

Problems and prospects of LIS education in India with special reference to distance mode

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Introduction

Every stage of societal development requires an educational system that can adequately reflect its needs and demands. The Information technology revolution has already taken its root in India and this has profound implication for the information professionals. Today modern librarianship is a profession with a diversity of opportunities and challenges and LIS professionals have to play a vital role in the process of information organization, retrieval, repackaging and its communication. Now the designation of jobs has been changed to Web Manager, E-Publisher, Knowledge Manager, Information Manager/Officer, Internet searcher etc. To survive in this changed world, LIS professionals must be well educated, highly qualified and professionally competent with different skills. In India LIS courses are offered at different levels through regular and distance mode. Now e-learning has emerged as the most important method of distance education by adopting new IT based style of teaching. Distance education institutes have been in the forefront of adopting new technologies to provide increased access to education of masses. Indira Gandhi National Open University, New Delhi uses video conferencing on a regular basis. The open universities use various methods of learning like virtual classrooms, mobile learning, blended learning solutions etc. Dr B. R. Ambedkar University has been using electronic media such as radio (including audio conferencing/radio phone-in), television (tale-lessons and interactive television/teleconferencing) for delivering instruction. Networked technologies are facilitating learning, any-time and anywhere. The prospect for online LIS education in India seems to be very encouraging but there are many challenges towards it.

Brief history of library education in India

There is a reference to in-service training in universities set up during the later part of the 19th century (Neelmeghan, 1974).

However, the credit for starting a formal course of library education in India goes to William Alonson Borden and Asa Don Dickinson, students of the great librarian Melwil Dewey. Borden began a training course in 1911 at the Central Library, Baroda in and Dickenson at Punjab University in 1915. The training school at Punjab University was considered to be the second known library school in the world; the first acquainted school is Ranganathan Columbia School. Dickenson was probably the first to use the term 'Library Science' for his training course in place of 'Librarianship' (Konnur, 1986). Dr. S.R. - the father of Indian library science - who also worked sincerely for the spread of Library and Information Science education in India, by his efforts, universities and library associations started setting up library schools. Madras Library Association and Bengal Library Association started a certificate course in Library Science in 1929 and 1935 respectively. Among the universities, Madras University under Dr. S. R. Ranganathan, took over the certificate course from Madras Library Association in 1931. The course was subsequently converted into a postgraduate course of one-year duration in 1937. Some more which follow were: Andhra University (1935); Banaras Hindu University (1941); University of Delhi (1947); Aligarh Muslim University (1952) and so on. University of Delhi in 1948, under the guidance of Dr. Ranganathan, started a Masters course in Library Science in India and Aligarh Muslim University was the first to provide a Bachelor course in the country. The University of Delhi again holds the credit as the first to start the research program and to award M.Phil and PhD degrees.

LIS education in India: its present status

The objectives of the LIS courses are to provide a balanced training, integrating theory with practical exercises, and to cover all aspects of professional work with equal emphasis embracing new frontiers of librarianship. These new frontiers are mainly Information Storage and Retrieval, Information Technology, Information Management and Knowledge Management. The University Grants Commission (UGC) Model Curriculum Report, 2001 lists six levels of courses in Library and Information science education in India, starting from Certificate, Diploma, Bachelor (BLISc), P.G. Diploma (PGDIT, PGDA& PGDLAN), Masters (MLISc) to M.Phil and PhD. The courses are being imparted by formal universities and deemed universities (both regular and distance stream), open universities, degree colleges, polytechnics, associations and even Government departments.

Maximum number of institutions is offering departments

There are as many as 69 institutions offering certificate courses. These include 40 associations, 15-degree colleges/private intuitions, five distance education institutions/universities, three regular universities, three government departments and three other agencies. There are 33 institutions offering Diploma (DLISc) courses. Out of these eleven are degree colleges and polytechnics, seven regular universities; two are open universities and other institutions. In addition there are 20 junior colleges offering DLISc. 104 institutions, the maximum number, are offering BLISc courses. 50 of them are Library and Information Science departments in regular universities, 29 are degree colleges, 12 are distance education universities/institutions and six are self-finance courses run by various institution/universities. There are seven other institutions including Library Associations, which offer BLISc course. Furthermore only eight institutes are offering Library and Information Science as an optional subject in a B.A. degree course. There are four PG Diploma courses - PGDADM and Post MLISc course are offered by one regular university each, while PGDIT is under self-finance by one university, the PGDLAN is imparted through distance mode by two universities.

There are 93 universities imparting Masters Degree programs in Library and Information Science and related fields of which 70 offer one year MLISc, 15 offer two year MLISc programme and eight institutions are offering other as MLISc course. Of the 70 universities offering one year MLISc programs 44 are regular universities, six distance education institutions / universities, seven are degree colleges, one is deemed university and 12 are self finance courses. Out of 15 universities offering two year MLISc programs 12 are regular universities, two are degree colleges and one is managed by a self finance scheme. Besides the MLISc program there are eight institutions imparting Masters in Information Science courses by different names. Among them two universities offering a two year MSc in Library and Information Science, one regular university imparts a two year MSc in Information Science, one deemed university offers a two year Masters in Information Science and two deemed universities offer Associateship in Information Science and only one university is offering a two year MIM (Master of Information Management) program under a fully self finance scheme.

There are 53 universities/institutions offering PhD, 17 of which are providing a M.Phil degree. Of the 56 which offer PhD four are open open universities. Out of 17 institutions offering a M.Phil degree 14 are regular universities and three work through distance mode. (Talwar).

Library and information science in distance mode

Distance education has been defined in a variety of ways. The United States Distance Learning Association defines it as: Distance Education (Learning)- “education program whereby students may complete all or part of an educational program in a geographical location apart from the institution hosting the program; the final award given is equivalent in standard and content to an award program completed on campus” (United States Distance

Learning Association, USDLA). The history of distance education in library and information science education can be traced back to one year after Melvil Dewey opened the first formal program of library education at Columbia College. Correspondence study was one of the first types of distance education employed in this field.

The global education systems have started using internet-based online methods for distance education, which offers more sophisticated online education, by using Intelligent Multimedia online, Internet based access to web resources, computer-mediated communication using automated response systems and campus portal access to institutional processes and resources.

LIS-distance education in India

Dr. B.R. Ambedkar Open University, Hyderabad (then known as Andhra Pradesh Open University) is the first Open University in India offering Library and Information Science programs through correspondence at Bachelor's Degree and Masters Degree from 1985 and 1998 respectively, followed by the university of Madras, Indira Gandhi National Open University (in 1989) started BLISC and later MLISc and PhD programs. There are also some other open universities in India offering library science courses as Annamalai University, Aligappa University, S.V. University Tirupati, University of Madras, Madurai-Kamaraj University, Madurai etc. Today there are more than 20 Library and Information Science schools in India offering LIS courses through distance mode. The growth of distance education programmes in India has created an outbreak in the library profession as unwanted quantitative expansion affected the professional caliber and the quality of education being imparted.

E-learning and distance education

Currently we are watching global shift in education that reflects changes brought about by computers and communication technology. These shifts may be called electronic learning or e-Learning. It is a mode of knowledge production and circulation where information technologies play a decisive role. With the emergence of the Internet as the prime form of global communication and information exchange, e-learning has been brought to the forefront. Online education is transforming knowledge-delivery processes and 'virtual education'. E-learning has brought about profound changes the world over in the way people learn and train, allowing them to do it anywhere, any time. Through the web a user can access content from any point, off or on campus, through a computer and connectivity. The Web is being used for delivering more extensive content on a particular course.

E-learning is the use of network technologies to create, foster, deliver, and facilitate learning, anytime and anywhere without geographical barriers. Through e-learning users may get any form of text, graphics, audio, video, animated graphics, and computer programs. It is the fusion of technology with education. "The major advantage is the consistency that e-learning provides. E-learning is self-paced, and learning is done at the learner's pace. The content can be repeated until the trainee understands it. It can be made compelling and interesting with multimedia, and the trainee can be given multiple learning paths depending on his or her needs," (Bandhuni, 2005)

E-learning is a combination of content and instructional methods delivered via a computer and designed to build knowledge and skills. Blackboard (<http://www.blackboard.com>), WebCT (www.webct.com), Moodle (www.moodle.org) etc. are playing a vital role in e-learning programs at international level.

E-learning in India

Yet in India, online distance education in LIS makes its own impression. According to IDC, the revenue earned worldwide from e-learning was 6 billion US\$ in 2003. That's expected to

rise to 21 billion US\$ by 2008. NASSCOM reports that Indian companies will get revenues of 7 to 9 million US\$ by end-2005.

As is apparent from the above figures, the Indian e-learning market is still at a nascent stage. But thanks to an increasing emphasis on honing individual skills, e learning is slowly becoming popular in India. E-learning permits the delivery of knowledge and information to learners at an accelerated pace, opening up new vistas of knowledge transfer. (Bandhuni, 2005)

EDUSAT (Educational Satellite)

Indian Space Research Organization has pioneered the use of front line space based communication technologies in the field of education and development. ISRO launched EDUSAT, a satellite meant exclusively for the education sector and the world's first satellite meant only for educational purposes on September 20, 2004. The satellite-based interactive narrow casting network has one-way video and two-way audio facilities. The network is capable of data transfer from the teaching end to the remote classrooms. The data includes lecture notes, courseware, presentation material, exercises etc. The network consists of three major elements: teaching end, remote receiving sites called classrooms and spacecraft. (http://elearning.vtu.ac.in/edusat_bde.htm)

In India the first e-learning system was started in the private sector by Mr. Sanjaya Sharma in 1990. When the Internet and computers were not yet popular in India, Sharma saw an opportunity in combining education and IT. He envisaged a future where education would be provided in imaginative ways using the latest technology on offer. Sharma established his company, backed by the renowned corporate house of Tatas. The company was christened Tata Interactive Systems (TIS) (Sharma, 2006)

E-learning in India has been most successful in the corporate segment where it is seen as a means of achieving business goals and motivating employees. Many companies involved in e-learning projects like Med Varsity, Gurukul Online, Sify learning, Tata Consultancy Services, Knowledge Pool, Brain Visa, EduTech are showing keen interest in collaborative projects with universities for online distance education.

Major private e-learning agencies are:

Gurukul Online Learning Solutions (<http://www.gurukulonline.co.in>)

Gurukul Online Learning Solutions™ (GOLS) offers specialized solutions in all spheres of e-learning – strategy consulting, synchronous and asynchronous learning, deployed blended learning, content development and off-the-shelf courseware(s). Several years of in-depth research has gone into the making of GOLS's products, giving them that cutting-edge advantage.

SIFY (<http://www.sifyelearning.com>)

SIFY provides high quality learning services helping their clients maximize employee productivity, proficiency and satisfaction while managing training costs and risks. With strong focus on creating custom content, mobile learning, globalization and learning infrastructure services, Sify is poised to provide end-to-end e-Learning services to all. Leading organizations across many industries use their services to minimize training costs and increase employee productivity

NIC e-Learning Portal (<http://elearning.nic.in>)

NIC is in the process of offering full fledged e-learning, which utilises various electronic media to fully or partially deliver trainings. It has the advantage of allowing learners to monitor their pace and, in the same single window, have access to a repository on various latest technology areas.

Net Varsity (<http://www.netvarsity.com>)

NIIT Limited, the IT training pioneer, offers Learning and integrated e-Learning Solutions to individuals and global corporations. NIIT trains over 500,000 students annually through a network of nearly 3500 centers spread across 33 countries.

WIPRO Technologies (<http://www.wipro.com>)

Wipro has recently launched the Virtual Learning or eLearning initiative where employees can ask for course materials and learn at their own pace. For those working in Japanese projects, Wipro has introduced Shimpo, a program for learning the Japanese language and culture. Wipro currently has six 'Learn-while-you-Earn' programs for working employees to stay on top in technical knowledge and skills sets in emerging technologies.

As far as university level e-learning is concerned, there are some sporadic attempts made by some universities.

BITS Virtual University - India's 1st Virtual University, - a multi-modal e-learning system developed at the Birla Institute of Technology and Science, Pilani (India). This is particularly true of CBT and Web-based E-learning systems developed in collaboration with agencies including the IBM India, Distance Education Council (GoI), Ministry of Information Technology (GoI), CISCO Systems (USA) and Oxford University (UK). This unique framework makes use of conventional Web-based Learning over the Internet, Video-on-Demand over IP, Virtual Digital Library and WAP enabled Device Support for select E-Learning Services in helping the registered students in the manner that may suit their convenience while allowing the university to maintain quality, effectiveness and rigor of any specific educational program. The technology used – *Internet work-based Interactive Learning (I2L Methodology)* – is scalable and cost-effective and as such is well suited to any developing country, although it may be used equally effectively anywhere else as well. (Banerjee)

VTU e-Learning Framework: In the proposed Visvesvaraya Technological University (VTU-EDUSAT) project, the network infrastructure will be used for the delivery of "live" video-based lecture sessions. The subject experts use presentation content, which is derived from the deployed e-Learning content. Such video sessions would be captured, digitized and linked to become part of the overall e-Learning content.

(http://elearning.vtu.ac.in/schedule_sessions.htm)

National Program on Technology Enhanced Learning (NP-TEK)

The National Program on Technology Enhanced Learning (NP-TEK) began in 2002 and has been developed in order to enhance the quality of engineering, science and management education in India via the use of distance and web based technologies. Initially all seven Indian Institutes of Technology (IITs), Indian institutes of management (IIMs) and Indian institutes of science (IISc) are jointly involved in the program. These "Partner Institutions" will collaborate in jointly building educational tools, methods and courses that won't benefit only the aforementioned Partner Institutions but also other educational institutions throughout India. It is anticipated that the program will also service working professionals within government and Industry. (Natarajan, 2004)

The Indira Gandhi National Open University (IGNOU), and the University of Madras have initiated online courses. The Dr. B.R. Ambedkar University uses electronic media such as radio (including audio/radio phone in), television (taped-lessons and interactive television/teleconferencing) for delivering instruction in a limited mode. A pilot project is on the lines to convert the existing video lessons to electronic lessons on CDs (asynchronous mode), to produce e-lessons with an interactive mode and to design and develop multimedia-based lessons. The MLISC course on application of Information Technology has been selected for the production of 20 e-lessons on Smarteach platform developed by a private firm in Hyderabad. In course of time these e-lessons will be loaded to the university portal and accessed

through the network of the university's study centers and also remotely from anywhere, at anytime-a true online distance education mode. At international level, the University of Maryland, The Mansfield University, Texas Women's University and many of other universities have their own e-learning programs in Library and Information Science.

The schools of Library and Information Science from the open universities and correspondence schools of distance education may join these e-learning firms in offering online education.

Major Challenges

Many challenges exist before LIS professionals to march further to meet the present and future situations and bring in quality both in teaching and practice. The ultimate aim of any course including LIS is to make job seekers enrolled in the system employable and marketable. The universities that have correspondence courses in LIS are not producing such candidates who have the required skills. In the present situation, most of the open universities have no limit in intake of students thus producing a large group of people having higher degrees with a good percentage, but that is useless and unproductive in the field of professional work which leads to an unemployment problem.

Following are other challenges and issues that the LIS education system is facing nowadays:

- 1 Lack of finance:** The major challenge in improving the LIS education is the lack of finance. It is not possible to make any resource available without appropriate financial support. The agencies issuing grants like UGC, university authorities and other bodies don't support LIS schools needing special grants for infrastructure, faculty and other necessary items.
- 2 Inadequate Infrastructure:** Generally in most of the universities, study centers are conducting LIS education in India, which are not adequately established with well-furnished computer laboratory and library facilities because the administration does not feel any need to provide computer lab facilities, library facilities, communication equipments, other information science components and necessary infrastructures required for LIS departments. The major constraint e-learning systems face in the Indian environment is the lack of infrastructure. E-learning requires a certain investment in hardware, software, and support staff. While much of the hardware/software investment already have been committed as part of the organizations' existing infrastructure facility, very few study centers have a well-organized computer laboratory along with fulltime Internet connectivity.
- 3 Lack of Knowledge and Training:** One of the main constraints of e-learning systems is that students need to know how to use the particular information technology. Much more attention will be required in the future web based training that will be delivered over the internet using the non propriety www server and client technology. Despite the increase in the number of institutions offering distance programs, little is known about the teaching practices that contribute to effective online course design and delivery.
- 4 Insufficient Contact Classes:** Being a practical oriented course, LIS education required computer training and practical classes for classification and cataloguing with personal contact between teacher and student, but the number of days for contact classes is very limited. Some universities are not even insisting that students attend contact classes. There is no provision of Credit Hours for individual papers in the distance program.
- 5 Lack of High quality teaching Staff:** Most of the LIS departments have senior teachers of old age and they are not ready to accept the changing nature of the subject. Few departments have skilled fresh faculty and an innovative nature but they stand as juniors and work under pressure of seniors. Experienced regular teachers are not much involved in the distance education program, working librarians, fresh postgraduate students and research scholars are handling most of the classes.

- 6 **Lack of Permanent Faculty for Distance Program:** Teaching as a process that involves helping learners to create knowledge through interactive and authentic learning experiences. There are no full time faculty in the schools who conduct correspondence courses, except IGNOU, New Delhi and Dr. B.R. Ambedkar Open University, Hyderabad which will adversely affect giving attention to the individual students. Students characteristics and past experiences will help the instructor to determine how best to promote learning through various learning activities. Another common limitation is the lack of sufficient opportunity for the interaction between the learner and the subject expert
- 7 **Lack of Evaluation:** There is no mechanism of assessing teaching effectiveness and quality of study materials of distance program courses. Students' evaluations of teaching will help to provide instructors and course designers with feedback about the quality of their efforts.
- 8 **Lack of Admission Policy:** No restriction for admitting the number of students to Bachelor and Postgraduate courses, a whole class might comprise 100 to 150 people. Offering a distance programme is a good business decision for most institutions in India. Recent order of the University Grants Commission from exempting Mphil/PhD holders from NET, that was essential for entering the teaching profession and for graded library posts, led to an enormous increase in the number of Mphil/PhD aspirants. Profit making universities plan to start correspondence PhD training programs this session onwards.
- 9 **Nomenclature, curricula and duration of LIS courses:** Curricula of BLISc and MLISc are not uniform in library and information science schools, very little emphasis is given to the components that the LIS professionals need to carry out the tasks in the library when they join the given job. However, one of the problems with e-learning in India is the lack of course content, especially outside the mainstream focus areas of IT education, English-language content, and tutorial-like courses. There will be a high demand for people who can develop multi-lingual courseware that addresses various topics. The course duration at each level is also not uniform in the LIS schools. The correspondence courses had made their own style of nomenclature, curricula and duration. Most of the LIS schools have Masters level of one-year/two semesters. Only one-year duration is not enough for a student to learn all the things at an advanced level.
- 10 **Medium of instruction:** The majority of students study in Hindi or regional languages. The expected English knowledge of the students is not sufficient to comprehend most of the LIS materials published in English. Therefore the students have to depend largely on the lecture notes given during the contact classes by the teachers who have other commitments in addition to teaching. For this reason a good part of the library professionals have very limited notes based knowledge.
- 11 **Absence of Accreditation body at National Level:** There is no accreditation agency in India like the ALA Committee on Accreditation in USA and The Institute of Information Scientists (IIS) and the Library Association (LA) in U.K to ensure reasonable standards and quality of output in the LIS education like nomenclature, curricula and essential resources. In view of the fast growing number of schools imparting training in librarianship, emerging diversity of standard and the recent trend of training through correspondence, there is a strongly felt need for regular control and enforcement of minimum standards in training and education for librarianship.
- 12 **Lack of supporting policy at National Level:** There is pressure to have quality assurance in LIS programs but the government hasn't implemented any policy at national level that may support LIS Education. National coordination and a planning program are needed to gain maturity. A general program can reduce waste and make the fullest use of existing academic and technological resources.

- 13 Lack of a global Perspective:** There is a lack of coordinated and effective programs of international studies in Library and Information Science Education in India to future oriented programs that are clearly defined in the mission, goals and objectives. Internationalizing means having a program in which faculty, staff and students maintain a global view and an appreciation of the importance of the field internationally without which library and information science studies will be incomplete.
- 14 Lack of Library Visits:** Educational tours and Library visits are compulsory in regular library science courses to understand about various services and routine work in the libraries. But there is no such provision in Distance education programs.

Suggestions

- 1** Admissions should be done through admission tests or based on good academic record. Duration of the contact classes, especially practical hours should be increased and attendance should be made compulsory.
- 2** The syllabus at all levels should be updated. It is strongly felt that the course duration at Masters level should be of four semesters. Dissertation/project work should be in the third semester and practical training/work experience should given in the fourth semester.
- 3** All universities in India, who impart distance education programs may take up broadcasting lessons through EDUSAT, Gyandharshan, FM, Radio etc. that would reach the entire section of a student community.
- 4** All library schools, who impart correspondence programs, should have a permanent faculty. The availability of high caliber permanent teachers should be made a precondition for starting courses in LIS.
- 5** India urgently needs an educational reform towards open, flexible, student-centered learning, moving away from imparting bookish knowledge to inculcating skills in self-study, creativity, vocational efficiency and self-reliance. The teaching style must be innovative to face the changing environment.
- 6** Mobile based learning should be encouraged. The success of the Mobile (Cell) phone and subsequently SMS (Short Message Service) in remote parts of India has demonstrated the functionality of portable communication devices with the access to Internet resources using LAN or long –range ‘wireless’ network services. WAP (Wireless Access Protocol) enabled phones like Reliance Mobile and TATA Indicom also common in the country, which allow for limited web browsing capability using a ‘mini browser’, providing a text-based, menu-driven interface.
- 7** Listservs (Online discussion groups) can be used in conjunction with face-to –face courses. Listservs are conducted via electronic mail and seem to be making the greatest impact in the areas of student writing, content discussion, and class dynamics.
- 8** All LIS schools in India should have acquired the needed infrastructure for imparting practical training e.g. well-equipped information and communication technology laboratory with equipments such as PCs, Modems, CD-Drives, Printers, scanners, and multimedia kits along with broadband Internet facility and latest library management software i.e. LIBSYS, Alice For Windows, VTLS and SOUL etc.
- 9** Extensive preplanning of an online course is essential. Knowledge of the capabilities and limitations of the elearning system is an important prerequisite to design an online course. Faculty members should have a solid understanding of the major principles of online course design before they attempt to put a course together.
- 10** Instead of organizing contact classes, study centers can manage regular evening classes in selected major cities for the convenience of the working class.

- 11 The University Grants Commission should appoint an Advisory Committee, with faculty representation from all leading library schools, to be involved in all major decisions relating to the design of the curriculum, teaching methods, choices of e-learning equipment, software and evaluation.
- 12 A national policy has to be evolved/formulated for LIS education in distance mode in the changing context of librarianship in modern India, under various kinds of establishments with varied functions and responsibilities and there should be some concrete efforts to make grants available. The policy should emphasize the need for practical training and necessary infrastructure requirement. The UGC is supposed to be the most suitable organization to take up formulation of such a policy.
- 13 It is very essential to establish some professional agency at the national level, which can undertake the work of accreditation of the courses in LIS that may maintain the standard in LIS curricula, nomenclature, and duration and course fee. There should be a common platform for all library schools that conduct correspondence courses.

Conclusion

There are strengths, weaknesses, opportunities and limitations in both general and distance LIS education, but particularly in distance education in India. During the last five years the LIS departments have developed new programs and courses, new teaching and learning approaches and used ICT to support teaching and learning. The course offered by the Indira Gandhi National Open University (IGNOU) is quite innovative and uses multi-media packages for teaching and learning. IGNOU is using self-instructional course materials, audio and videocassettes, radio and television broadcasting, counselling sessions and video conferencing on a regular basis. Distance education has also been a boon in a more specific sense to educational institutions themselves as it allows extremely useful contact across national and international borders. In India, e-learning is the future of education. At present it merely supplements traditional distance learning methods rather than replaces them. The probable reasons for that are lack of finance, infrastructure including software and hardware access, lack of technological skills, nature and level of courses to be designed and offered, instructional delivery modes, required faculty, accessibility and affordability of technology from the learner's side, evaluation methods etc. But the prospect of online LIS education in India seems to be very encouraging. Tremendous growth of personal computers, expenses of regular professional courses and increasing network from the home, office and public places will lead to the development of Internet based learning as a cost effective and convenient educational method. Learning systems will obviously play an important role in delivering education in remote parts of the country in the future, provided an improvement of infrastructure facilities and support systems to meet the needs of the students with the help of the World Bank and interface customization for multilingual information.

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