

Employability of Library and Information Science Graduates: Competencies Expected versus Taught—A Case Study

Bharat Kumar

Management Development Institute, Gurgaon-122 007
E-mail: Bharat.Kumar@hotmail.com; Bharatkumr@gmail.com

ABSTRACT

The article discusses employability of LIS students and competencies expected versus taught. Author had analysed 56 advertisements published in March-April 2010 from two national newspapers, The Times of India and The Hindustan Times, two job websites Sarkari Post and Current Government Jobs, and curriculum of four universities of north India namely, BHU, Varanasi; DU, Delhi; IGNOU, Delhi; PU, Chandigarh. Finding shows that there is a gap in professional competencies expected versus taught.

Keywords: Employability, LIS graduates, LIS curriculum, competencies

1. INTRODUCTION

The focus of library and information science (LIS) education is to equip LIS graduates with competencies and skills to meet ever changing needs of the users in multi-faceted, inter-disciplinary environment. The changing needs of users' and rapid development on technological fronts demands new competencies of LIS graduates to enhance employability. Future graduates need to develop an understanding of competencies and skills required to pursue a career in librarianship. LIS academics should respond to the changing competencies by revising curriculum that equips graduates according to the changing environment. Ameen observed that changes in the curriculum, schools names, and the job market have been a constant phenomenon at global level¹.

2. LIBRARIES AND LIBRARY PROFESSIONALS IN INDIA

Libraries all over the world are now responding to the changes especially with regard to IT applications. Anderson opined that, "Immediacy, availability, and affordability are key attributes of libraries in the new millennium"². It is from the beginning of the 21st century that LIS professionals working in India are facing various paradigm shift³ that include:

(i) The transition from print format to electronic format

(ii) Increasing demand for accountability along with focus on users services, performance measurement, benchmarking, and continuous improvement

(iii) Introduction of new forms of work organisation such as work teams, job sharing, outsourcing, re-engineering, etc.

To deal with the present situation LIS professionals of India have to play a more 'proactive' rather than 'passive' role. They have to learn, develop, and nurture various types of competencies required in the field of library. Who can make them 'proactive'? What they have to learn? What types of competencies they actually need? How can they nurture various types of competencies? Answers to all these questions can be properly handled and dealt with by the faculty members of different LIS schools located in the various universities in the country.

3. ROLE OF UNIVERSITIES IN DEVELOPMENT OF LIS PROFESSIONALS

In 1923 when C.C. Williamson published his Report on Library Education, he recommended that the library schools be placed under the universities⁴. Since universities are dedicated to formal education, they are placed better to equip librarians with necessary competencies. Stieg stated that "The largest numbers of

accredited schools of LIS studies in the United States are located in research universities”⁵. Most educators feel that professional schools can upgrade their quality only when practical teaching and applied research are in combination with basic enquiries and instructions. This kind of situation can exist only within a university set-up. According to Steig location of LIS education in the university has “proven to be a very mixed blessings, bringing many benefits, but at the same time creating problems”⁵. The significant disadvantage of this system is that universities have their own rules, values and ways of operating, which have not always matched with those of the profession. This incompatibility is true of all professional education and LIS education is not an exception to that.

In 2001, the Curriculum Development Committee (CDC), formed by UGC under the chairmanship of Prof. C.R. Karisiddappa framed a modular curriculum keeping in view the present development in the job market in India and suggested a 60:40 approach for practical and theoretical papers, respectively. The practical sessions include hands-on-experience, assignments, seminar presentations, and demonstrations by LIS students during the course of study⁶.

4. BACKGROUND

Professional competencies⁷ are combination of knowledge, skills, and attitudes required to discharge specific duties and responsibilities. Knowledge comprises the understanding of LIS and of other disciplines that underlie its professional practice. Skills refer to the abilities to use one’s knowledge effectively. Attitude refers to the moral values essential to undertake professional practice. Professional competencies vary with environmental conditions, time, and state of development of libraries in a geographical area. Libraries in India exist in different extremes parallel to the societal development in the country. There are libraries where the emphasis on service is minimal and where one professional is engaged in the circulation of books in a closed access library. On the other hand, there are state-of-the-art libraries with a large number of professionals providing all the library services expected.

5. LIS GRADUATES AND EMPLOYABILITY

Tenopir said that employer expectations are more demanding⁸ and the ability to move seamlessly from graduation to employment greatly concerns employers⁹. Developments in ICT, interdisciplinary research, and users’ expectations have raised debate amongst LIS educators¹⁰. Employers are expecting that the academic curricula should keep pace with changing competencies. Employability skills are those basic necessary skills for getting, keeping, and doing well on a job. Employability

skills, while categorised in many different ways, are generally divided into three skill sets: (a) academic skills, (b) higher-order thinking skills, and (c) personal qualities.

Employability can also be defined as “a set of achievements—skills, understandings and personal attributes—that makes graduates more likely to gain employment and to be successful in their jobs”.

Hillage and Pollard refer employability as person’s capability of gaining initial employment, maintaining employment, and obtaining new employment if required¹¹.

In simple terms, employability is about being capable of getting and keeping fulfilling work. More comprehensively, employability is the capability to move self-sufficiently within the market to realise potential through sustainable employment. For individuals, employability depends on the knowledge, skills and abilities (KSAs) they possess, the way they use these assets and present these to employers, and the context (e.g. personal circumstances and market environment) within which they seek work.

LIS profession should be aware of competencies and skills required for getting a job. The changes in library and librarianship are very fast due to interdisciplinary research, fast developments of technological fronts, etc.

6. REVIEW OF RELEVANT LITERATURE

Some studies have focused on the extent of the employability, usually investigating the employment opportunities for LIS graduates. Other studies have focused on the competencies expected by employers.

Kennan, Willard, and Wilson¹² studied 135 advertisements for LIS graduates appearing in the Sydney Morning Herald for four weeks in 2004, 1994, 1984, and 1974. They found changes in demand developments in IT as well as changes in workplace conditions, and client expectations. The study collected data on the demands of employers as expressed through job advertisements including data on work status (full-time, part-time, contract, casual), qualifications and the experience required. The data indicated a movement from simple advertisements in 1974 inviting applications for reference or technical services librarians, to complex and specialised positions advertised in 2004 where the most called for attributes were interpersonal skills, and behavioural characteristics.

The Library and Information Management Employability Skills (LIMES) Project in 2005 surveyed representatives from four UK employment agencies

specialising in recruitment of LIS professionals with an aim to identify 'employability' competencies and skills as employers want graduates with skills that make them more useful when they start work¹³. Traditional, or professional skills such as classification and cataloguing are still important but requirement is more for soft skills such as negotiation skills, not taught in Library Schools. Generic abilities, particularly persuasion, influencing, and communication skills were also sought, and apparently not always evident in recent graduates^{13, 14}. Like the ISNTO foresight projects, the LINES research supports the idea that library and information professionals require a variety of skills, although its findings suggested that though generic abilities are important, a greater weight is placed on professional skills, and particularly their practical applications.

Library directors in Singapore were asked by e-mail for their opinion regarding important competencies needed by librarians in the next five to ten years¹⁵. Five library directors responded, and their responses are summarized under nine categories: (i) traditional LIS skills; (ii) information management; (iii) IT skills; (iv) transferable/generic skills; (v) teaching, training and coaching; (vi) management and leadership; (vii) entrepreneurship; (viii) attitudes and professional values; and (ix) other skills/knowledge. It is clear from the literature and from responses from library directors in Singapore that employers are increasingly emphasising transferable and soft skills, especially communication, management, leadership, training and teamwork.

LIS professionals have to be effective in oral, written, and electronic communication with users, colleagues, and supervisors. They have to be effective in promoting and marketing their services, as well as promoting the value of their service to the parent organisation. They also need good interpersonal and networking skills to interact with their users and effectively with their colleagues.

A literature search was carried out in the Library and Information Science Abstracts (LISA) database for articles published during 2000 to 2004 discussing competencies needed by information professionals¹⁵. The competencies mentioned in 64 of the abstracts retrieved were analysed. It is interesting that the competencies mentioned by the library directors of Singapore were largely similar to those highlighted in the literature. The library profession in this part of the world appears to be facing the same challenges as the profession in Europe and North America.

The guidelines from the International Federation of Library Associations and Institutions (IFLA) LIS educational programmes recommend that the core

elements in a LIS curriculum¹⁶ should include: (i) the information environment, information policy and ethics, the history of the field; (ii) information generation, communication and use; (iii) assessing information needs and designing responsive services; (iv) the information transfer process; (v) organisation, retrieval, preservation and conservation of information; (vi) research, analysis and interpretation of information; (vii) applications of information and communication technologies to library and information products and services; (viii) information resource management and knowledge management; (ix) management of information agencies; and (x) quantitative and qualitative evaluation of outcomes of information and library use.

The American Library Association's (ALA) Standards for Accreditation of Master's Programmes in Library and Information Studies describe the curriculum as encompassing information and knowledge creation, communication, identification, selection, acquisition, organisation and description, storage and retrieval, preservation, analysis, interpretation, evaluation, synthesis, dissemination, and management¹⁷. In a congress on professional education, the ALA resolved that the core of librarianship includes: information access skills; the ability to deal with information technology; communication skills; management skills; and the ability to deal with change¹⁸.

The Association of College and Research Libraries recommended that library schools should train graduates in the theory, principles, and history of librarianship; in-depth knowledge of the higher education environment; preparation for scholarly work; understanding technological issues; conducting information literacy programmes; planning and management; assessing library effectiveness; knowledge of legal and policy issues; consideration of ethical issues; and understanding and appreciation of diversity¹⁹. The Library and Information Technology Association recommended that LIS graduates should possess various skills regarding effective use of information technologies in libraries and communication with users²⁰.

The New Hampshire Library Association classified its list of core competencies into philosophies and ethics; personal attributes; administration; collection management; public services; technical services; and technology²¹. Yale University Library has set core competencies for future job performance of its staff, covering five areas: resources, interpersonal skills, information, systems, and technology²².

The Association of Southeastern Research Libraries prepared a list of competencies required for research librarians²³. The major issues covered are: developing

and managing effective services to meet user needs and support the research library's mission; supporting cooperation and collaboration to enhance service; understanding the library within the context of higher education and the needs of students, faculty, and researchers; knowing the structure, organisation, creation, management, dissemination, use, and preservation of information resources, new and existing, in all formats; and demonstrating commitment to the values and principles of librarianship.

The Special Library Association recommended competencies for future special librarians that are equally useful for academic librarians working in professional institutions²⁴. These include: (i) professional competencies related to the special librarian's knowledge in the areas of information resources, information access, technology, management and research, and the ability to use these areas of knowledge as a basis for providing library and information services; and (ii) personal competencies representing a set of skills, attitudes and values that enable librarians to work efficiently; be good communicators; focus on continuing learning throughout their careers; demonstrate the value-added nature of their contributions; and survive in the new world of work. Corbin²⁵ classified competencies required for providing electronic information services into personal characteristics, basic skills, general knowledge, and specialised knowledge.

Koenig²⁶ noted that the information industry was seeking candidates who not only have the requisite technical and operational skills, but also possess the language skills, interpersonal and communication skills, and the breadth of background and knowledge that allow them to operate effectively in the new international marketplace. Library and information education programmes must consciously prepare themselves to educate students to work in the marketplace.

Morgan²⁷ grouped competencies future academic librarians should possess, in addition to core library skills, into four areas: credibility with academic staff; teaching and training; IT-related skills; and management skills. Buttlar and Du Mont²⁸ asked 736 alumni of library schools: What competencies were most valuable in their professional lives. The five competencies most highly rated by academic librarians in the sample were: knowledge of sources in all formats; conducting an appropriate reference interview; applying critical thinking to library problems; communicating effectively in writing; and utilising oral presentation skills to make presentations.

Giesecke and McNeil²⁹ provided a list of core competencies for university librarians. This includes: analytical skills/problem solving/decision making; communication skills; creativity/innovation; expertise

and technical knowledge; flexibility/adaptability; interpersonal/group skills; leadership; organisational understanding and global thinking; ownership/accountability/dependability; planning and organisational skills; resource management; and service attitude/user satisfaction.

Bonnice³⁰ recommended a mandatory internship (practicum) for MLIS students. In a survey of the course contents of 44 MLIS programmes accredited by ALA, Beheshti³¹ found that the main knowledge and skill-based competencies taught were: technology management; organisation of information; searching and database development; collection development; mathematical methods and research; sociocultural aspects; non-print media; rare materials and conservation; sources of information; reference materials; archives; children's literature and services; and professional issues.

Rehman, Majid, and Baker³² interviewed 60 top and middle level managers of academic libraries in Malaysia to validate a list of competencies (knowledge and skills) required of entry level academic librarians. They divided the list into six operational areas: foundation, cataloguing, circulation, information services, collection development, and serials. According to Rehman, Baker, and Majid³³, middle and top managers of the large libraries of Malaysia perceived that inadequacy in IT skills was the most deficient area in Malaysian librarians³⁴. Rehman, Chaudhry, and Karim³⁴ carried out a survey to see if there were significant differences between competencies accepted at undergraduate and postgraduate levels. Senior library managers in the Arabian Gulf region identified 48 higher level competencies (performance evaluation, policy development, designing databases, planning for automation) out of a total of 70. The remainder not being significantly different for either level, except for 'acquiring materials' that was favoured at the undergraduate level. The competencies were classified into six functional areas: management; information technology; resource development; information service; technical service; and general competencies.

Keeping in view the needs of the Asia-Pacific region, Moore³⁵ prepared a detailed curriculum for information education. The curriculum covered three elements—knowledge, skills, and tools—for the creation, collection, communication, and consolidation of information. A recent survey of library graduates in Australia, conducted by Middleton³⁶, identified 189 skills grouped into nine categories: collection building and management; communication; facilities and equipment; information organisation; information services; information systems; management; marketing; and research. The findings show that seven of the top 10 ranked skills were in the information service category.

Sharma⁷ discussed professional competencies expected and possessed in college libraries in India. Professional competencies were ascertained in terms of knowledge, skills, and attitudes. Findings show that professionals were less aware of the most important professional competencies expected. Communication, time management, and marketing skills were also found lacking. Faculty and senior professionals have an important role in helping new professionals improve their competencies. Sharma felt that appropriate teaching techniques are required to inculcate the competencies expected of professionals.

7. OBJECTIVES OF THE STUDY

- (i) To know essential and desirable competencies, and other skills that employers advertise in jobs for the positions of professionals
- (ii) To ascertain gaps between competencies expected for different professional positions and those being taught in LIS schools
- (iii) Suitability of course contents with current needs.

8. METHODOLOGY

The study is based on an analysis of job advertisements during the period March-April 2010. Fifty six advertisements were collected from two national newspapers, The Times of India and The Hindustan Times, and from two job websites, Sarkari Post (<http://www.sarkaripost.com/>) and Current Government Jobs (<http://currentvacancy.blogspot.com/>). Course curriculum of four universities of North India, viz., Banaras Hindu University (BHU), Varanasi; University of Delhi (DU), Delhi; Indira Gandhi National Open University (IGNOU), Delhi; Punjab University (PU), Chandigarh was also downloaded from their respective websites to study expected competencies and the subjects taught. PU and BHU have two-years integrated MLIS course while DU and IGNOU have two separate courses (BLIS and MLIS) of one year duration.

9. DATA ANALYSIS

9.1 Expected Professional Competencies Required of LIS Professionals

9.1.1 Librarian

Librarian is the seniormost person in a library and overall in-charge of technical, administrative, and financial matters of the library. S/he is responsible for management and organisation of library and its services to achieve the objectives of its parent organisation. Librarian should be equipped with technical skills of librarianship and management of people. S/he

formulates policies, rules and regulations, design services, and get these implemented. Generally librarian is reporting to Vice Chancellor/Director of the institute. Expected professional competencies required from a librarian are given in Table 1.

Table 1. Expected professionals competencies for the position of librarian

Qualifications	Percentage
Evidence of innovative Library services	40
Published work	40
Good communication skills	15
Leadership skills	5
Professional commitment	5

For the post of librarian, 40 per cent institutes/universities demand for evidence of innovative services and published work. Good communication skills are also required by 15 per cent of the institutes/universities.

9.1.2 Deputy Librarian

Deputy Librarian assists librarian in organisation and management of library, oversees routine administration, day-to-day problems and provides guidance and support to Assistant Librarian for smooth functioning. S/he is reporting to the Librarian. Essential qualifications required for a Deputy Librarian are given in Table 2.

Table 2. Essential qualifications for the position of deputy librarian

Qualifications	Percentage
Evidence of innovative library services	60
Published work	60
Computerization of library	60
Professional commitment	60

For the position of deputy librarian, 60 per cent institutes/universities require evidence of innovative library services, published work, computerisation, and professional commitment as essential qualifications.

9.1.3 Assistant Librarian

Assistant Librarian is responsible for the day-to-day operations of the library and help users in consultation of library. S/he is in-charge of a section/division, and is responsible to deputy librarian. For the position of Assistant Librarian, which is an entry level position at professional level, good communication skills are the basic requirements as they have to interact with users and external agencies like publishers, suppliers, etc.

9.2 Status of LIS Professionals

UGC as well as All India Council of Technical Education (AICTE) consider LIS professionals as non-vocational teachers. While if the advertisements are analysed, a good number of universities/institutes consider them as staff.

9.3 Comparison of LIS Curriculum

A curriculum is a fundamental part of any education programme. It provides a list of courses or modules offered in a programme and gives information on content, purpose, method, time/duration, etc. all of which are essential in a successful dispensation of manpower training and education.

Banaras Hindu University and PU are conducting two-years integrated MLIS programme while IGNOU and DU are conducting one-year BLIS, and one-year MLIS programme. All the four universities are following semester system. Curricula of the four universities represent a mix of traditional library subjects and modern concepts. Table 3 shows the traditional and modern concepts that are covered by the curricula.

Table 3. Traditional and modern library concepts in the curricula

Traditional concepts	Modern concepts
History and development of libraries	Library automation software
Cataloguing (Theory & Practice)	Library housekeeping operations
Classification (Theory & Practice)	Operating systems
Library systems and services	Digital libraries and software
User needs and user surveys	MS Office
Library orientation	Search engines

While majority of contents are similar in the four universities, all the universities teach MS Office except IGNOU. CDS/SIS is a software which is being taught in all the universities except PU, which is teaching its students WINISIS. DU is imparting skills on both the software. IGNOU is the only university teaching publishing and printing technology to its students in a module. Library digitisation is being taught in all the universities while none of these is providing hands-on practice. Technical writing, and preservation and conservation of library material are the optional courses which are offered by IGNOU only. Research methodology is a course which IGNOU is offering as an optional course while remaining three universities are offering it as a compulsory course. Dissertation is compulsory in DU and IGNOU, while remaining two universities do not have it.

9.4 Development of Competencies

The term 'Competency' is defined in various ways. A decade ago, competency was considered in terms of personal characteristics and was judged in terms of character, virtue, innate abilities. In the present day, competence is considered more in terms of skill-oriented behaviour and observable actions. Competency is defined by Council of Europe as "the set of knowledge and skills that enable an employee to orient easily in a working field and to solve problems that are linked with their professional role"³⁷.

The traditional skills such as classification, cataloguing, indexing, user education are relevant and important even today, but the LIS professionals should acquire skills to deal with information in the new electronic and technological environment. In addition to the technical skills, librarians should also possess good interpersonal communication and management skills to become more effective managers. To fulfill the key information role, the new era librarians require professional as well as personal competencies. Professional competencies relate to librarian's knowledge of various information sources, technology, management and research and the ability to use these areas of knowledge for providing library and information services. Personal competencies represent a set of skills, attitudes and values that enable librarians to work efficiently; be good communicators, demonstrate the value-added nature and survive in the new world of work. The LIS educators have a greater responsibility to incorporate these various competencies into the LIS curriculum.

10. DISCUSSION

The results of the study indicate the competencies required by the library professionals. Some of these are:

10.1 Writing and Publication Skills

Job advertisements reveal that publications are important for the position of Deputy Librarian and Librarian. DU and IGNOU are the universities which offer dissertation as a course while remaining two universities do not. It equips students with writing and publishing skills.

10.2 Communication Skills

These days, good communication skills are essential for library professionals of all levels. One has to interact and send written communication to faculty members, students, publishers/suppliers, external agencies, etc. S/he should also have etiquettes for communication. A course on technical writing would

prove helpful. IGNOU is offering as an elective course. Communication skills have been stressed to be important in numerous studies³⁸.

10.3 Library Automation

Most of the universities libraries are automated these days. The curriculum of the universities under study includes application of library automation, automation software, housekeeping operations, retrospective conversion, etc. which is a good sign. All the four universities are teaching and providing hands-on practice also. It is high time for the libraries who have not automated to do so.

10.4 Digitisation of Library Resources

All the universities are teaching theoretical aspects of library digitation and its software. But none of the university is imparting practical training on digital library software. It should be included as part of the curriculum.

10.5 Electronic Resource

None of the university curriculum includes electronic resources while these days a good number of libraries are subscribing electronic journals and electronic books. It should be part of different courses teaching different aspects like acquisition, processing, management, service, etc.

10.6 Personnel Management

Some topics of human resource management are there in curriculum of all the universities. But none of the university teaches in details nor includes time management and attitude. Maurice, Marchant and Smith³⁹, in their study of competencies for academic libraries, conclude that human resource management skills are highly desirable for many positions. Ojiambo also comments on the importance and lack of such skills in professionals in developing countries⁴⁰.

11. RECOMMENDATIONS

The following measures are suggested to reduce gap between expected versus taught competencies in LIS schools:

- (i) Dissertation should be a compulsory course in all the universities as it equips students with writing and publishing skills.
- (ii) Communication skills, written as well as oral, are very important for today's librarian so there is a need to introduce it as a compulsory course.

- (iii) The LIS graduates should have hands-on practice on library automation software being used in libraries.
- (iv) LIS students should have practical knowledge of digital library software as many universities/institutions are digitising their publications.
- (v) Librarians should be considered as non-vocational teacher in all academic institutions as per notification of the UGC to bring uniformity.

12. CONCLUSION

In today's competitive world, the theoretical knowledge of academic subject is not enough for LIS graduate to survive. The graduates will have to develop competencies to meet the challenging as well as changing needs of employers/users. They will have to improve their communication skills, problem solving attitude, good knowledge of IT, presentation skills, and will have to provide services to customers with motivation and commitment. These features will enhance their employability skills.

REFERENCES

1. Ameen, K. Issues of quality assurance in LIS higher education in Pakistan. *In* World Library and Information Congress: 73rd IFLA General Conference and Council, 19-23 August 2007, Durban, South Africa. <http://www.ifla.org/IV/ifla73/papers/114-Ameen-en.pdf> (accessed on 13 April 2010).
2. Anderson, C. The long tail. *In* Singapore vision of the 21st century library service. Keynote address by N. Varaprasad, Singapore, National Library Board, 2004.
3. Das Gupta, Arjun. Preparing future librarians in India: A vision for LIS Schools of Indian universities in the 21st Century. <http://www.ifla.org/files/hq/papers/ifla75/126-dasgupta-en.pdf> (accessed on 19 May 2010).
4. Williamson, C.C. Report on library education: A report prepared for the Carnegie Corporation of New York, New York, 1923.
5. Stieg, M.F. Change and challenge in library and information science education. ALA, Chicago, 1992.
6. University Grants Commission (India). Report of UGC Model Curriculum Committee on Library and information science. UGC, New Delhi, 2001.
7. Sharma, Jaideep. Expectations versus reality: A study of professional competencies in college

- libraries in India. *Edu. Lib. Inf. Sci.*, 2004, **45**(4), 352-63.
8. Tenopir, C. I never learned that at library school: Curriculum changes in LIS. *Online*, 2000, **24**(2), 42-46.
 9. Partridge, H. & Hallam, G. The double helix: A personal account of the discovery of the structure of (the information professional's) DNA. 2004. <http://conferences.alia.org.au/alia2004/pdfs/partridge.h.paper.pdf> (accessed on 19 May 2010).
 10. Goulding, A. Never the twain shall meet Changing syllabi of LIS schools, or from cat (cataloguing) and class (classification) to intranet construction and does it matter?" *Impact J. Career Develop. Group*, **4**(4), 65-66.
 11. Hillage, J. & Pollard, E. Employability: Developing a framework for policy analysis. Research report RR85. Institute for Employment Studies, DfEE, Brighton, 1998.
 12. Kennan, M.A.; Willard, P. & Wilson, C.S. What do they want? A study of changing employer expectations of information professionals. *AARL*, 2006, **37**(1), 18-37. <http://www.alia.org.au/publishing/aarl/37.1/kennan.willard.pdf> (accessed on 15 April 2010).
 13. Hamblin, Y. Library and information management employability skills: LINES. *SCONUL Focus*, 2005, **35**.
 14. Varalakshami, R.S.R. Educating 21st century LIS professionals—needs and expectations: A survey of Indian LIS professionals and alumni. *J. Edu. Lib. Inf. Sci.*, 2006, **47**(3), 181-99.
 15. Soo-Guan Khoo, Christopher. Competencies for new era librarians and information professionals. <http://www.lib.usm.my/elmuquip/conference/Documents/ICOL20200520Paper20220Christopher20Khoo.pdf> (accessed on 25 April 2010).
 16. International Federation of Library Associations and Organisations, Guidelines for Professional Library/information educational programs. 2000. <http://www.ifla.org/VII/s23/bulletin/guidelines.htm> (15 May 2010).
 17. Mediavilla, C. Professional competencies for the 21st century: The CLA's vision. *CSLA J.*, 1999, **22**, 25-27.
 18. New Jersey Library Association. NJLA technical competencies for librarians. 2001. <http://www.njla.org/statements/techcompetencies.html> (accessed on 18 April 2009).
 19. Reichel, M. Issues in higher education and library and information studies education. Background paper prepared for the ALA Congress on Professional Education, 30 April–01 May 1999. <http://www.ala.org/congress/acrl.html> (04 April 2010).
 20. Jacobson, S. Library and Information Technology Association Statement for Congress on Professional Education, 1999. <http://www.ala.org/congress/lita.html> (accessed on 04 April 2010).
 21. New Hampshire Library Association. Preparing New Hampshire's librarians and trustees for the 21st century: A report of the New Hampshire Task Force on Trustee and Librarian Education, 1999. <http://www.state.nh.us/nhla/tasked1.htm> (accessed on 02 April 2010).
 22. Yale University Library. The Secretary's Commission for Achieving the Necessary Skills (SCANS) for the Workplace. 2000. <http://www.lib.rary.yale.edu/training/stod/competencies.htm> (accessed on 04 April 2010).
 23. Association of Southeastern Research Libraries, Education Committee. Competencies for research librarians, 2000. <http://www.aserl.org/statements/competencies/competencies.htm> (accessed on 15 June 2010).
 24. Special Library Association. Competencies for special librarians of the 21st century. 1996. <http://www.sla.org/content/SLA/professional/meaning/competency.cfm> (accessed on 25 June 2010).
 25. Corbin, J. Competencies for electronic information services. *The Public-Access Comp. Sys. Rev.*, 1993, **4**, 5-22. <http://www.info.lib.uh.edu/pr/search/corbin.4n6> (accessed on 12 March 2010).
 26. Koenig, M.E.D. Education requirements for a library-oriented career in information management. *Library Trends*, 1993, **42**(Fall), 227-89.
 27. Morgan, S. Developing academic library skills for the future. *Library Review*, 1996, **45**(5), 41-53.
 28. Buttlar, L. & Du Mont, R. Library and information science competencies revisited. *J. Edu. Lib. Inf. Sci.*, 1996, **37**, 44-62.
 29. Giesecke, J. & McNeil. Core competencies and the learning organization. *Lib. Admin. & Mgt.*, 1999, **13**, 158-66.
 30. Bonnice, L.J. Theory and practice: A white paper. Background paper prepared for the ALA Congress on Professional Education, 30 April–1 May 1999. <http://www.ala.org/congress/acrl.html> (04 April 2010).

www.ala.org/congress/theoryandpractice.html
(accessed on 12 March 2010).

31. Beheshti, J. Library and information studies curriculum. 1999. <http://www.gslis.mcgill.ca/beheshti/alacais4.htm>
32. Rehman, S.U.; Majid, S. & Baker, A.B.A. Competences for future library professionals of academic libraries in Malaysia. *Library Review*, 1997, **46**, 381-93.
33. Rehman, S.U.; Baker, A.B.A. & Majid, S. Needed capabilities and development strategies for future information professionals: A Malaysian perspective. *Int. Inf. Lib. Rev.*, 1998, **30**, 123-41.
34. Rehman, S.U.; Chaudhry, A.S. & Karim, N.S.A. Differentiated competencies for graduate and undergraduate levels: Needed transformation of the information study programs. *Education for Information*, 1998, **16**, 9-28.
35. Moore, N. A curriculum for an information society: Educating and training information professionals in the Asia-Pacific region. Bangkok, UNESCO Principal Regional Office for Asia and the Pacific, 1998.
36. Middleton, M. Skills expectations of library graduates. In 4th British-Nordic Conference on

Library and Information Studies, Dublin, Ireland, 21-23 March 2001.

37. Webber, Sheila. Competencies for information professionals. *Bull. Amer. Soc. Inf. Sci.*, 1999, **26**(1). <http://www.asis.org/Bulletin/Oct-99/webber.html> (accessed on 15 June 2010).
38. Angela, Abell. New roles? New skills? New people? *Lib. Assoc. Record*, 1997, **99**(10), 538-39.
39. Maurice, P.; Marchant & Nathan, M. Smith. The research library director's view of library education. *Coll. Res. Lib.* 1982, **43**(6), 437-44.
40. Ojiambo. Developing Human Resource Capacity. 162-63.

About the Author



Shri Bharat Kumar is Assistant Librarian at Management Development Institute, Gurgaon, Haryana. He is MPhil (LIS) and PGDCA. He has number of publications in journals, national/international conferences. He has attended several training programmes in the field of LIS and management and participated in national/international conferences. His areas of interest are ICT and management aspects in libraries.