Chapter 8

Manpower Needs: The DELNET Experience

1 Introduction

The computer and communication technology has stepped up the growth, storage techniques and methods of disseminating information, and given birth to information technology (IT) in the last quarter of the 20th century. The age-old manual operations in the libraries are getting replaced by automated systems and the processing of information is becoming a specialised art, including in its ambit, both the science and technology of information. The librarians who had a limited role to play by way of accessing, classifying and cataloguing of documents in a library whose resources were not only limited but also controlled, are now exposed to virtual libraries, whose resources and growth are difficult to comprehend without appropriate IT skills and facilities.

More than 90 per cent of librarians and library professionals working in Indian libraries are neither trained to handle the growing IT products nor do they have the necessary and adequate facilities in their libraries to introduce them. Also, almost all the students who qualify from the Indian Universities with degrees in Library and Information Science lack practical experience besides much of theoretical knowledge in IT. Most of the library schools in India have no workshops or computers attached to them to give practical know-how to their students. Over and above this, most of the teachers of library science, lecturers, readers and professors themselves have no exposure
to IT and many of them teach the students from notes that are about or less two to three decade old.

The University Grants Commission which gets the Library and Information Science syllabi reviewed periodically appoints mostly the same old professors to do the review who are totally ignorant about the horizons of IT. Thus they make only cosmetic changes in the course contents.

When we look at the libraries, most of the senior librarians who have no interest in IT discourage the younger staff in accepting new roles. Also, they appoint the new staff who are mostly freshers from the Universities and make them unlearn in most cases, whatever theoretical knowledge they had gained from the library schools. There are exceptions, of course. However, while on one side there are some efforts made to train the staff in IT, there are numerous obstacles to this in spreading the know-how.

2 The Changing Times

2.1 Manpower requirements

The manpower requirements of libraries undergoing automation are increasing everyday in India. As automation of a library eventually results in the automation of different sections in a library, the new staff should be fully trained to handle all types of jobs. In big libraries, it is important that there is a nucleus of trained staff where technical services are handled efficiently. This nucleus should result in the formation of a section, especially in a University library, it should grow and it may be called Automation and Technical Services
Section.[1] If we consider that at least two technically trained IT persons are needed on an average in a library, and if we include only 127 State, Central and District Libraries out of public libraries from the following list of 71,069 libraries in the country, we need, to begin with about 32,702 such professionals, considering 16,351 libraries in the country would now opt for modernisation [2]:

Table 15
Number of Indian Libraries

<table>
<thead>
<tr>
<th>Type of Libraries</th>
<th>Number of Libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Libraries :</td>
<td></td>
</tr>
<tr>
<td>(i) Universities including institutions of national importance</td>
<td>223</td>
</tr>
<tr>
<td>(ii) Deemed to be Universities</td>
<td>37</td>
</tr>
<tr>
<td>(iii) Open Universities</td>
<td>7</td>
</tr>
<tr>
<td>(iv) Colleges</td>
<td>8,000</td>
</tr>
<tr>
<td>Public Libraries</td>
<td>54,845</td>
</tr>
<tr>
<td>Science &amp; technology Libraries</td>
<td>1,200</td>
</tr>
<tr>
<td>Social Science Libraries</td>
<td>450</td>
</tr>
<tr>
<td>Government Departmental Libraries</td>
<td>800</td>
</tr>
<tr>
<td>Arts, Cultural &amp; Humanities Libraries</td>
<td>500</td>
</tr>
<tr>
<td>National Libraries - including National Subject Libraries</td>
<td>7</td>
</tr>
<tr>
<td>Industries and private institutional libraries</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>71,069</strong></td>
</tr>
</tbody>
</table>
2.2 Professional environment

The working environment in most of the libraries in India is not good. A healthy working environment compels a good worker to continue working with an institution, even if the person is not provided with high perks or permanence in the job. A healthy environment remains an attraction if in addition the professionals are offered opportunities for professional growth within the organisation and outside through training. It has been noticed that sometimes, professionals with weak personality and drive, opt for permanent jobs and not the jobs in an institution where better opportunities are temporarily offered.

It is very important for the Head of a Library to evaluate the potentials of all members of staff. If on one hand we provide better technical facilities for the staff, on the other, we should see to it that the potential inherent qualities of the staff are properly exploited. It does not always happen.

The work environment does make a difference in inducing professionals to stick to their organisations. If the place of work is air-conditioned and there is control over temperature, noise, humidity, ventilation, lighting, dust, smoke, etc, one can attract efficient staff to continue. This experiment has helped DELNET to a great extent because DELNET has been using the facilities of the India International Centre where complete care is taken of working conditions and they are the best. However, this cannot be the ultimate aim of a good
worker. In addition to this, the professional staff does want to work for a better professional career.

2.3 Individual Enterprise

Most of the staff members utilise their time and energy fulfilling official obligations. There are some who make use of their expertise gained at office by expanding official work or by establishing a private enterprise. Although the number of such professionals in the library field is negligible, with the use of IT, their number is bound to increase. The management has to be vigilant about such staff so that their talent is used specially for official work.

However, there are promising officials who consider their work as a mission and they make every effort to contribute to the professional output of the institute. They need to be identified and supported, given higher perks and salaries.

2.4 The Role of the Head of an Information Centre or a Network Manager

In order to attract the best manpower to the library or the network the Network Manager or the Chief has to play the following roles [3]:
### Roles of Network Manager

<table>
<thead>
<tr>
<th>(i) Personnel role</th>
<th>(ii) Welfare role</th>
<th>(iii) Clerical role</th>
<th>(iv) Fire fighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Advisory</td>
<td>(a) Research in personnel and organisational problems</td>
<td>(a) Time-keeping</td>
<td>(a) Grievance handling</td>
</tr>
<tr>
<td>(b) Manpower planning</td>
<td>(b) Group counselling, motivation, leadership,</td>
<td>(b) Salary and wages</td>
<td>(b) Settlement of disputes</td>
</tr>
<tr>
<td>(c) Training and development</td>
<td>(c) Maintenance and records</td>
<td></td>
<td>(c) Standing disciplinary acts</td>
</tr>
<tr>
<td>(d) Measurement and assessment of individual and group behaviour</td>
<td>(d) Human engineering, man-machine relationship</td>
<td></td>
<td>(d) Collective bargaining</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(e) Joint consultation</td>
</tr>
</tbody>
</table>

#### 2.5 Balancing Tricks

As the modernisation of libraries is spreading and library networks have to function, there is a need to fill the jobs available with suitably qualified manpower. In fact in the beginning there has been an imbalance and this imbalance is still continuing with the modernisation spreading among the libraries, the technically qualified staff being much less. The students with M. Lib. Sc. and B. Lib. Sc. are unable to handle computers and are unfamiliar with database creation work or electronic mail and Internet handling. The technical and
qualified staff, are fewer in number, and remain on the move in search of:

(a) Permanent jobs
(b) Good remuneration
(c) Psychological satisfaction
(d) Opportunities for learning new methods
(e) Better future prospects.

For a network like DELNET, this movement became a great hurdle because we had to be training fresh graduates each time, knowing fully well that they would leave sooner or later.

3 Manpower Planning

3.1 National Agenda

At this stage, the Government of India should come out with a plan for manpower planning in view of the advances in information technology. In the report of the Working Group of the Planning Commission on Libraries and Informatics for the Ninth Five Year Plan, 1997-2000, it is recommended that in view of the technological developments and the need for its application in libraries and information centres, emphasis should be laid on use and application of information technology and modern management theories [4]. As such it recommends:

1. Training of working library professionals in information science and technology to be undertaken on a regular basis;
2. Existing teaching faculty should get suitably trained;

3. The professional manpower being trained at the Departments of Library Science needs to be upgraded to meet the manpower requirements of the various libraries and information centres in the country;

4. An expert committee be appointed to assess the manpower requirements in the country for the next 10-15 years;

5. Library networks and institutions with requisite information facilities be recognized and assisted to provide short-term training courses to the staff working in the libraries. Mobility of trained staff between units be encouraged;

6. In view of networking of libraries and use of information technology, new staffing norms for different types of jobs in libraries be finalised and adopted; and

7. An All India cadre for library and information services with uniform recruitment rules should be made to ensure systematic staffing pattern and development of human resources to meet the new challenges. This will also help in effective management and development of the National Library and Information Grid.

The national agenda could emerge if the above recommendations were implemented.
3.1.1 Curricula and the Universities

The above Working Group Report makes it amply clear that there are at present 80 universities and two institutions imparting education and training at the Bachelor's degree (B. Lib. Sc.) level and 50 of these offer courses at the Master's degree (M. Lib. Sc.) level, four of them have provisions for the M. Phil. course and about 30 for Ph. D programme in library and information science. Two institutions award Associateship in Information Science and Documentation. The report makes it clear that the content and quality of professional education imparted by these institutions is at variance and in view of the technological developments and the need for their application in Libraries and Information Centres the curricula need an urgent fresh look.

If we consider that about 20 candidates pass on an average from the library schools, we find that about 2600 students pass B. Lib. Sc., M. Lib. Sc. and Associateship courses each year. But as they are not trained in IT, a small percentage of them actually fulfil the needs of the modern libraries.

3.1.1.1 An assessment of the existing trained manpower:

The DELNET Experience

Out of the 26 staff members appointed by DELNET (Appendix IX) from 1989 to 1996, the following is their breakup on the basis of their library qualifications:
Table 17
Classification of DELNET Staff According to Qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>No. of DELNET Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLS</td>
<td>8</td>
</tr>
<tr>
<td>BLS</td>
<td>12</td>
</tr>
<tr>
<td>AIS</td>
<td>5</td>
</tr>
<tr>
<td>MCA</td>
<td>1</td>
</tr>
</tbody>
</table>

On the basis of their performance at DELNET, we have divided them into the following three grades:

Table 18
Classification of DELNET Staff According to Performance

<table>
<thead>
<tr>
<th>Performance Grade</th>
<th>No. of DELNET Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade A</td>
<td>6</td>
</tr>
<tr>
<td>Grade B</td>
<td>12</td>
</tr>
<tr>
<td>Grade C</td>
<td>8</td>
</tr>
</tbody>
</table>

We were surprised to note that only six out of 26 could be placed in the first grade, although all were selected through proper tests and interviews. It is surprising to note that out of the 6 professionals in A category three are from INSDOC, which throws an unfavourable light on the BLS and MLS courses conducted by the universities.
It may be noted that no candidate with MLS could get into Grade A, while as 4 each got into Grade B and Grade C.

Table 19

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
</tr>
</tbody>
</table>

Out of the 12 staff with BLS, those with certificates in computer applications did well and four got into Grade A.

Table 20
Performance of Candidates with B. Lib. Sc.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>(with certificate/diploma in CA)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>7</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
</tr>
</tbody>
</table>

Staff with Associateships from INSDOC performed better. While three get into Grade A, two got into Grade B and none in Grade C.
Table 21
Performance of 5 Candidates with Associateships from INSDOC

<table>
<thead>
<tr>
<th>Category</th>
<th>Duration</th>
<th>No. of Staff</th>
<th>Salary Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3 years</td>
<td>1</td>
<td>Rs. 2500 to Rs. 4350</td>
</tr>
<tr>
<td></td>
<td>2 years 3 months</td>
<td>1</td>
<td>Rs. 3500 to Rs. 6000</td>
</tr>
<tr>
<td></td>
<td>2 years</td>
<td>1</td>
<td>Rs. 3500 to Rs. 5000</td>
</tr>
<tr>
<td>B</td>
<td>1 year 9 month</td>
<td>1</td>
<td>Rs. 3500 to Rs. 5000</td>
</tr>
<tr>
<td>C</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In view of the good performance in Grade A those who worked with DELNET for more time had their salaries increased from 3500 to 6000 just in a period of 3 years. In category B one person got the increase from 3500 to 5000 in about 2 years.

Table 22
Salary Increase of Staff Who Worked for More than One Year

It may be noted that persons with an arts and science background fared equally well in Grade A and Grade B, while Grade C persons with a science background were 50 per cent less than those with the arts.
<table>
<thead>
<tr>
<th>No</th>
<th>YEAR OF STARTING</th>
<th>YEAR OF LEAVING</th>
<th>ABBREVIATED NAME OF THE STAFF</th>
<th>EDUCATIONAL QUALIFICATIONS</th>
<th>SALARY FIRST DRAWN</th>
<th>SALARY LAST DRAWN</th>
<th>NO. OF MONTHS/YEARS WORKED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1989</td>
<td>1989</td>
<td>RA</td>
<td>MA, MLS</td>
<td>2000</td>
<td>2000</td>
<td>5 months</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>1989</td>
<td>1991</td>
<td>AP</td>
<td>B Com, BLS, DCA</td>
<td>2500</td>
<td>2500</td>
<td>2 years</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>1990</td>
<td>1990</td>
<td>MK</td>
<td>BA, BLS</td>
<td>2000</td>
<td>2000</td>
<td>6 months</td>
<td>B</td>
</tr>
<tr>
<td>6</td>
<td>1991</td>
<td>1993</td>
<td>SP</td>
<td>B Sc., BLS</td>
<td>3000</td>
<td>3000</td>
<td>2 years</td>
<td>B</td>
</tr>
<tr>
<td>7</td>
<td>1992</td>
<td>1993</td>
<td>JR</td>
<td>BA, BLS</td>
<td>3000</td>
<td>3000</td>
<td>6 months</td>
<td>B</td>
</tr>
<tr>
<td>8</td>
<td>1993</td>
<td>1993</td>
<td>RS</td>
<td>MA, BLS, DSM</td>
<td>3500</td>
<td>3500</td>
<td>6 months</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>1993</td>
<td>1993</td>
<td>KV</td>
<td>M Sc., MLS</td>
<td>3500</td>
<td>3500</td>
<td>1 month</td>
<td>C</td>
</tr>
<tr>
<td>10</td>
<td>1993</td>
<td>1995</td>
<td>AS</td>
<td>BA, BLS (Corres), DCA</td>
<td>2500</td>
<td>4350</td>
<td>3 years</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>1993</td>
<td>1994</td>
<td>MB</td>
<td>MA, BLS</td>
<td>3500</td>
<td>3800</td>
<td>1 year, 3 months</td>
<td>C</td>
</tr>
<tr>
<td>12</td>
<td>1993</td>
<td>1993</td>
<td>CI</td>
<td>MS, MLS, DCA</td>
<td>3500</td>
<td>3500</td>
<td>2 months</td>
<td>B</td>
</tr>
<tr>
<td>13</td>
<td>1993</td>
<td>1994</td>
<td>DA</td>
<td>M Sc., AIS, PGDCA</td>
<td>4000</td>
<td>4000</td>
<td>11 months</td>
<td>A (INSDOC)</td>
</tr>
<tr>
<td>14</td>
<td>1993</td>
<td>1994</td>
<td>PS</td>
<td>MA, MLS, CCA</td>
<td>3500</td>
<td>3500</td>
<td>5 months</td>
<td>B</td>
</tr>
<tr>
<td>15</td>
<td>1993</td>
<td>1996</td>
<td>AN</td>
<td>M Sc., AIS, DCA</td>
<td>3500</td>
<td>6000</td>
<td>2 yrs., 3 months</td>
<td>A (INSDOC)</td>
</tr>
<tr>
<td>16</td>
<td>1994</td>
<td>1994</td>
<td>RS</td>
<td>MS, BLS</td>
<td>3500</td>
<td>3500</td>
<td>2 months</td>
<td>B</td>
</tr>
<tr>
<td>17</td>
<td>1994</td>
<td>-</td>
<td>SK</td>
<td>B Sc., BLS, CCA</td>
<td>3500</td>
<td>6000</td>
<td>2 yrs., 2 months</td>
<td>A (Corrs.)</td>
</tr>
<tr>
<td>18</td>
<td>1994</td>
<td>1995</td>
<td>ND</td>
<td>BA, MLS, CCA</td>
<td>3500</td>
<td>3600</td>
<td>11 months</td>
<td>C</td>
</tr>
<tr>
<td>19</td>
<td>1994</td>
<td>1995</td>
<td>BS</td>
<td>BA, AIS</td>
<td>3500</td>
<td>3500</td>
<td>8 months</td>
<td>A (INSDOC)</td>
</tr>
<tr>
<td>20</td>
<td>1994</td>
<td>-</td>
<td>PM</td>
<td>MS, MLS, DCA</td>
<td>3500</td>
<td>5000</td>
<td>1 year, 9 months</td>
<td>B</td>
</tr>
<tr>
<td>21</td>
<td>1995</td>
<td>1995</td>
<td>AD</td>
<td>BA, MLS</td>
<td>3500</td>
<td>3500</td>
<td>2 months</td>
<td>C</td>
</tr>
</tbody>
</table>
From the above analysis we notice that the candidates who have simply got a University degree in Library Science could not perform well and make it to Grade A. The three BLS students who made it to Grade A had diplomas in Computer Application or Systems Management. Also MLS candidates who simply depended on their degrees performed very badly with fifty per cent of them in Grade C. The above analysis makes it very clear that there is an urgent need to totally overhaul the BLS and MLS course contents of the universities and replace some of them with IT courses.

3.2 State agencies

The Universities, Library Associations and Centres conducting courses in Library and Information Science need to wake up to the realities of the new information order. There is a need to establish a kind of a mission at the national level to see to it that standards of IT teaching are uniform and of a high order.

4 Training

4.1 The issues

The rapid technological changes have brought about the need for skilled manpower to run modern libraries and to transform the
existing libraries. The skills needed vary from library to library but as
the technology is reaching the nooks and corners of the country,
advanced training is becoming necessary for highly automated
libraries. These changes have opened up additional facilities, improved
performance and assured greater economy in time, money and effort.
In this new environment the additional skills needed are presented in
the following chart:

![Diagram showing the skills needed for a library professional]

- Cataloguing skills for the Creation of Bibliographic Databases
- Accessing Databases and CDs
- Computerised Skills for the Creation of Bibliographic Database
- Accessing/Selection of Online Databases National/International
- Electronic Publishing
- Handling of Communication Tools like Modems, etc.
- E-mail, File Transfer, INTERNET, WWW, Teleconferencing, etc.
- CAS/SDI using New Technology
In order to obtain such skills we need to have training programmes that provide knowledge to use, e.g. a CD-ROM which occupies 1,74,000 pages of A4 size printed data in a disc of 12 cm diameter. Not only is the text available in it in ASCII format, but also graphic images are automated. Bibliographic database creation needs that the library professional has the expertise to use:

(a) A library software like BASISplus/TECHLIBplus;
(b) AACR II;
(c) Library of Congress Subject Headings or any standard international thesaurus; and
(d) A format like MARC in preference to CCF.

In addition, the training is needed in the effective use of:

(a) Online databases;
(b) E-mail/INTERNET, WWW;
(c) CAS/SDI using new technology;
(d) Modems and other communication tools; and
(e) Electronic publishing, etc.

All these and related skills have to be acquired and should form part of computer aided instruction. Dr. Shalini Urs feels that the methods for instruction can be through (1) drill and practice; (2) tutorial and remedial and (3) through simulations. She further explains[5]:

(1) **Drill and Practice**
• Programmes can test, drive home or provide revision in a body of knowledge, i.e. they can test or be used to improve factual recall, e.g. of scientific or historical facts, etc.

• Programmes can also be used to test particular skills.

• At a slightly higher level, a programme can be used to provide practice in using either a principle or concept, i.e. to develop ‘understanding’, for example by using a principle repeatedly in different circumstances, or developing a concept.

In other words, drill and practice can provide almost endless practice in improving either factual recall, a skill, grasp of a concept or understanding and application of concepts.

(2) Tutorial

A computer programme can provide direct instruction in either factual knowledge, a concept, or a skill. This often involves breaking a learning task down into a series of subtasks, sequencing these and providing immediate feedback to the learner at each stage. Some of the areas in which ‘tutorial’ type of Computer Aided Instruction can be more effective are:

• Presenting remedial sequences.

• Providing randomly selected problems.

• Giving help if the learner asks for it or his/her responses suggest the need.

• Giving more practice at the learner’s request.

• Recording the learner’s responses and comments.
Simulations

Simulations are based on a model of a situation, usually real but sometimes imaginary. A model can be defined as simplified representation. In a simulation the model is readily-created by the programmer. The user can then alter and experiment with the external conditions and variables, affecting the model, but cannot tamper with the model itself, i.e. inner conditions. Simulations have the aim of simulating discussion, role play and sometime cooperation, of encouraging thinking, decision making and conjecture, and of developing skills, ideals and concepts in an enjoyable way.

Dr. Urs feels that bearing in mind the characteristics of library and information science education in India, the use of multimedia approach in imparting skills to library professionals would be ideal. She feels that this instructional systems is best for the learner as it is very effective. These packages need to be developed for providing effective training to a large professional manpower working in libraries and information centres in the country.

4.2 Barriers in training

There are barriers existing in developing necessary and adequate skills by librarians. Mr. N. M. Malwad refers to the following:[6]:

1. Economic
2. Psychological
3. Cultural and Social
4. Political
5. Existing information infrastructures.

These barriers may be reclassified as:

1. Personal
2. Institutional
3. Technological
4. Historical
5. Political
6. National and
7. International

1 Personal

Personal barriers could be due to psychological factors which encourage a professional to offer resistance in accepting change. This may happen if the professional is:

(a) Nearing retirement age and wishes to live a retired life;
(b) Incompetent in providing service;
(c) Does not believe in offering more information to his users than what is available in his library;
(d) Indifferent to new information;
(e) Disheartened as he has been superseded undeservedly;
(f) Doing business or other type of work outside office hours and therefore is mentally unprepared to grasp new technology;
(g) Satisfied with the existing job and feels that nobody can retrench him even if he does not perform well; and
(h) Physically handicapped.
2 Institutional

The barriers that generally get created by institutions for modernisation are the result of:

(a) Lack of adequate funds;
(b) Lack of will by the existing management to change;
(c) Lack of knowledge about the horizons of information technology, INTERNET, WWW etc. and the use they can make of this knowledge;
(d) Unwillingness to share resources with other libraries and institutions;
(e) Treating a library as an appendage of the institution and unable to integrate it with its activities; and
(f) Allergic to the existing library professionals and unable to decide on change and transformation of the library.

3 Technological

In developing countries like India the latest hardware/software, communication facilities and other technologies related to information storage and dissemination get affected due to compatibility problems, unwillingness to use standards, inability to establish online connections, lack of spare parts, etc.

4 Historical

In the historical context we see that there is:
(a) Non-availability of skilled labour;
(b) Availability of more than 90 per cent unskilled professionals in the modern context;
(c) Out-of-date curricula in Library and Information Science schools;
(d) Non-availability of proper hardware, software, etc. in library and information schools;
(e) More than 90 per cent of Library and Information Science teachers are not competent to teach information science in the modern context, INTERNET, WWW, Networking, etc.
(f) Contributions of library professionals have not in general been of a high rank and therefore their prestige in society is not high.

5 Political and national

The politicians who take charge of information centres and libraries are generally ignorant about the importance of libraries and information science and attach low priority to this area. The Ministers therefore do not perform well, nor is there any pressure on them from other politicians to do so. Hence, education, which generally includes the promotion of libraries, suffer.

The country should have a national library and information policy, and it should be promoted at the national and state levels. This has not been happening in India.

6 International
International barriers exist in the free flow of software/hardware, etc. The other issues include copyright regulations, foreign exchange regulations, non-availability of indexes to international databases, etc.

4.3 Technical Education

4.3.1 Regular University Courses

The study made by L. S. Ramaiah and M Kanakachary to find out whether the syllabi of the B. Lib. Sc. and M. Lib. Sc. courses provided for the teaching and practice of library automation in the Andhra Pradesh Universities, is properly designed keeping in mind the role of IT in libraries and also whether the teaching staff, is well trained to teach and also whether proper infrastructural facilities are available in the departments for the purpose, reveal that not even a single exclusive paper concerning automation and networking techniques is taught. At Sri Venkateshwara University one paper is devoted to the computerisation at the M. Lib. Sc. level. In other universities the teaching of computerisation is very peripheral. A similar is the state of affairs prevails in other States.

4.3.2 Correspondence Courses

Correspondence courses in Library and Information Science can not provide effective training in IT. However, IGNOU's B. Lib. Sc. and M Lib Sc. courses are relatively better. It needs to be seen how the courses can be remodelled to accommodate IT subjects and provide practical training.
4.3.3 Institutional Programmes

Some institutions in the country have begun arranging training programmes in library automation and management. For instance, the Indian Institute of Management, Lucknow has started a course in Management Development Programme for Librarians and Information Managers which looks into the human relations, team building, leadership, management styles and related issues into its programme. DELNET is planning to organize a regular course in Library Automation and Networking. If a number of institutions come forward and offer such courses, much of the needs of libraries for modern IT professionals could be met. These institutions could also organise refresher courses and workshops in addition to regular courses of longer duration.

4.4 Recruitment and promotions

We need to take a serious look at the recruitment and promotion patterns in order to attract the best to the profession and allow the able to go to the top.

4.4.1 Redefining the jobs

The job specifications could be divided into professional specifications and personality specifications. The professional specifications of a network assistant, for instance, taking DELNET experience in account, would be:
• A degree in library science, with fair expertise in the use of AACR II, Library of Congress Subject Headings, Common Communication Format and MARC Format;
• A diploma in computer applications with a fair knowledge of Unix and Dos operating systems, capability to operate a library software package;
• Knowledge of handling communication tools such as modems;
• Use of electronic mail, expertise in accessing INTERNET and international databases online; and
• A good typing speed using the computer keyboard.

As the job specifications are such that most of the candidates are not able to fulfil them and those who do fulfil some should have the capacity to learn and acquire expertise in the remaining fields. The ability to learn fast and well depends on various personality traits which need to be looked into.

4.4.2 Personality specifications

As training in Information Technology demands efficient professionals, it is necessary to see that those selected have a sound personality.

The personality specifications could be divided into physical, psychological and personality characteristics, besides family background and social habits.

(a) Physical Characteristics
The common physical characteristics which include health, size, weight, vision, voice, etc. play a major role but they were normally ignored while selecting library professionals in the past. The reason being that the choices at times were so limited that no attention was paid to these factors.

(b) Psychological

The capability to analyse, to have mental poise and concentration, the capability to come to a right judgement in a short time, resourcefulness are some of the psychological factors that matter and which are essential characteristics of an IT professional. These factors need to be considered seriously while selecting the staff.

(c) Personal

The appearance of a person, good manners, emotional balance, aggressive or submissive approach to problems, leadership qualities, cooperation with colleagues etc. are also important attributes that are relevant to the development of an able library and IT professional.

(d) Family background and social habits

The family background does define some basic qualities which generally remain inherent in the person and the social habits reveal how the person is obliged to the welfare of the society or safety of others.

Though these personality factors are not relevant at this stage when the skilled manpower with professional specifications are hardly
available, but as they do become available, the above factors will become relevant with the passage of time.

4.4.3 Promotions and reward

DELNET has been using the policy of promotions and of reward to attract the best staff workers to continue working better but the staff in return, who were unable to work better, continued working on to get promotions in order to get a permanent job elsewhere. So far, DELNET does not offer a permanent job. DELNET made the staff perform better which meant they were given regular inputs even on weekends. Although DELNET lost some of the better staff in this process, the methodology was not erroneous, for if DELNET gave them permanent positions, most of them who could not come to Grade A in performance may not have left. Thus promotions and reward were the necessary tools for achieving the best out in a short period of time, even if the positions were temporary.

4.4.4 Leadership

In a situation where only one or a few professionals get equipped with additional know-how, it is important that they are encouraged to lead the rest or at least the able library professionals. In some cases where the head of the library is dynamic or he is pressurised by the management to modernise the library, he supports the change and encourages the able to lead the methods of transformation. In other cases it does not happen. It is important that freedom be given to the subordinates in order to perform well. Unless it is done, although under due care, transformation is not possible.
4.4.5 Ongoing training

Training of library professionals in library software packages and computer applications has to be done on an ongoing basis. In Delhi, for instance, it has been arranged by several institutions including DELNET, DESIDOC, INSDOC, ILA and GILA and so the scene changed fast. Often the training exposed the participants to new technology without sufficient practical experience but this was part of the game and it so happened in the early stages. It has been through the DELNET team of experts that actual hands-on-training was arranged in their own libraries which made the great difference.

4.4.6 Evaluation

The evaluation of IT jobs in libraries is not done but in DELNET it is done regularly. The creation of posts and the responsibilities attached to those posts have to revived in relation to the needs of a library or a library network. In some cases the jobs are created but they have not much relevance to the exact needs of a network and vice-versa. DELNET started with creating the posts of Network Assistants and Senior Network Assistants, and the job requirements for both the posts had been changing since 1988 in a big way. While in 1988 a Network Assistant would be involved with the creation of a database using CDS/ISIS, but in 1996 it is much more. There are further specialisations. The Network Assistant (E-mail) is doing entirely a different work from the Network Assistant who is handling the union catalogue of books. Similarly, the jobs are defined for other types of activities also. In DELNET the efforts have been made to let the young professionals grow in cadres on the basis of their performance and the role they play. And this seems to have been a better view point rather
than thrusting someone on the system who has no actual experience in library networking and no interest in learning the art. The people who are thrust from above begin to be obstacles and do not allow the lower staff to grow as they want to perform.

4.4.7 Motivation

It is very important to motivate the young professionals who have some knowledge of library automation so that they specialise further. In today's time, people want money, status, achievement and recognition. Whenever any of these attributes are missing, the person gets motivated to achieve it. However, all these factors are relative to one's existing environment and social conditions. It is always better to motivate people by comparing their attributes to the ones that are much higher. At the same time motivation should not lead one to frustration, for there is always a possibility to motivate a person to a reasonable limit so that he works at ease, and regularly.

In the field of library automation and networking, it is not possible to motivate a majority of library professionals in the country to learn IT, as discussed earlier, but it is necessary to do so in the case of the following two categories:

(a) Working library professionals
(b) Young and intelligent students who should adopt library science and IT as their profession.
Summary and Conclusions

A majority of library professionals working in Indian libraries are neither trained to handle IT products nor do they have facilities to introduce them. The Departments of Library and Information Science are not able to produce IT trained students. It is estimated that more than 30,000 IT trained new staff will be needed by libraries as modernisation gets introduced. There is a need to improve the work environment for attaining professional excellence. The DELNET survey shows that BLS and MLS recruits in DELNET have performed well. Training is needed in the use of AACR II rules, MARC format, LCSH, E-mail, INTERNET, WWW, Communication tools including modems and library and network software applications. The barriers in achieving better training include the factors such as personal, institutional, technological, historical, political, national and international. The institutions providing library and information science courses through correspondence should stop doing so unless they provide them through practical training. The ideal job specifications and personality specifications with facilities for quick promotions for able staff will transform the profession.

The following are the conclusions:

1. The syllabi of the Departments of Library and Information Science in the Universities should be overhauled totally to train efficient manpower to meet the growing demand of the libraries.
2. Training of working library professionals in IT should be undertaken on a regular basis.
3. The professional manpower being trained at the Departments of Library and Information Science need to be upgraded.

4. An expert committee be appointed to access the manpower requirements in the country in the Library and Information Science field.

5. Library networks be recognised and assisted to offer short-term training courses.

6. New staffing norms for different types of jobs be finalised and adopted.

7. An All-India Centre for Library and Information Service with complete training in IT be introduced.

8. The barriers in training of Library and Information Science manpower could arise because of various factors including:

(i) Psychological
(ii) Institutional
(iii) Technological
(iv) Historical
(v) Political
(vi) National and
(vii) International

9. The jobs be redefined and attention be given to personality specifications that highlight the potential to serve users.

10. The best staff be rewarded and promoted fast in order to fill in key IT positions in libraries. No regard should be given to the age but to the proficiency of the staff.
References


