Impact of ICT on LIS Education in India

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Abstract

The LIS environment in India is still basically traditional, but becoming more and more ICT-driven following trends in the rest of the world. Curriculum development, which is largely under departmental jurisdiction, has been attended to and most LIS schools have developed relevant ICT modules. The problems are to be found in the overall ICT infrastructures both at national and institutional levels, as well as individual LIS School's equipage of appropriate hardware, software and expertise. An important undercurrent in these problems is the lack of adequate funding for ICT implementation in Indian LIS schools. I hope that if the LIS schools equipped their students with theoretical and practical aspects of the model lT components in a better way then they can placed themselves in the national and international job market

Keywords

ICT; ICT infrastructure; e-resources; information communication technology; university libraries.

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INTRODUCTION

World is moving fast and various new technologies are replacing traditional systems. Librarians need special knowledge and skills including techniques of using software and hardware, selection and assessment of resources, use of information systems, ability to search networks and databases, as well as problem-solving and research skills and the ability to teach users. Librarians should acquire these skills before entering the job market. The LIS education system must prepare librarians to enter the field through proper college curriculum so that library professionals are expert to handle new communication technology. New technology has made librarians network specialists, information mediators, and system designers. If librarians are to be the first to use new technology, they must have the skills and knowledge. Those can be acquired formally or informally. LIS programs must help develop skills such as communication, interpersonal relationships, research, specialized subject knowledge, analytical ability, updated IT skills, and flexibility (Ali Akbarzadeh 1998). Librarians interact with more groups and provide services for users with various characteristics. They need patience and initiative and a user-oriented approach. LIS education must include social and communicative skills. Librarians should also have the ability to learn new skills and have complete mastery over them. Technical expertise is also important, including the ability to identify and retrieve useful data. Librarians' skills must meet the needs of this new era (Mansouri and Pashootanizadeh 2007).

The entrance of IT into library science had changed teaching it and made it attractive. If LIS teachers learn to use new technologies in education, teaching this discipline would also be more interesting. In recent years, using IT and ICT in LIS education has increased. With optimized use of IT and ICT, virtual and electronic education might increase. In addition, sending professors abroad to study and research and holding educational workshops for applying IT and ICT in teaching using foreign skilled professors would significantly develop LIS teaching.

There are three approaches to IT and ICT in education that are often discussed:

- IT and ICT in the form of lesson units or workshops for students and teachers.
- IT and ICT as a means of information storage and retrieval and a method of doing research

- IT and ICT as the channel for delivering instruction

Therefore an attempt is being made here to project issues related to the LIS education in India and suggest some proposals in this respect based on our experiences. . This article examines the role of IT and ICT in education, and ways that they can improve LIS instruction. The study also proposes the problems faced by LIS students while working with ICT and satisfaction level of LIS students regarding LIS syllabus regarding ICT.

RELATED STUDY

Sirje Virkus Tallinn, Estonia(2008) Web 2.0 is influencing the way in which people learn, access information and communicate with one another. The Institute of Information Studies of Tallinn University has a long history in using ICT in its teaching and learning. Experiences with open and distance learning and e-learning have transformed teaching and learning, provided new alternative delivery modes, and helped to reach new target groups. Recently the staff have been experimenting with Web 2.0 technologies and a few have successfully adopted them in teaching and learning.Sutton (2001) observes that the changes brought into the LIS profession by ICTs can be divided into two major categories, namely, the natural evolutionary changes, on the one hand, and transformatory changes, on the other. As natural evolution, the library and information science profession has harnessed ICTs to perform old tasks better through the automation of housekeeping tasks such as reference work, bibliographic services, cataloguing, serials, circulation and acquisition, which are performed more efficiently in an ICT environment. Transformatory changes, on the other hand, include the emergence of new functions arising out of an expanded, demand-driven information society, wider and/or interdisciplinary jurisdiction and closer focus on user needs. Fourie and Bothma (2006) observe the increased use of the World Wide Web in private, social, business lives of many people and hence note that it is a vital component of the enabling structure for school, university, career and other use for information and communication. This one platform exhibits the fact that those involved in information services need to be sufficiently prepared to handle both the users of information and the attendant technologies. Tafreshi (1997) found that more than 80 percent of the population studied did not find LIS programs suited to the needs of the profession. Hayati (1998) also assessed the effect of IT on teaching library science and expressed the need to review the curriculum. Tahouri (2006) did further research along these lines and made suggestions for change, including reviewing programs of universities in Tehran, Mashhad, and Al-Zahra University.

STATEMENT OF THE PROBLEM AND SCOPE OF THE STUDY

The problem of this study is entitled “IMPACT OF ICT ON LIS EDUCATION IN INDIA”. The scope of the study is limited to the department of Library and Information Science, Aligarh Muslim University and University of Delhi.

OBJECTIVES OF THE STUDY

The study has been conducted on the basis of certain objectives:

1 To know the awareness and use of ICT in LIS education among LIS students.
2 To know how ICT education influences efficiency of students/learners.
3 To know the availability of ICT infrastructure in departmental computer lab.
4 Opportunities offered by use of ICT.
5 To know attitude towards the e-learning methods.
6 To ascertain problem faced while working with ICT.
7 To find out satisfaction level on current LIS syllabi regarding ICT education.

METHODOLOGY

Research is the most important tool for advancing knowledge, for promoting progress, and for enabling man to relate more effectively to his environment, to accomplish his purpose and to resolve his conflicts.
Questionnaire is a tool to collect data from large and widely scattered population. It is a formal list of questions especially used in an official enquiry. It is one of the most popular instruments of the survey method. For this study, a online questionnaire was prepared through www.suveymonkey.com and distributed to the BLIS,MLIS and Ph.D students of Department of Library and Information Science, Aligarh Muslim University and University of Delhi with a request to fill in the answers to the questions . Total 220 questionnaire were e-mailed to LIS students of both the universities.100 questionnaire to BLIS students 80 to MLIS and 40 to research scholars and total 190 questionnaire were received

back and 178 questionnaire were taken for analysis .Out of 178 respondents 80 are BLIS student 62 are MLIS student and 36 are research scholars. The data collected through the questionnaires are organized and tabulated. The data were shown clearly through tables and percentages and a relation was found out by applying the standard deviation and correlation.

Table 1: Status of respondents

Respondents	No. of Questionnaire e-mailed	Selected for study
BLIS	100	80
MLIS	80	62
Ph.D	40	36
Total	220	178

Table 2: Rating regarding competence in using ICT application

Respon-dents	Excellent	Very Good	Average	Below Average	Poor
BLIS	30 (37%)	20 (25%)	8 (10%)	12 (15%)	10 (12.5%)
MLIS	16 (26%)	8(13%)	12(19%)	14(22.%)	12(19%)
Ph.D	10 (28%)	12 (33%)	8 (22%)	2 (5%)	4 (11%)

From the above table it is calculated that average population of BLIS, MLIS and Ph.d students are competence in the use of ICT application. 37% of BLIS student 26% of MLIS and 28% of Ph.D students rate himself excellent when asked about their competence in ICT application where as 25%of BLIS ,13 % of MLIS and 33% of Ph.D students feel very good. On the other hand 15% of BLIS 22%of MLIS student are average and 12%of BLIS 19% of MLIS and 11% of Ph.D students are poor regarding competence in ICT application.
It is concluded that maximum no of respondents are Excellent regarding competence in ICT application.

Table 3: Experience and Awareness about E-learning

Respon-dents	Never heard	Used once	Never Used	Used Several Times
BLIS	40(50%)	9(11%)	11(14%)	20(25%)
MLIS	12(20%)	20(32%)	10(19%)	20(32%)
Ph.D	-	6(17%)		30(83%)

It is concluded from the above table that 50% of BLIS students and 20% of MLIS students never heard about the e-learning method of teaching, Where as 11% of BLIS students 32% of MLIS and 17% of Ph.D students use e- learning method once and 25% of BLIS student ,32% of MLIS students and 83% of Ph.D students used several times the e-learning method . It is found that research scholars use maximum the e-learning methods and BLIS students use least and MLIS students are average in the use of e-learning methods

Table 4: Attitude toward the e-learning methods

Respondents	Positive	Negative	Neutral
BLIS	40(50%)	20(25%)	20(25%)
MLIS	40(64%)	8(13%)	14(23%)
Ph.D	30(83%)	-	6(17%)

Above table reveals that majority of the respondents keep positive attitude regarding the e-method of learning and teaching .50% of BLIS students, 64% of MLIS students and 83% of research scholars put positive attitude toward e-learning method .Where as 25% of BLIS students, 23% of MLIS students and 17% of research students were neutral on the e-learning method and 25% of BLIS students and 13% of MLIS students keep negative towards e learning method.

Table 5: Opportunities offered by Use OF ICT(Multiple answer were permitted)

	BLIS	MLIS	Ph.D
Promoting access to higher education	42 (52%)	55 (89%)	32 (89%)
Facilitating contact and Information exchange	32 (40%)	36 (58%)	30 (83%)
Changing the learning process and learning outcomes	52 (65%)	48 (77%)	28 (78%)
Good carrier Prospects	44 (55%)	52 (84%)	36 (100%)

By calculating above table it was found that ICT provides various opportunities for LIS students .52% of BLIS students ,89% of MLIS students and 89% of Ph.D students said that ICT helps in promoting access to higher education. 40% of BLIS students ,58% of MLIS students and 83% of Ph.D students found that ICT facilitate contact and information exchange. Whereas 65% of BLIS students ,77% of MLIS students and 78% of Ph.D students reveals that it changes the learning process and learning outcomes, and 55% of BLIS students ,84% of MLIS

students and 100% of Ph.D students it leads to good carrier prospects.

Table.6 Availability of ICT Information in Departmental computer Labs

	Adequate No. of computers		**Projector**		**Printer**		**Library Software**		**Internet connectivity**	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
BLIS	38(48%)	42(53%)	40(50%)	38(47%)	12(15%)	68(85%)	40(50%)	40(50%)	80(100)	-
MLIS	30(48%)	32(52%)	28(45%)	34(55%)	16(26%)	46(58%)	20(32%)	42(68%)	62(100)	-
Ph.D	16(44%)	20(56%)	30(83%)	6(7%)	8(22%)	28(78%)	18(50%)	18(50%)	36(100)	-

Departmental computer lab is the main place for the students where they use the modern ICT service providing equipments. Therefore it is necessary that the computer lab is well equipped with these modern gadgets. When it is asked about the availability of these gadgets to respondents every respondents said that their department is connected with internet. where as 48% of BLIS 48% of MLIS and 44% of ph.D students said yes on the availability of adequate no of computers , 50% of BLIS 45% of MLIS and 83% of ph.D students said yes on projectors, 15% of BLIS 26% of MLIS and 22% of ph.D students said yes on printers ,where as 50% of BLIS 68% of MLIS and 50% of ph.D students said yes on library software

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Table .7 satisfaction level of respondents with current LIS syllabi regarding ICT education

Respondents	**Extremely satisfied**	**Satisfied**	**Neutral**	**Dissatisfied**	**Extremely dissatisfied**
BLIS	8(10%)	12(15%)	20(25%)	16(20%)	24(30%)
MLIS	8(13%)	6(10%)	20(32%)	14(22%)	14(22%)
Ph.D	2(5%)	16(44%)	6(17%)	6(17%)	6(17%)

When asked about the satisfaction on the current LIS syllabus regarding ICT education ,BLIS students said that 10% are extremely satisfied 15%are satisfied where as 25% of BLIS students are neutral ,20% are dissatisfied and 30% are extremely satisfied. MLIS respondents said 13% are extremely satisfied 10% are satisfied where as 32% of MLIS students are neutral ,22% are dissatisfied and 22% are extremely satisfied. Where as Ph.D students said that 5% are extremely satisfied 44% are satisfied where as 17% of BLIS students are neutral ,17% are dissatisfied and 17% are extremely satisfied.

Table.8 Problem faced while working with ICT.

	Respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Learning with ICT is very time consuming	BLIS	20(25%)	10(13%)	20(25%)	20(25%)	10(13%)
	MLIS	12(19%)	9(14%)	14(22%)	16(26%)	11(18%)
	Ph.D	9(25%)	8(22%)	7(20%)	4(11%)	8(22%)
Quality Information is hard to find	BLIS	16(20%)	8(10%)	12(15%)	20(25%)	24(30%)
	MLIS	20(32%)	14(22%)	14(22%)	6(10%)	8(13%)
	Ph.D	8(22%)	8(22%)	8(22%)	3(9%)	9(25%)
Learning with ICT requires high skill	BLIS	12(15%)	22(28%)	24(30%)	16(20%)	6(7%)
	MLIS	8(13%)	6(10%)	20(32%)	14(22%)	14(22%)
	Ph.D	16(44%)	6(17%)	6(17%)	2(5%)	6(17%)
Computer based learning is lacking in human interaction	BLIS	10(13%)	20(25%)	12(15%)	16(20%)	22(27%)
	MLIS	19(31%)	18(29%)	18(29%)	4(6%)	2(3%)
	Ph.D	10(28%)	12(33%)	8(22%)	4(11%)	2(6%)

In questionnaire the respondents concern were taken on following statement which show problem and asked to give respond on level of strongly agree, agree ,neutral ,disagree and strongly disagree.

- Learning with ICT is very time consuming
- Quality Information is hard to find
- Learning with ICT requires high skill
- Computer based learning is lacking in human interaction

It was concluded from every statement

Learning with ICT is very time consuming

25%of BLIS,19% of MLIS and 25% of research scholars were strongly agree whereas 13%of BLIS,14% of MLIS and 22% of research scholars were just agree on the other hand 25%of BLIS,26% of MLIS and 11% of research scholars were disagree, 13%of BLIS,18% of MLIS and 22% of research scholars were strongly disagree. and 25%BLIS,22%MLIS and 20% research scholars were neutral on the above statement.

Quality Information is hard to find

20%of BLIS,32% of MLIS and 22% of research scholars were strongly agree whereas 10%of BLIS,22% of MLIS and 22% of research scholars were just agree on the other hand 25%of BLIS,10% of MLIS and 9% of research scholars were disagree, 30%of BLIS,13% of MLIS and 25% of research scholars were strongly disagree. and 15%BLIS,22%MLIS and 22% research scholars were nutral on the above statement.

Learning with ICT requires high skill

15%of BLIS,13% of MLIS and 44% of research scholars were strongly agree whereas 28%of BLIS,9% of MLIS and 17% of research scholars were just agree on the other hand 20%of BLIS,22% of MLIS and 5% of research scholars were disagree, 7%of BLIS,22% of MLIS and 16% of research scholars were strongly disagree 30%BLIS,32%MLIS and 17% research scholars were nutral on the above statement.

Computer based learning is lacking in human interaction

13%of BLIS,31% of MLIS and 28% of research scholars were strongly agree whereas 25%of BLIS,29% of MLIS and 33% of research scholars were just agree on the other hand 20%of BLIS,6% of MLIS and 11% of research scholars were disagree, 27%of BLIS,3% of MLIS and 6% of research scholars were strongly disagree. and 15%BLIS,29%MLIS and 22% research scholars were nutral on the above statement.

Table.9 ICT influences efficiency of students/learners

	Respondents	Strongly Agree	Agree	Neutral	Dis agree	Strongly Disagree
ICT can improve my learning	BLIS	22(28%)	16(20%)	22(28%)	10(12%)	10(12%)
	MLIS	8(13%)	8(13%)	9(14%)	7(11%)	4(7%)
	Ph.D	8(22%)	14(39%)	6(17%)	6(17%)	2(5%)
ICT allow for effective sharing of experiences	BLIS	30(37%)	12(15%)	20(25%)	8(10%)	10(13%)
	MLIS	14(22%)	16(26%)	12(19%)	12(19%)	8(13%)
	Ph.D	10(28%)	8(22%)	12(33%)	4(11%)	2(6%)
Audio and vidio material can improve learning	BLIS	22(27%)	24(30%)	12(15%)	16(20%)	6(8%)
	MLIS	20(32%)	18(29%)	10(16%)	8(13%)	6(10%)
	Ph.D	12(33%)	8(22%)	8(22%)	6(17%)	2(5%)
ICT enables to learn beyound classroom teaching	BLIS	25(31%)	25(31%)	10(12%)	12(15%)	8(10%)
	MLIS	18(29%)	18(29%)	16(26%)	10(16%)	-
	Ph.D	16(44%)	8(22%)	6(17%)	4(11%)	2(6%)

In questionnaire the respondent concern were taken on following statement to know how the ICT influences the efficiency of students and learners asked to give respond on level of strongly agree, agree, neutral, disagree and strongly disagree.

- ICT can improve my learning
- ICT allow for effective sharing of experiences
- Audio and video material can improve learning
- ICT enables to learn beyond classroom teaching

It was concluded from every statement

ICT can improve my learning

28%of BLIS,13% of MLIS and 22% of research scholars were strongly agree whereas 20%of

BLIS,13% of MLIS and 39% of research scholars were just agree on the other hand 12%of BLIS,11% of MLIS and 17% of research scholars were disagree, 12%of BLIS,7% of MLIS and 5% of research scholars were strongly disagree. and 25%BLIS,22%MLIS and 20% research scholars were nutral on the above statement.

ICT allow for effective sharing of experiences
37%of BLIS,22% of MLIS and 28% of research scholars were strongly agree whereas 15%of BLIS,26% of MLIS and 22% of research scholars were just agree on the other hand 10%of BLIS,19% of MLIS and 11% of research scholars were disagree, 13%of BLIS,13% of MLIS and 6% of research scholars were strongly disagree. and 25%BLIS,19%MLIS and 33% research scholars were nutral on the above statement.

Audio and video material can improve learning
27%of BLIS,32% of MLIS and 33% of research scholars were strongly agree whereas 30%of BLIS,29% of MLIS and 22% of research scholars were just agree on the other hand 20%of BLIS,13% of MLIS and 17% of research scholars were disagree, 8%of BLIS,10% of MLIS and 5% of research scholars were strongly disagree 15%BLIS,16%MLIS and 22% research scholars were nutral on the above statement

ICT enables to learn beyond classroom teaching
31%of BLIS,29% of MLIS and 44% of research scholars were strongly agree whereas 31%of BLIS,29% of MLIS and 22% of research scholars were just agree on the other hand 15%of BLIS,16% of MLIS and 11% of research scholars were disagree, 10%of BLIS,3% and 6% research scholars were strongly disagree. and 12%BLIS,26%MLIS and 17% research scholars were nutral on the above statement.
Major Findings

1. Average population of BLIS, MLIS and Ph.d students are competence in the use of ICT application.
2. Research scholars of LIS are fully aware about e-learning and they regularly use e-learning. Whereas 50% of BLIS students never heard about e-learning.
3. Maximum number of LIS students keep positive attitude toward e-learning.
4. Majority of students feels that ICT promote access to higher education, facilitate information exchange, change learning process and ICT make good career prospects.
5. Internet connectivity is available in departmental labs.
6. Satisfaction level of LIS students regarding LIS syllabus got mixed response.
7. LIS students face problem while working with ICT ,main problems are it is time consuming, require high skill, lack human interaction.
8. ICT influence efficiency by improving learning, it enables to beyond classroom teaching.

CONCLUSION

The growth of IT and ICT has had a profound influence on higher education. Today, students can pursue scientific, educational, and research goals using the Internet .The approach of the access of information is changing ,users are shifting from traditional method to the new method viz. online searching e-learning etc. The entrance of IT and ICT into LIS has led to review of educational programs and teaching methods. LIS programs have reviewed their curricula in light of the needs of society and the market. Continued reviews are needed to meet future needs. Teaching methods in many disciplines must change, and LIS must continue to incorporate IT and ICT into teaching. For this to happen, it is necessary to educate teachers, possibly by using foreign professors and/or other methods. LIS can preserve and improve its identity by applying IT and ICT and can educate librarians who can prove their benefit to the society by being in step with changes and advances in technology, economy, society, and culture.

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