8.0 Proposed Model for the Automated Medical College Library

In the field of library automation many major developments have been noticed in the 21st century in India and in this knowledge age the information needs of the users have been increasing very extremely day by day. The traditional libraries are not able to fulfil the user's information needs and to fulfil the information needs of the users, traditional libraries should move on to the library automation. ICT and its resources help to libraries to adopt the automation and make the libraries digital. These digital libraries are playing an important role in the process of digital collection development, storage, retrieval and dissemination of information. Due to the financial crises and explosion of knowledge it's not possible to keep all the print information resources in the libraries and library automation makes it possible. The library professionals should have to done the cooperative efforts for the automation in the libraries, which help these libraries and research centres to transfer the information in the new digital environment.

The libraries with their diminishing digital data or at the best static financial allocations have to consider new ways to consolidated global resources. The infusion of these developments has resulted in the form of a huge digital library collection. The digital library can provide the required digital information at anywhere in the world in the minimum time by involving in any network or through internet. With this huge change in the library and information centres of the world, establishment of the digital libraries with an objective of taking advantages of the advance global ICT resources are promoting better, faster and cost-effective ways to provide digital information resources to the information seekers. The process of automation and library automation has been described below-

1. Automation- The process of automation refers to the theories and techniques for the mechanization of a manual work, advices or purpose. At Present, the term automation is used for the co-occurrence of computerization. Computer, communication and information technology play a major role in the process of automation.
With the great ability of calculations, data processing, data storage etc of a computer system impacts the rate of growth and control the process from the analysis of information.

2. **Library Automation** - To make the various library functions easy and time reducing such as- cataloguing and circulation and to provide effective library services to the users, the use of computer technology is called the library automation. One more important aim of the computerization is the saving of human power and makes the professionals working effortless.

To automate a medical college library there are various aspects of different fields of a library involved in the automation process. To automate a library, perfect planning should be done by the management and library committee and following steps have to take. These steps are time consuming at the initial stage, but at the time of implementation it is cost effective. So here are the essential steps of library automation given below-

**A. Planning** - The first step i.e. planning of the library automation is very important at the initial stage of library automation. The valid reasons should be behind the automation because libraries are non–profitable organizations working under some parental institution and at its initial stage it could look very costly. So the management of the parental institution can have the objection on it. Librarian should not give the reasons only for the modernization of the library but there should be some great reasons for the library automation to agree the patrons.

A feasibility study should also conduct at the planning stage to determine the proposed automation project is feasible or not. The feasibility study helps to collect, analyze and documentation of the data required for the taking decision on the automation projects. The results of the feasibility would help to management to adopt the project yes or not. The project is to be considered feasible only if the proposed projects can be useful to the organization. The following types of feasibility studies could be conduct to determine the project-
Chapter-8

Proposed Model for the M.P. Medical College Library Network

1) Technical feasibility
2) Operational feasibility
3) Economic feasibility

If the outcomes are positive then the designing stage will be initiated.

B. Designing- The study of the existing system makes easy to design the new system. Before designing a new system, the working of current methods and problems facing in it should studied well. The outcomes may be taken to determine the features that must be included in a proposed system. To study the structure the existing system following questions would help to management to adopt and design the new system-

1) What is being done from the existing system?
2) What is the purpose of the activities performed by present system?
3) How is it being done?
4) What steps are performed by the existing system?
5) What is the frequency it is being occur?
6) How long time it does take?
7) What are the needs to be changed the present system? etc

To design an automated system for the library enough care and caution should be taken. It would be better to know the other libraries experiences with advantages and disadvantages of their existing system. In the system designing phase the next step is normally referred to as ‘logical design’. It is the process of developing the source code for software, which is referred to as ‘physical design’. In this stage system specifications have been made and the technicalities involvement is necessary in this stage.

The detailed documents of output, input, files, database interaction, controls and procedures are included in these specifications with the hardware aspects. Different types of designing tools such as charts, tables, data diagrams, data dictionaries, etc., are used to portray the accurate design.

The logical design is followed by the Physical design, which refers to the development of ‘software’ for automation. The software is the heart of the automated system, which decides the success or failure of the automation. Software design
should accomplish the following objectives-

1) The software should be able to perform all required tasks in the intended manner,
2) Suitable testing and validation, and
3) There should be some space for the future modifications an efficient manner without disturbing the system' design.

The software development process can be complete in two ways by installing the purchased software or may develop new custom designed software according to the requirement of the library. The choice depends on the cost, availability of time to write software and the program developers. If the software fulfils all the objectives and principles then the software should be well documented that helps in the future development.

3. Operations- If the above mentioned two stages satisfied the management and library professionals than the operational stage of software comes further. In this stage, all the hardware is placed in their operational environment. This stage consist two steps- implementation and evaluation of hardware and software-

A. Implementation- in is the process installation of all the new equipment and applications have been done and as required, construction of the data files has also completed during this phase. The conversion of the old system into the new is also implemented in this phase. The conversions depend up on the resources and personnel available. For the conversion following methods can be adopted by requirement-

1) **Direct Conversion**- In this conversion the old system is completely replaced with the new system within a short time. The major problem in this conversion method is that there is no other backup system if some serious problems occur with the new system.

2) **Parallel Conversion**- In the parallel system of conversion both old and new system runs simultaneously. This is the safest method for conversion approach because if in the new system some problem occurs the library can still run smoothly by using its old system without loss of any time. This conversion
method could be very costly because there are two sets of systems under the operation. So to solve this problem management can hire temporary personnel to assist in operating both systems simultaneously.

3) **Phased Conversion**- If the institution is not able to install a new system at once, due to financial or technical problems, this method can be used. In this phase the conversion takes place in many phases. Sometimes it is difficult for the technicians to identify which phase has to be automated first and this is the main disadvantages of this method.

4) **Pilot Conversion**- The pilot study of the conversion involves new techniques or drastic changes in existing routine of the library. It can used only in one part of the organization, if that part of the system runs properly the system can installed in the whole organization.

**B. Evaluation**- After the installation of the new system the evaluation process has been conducted on the basis of performance to identify the positive and negative points of the new system. To evaluate the system regular monitoring is essential. The evaluation can be occur from the following three points-

1. **Operational Evaluation**- Assessment of the manner in which the system functions including ease of use, suitability of information formats, overall reliability and levels of performance. It may be noted here that the present study intends to conduct this type of evaluation.

2. **Organizational Impact**- Identification and measurement of the benefits to the organization—financial and/or otherwise.

3. **User–staff Assessment**- Evaluation of the attitudes of the users as well as the staff towards the new system. It also comprises of the testing of the user–satisfactions of the new system. This is normally termed as subjective evaluation.

The positive results of evaluation help for suitable modifications to improve the new system and derive the maximum benefit. These results also provide valuable information for future projects in the same organization and describe how well the automated system is designed and implemented. A hardware specification depend on
the following requirements for the library automation-

1) Allocated budget
2) Data storage capacity
3) Usage load
4) Required speed
5) Upgradable features
6) Maintenance time and cost (Servicing)
7) Compatible with operating system
8) Warranty period

A. Required Hardware for Library Automation

1) Pentium 4
2) 64 MB RAM
3) GD hard disk
4) 150 MB cartridge tape drive
5) CD drive
6) USB Card or pin
7) BGA
8) Colour monitor
9) Port intelligent i/o card
10) Internal modem
11) Fiber optics, Coaxial or Twisted pair cables
12) Scanner, Printer
Chapter-8  Proposed Model for the M.P. Medical College Library Network

13) Barcode scanner, Sensor system

14) Telephone connection

B. Required Software for Library Automation- The selection of operating system depends on their-

1) Hardware compatibility

2) Further supporting from operating system developers

3) user friendly

4) Upgrade facility (service packs)

5) Library automation software

6) Supporting software’s for library automation.

C. Operating System- The library can choose one of the best operating system from the OS given below or can adopt any other-

1) MS Window (Latest Version)

2) Linux

3) Ubuntu

After the fully library automation, medical college libraries under the study have to go for the library network for the information and resource sharing to fulfil the medical college library users huge need. Here is an appropriate example of an Automated Medical Library has been given below, which is the best in the medical field and that is Dr. B.B. Dikshit Library of AIIMS, New Delhi.

Dr. B.B. Dikshit Library of AIIMS, New Delhi

Dr. B.B. Dikshit Library of AIIMS, New Delhi is the best example of an Automated Medical College Library in India. It came into existence in 1957 and grew similar to the institute. In the year 1973 it was named on the founder director of the Institute-Dr. B.B. Dikshit. The library is totally fulfilling the information needs of its users.
Chapter-8 Proposed Model for the M.P. Medical College Library Network

The library building has the area of 27000 square feet and seating capacity of 300 persons. The library remains open 24*7 days in the week, except the national holidays.

It has the collection of 71844 books, 66825 bound journals, 5309 thesis and 17034 pamphlets. The library has approx. 3000 books in its book bank. It subscribes total 957 Print and Online journals. In the area of automation this library is fully automated and using Bar-code Technology for the circulation of Books. The library is using Electro-Magnetic Security System for anti-theft of books. The library is fully Wi-Fi and for accessing to the Medical E-journals or E-books, Internet facility has been also providing to the users. The library subscribes the medical journals of MEDLINE, POPLINE, ONCODISC, and LISA in the form of CD-ROM. It has an Institutional Repository and a consortium named ERMED with the participation of NML.

It is also an active member of DELNET. The collection of the library can access through library web OPAC and all E-resources can be retrieved through Web Scale Discovery Service by EBSCO called “Single Point Search (iSearch@BBDikshit Library)” and which is a single interface for accessing print and digital resources of the library. The library offers the following services to its users-

1) Book Alert Service
2) Periodical Alert Service
3) Inter Library Loan Services
4) Reprographic Services
5) CD-ROM Printout Services
6) Bibliographies on Demand
7) Computerized Thesis Search
8) Book Bank
9) Microforms Section
10) Audio-Visual Section
And also provide the advance library facilities, such as-

1) CD-BASED Service

2) CD-NET Workstation

3) ALPHA Computer System

4) Multimedia

5) E-Mail

6) Continuing Education

8.1 Proposed Network Model for the Government Medical College Libraries

The library networks are the information resource-sharing networks formed by the participating libraries for cooperative circulation of the information resources by using the ICT applications. This is the most important activity of a library network, which facilitates the member libraries to get the wider access to affordable E-resources.

A library network is like an electronic association of the member libraries, which may be engaged in the consortia activities. To acquire various type of reading materials collectively, avoid their duplication and the maximum utilizations are the main objectives of the library networks.

A library network with the collective strength of various information resources of member institutions can be a better option to circulate the information and information resources. Accessibility of full-text or bibliographic databases to the users improves the quality and productivity of research works.

Library networks are regarded as an effective strategy to circulate the increasing number of reading material electronically for the maximum use. End-users can reap the benefits of more resources than would be available through one library while staff can customize the system to meet their individual library's needs.
Chapter 8  Proposed Model for the M.P. Medical College Library Network

In the year 1975, The National Commission on Libraries and Information Science defined a library network—“The libraries are in the network when two or more libraries collaborate in a common pattern of information exchange through communication channels for the purpose of information exchange.

There could be a variety of libraries with formal arrangement for exchanging reading materials, information and services, which are available to all library users. These libraries must agree to serve and exchange all the information with the help of computers and telecommunication mediums”.

The Health Science Library & Information Network (HELINET) is the best example of medical library network in India. It was developed by the Rajiv Gandhi University of Health-Sciences (RGUHS) in the year 2002 in Karnataka state in the form of a Medical Consortium to improve the quality of research and education by accessing the high quality medical literature in the medical college campuses.

8.2 Objectives of the Library Network- The library networks can play an important role to provide required information to the users in digital form at anywhere in the whole world and improves the speed of scientific research and development in the academic libraries and information centres. It’s very tough for the single libraries and information centres to manage all kinds of information and knowledge resources in the print form but in the digital form it could be easy for them. In the digital form these resources can also share very easily by the networks. With the emergence of ICT applications particularly the internet, there has been a shift from traditional libraries (which keeps the print material) to advance digital libraries.

Library networks are basically a form of cooperation among the libraries, which come together to share the printed or digital information resources. A network is inevitable among libraries to cope with crunching budgets, high rising of prices for subscribing the information resources and growing information needs of the modern users.

The prime objective of the development of HELINET was to promote the sharing of information resource among the member libraries through a library network and to deliver information to the user’s desk-top 24*7.
Chapter-8  Proposed Model for the M.P. Medical College Library Network

It also aimed to collect, store, and disseminate information besides offering computerized services to users, to coordinate efforts for suitable collection development and also to reduce unnecessary duplication wherever possible. The HELINET has successfully functioning as a resource sharing model with the member of more than 660 medical sciences colleges in the Karnataka.

8.3 Madhya Pradesh Government Medical College Library Network (MPGMCLN)

8.3.1 Introduction- A network can be defined as “The communication links between the participated computers to communicate with each other for sharing the data, knowledge, facilities and services electronically. It could be the local, regional, national or international. In the modern era networks are going to developed to link industries, banks, educational organizations, social welfare units, libraries and information centres, and many more. These networks provide information resources the users in larger volumes with great speed”.

8.3.2 Library Network- In the present days, due to the knowledge explosion, no traditional library system can keep all the information resources of becoming self-sufficient. Now a day, information is going to be produce very speedily and libraries are not able to provide all the required information to the users. So practically, the goal of self-sufficiency of these libraries has become very impossible. It is not possible to stand alone for a single library and now they should have to move on to adopt the library networking. Library networking is the best way to share the costly and valuable information and information resource. Therefore, cooperation and resource sharing among libraries is very essential to provide library services very effectively. A library network has been divided in to two parts. That are-

a) A strong telecommunication network-The information spreads into the network and

b) The electronic databases in which the information stores electronically. These databases can be in the form of the optical media or on-line databases.
8.3.3 Definitions- Library information network is described through the following definitions.

1. The UNISIST defined library information network as “A set of interrelated information systems associated with communication facilities which are cooperating through more or less formal agreements, in order to jointly implement information handling operation, with a view to pooling their sources and better services to the users.

2. Neelamegan also defined information network is “An arrangement to link information resources and information seekers/users such that the latter can obtain the information they need or seek from the information resources. The basic objective is the sharing of digital networks, web publishing and provision of other information services by and among the participating entities at an affordable cost”.

8.3.4 Drawbacks of the Government Medical College Libraries in Madhya Pradesh- To understand that why Government medical college libraries are not able to adopt the automation here are some specific drawbacks or reasons given below that are observed by the researcher during the visit and conversation with library staff and students, which are still existing in the medical college libraries in M.P. and that is the reason behind to present this proposed model for the medical libraries under the study-

1) In this research it has been find that only 142(36%) of the medical college library users are satisfied and 257 (64%) of dissatisfied out of 399 (100%) with overall services and facilities of the libraries.

2) Many of the medical students 75(19%) are unaware of the access of E-journals.

3) 58% of the libraries did not subscribe to Indian and foreign E-journals as per the norms of MCI.

4) Most of the libraries (85%) have not been fully automated yet.

5) The majority of library professionals (85%) don’t get training in the implementation of ICT resources in the libraries.
To look at above these drawbacks, the adoption of automation and networking in the medical college libraries, under the study has become very essential because these libraries are not able to provide all the required information to the users from their present collection. Library networking can also promote the information resource sharing of the national and international resources among the member libraries.

There are four technologies works in a library network i.e.- Information Technology, Computer Technology, Communication and Networking technologies and theses technologies ensures the availability and accessibility of the vast variety of information that helps in the every field of research and development, which will consequently ensure optimum exploitation of information resources in different medical institutions at different places.

The proposed network of Madhya Pradesh Government Medical College Libraries (MPGMCLN) is focused on to the great accessibility of its information, information resources, facilities and services provided to the students, faculty, practitioners and researchers spread all over in the M.P. State. The networking of all these medical college libraries will help to provide access to huge amount of electronic data and information. The network could be enlarge up to national or international level and can extend access to the health literature to all the health/medical institutions in the country.

8.3.5 Need of MPGMCLN- Now it has been necessary for MP state government to establish a government medical college library network in the ICT era to store and disseminate the information resources among these libraries for the benefit of the various medical college library users.

8.3.6 Objectives of MPGMCLN- Here are some objectives of the proposed MPGMCLN given below-

1. It would help to promote information and resource sharing among the member libraries and other related medical institutions in M.P.
Chapter-8  Proposed Model for the M.P. Medical College Library Network

2. It would help to increase the cooperative efforts for the collection development among the member libraries and avoid the unnecessary duplication.

3. It would help to enhance the qualitative medical services by using the latest ICT resources.

4. To evolve standards and uniform guidelines in techniques, methods, procedures hardware, software and services for adoption by the participating libraries to facilitate pooling, sharing and exchange of resources and services.

5. A referral centre can also establish to maintain the union catalogue of various information resources like- books, periodicals, reports, dissertations/thesis, institutional repositories and other non-book materials of all participating libraries.

6. It would help to coordinate with other networks at national and international level to exchange the information and their resources.

7. It would help to the member libraries to develop their own consortia and institutional repositories

8.3.7 Establishment of Governing Board for MPGMCLN- The head-office of the proposed MPGMCLN can be established at the Madhya Pradesh Ayurvedic Vishwavidyalaya, Jabalpur due to its approachable location and big campus form where it is easy to control the activities of member libraries. A governing board for MPGMCLN is to be established with representatives from all member medical college libraries. The governing board should have at least 16 members. They are-

1) Vice-Chancellor of Madhya Pradesh Ayurvedic Vishwavidyalaya, Jabalpur.

2) Librarian of Madhya Pradesh Ayurvedic Vishwavidyalaya, Jabalpur.

3) Five Principals who can selected on the rotation basis for a period of three years.

4) Five librarians from Medical colleges- selected on rotation basis for a period of three years.
Chapter-8  Proposed Model for the M.P. Medical College Library Network

5) Librarian of GRMC, Gwalior
6) Librarian of MGMMC, Indore
7) Librarian of GMC, Bhopal and
8) Director of National Informatics Centre, New Delhi.

The Vice-Chancellor of Madhya Pradesh Ayurvigyan Vishwavidyalaya, Jabalpur will serve as the Chairman of the Governing Board. The University Librarian of Madhya Pradesh Ayurvigyan Vishwavidyalaya, Jabalpur will act as the Member-Secretary for the MPGMCLN and other will work as the member and do the provided work. The main function of this governing board is to keep eyes on the fulfilment of the objectives of MPGMCLN.

8.3.8 Recommendations for Suitable Library Software for MPGMCLN- The Software for University Libraries (SOUL) developed by the UGC-INFLIBNET is known as one of the best library software and using by most of the academic libraries and the Research and Development centres in the all over the country. In the absence of any other good medical library software following are the important reasons for recommending the SOUL for the automation of medical college libraries.

1. This Software is very user-friendly and provided by the INFLIBNET at very low cost.

2. The library professionals don’t need any specific training to use it.

3. This software is specially designed for the university and college libraries.

4. It follows all the standards and formats such as the CCF, AACR 2, and LCSH essential for the automation.

5. Most of the Indian university and college are using it with the help of the financial assistance of the INFLIBNET.

6. It maintenance the uniformity in database creation among medical college libraries for the better dissemination of information.

7. This software has the network feature, which help to establish the library
network.

8. INFLIBNET also offers free technical assistance to the libraries which are using the SOUL software.

8.3.9 Pre-Requisites for the MPGMCLN- To establish a medical college library network following pre-requisites should be considered as-

1. The need and importance of the network should justify by the future library members of the network because supply of information resources according to the users demand also matters in the establishment of a library network.

2. A common network policy should be made by the member libraries in which all the objectives and basic structure must be describe in the simple and clear language.

3. There should be sufficient funds available for the network, while implementing the system; member libraries must have to identify the funding agencies or collect the fund from each member.

4. To run the network for the long time it should be free for all the users.

5. There should be trained library professionals and technicians also available to run the network smoothly. If not, member libraries must be trained to their existing library professionals.

6. Member libraries must have to focus on their automation and create a union catalogue for creating the databases of their collections.

7. Member libraries should decide the common standards and must agree up on them such as- Indexing system, Classification scheme, Cataloguing code etc.

8. Should arrange all the hardware, software, fax-machine and telephones etc for the network.

9. It is necessary for the member libraries to agree on all the terms and conditions based on the performance of the network.
8.3.10 Services provided by the Proposed MPGMCLN- A central server may be established at central node, which can receive data from all affiliated medical colleges. After the processing of raw data, following services can be provided to the member colleges-

1. Union Catalogue of Books
2. Union List of Journals
3. Union Catalogue of Journals
4. Union List of CD-ROMS
5. E-Journals
6. E-Books
7. Inter Library Loan
8. Library Software
9. Training Programs for Staff and Users
10. On-line Document Delivery Service
11. Database of Medical Thesis
12. International Medical Databases
13. National Medical Library
14. National Digital Library
15. Medical Institutional Repository
16. Medical Consortia
Chapter-8 Proposed Model for the M.P. Medical College Library Network

Services of the Proposed MPGMCLN

Data Input from Government Medical College Libraries Affiliated to MPAV, Jabalpur

MPGMCLN

Services of MPGMCLN

- Union Catalogue of Books
- Union List of Journals
- Union Catalogue of Journals
- Union List of CD-ROMs
- E-Journals
- E-Books
- Inter Library Loan
- Library Software
- Training Programs for Staff and Users
- On-Line Document Delivery Services
- Database of Medical Thesis
- International Medical Databases
- National Medical Library
- National Digital Library
- Medical Institutional Repository
- Medical Consortia
8.3.11 Network Architecture of MPGMCLN

A. Network Communication- In the establishment of a networking system three types of networking can be used by the libraries i.e. - LAN, MAN and WAN, which are based on the distance of the libraries. It is depend on the member libraries that which type of network they want to adopt. In India, there are following types of library networks working on the basis of area-

1. **Local Area Network (LAN)** - In the LAN the network is limited in the local area and a number of computers and their peripherals share the information over a transmission media. A LAN can be used in the offices, schools and college campuses to share the information on personal computers.

2. **Metropolitan Area Network (MAN)** - These types of networks are being made to develop in metropolitan areas such Delhi, Calcutta, Bangalore, Madras, etc.

3. **Wide Area Network (WAN)** - In the WAN a large-scale network is designed to interconnect the data transmission devices over wide geographical areas of the country or world.

MPGMCLN comes under Wide Area Network (WAN), where the distance between the libraries is more than 200 km and the data transmission rate is 100 Kbps. The communication channels can be categorized as-

1) Through satellite links.

2) Through dedicated telephone links.

B. Network Topology- Usually the communication channels are based on the network topologies like- Star, Bus, Ring etc.

1. **Star Topology**- In this topology each computer of the network is linked with the server. So in the transmission process data is to be transmitted among any two computers and data is always being transmitted through the server. This
topology is usually found in the network, where the computers are connected on a very large scale with a server.

This topology prevents to passing data from the unnecessary nodes and each node works separately by direct connecting with the hub.

2. **Bus Topology**- The bus topology is used in the local area network in which every node is connected to a central cable, with the help of interface connectors. The central cable is the backbone of the network and the nodes look as the bus, so this topology is known as the bus topology. In this topology the signal travels in both directions to all connected nodes.

3. **Ring Topology**- The ring topology is similar to the bus topology but in it the nodes are situated in a closed loop. All data travels around the whole ring in one direction and passes through each node on the ring until it reaches its destination.

Because MPMCLN is a state wide network, so the network operations could begin with fiber optic cables or telephone lines initially according to star topology and later it could be changed with the satellite network. All the nodes in the MPMCLN have to be connected to the nodal centre- MPAV, Jabalpur. Star topology should prefer for the MPMCLN because this topology is easy to understand, establish, and navigate.

1. **Hardware and Software requirements for server at nodal centre**

   A. **Software requirements**

      1) Windows (Service Pack 2)

      2) Microsoft SQL server

      3) MDAC 2.6 SP2

   B. **Library Software Packages**

      1) Visual Studio Packages

      2) MS-Office
3) Photoshop CC 2017.0.1 (64-bit) or Coral Draw X8 or above

4) Multimedia software

5) Networking tools

6) MS Internet Explorer 11.0

7) Oracle 9i or above

C. Hardware requirements

1) Intel Xeon Processor

2) 128 GB RAM

3) Network Interface Card X2 10/100/1000 Mbps

4) SCSI 1 to 10 TB Hard Disk

5) Database Backup Solution

6) UPS with at least 1 hour battery backup time or above

7) DVD-RW

8) Optical Mouse, Key Board

9) Scanner

10) Laser Printer

11) High Speed Internet connections

2. Software and Hardware Requirements of the Clients Nodes at Nodal Centre

A. Software Requirements

1) Windows XP Professional

2) Graphics Software

3) MS-Office
4) Library Software Package

5) Microsoft SQL Server (Latest Version)

B. Hardware Requirements

1) Intel P IV Core 2 Duo

2) 2 GB RAM

3) Network Interface Card X2 10/100/1000 Mbps

4) SCSI 160 GB Hard Disk

5) Optical Mouse, Key Board

6) DVD-RW

8.3.12 Monitoring and Feedback of the Network at Nodal Centre- To achieve the objectives of MPGMCLN, an effective monitoring of network is very essential. The regular maintenance work is also should be done at the proper time and for which sufficient funds should also be provided by the member libraries. This fund is needed to be following works-

1) Conversion of data in to the machine readable form.

2) Memorandum of understanding should be signed by the members from libraries.

3) The network also required funds for proper publicity of the up-to-date services offered by the MPGMCLN

8.3.13 Proposal for Implementation- In the primary stage of the proposal, the fundamental structure of MPGMCLN has been presented in front of the governing board with the requirements of basic hardware and software. Now the proposal for successful implementation of MPGMCLN is also presented, which depends upon the following factors-
Chapter-8  Proposed Model for the M.P. Medical College Library Network

1) Each member library should have the sufficient no. of computer- hardware and software.

2) Trained professionals and technicians to maintain computerizing activities and Internet services.

3) Collection development and database creation.

4) Telecommunication facilities such as telephones and Internet connectivity,

5) Minimum infrastructure for the network require such as accommodation, furniture and equipment, etc.

8.3.14 Implementation of the Proposal for Medical College Library Network-
The implementation process of the proposal for medical college library network is based on the following conditions-

1) Introduction of computers and develop the awareness in all the users of member libraries.

2) Tell the benefits of resource sharing among the member library users.

3) Keep the service charges very minimal and aware the users about the cost of services.

4) Encourage users to the use of library networking to have information access.

The proposal may be implemented in three phases, as shown below-

I. First Phase of Implementation

1) Establishing computers hardware in the member Medical libraries.

2) Acquiring suitable library software.

3) Data creation.

4) Establishing offline queries through CDs.

5) Encourage users to use computer and other technology in the library.
6) Make sure the availability of Internet connections.

II. Second Phase of Implementation

1) Setting up the central host

2) Procurement of hardware required for the network and site preparation for each individual medical college library.

3) Establishing network connectivity from nodal centre MPAV, Jabalpur to all member libraries.

III. Third Phase of Implementation

1) Convert the entire offline query into online to get the information easily.

2) The automation of all the member libraries must be taken as the implementation of one network and necessary training programs should conduct time to time to enhance the use of automation system at the central node MPAV, Jabalpur.

In India, medical students, professionals and practitioners keenly need the medical information in the digital form. So the new steps are being taken to disseminate medical information to the users by the medical college library professionals. In the age of information explosion due to the limited financial resources, library networking makes possible to the resource sharing among libraries located in different geographical areas. ICT and its resources play important role for better resource sharing by the networking. This proposal for medical college library network is designed with using latest technologies of networking. It can be used by any type of
academic library to go for networking, to meet the new challenges in the field of library and information services. The existing networking model is suggested to fulfil the technological gaps and implement the networking in medical college libraries of M.P.

Areas of Further Research

The present study deals with the impact of ICT on medical college libraries of M.P. The study would be very helpful to implement the automation in the medical college libraries because it was conducted from the users or librarians point of view separately in depth. The study could be extended over to the other medical colleges and universities. Detailed analysis can be taken to see the impact of ICT on other medical libraries and their services. Training and development programs for medical college library professionals to enhance the use of ICT resources could be the new area of further research with the adoption of ICT resources in medical college library development to increase the value of faculty research productivity and research integrity.
Chapter-8  Proposed Model for the M.P. Medical College Library Network

REFERENCES


https://www.ijsr.net/archive

https://en.wikipedia.org/wiki/Network_topologye

https://en.wikipedia.org/wiki/Automation

http://www.aiims.edu/aiims/library/services.htm

www.dictionary.com/browse/automation