing different facilities to the students of LHMC. The issue return books and the journal sections are open to the readers in all working days. Photocopying facility is accessible at free of cost. However, the users have to make available the xerox paper for this purpose. The library has high speed internet facility, connected to the National Medical Library under the consortia (ermed.nml.nic) and many other consortias. There is an audio-video section containing video cassettes and educational CDs for the use of students and medical faculty.

Vardhman Mahavir Medical College & Safdarjung Hospital (VMMC), New Delhi

Vardhman Mahavir Medical College (VMMC) was set up at Safdarjung
Hospital, N.Delhi in November 2001. The foundation stone of the college was laid by then Hon'ble Prime Minister Shri Atal Bihari Vajpayee on 17th December 2001.

The college is under the affiliation of Guru Govind Singh Indraprastha University, Delhi. The postgraduate courses started in 2008 are also affiliated to GGSIP University. There is a separate three storied library building having a total area of 2700 Sqf. with approx 18000 medical books covering all subjects. Presently the library is subscribes 125 journals (National and International) and library has access to ERMED consortium which provides access to app 2000 national and international journals.

- Maulana Azad Medical College (MAMC), New Delhi

Maulana Azad Medical College (MAMC) is a well-known medical institute in north situated in the Delhi. MAMC was come into the existence in 1961. All the courses are recognized by the Medical Council of India. The MAMC Library houses more than 35,000 books, bound journals, theses, educational CDs and audio-visual cassettes. The library has been programmed with 'LibSys' library management automation software. All books, journals and theses are bar-coded and tagged with RF. A subscription of 225 print and e-journals, out of which 150 have IP, based online access. The library has also membership of NML for sharing consortia of thousands of e-journals.

From the above data, it can be easily concluded that various medical libraries of Haryana, Chandigarh and Delhi, enjoy ample library facilities. Digitization of libraries and other latest trends have become common attractions of these libraries. The users have access to various e-journals apart from the print traditional material available in plenty. Thus, the significance of the present study lies in the fact that these eleven medical libraries in the above stated area caters to the needs of a wide and diverse population of readers in north India. The current study also deals with the study of transition from print media to
electronic media which further provides a practical insight into the changing roles and scenario of library exercise in India.

**RATIONALE OF PRESENT STUDY**

There is a move of librarians from a storehouse protection to an information gateway/ portal. Providing information has itself become a challenge for librarians. The reasons for choosing the present study are shrinking budgets; limited shelving and space; reduced or no funding for additional space and reasonably rising costs of repair or replace damaged, lost and stolen documents, some of which are out of print, users' more dependence and demand of resources in e-format. The acquisition of e-journals are a solution of all these problems, thus sooner or later the libraries are bound to shift from printed to e-journals, which will prove to be cost effective in the long term and are convenient to maintain, search, print etc. Thus the topic of study finds significance in the present context.

**REFERENCES**


INTRODUCTION


INTRODUCTION

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