CHAPTER: 7

THE NETWORK MODEL PROPOSAL
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07. 1 Proposal:

What has been found during the investigation in the health sciences libraries of the state, though is terrible and discouraging, it is not from cure. A remedy must be found to set right the working of these learned institutions upon which a major responsibility of provision of information rests. It is as a right time as could be to find a workable solution in the state putting all available reading materials on the shelves of seventy plus health sciences libraries for the benefits of team of health care professionals working to provide improved patient care in the communities of Karnataka.

The solution unquestionably is in the formation of a network of health sciences libraries in the state. Of the four types of network mentioned above, the most suitable type for the health sciences libraries of the state is "Distributed" network which will work satisfactorily without subordination of libraries and personnel Fig. 33.

However, there is one thing that has to be considered very seriously and that being the selection of at least 4-5 major libraries to work as Regional Health Sciences Libraries [RHLs] in the State upon which all other health sciences libraries will depend as backup units. These RHLs will be:
01. The Library of St. John's Medical College, Bangalore;
02. The Library of Kasturba Medical College Mangalore; and
03. The Library of J. N. Medical College Belgaum.

These libraries have a strong collection of both books, periodicals and serial. The other medical college libraries will assist the health professionals in their areas with all health care information required. And if not found within themselves, will approach one of the nearest designated RHL.

The state has been divided geographically to help the RHLs in their task of serving health professionals in the area. The RHLs are assisted by other medical college libraries, and other health sciences libraries for the information and documents not available within the region.

07. 2. Regions:


Based on the medical schools and educational institutions, the following libraries are selected to work as Regional Health Sciences Libraries for each region.

07. 2. 1 The Region: 1

The Library of St. John's Medical College:

This RHL will serve all medical colleges, nursing schools, dental and pharmacy colleges besides several other schools and colleges imparting courses in the health sciences including the Indian systems of medicine in the Region. All district hospitals will have to have on mandatory basis a health sciences library and a professional librarian. The other Primary Health Centers [PHCs] in the Region will be served by Circuit Librarians who will regularly on a specific time table will visit the PHCs and obtain requirements for books, periodical articles, literature searches, etc. from physicians and allied health professionals in each PHC and obtain the required materials for these professionals. The users of this region will be the hospitals and health care centers in the geographic area.
07. 2. 2 The Region: 2

The Library of Kasturba Medical College:

The users of this region will be the hospitals and health care centers in the geographic area. These users will be served by Circuit Librarians.

07. 2. 3 The Region: 3

The J. N. M. Medical College Library:

The users of this region will be the hospitals and health care centers in the geographic area. These users will be served by Circuit Librarians.

All the regions will also have the backing of The NIMHANS Library, which will especially be helpful for fulfilling certain specific demands for books and journals in mental diseases and psychiatry.

This will assist the three other RHLs as an additional source of information in mental health and neuro sciences in the state. Being an undertaking of the central government, it will not be under direct supervision of the network facility.

Each District Hospitals will have at least the following personnel - Librarian, Clerk and an Aide. These will work normal working hours.

At least five Circuit Librarians will be working in each of the RHLs with primary health care centers covered and their head quarters being the RHLs. These RHLs will be their main
source of information. They will visit regularly as per plans, each PHC, hospitals and provide information service. They will obtain requisitions for informations from the physicians and allied health professionals and when they return next time will provide them with the required books, articles or information. In cases of urgency, they will provide information the same day. These circuit librarians will be responsible to ensure that qualitative information provision to remotely situated health care professionals is provided with the least time.

The CD Plus has a special feature which makes its operation similar to the main frame computer and could be used for a Local Area Network. It is a quality product, comprehensive, well designed and easy to use. It offers the system without on-line, hit charges or telecommunication [52] such as tyme share, and telephone calls, etc. One RHL having CD Plus Medline database. All the three RHLs will be interconnected with telephone lines and modem to access Medline on CD-ROM. The librarians interested in persuing purchase of CD-ROM products would gain considerable information including problems and opportunities in this new medium, training needs of staff and end-users, placement of work stations, care and storage of compact disks and security. They will also learn about user evaluation methodologies, user
satisfaction, relations with vendors producers, needed enhancements in CD-ROM technology and product [401]. The Circuit Librarians in PHCs will be able to access on-line services in matter of minutes.

The RHLs will also provide services to private hospitals without a library on fee-for-service basis. A fee structure will have to be worked on the basis of the total number of physicians and allied health care professionals in each of the hospitals. By the virtue of their membership to the RHLs, each hospital shall be eligible to avail all the information required by their physicians and allied health professionals.

The private physicians engaged in practice will also be categorized under this type of services. The fee structure shall be based on individual requirements. A monthly fee shall be charged for providing library services. These physicians will be eligible members of the RHLs and will have the same privileges as for the members of the staff of either the medical school or the hospital of the institution.

Since the responsibility of providing biomedical and health information in the developing countries rests with the medical college libraries, each will be responsible to the members of the staff of their organization, students, private physicians, hospitals and allied health professionals in the city. These will be eligible borrowers because of their
membership to the RHLs. The income generated from such sources will be deposited with the RHLs which will be turned over to the Network Facility. The funds thus collected will be appropriated along with the annual budgets among each medical library on the basis of percentage. The RHLs will share a major sum of the budget.

07. 2. 4 Computer Application:

The CD-ROM technology has successfully been used as a Network in campus environment to access MEDLINE simultaneously. At the beginning, the libraries of medical colleges which offer postgraduate courses will have to be linked with CD-ROM MEDLINE. It is possible to have connection to one work station by all. Later, all medical colleges will need to be connected.

Installation of specific hard and software assisted in utilization of CD-ROM as a network station in a campus where ten users accessed MEDLINE files at any one time [227]. It is possible to increase the access by more users with enhanced hard and software technologies now available.

A network station requires the following equipments or similar hardware and software from India:.

386 PC 20-33 MHZ or Higher [Ver 4.0 or higher];
CD-ROM Drives 5 Hitachi/Philip;
1 Amdec Laser Drive;
Interface Cards:

Token Rings: Recore 802.5 [Ver 2.1];
IBM Ver 2.4 [For IBM PS2 Model 80]

Cabling: Any 10 IBM or Compatible PCs with Hard Disks and 640K-4 RAM;

Soft Ware:

Novell Netware 286. Ver 2.15;
SilverPlatter Software Ver 1.6;
Opti-net Software Ver 1.1;
Microsoft MS-DOS CD-ROM Extensions [MSCDEX]

The SilverPlatter company in the US has made available MEDLINE EXPRESS which will work as a dedicated Network Station for Medline access. Atleast ten users can access Medline at any one given time through telephones which will have MODEM connections. Through this system a library can search simultaneously 7-11 years of Medline files. It will come extremely handy to avail such a facility and technology in the development of network for the state. The other available system is CD Plus.

The distributed network model is proposed for the state in which all libraries work without sub-ordination, but will
have adherence to the policies and procedures of the facility. These policies will not control the way these work, but rather these will dictate the way these should work when these will serve as RHLs. The personnel will follow the norms, regulations of the parent institutions but will cooperate in provision of information to all the users in addition to their own users.

The state of some good libraries that will have to serve as providers in the network facility proposed. At the present time, when survey was conducted the ST. JOHNS MEDICAL COLLEGE library comes out at the strongest contender to be the head quarter of the network facility. Periodically the situation and the status of each library in the state is investigated and the stronger one will be made the head quarter every five years. The Network Director who shall be a health sciences librarian with a vision and knowledge of both health literature, libraries and user needs, will be stationed at the head quarters and will be administratively incharge of all network operation in the State under the approved guidelines, policies and procedures of the facility. He/she shall be responsible to the Chairman of the Network Board directly.

The St. John’s Medical College library has the strongest periodical collection in the state and the experience has prepared to believe that periodical literature that will be
requested by health professionals will be from the back volumes. The library subscribed to nearly 269 titles.

This library will look after all medical colleges in Bangalore, all District Hospitals, Public Health Centers and allied Health Colleges in this region.

The Kasturba Medical College Manipal Library with its strong resources will work as RHL and will serve Region 2. This will also cater to users from District Hospitals, Primary Health Centers and allied health colleges in the region.

The JAWAHAR LAL NEHRU Medical College Belgaum will be RHL for Region 3 and will serve all types of users in the region.

The NIMHANS, KIDWAI, NTI libraries, which are subspeciality libraries in the State will work as backup for all state libraries for materials in specialities.

Each RHL will have five Circuit Librarians working for the region who will be the employees of the network facility. The CL will depend of the RHL for providing reading materials and information from collection of the library to all users of Primary Health Care Centers. These will travel on a work schedule approved by the Network authority in consultations with the RHL.

These CL will submit monthly report through the RHL to the Network Authority. The report will help assess the effectiveness of such a program on health professionals
situated in geographically remote areas away from urban surroundings.

The CL will issue materials, copies of articles and obtain the materials back on due dates and return back to respective RHLs.

Each of the college libraries will open membership to private local health care organizations, hospitals and professionals wishing to utilize information from libraries.

A membership worked out by the Network authority will be charged for these users.

The computers do not cost as much as these did in the 1980’s. One can purchase a computer with the following specifications for as much as Rs. 100,000.

- 286 AT/XT Compatible with 16 MHz;
- 40 MB; 2 Floppys; 1-4 RAM and a
- Color Monitor- EGA, VGA, or Super VGA and
- 9-24 Printer.

It is one time expenditure which will pave way to the computerization of libraries in the state.

In future the computer can be used to access MEDLINE from the Network headquarters. All they need is a modem, change in software- RAM to be expanded or if have 640-1 Mb RAM, they need to change it so that the system will have 2 Mb Expanded Memory [Fig. 35].
The one time expenditure in this meaningful equipment does not need further justification as it will add to library's accessing capabilities.

The Network could obtain the MEDLINE on CD-ROM from 1966 with monthly updates at US $3000 annually for the first subscription and subsequent subscriptions are available at 50% discount.

07. 2. 4. 1 Computerized On-Line Services:

The St. John Medical College library, Bangalore which will be head quarter for MEDLINE files from 1966 to date which will be connected by terminals at each of the RHLs and the Speciality libraries. The MEDLINE local Network will be accessed through Telephones and Modem. The articles required will be transmitted by the RHLs. If any RHL does not have the required article, it will approach the nearest colleagues for the copies.

07. 2. 5 Network Management:

The Network Director who will have his/her office at St. Johns Medical College Library, Bangalore will be responsible for the MEDLINE terminals and will acquire either on local, regional, national or on International basis copies of articles that are required by any members of the facility. Once obtained, the articles will be forwarded to the respective library for individual's use.
The Network Director will acquire and dispurse financial assistance to RHLS and other college libraries. He/She will explore possibilities of ordering multiple subscriptions to all medical and allied health sciences libraries on behalf of individual libraries if there are savings in subscriptions. When packages are received, his/staff will be responsible to forward all periodicals to the respective libraries. This way one subscription order and one payment will be made to either the agency or the publishers.

The individual libraries will pay in advance the subscription amount of whatever periodicals they wish to subscribe.

The purchase of books in bulk will also result in considerable savings. The network facility will have to explore the possibilities of acquiring the books through a non profit cooperative society or directly from the publishers against specific requirements for books from individual libraries.

Experience has it that the publishers will supply to libraries directly and have allowed discounts ranging from 10-30% on the purchase. There are however a few publishers who do not allow any kind of discount.
This will normalize one acquisition policy that is approved by the Network authority which will result in savings of sums and more importantly the availability of ordered books immediately. Importance of cooperative acquisition programs can not be over emphasized.

The network staff who work directly under the Network Director, will receive books, periodicals and process transportation to the individual libraries.

The Manpower for Network Authority to be located at the Head Quarters:

- **01. Network Director** 01
- **02. Deputy Network Directors** 02
- **03. Computer Programers** 02
- **04. Health Sciences Librarians** 04
  - a. Acquisition- Books 01
  - b. Periodicals/Serial 01
  - c. Interlibrary Loans 01
  - d. Reference 01
- **05. Technicians, RDAs, etc** 06
- **06. Support Staff** 08
  - a. Clerks 04
  - b. Aides 04
- **07. Drivers** 04
The Organizational chart of the Regional Network Authority in Karnataka will be the one which will have direct control of the system. The RHLs will work under the umbrella, even though the Librarians of these RHLs are the employees of their own institutions [Fig. 36].

07. 2. 6 Technical Processing:

It is also possible to have a rough cataloging of books carried out by the Network staff without Classification numbers. It will help the entire communities of library users to find that consistency in medical subject headings, choice of authors, editors and titles as main entries for books bought.

The one copy of catalog entries are kept in the headquarters on computer format.

Each library will access the collection of any other library through computers—just like OCLC at a later date.

Though the medical college and other health sciences libraries will be provided with information through the selected RHLs, it does not mean that these libraries are in subordination to the RHLs.

The first requirement of the network facility will be a compilation of listing of periodical and book holdings in all libraries—specially the medical colleges, nursing, pharmacy and dental.
The Colleges of Indian systems of medicine may be added to this, with readers making infrequent use of these libraries. Since all these colleges are providing graduate education, the use in libraries will be from undergraduates and teachers with basic materials.

However, the network facility will be open to these to access information from any of the RHLs or the medical college libraries in the region.

The network facility when established must influence the Central government to accord exemption to purchase of computers, if these are to be imported, and other essential hard ware for libraries in the state.

07. 3 The Libraries in Hospitals:

The State must legislate a mandatory requirement for an up to date health sciences library with qualified staff and continuous growth for any hospital which seeks approval or permission for establishment. It must authorize the Network Authority to establish standards based on needs for libraries in the hospitals—both public and private which must be met before licence is granted to hospitals and clinics.

This will be only check on the hospitals and their staff to maintain their education and keep in touch with developments in biomedical and health sciences.
07. 4 The Evaluation:

The evaluation of the network will be based on the principles outlined in this dissertation.

07. 5 The Conclusion:

Because of the negligence on the parts of governments, managements and the librarians in the proper development of these learned societies, and resource centers and on the grounds that funds are inadequate even to acquire a small portion of basic minimum requirements, the therapy of choice is to join hands and form a network consortia for the state. This network, when established will augment collection that are required by sharing among one another the resources available in state libraries. Therefore the State Health Sciences Library Network is the requirement of today if we are to survive and qualitative information services are to be provided to the health care team who is obligated to provide qualitative, timely and advanced patient care in the State.