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A Comparative Analysis of Library and Information Science Post Graduate

Education in India and UK

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Abstract

The purpose of this paper is to examine the status of library and information science post graduate courses in India and UK. The paper surveyed ten LIS schools from India and UK to study the library and information science post graduate courses through mail questionnaire. Keeping in view the need for updating the curriculum to make it relevant to the present day society, the problem chosen by the investigator intends not only to review the LIS courses being taught at Master's Level in India and UK but also establishes a need to meet the future demands in the age of technological revolution. Contents or the status of library and information science post graduate programs have not been critically analyzed before and this paper presents the original research findings relevant to the program.

Keywords Practicum, LIS post graduate program, LIS PG courses, LIS PG courses in India and UK

Introduction

Education is undoubtedly a process of living. It cherishes and inculcates morale values, disseminates knowledge, spreads information relevant to its institutions and keeps alive

the creative and sustaining spirit. Education today is the most important investment that government of different states and countries make. Developed as well as developing countries of the modern era need to stress on building the creative and productive capacities of their workforce. The last two decades have definitely witnessed the tremendous changes in the higher education system and library and information science (LIS) is also experiencing a period of change, reflecting a combination of internal and, more importantly, external factors Gerolimos (2009). Those changes, which are related to the essence of the library profession, operations, services and user's information seeking behavior, have inevitably affected LIS education. Issues such as the internationalization of LIS education, the equivalence of qualifications, the orientation of LIS education, the training and professional background of LIS faculty and the competition with other disciplines that manage information, lead to a volatile environment. These circumstances have an impact on the structure of curriculum, the content of courses and the orientation of LIS institutions.

Library and information science (LIS) education has become increasingly challenging in the context of emerging information communication technologies and competitive with the frontier subjects like computer science, mass communication, management studies etc. The schools of library and information science across the world have to compete for students in the recruitment market. LIS market needs a new breed of professionals who possess relevant capabilities and competencies in today's changed context. In order to succeed, librarians in developing economies need to have a clear understanding of how and the extent to which an individual or group of individuals or societies generate, acquire, distribute, communicate and utilize information regardless of its nature, package, quality, content and significance. Hence the need for continued review of the curriculum of the LIS schools in developing countries and the redefinition of library and information profession for professional identity and relevance of information work and workers in developing countries is required.

Literature Review

The literature review was undertaken to study the existing literature on library and information science post graduate courses in India. Discussing the condition of LIS education in developing countries Asundi and Karisiddappa (2007) has observed LIS curriculum for the

developing countries. This paper discusses the pros and cons of LIS Education scenario in the developing countries and stresses the need for model curriculum and presents a succinct profile and contributions of Indian LIS education since its inception. In brief the designed course contents should concentrate in developing knowledge, skills and tools corresponding to the four basic identified areas creation, collection, communication and consolidation.

Similar study made by Babu and Rao (1991) discusses trends, challenges and future of library and information science education in India. It states that the major responsibility of the LIS departments in India is to groom LIS students in the philosophy, knowledge, and professional values of librarianship, as practiced in libraries and in other contexts, and as guided by the vision of the 21st century librarianship. Mortezaie and Naghshineh (2002) made a comparative case study of graduate course in library & information studies in the UK, USA, India and Iran lessons for Iranian LIS professionals. It highlights that most significant feature of LIS graduates programs are: diversity of course offered; university independence; diversity of degrees offered; ease and flexibility of the higher education system; updated course programs; emphasis on research; course and curricula development. There seems to be a direct correlation between the efficiency of the courses offered with the state of the information industry in the countries studies. It reveals that there is a widening chasm between LIS education in developing countries without any significant restructuring, the LIS programs in Iran will provide little in the way of riding out the rapid transition that the field is currently experiencing. A joint study made by Aman and Sharma (2005) entitled "Development of library and information science education in South Asia with emphasis on India" has discussed strengths, problems and suggestions in India. This article traces the history of LIS education developments in all South Asian countries with emphasis on India. It deals with the contributions of S.R. Ranganathan. Introduction of technology since the 1990s certainly has changed the field in many countries of the region. The article includes a discussion of strengths and weaknesses of the program, with a few suggestions to improve the field further for the benefit of LIS programs in all South Asian countries.

Rehman and Marouf (2008) conducted a survey to observe the perceptions & reflections M. L. I. Sc. program at Kuwait University. The study aims to analyze the perceptions of the graduates of masters in library & information science program at Kuwait University about course work, faculty, instructional methods, instructional facilities, fieldwork, comprehensive examinations and research components. This study has brought forth many important points that

require reflection and proper deliberation. These graduates have gone through a heavy core of coursework of 24 credit hours. They appear to be generally satisfied with the content and substance of the core. But, the fieldwork requirement, as part of the core, was not received well across the board. Rehman (2010) has reported the need for redesigning of LIS curriculum for a changing market. This exercise resulted in the identification of competencies around which the curriculum for the Master's program at Kuwait University has been redesigned. A new degree program has been designed, and new names for both the degree and department have been proposed. This study has established the need of conducting systematic and comprehensive analyses of the market in order to have a good insight into the needs of the clientele and stakeholders.

Indications from this study suggest that though LIS education has reached a global dimension since it has harmoniously adopted the developments in information and communication technologies the LIS profession has attained the status of a full-fledged discipline in India. However, it has low recognition and has not been regarded at par with other well-known professions. It should be designed to fill the national needs of libraries. The efforts of the UGC in setting up curriculum development committees in various disciplines and bringing out model curricula indicates its leaning toward centralization, but in practice it has not yet happened. No continuous efforts in monitoring the developments in the discipline. The discipline must be continuously monitored, including weaknesses and strengths of course content, suggestions from teachers with regard to the utility, sustainability, and duration of teaching of each topic, additions and deletions needed.

Objectives of the Study

The study was carried out in view of the following objectives:

- i. To give a brief overview of the present scenario of post graduate LIS program in select LIS schools in universities of India and United Kingdom (UK).
- ii. To assess the LIS curriculum at master's level programme in select LIS Schools in India and UK in the digital era.

- iii. To identify the traditional courses of study as well as ICT courses being taught at master's level in select LIS schools in universities under study.
- iv. To examine the students' evaluation methods used at master's level in select LIS schools in universities under study.
- v. To examine the various teaching methods used in select LIS schools in universities under study.
- vi. To find out the areas of LIS education at master's level that needs to be strengthened in India as compared to UK.

Scope of the Study

There are as many as 92 universities institutions imparting master's degree programme in library and information science and related fields of which 70 are offering one year M. L. I. Sc. programme, 15 offer two year M. L. I. Sc., 2 universities offer two year MSc in information science programme, and one deemed university offers two year Master of Information Science (MISc) and 2 deemed universities offer Associate ship in Information Science (AISc) and 1 university is offering two year MIM (Master of Information Management) programme under fully self-finance scheme. Of the 70 universities of offering one year M. L. I. Sc. programme 44 are regular universities, 6 distance education institution/ universities, 8 self-finance courses for a period of 2 years, and 4 are self-finance courses of year duration, 7 are degree colleges and 1 is deemed university. Out of 15 universities offering two years M. L. I. Sc. programme, 12 are regular universities, 2 are Degree College and 1 is run under self-finance course by one university (Walia, 2008).

As per CILIP account 17 departments of various universities produces over 800 graduates every year. First degree in Library require 3-4 year for getting graduate degree. The graduate diploma requires 9 months while post graduate diploma requires 12 months. While master's degree requires 12 months for full time 2-3 years for part time. The scope of the study is limited to formal library and information science education programme at the post graduate level conducted by the university departments in India and UK (CILIP, 2012).

Schools from India

10 LIS schools have been selected from India. To select the sample India is divided into 6 regions viz. North, South, East, West, Central, and North Eastern (Maps of India, 2012). States are selected from various regions. 1-2 LIS schools have been selected on the basis of stratified sampling from different states or regions. LIS schools conducting ONE year post graduate programme (M. L. I. Sc.) have been selected.

The 10 LIS schools selected from India are:

- Aligarh Muslim University, U.P.
- Bundelkhand University, U.P.
- Devi Ahilya Vishwavidyalaya, M.P.
- Guru Nanak Dev University, Punjab
- Jiwaji University, M.P.
- University of Burdwan, W.B.
- University of Delhi, Delhi
- University of Mumbai, Maharashtra
- University of Rajasthan, Rajasthan
- Vidyasagar University, W.B.

Schools from UK

The 10 LIS schools accredited by CILIP (CILIP) have been selected from UK are:

- City University, London
- Liverpool John Moors University, Liverpool
- Loughborough University, Loughborough
- Manchester Metropolitan University, Manchester
- Robert Gordon University, Aberdeen
- The University of Sheffield, Sheffield
- University College London, London
- University of Brighton, Brighton
- University of Strathclyde, Glasgow

- University of West England, Bristol

Methodology

Methodology can be stated as a set of procedures followed for carrying out any systematic investigation. The research methodology adopted for the study is investigative in which LIS courses at Master's Level in select LIS schools in universities in India and UK have been explored by searching websites of various LIS departments in India and UK.

The research design for the present study includes:

- Literature search and review
- Online searching
- Survey method
- Questionnaire as a data gathering tool
- Telephonic Interview
- Personal Interview
- Analysis and interpretation of data

Discussion and Findings

The data has been acquired through online questionnaire mailed to the head/chairman/director of LIS Schools in India and UK on various aspects pertaining to one year masters' program in Library and Information Science in India and UK. Twenty questionnaires were mailed to the Heads/Chairmen of the LIS departments almost 50% response was received from India and UK thereafter, telephonic and personal interview was conducted to collect the related data then interpretations were made based on the analyses.

Overview of the LIS Masters' Level Programme

An attempt has been made to give an overview of the LIS masters' level programme in India and UK. It has covered name and year of inception of the department. It also gives the year of starting of the masters' level programme in LIS schools in India and UK in universities covered under the study. The nomenclature of the masters' level program is also discussed.

Name and Year of Inception of the Department and Programme

Table 1 shows the name of the LIS school/department as well as its year of inception and also the year of inception of the masters' level LIS programme in India and UK.

Table 1: Name and Year of Inception of LIS Schools and their LIS Courses at Masters' Level in India and UK

India					UK				
S.No.	University	Name of School/Dept.	Year of inception	Year of starting of MLISc prog.	S.No.	University	Name of School/Dept.	Year of inception	Year of starting of MLISc prog.
1.	Univ. of Delhi (DU)	Dept. of Lib. & Inf. Science	1946	1949	1.	Univ. of Brighton (UB)	School of Computing Engineering & Mathematics	-	1947
2.	Aligarh Muslim University (AMU)	Dept. of Lib. & Inf. Science	1950-51	1970-71	2.	Univ. College London (UCL)	Dept. of Inf. Studies	1919	-
3.	Univ. of Mumbai (UM)	Dept of Lib. Science	1964	1968/69	3.	Manchester Metropolitan Univ. (MMU)	Dept. of Inf. & Communications	1946	1992
4.	Jiwaji Univ. (JU)	School of Studies in Lib. & Inf. Sci.	1984	1984	4.	Univ. of Strathclyde (US)	Dept. of Computer & Inf. Sciences	1947	1985
5.	Bundelkhand Univ. (BU)	Dr. S.R. Ranganathan Inst. of Lib & Inf Science	1986	-	5.	The Univ. of Sheffield (USH)	School of Information	1963	1966-67
6.	Vidya sagar University (VU)	Dept. of Lib. & Inf. Science	1986	1987-1988	6.	City Univ. London (CUL)	Dept. of Inf. Science	1967	1967
7.	Devi Ahilya Vishwavidal	School of Lib. & Inf. Sci.	1993	2006	7.	Robert Gorden	Dept. of Inf. Management	1969	1969

	aya (DAV)					Univ. (RGU)			
8.	Guru Nanak Dev Univ (GNDU)	Dept. of Lib. & Inf. Science	-	-	8.	Liverpool John Moors (LJM)	Business School	1970	-
9.	Univ. of Burdwan (UB)	Dept. of Lib. & Inf. Science	-	-	9.	Loughborough Univ. (LBU)	Dept. of Inf. Sci.	1972	-
10.	Univ. of Rajasthan (UR)	Dept. of Lib. & Inf. Science	-	-	10.	Univ. of West England (UWE)	Dept. of Computer Science & Creative Tech.	-	1995

Note: -- depicts data not provided.

Table 1 show that in maximum number of universities in India the name used by LIS schools is Department of Library and Information Science. Only in three universities namely University of Mumbai, Jiwaji University and Bundelkhand University the name of the LIS school is different but the nomenclature used for the field is either Library and Information Science or Library Science. Year of inception of LIS schools highlights that the oldest school in India is Department of Library and Information Science in University of Delhi followed by Department of Library and information science in Aligarh Muslim University.

In UK all the LIS schools are having different nomenclature. Out of ten in seven universities the word information science is part of the nomenclature of the department but not in a single LIS school the term 'library' has been used as nomenclature of the LIS school. In UK oldest LIS School is Department of Information Studies of University College London followed by the Department of Information & Communications of Manchester Metropolitan University. While the first school to start the programme is at University of Brighton.

Nomenclature of the Program

Nomenclature is a word or combination of words or a system of names for things or the technical names used in any particular branch of science or art, or by any school or individual. It

reflects the naming of the programme. Table 2 shows the nomenclature of programme used as well as the faculty to which the LIS school are attached in India and UK.

Table 2: Nomenclature of the LIS Masters' Program in India and UK

India				UK			
S.n	University	Faculty	Nomenclature	S.n	University	Faculty	Nomenclature
1.	AMU	Social Science	Master of Lib. & Inf. Science (M. L. I. Sc.)	1.	CUL	School of Informatics	MA/MSc Library Science
2.	BU	Social Science	Master of Lib. & Inf. Science (M. L. I. Sc.)	2.	LJM	Arts	Inf. & Lib. Management/MA/MSc/PgDip
3.	DAV	Engi. Sciences	Master of Lib. & Inf. Science (M.L.I.Sc.)	3.	LBU	-	MA/MSc/PgDip Inf. & Lib. Management
4.	DU	Arts	Master of Lib. & Inf. Science (M. L. I. Sc.)	4.	MMU	Humanities, law & So. Sciences	PgCert/PgDip/MA Library and Information Management
5.	GNDU	Arts & Social Science	M. Lib & Information Science	5.	RGU	Business School	Information and Library Studies - PgCert/PgDip/MSc
6.	JU	Arts	Master of Library and Information Science (M. Lib .I. Sc.)	6.	USH	Faculty of So. Sciences	MA/Cert/Dip. in Librarianship
7.	UB	-	Master of Lib. & Inf. Science (M.L.I.Sc.)	7.	UCL	Arts & Humanities	MA/Postgraduate Diploma in Library and Info. Studies
8.	UM	Arts	Master of Lib. & Inf. Science (M. L. I. Sc.)	8.	UB	Science and engineering	MA Information Studies
9.	UR	Education	Master of Lib. & Inf. Science (M. L. I. Sc.)	9.	US	Science	MSc/PgDip Information and Library Studies
10.	VU	Arts & Commerce	Master of Lib. & Inf. Science (M. L. I. Sc.)	10.	UWE	Environment & Tech.	MSc/PGDip/PGCer in Inf. & Lib. Management

Table 2 gives that most of LIS schools in India come under the Faculty of Arts followed by Faculty of Social Sciences. The nomenclature of the masters' level program in these schools is Master of Library and Information Science (M. L. I. Sc.) in India.

In UK variations are evident in the case of affiliation of schools with faculties. As Table 2 given above highlights that LIS schools are attached with different faculties such as arts, social sciences, business school, science etc. It shows that only three LIS schools in UK are attached with Faculty of Arts and Humanities. The nomenclature of the programme also varies i.e. MA/MSc in Library Science, MSc in Information Management, and MSc. in Librarianship etc.

System of Examination

The analysis of data shows that two modes of examinations are being followed in LIS in India and UK.

Table 3: Examination System Followed in PG Courses in LIS Schools in Universities in India and UK.

India				UK			
Univ.	Sem.	Annual	Total Sem.	Univ.	Sem.	Annual	Total Sem.
AMU	✓	x	2	CUL	x	✓	x
BU	✓	x	2	LBU	✓	x	2
DAV	✓	x	2	LJM	✓	x	3
DU	✓	x	2	MMU	x	✓	x
GNDU	✓	x	2	RGU	✓	x	3
JU	✓	x	2	UB	✓	x	4
UB	✓	x	2	UCL	x	✓	x
UM	✓	x	2	US	x	✓	x
UR	✓	x	2	USH	x	✓	x
VU	✓	x	2	UWE	✓	x	4
Percentage	100%	Nil			50%	50%	--

Table 3 depicts that all ten LIS schools in India are following semester system. Similarly the schools are having two semesters in all the universities (100%).

Whereas in UK out of ten schools, five (50%) schools have semester system while other five (50%) schools are having annual system. However the number of semesters is not similar. Some LIS schools are having 2 or 3 semesters. While in two universities i.e. University of Brighton and University of West England there are 4 semesters.

LIS Curriculum at Post Graduate Level

Curriculum is the most important aspect of any academic programme. The core curriculum should reflect the needs of LIS profession. It consists of objectives of the programme, number of papers, nomenclature of the papers, and practical components etc. It must first deal with content or subject matter and then learning experiences. The various components of LIS curriculum at masters' level in India and UK are discussed as follows.

Number of Papers Taught in LIS Curriculum

Semester wise division of papers taught in LIS schools at post graduate level in India and UK are given below.

Table 4: Number of papers taught in LIS Curriculum India and UK

India			UK					
Univ.	Total No. of papers in one year Sem.1 Sem. 2		Univ. Annual		Total No. of papers in on year Sem.1 Sem. 2 Sem.3 Sem.4			
AMU	7	7 + dissertation	CUL	8+Dissrtn				
BU	5	4	LBU		6	5+ Dissertation		
DAV	5	4+ dissertation	LJM.		4	3		
DU	6	5+ Project	MMU	9+Dissrtatn				
GNDU	5	6	RGU		4	3	Dissertation	
JU	4	4	UB		2	2	2	Project

UB	10	9+Project	UCL	8+dissertan			
UM	11	Project	US	7+dissrtatn			
UR	5	6	USH	7+dissrtatn			
VU	8	8+Field Survey	UWE		4	3	1 Dissertation

Table 4 highlights the total number of papers taught in two semesters in LIS schools in India. It shows that number of papers taught in each semester varies between 5-6. It further shows that maximum numbers of papers are taught in University of Burdwan i.e. 19 (10+9) followed by Vidyasagar University i.e. 16 (8+8) while lowest number of papers are taught in Jiwaji University i.e. 8 (4+4). In most of the universities one paper deals with project work consisting of field survey followed by a project report which gives practical exposures of library operations to the students.

In UK in five universities (50%) papers are taught in an annual mode and in five universities (50%) it is divided semester wise. It shows that Loughborough has maximum number of papers i.e. 11 followed by Manchester Metropolitan University with 9 papers. It shows that University of Brighton has lowest number of papers with only 6 papers divided in three semesters.

Traditional and ICT Papers

LIS curriculum should be a combination of traditional and ICT papers. Curriculum is the core of the reform. Most of the library schools and departments have revised or in the process of re-designing their curricula. In their curricula, courses relating to traditional library science with names such as "History of books" and "Libraries" disappeared. Instead, many computer-related courses were added. Different types of traditional and ICT papers taught at masters' level program in India are being shown in Table 5.

Table 5: Traditional & ICT Papers Taught for PG Courses in LIS School in India

Traditional Papers	India	ICT Papers
Academic Library and Information		Automated and Digital Library System

System	
Advanced Knowledge Organisation: Cataloguing	Information and Communication Technology in Libraries
Advanced Knowledge Organisation: Classification	Information Literacy Applications in LIS
Advanced Library Organization and Management	Information Processing Retrieval System
Information Analysis and Consolidation	Information Technology : Applications
Information and Communication	Information Studies
Information and Society	Information Analysis, Consolidation & Repackaging (Practice)
Information Products and Services	MS Access (structure creation and query formulation on a given database)
Information Sources, System and Program	Creation of a non-bibliographic database using WINISIS
Knowledge and Communication	Library Automation and Networking
Management of Information Institutions	Organization of Information
Marketing of Library and Information Products and Services	Print and Electronic Sources and Literature in various Sciences
Quantitative Techniques	Advance Computer Application in Library and Information Science
Research Methodology	MS Access (structure creation and query formulation on a given database)
Resource Description (Theory)	

Table 5 shows that most of papers taught in LIS curriculum of masters' level in India are traditional type papers like Cataloguing, Classification, Information and Society, Research Methodology. It further shows that the number of ICT papers taught is less as compared to

traditional papers. ICT papers taught are Automated and Digital Library System, Information and Communication Technology in Libraries, Information Processing Retrieval System and so on.

Table 6: Traditional & ICT Papers Taught for PG Courses in LIS School in UK

UK	
Traditional	ICT
Cataloging & Classification	Database systems analysis and design
Collection management and preservation	Digital Rights
Historical bibliography	E-Learning and the Organization
Information and Knowledge Management/Organization	Electronic publishing/ web publishing
Information Futures	Information Architecture
Information Literacy	Information Architecture and Design for the Web
Information management and policy	Information Law
Manuscript studies	Information Policy and Professionalism in a Digital Society
Information sources and retrieval	Information Retrieval and Access
Introduction to Management	Information Retrieval and Collection Development
Research Methods	Information studies
Libraries, Information, and Society	Information Technologies
Library and information science foundation	Library Technology and Systems
Literature & its Readers	Managing Information Services
Management for Information Professionals	Specialist Information Sources
	Managing IT Resources
	Principles of computing and information technology
	Records Management and Information Rights
	The Digital age

Table 6 shows that number of ICT papers taught in UK is more as compared to traditional papers. It also reveals that ICT papers taught at masters' level in UK are different as being taught in India as seen in previous Table like Database systems analysis and design, Digital Rights, Information Architecture, The Digital age etc.

Comparatively it is found that in UK LIS curriculum more weightage is given to ICT papers while in Indian LIS curriculum more traditional type papers are still part of the curriculum.

ICT Components in LIS Curriculum in India and UK

The objectives of LIS education have been revolutionized with the E-Concept. LIS students should be given more practical oriented computer knowledge equipped with intensive and extensive use of IT. Integration of ICT components in LIS curriculum at post graduate level in India and UK is given in the following tables. An attempt is made to show whether it is taught as a topic in a full paper or a full-fledged paper.

Table7: ICT Components at Masters’ Level in LIS Curriculum in India.

s.no	Univ.	Digitization	Web designing	E-learning	E-publishing	Inf. architecture	Inf. retrieval	Database designing	ICT
1.	AMU	√ (T)*	√ (T)*	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
2.	BU	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
3.	DAV	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
4.	DU	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
5.	GNDU	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
6.	JU	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
7.	UB	√ (P)	√ (P)	√ (T)	√ (T)	√ (T)	√ (P)	√ (P)	√ (T)
8.	UM	√ (T)	√ (P)	√ (T)	√ (T)	√ (T)	√ (P)	√ (P)	√ (P)
9.	UR	√ (T)	√ (P)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
10.	VU	√ (P)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)

Note: *P stands for as a full paper while T stands for topic in a full paper.

Table 7 indicates the ICT components in LIS curriculum of Indian LIS Schools. It shows that only two papers i.e. ICT and Information Retrieval are taught as full paper in the syllabus in all the universities in India. While other important ICT components like Digitization, Web Designing, E-Learning etc. are only taken as a topic in a full paper in most of the universities in India.

Table 8: ICT Components at Masters' Level in LIS Curriculum in UK.

S.no	Univ.	Digitization	Web designin g	E- learning	E- publishi ng	Inf. architectu re	Inf. retrieval	Database designing	ICT
1.	CUL	√ (P)	√ (P)	√ (T)	√ (P)	√ (P)	√ (T)	√ (T)	√ (P)
2.	LJM	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (T)	√ (P)
3.	LBU	√ (P)	√ (P)	√ (T)	√ (T)	√ (P)	√ (P)	√ (T)	√ (T)
4.	MMU	√ (P)	√ (T)	√ (P)	√ (T)	√ (T)	√ (P)	√ (T)	√ (T)
5.	RGU	√ (P)	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)
6.	USH	√ (P)	√ (T)	√ (P)	√ (T)	√ (T)	√ (P)	√ (T)	√ (T)
7.	UCL	√ (P)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)	√ (T)	√ (P)
8.	UB	√ (T)	√ (P)	√ (T)	√ (T)	√ (P)	√ (P)	√ (T)	√ (T)
9.	US	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)
10.	UWE	√ (T)	√ (T)	√ (T)	√ (T)	√ (T)	√ (P)	√ (T)	√ (P)

Table 8 shows ICT Components in LIS curricula of UK LIS schools. It shows that ICT components like Digitization, Web Designing, Information Retrieval, and Information Communication Technology are taken as a full paper in most of the universities in UK as compared to India.

Elective Papers Taught in LIS Schools

Elective Papers are optional course that are open to choice selected by students from a number of papers. Courses one can choose out of interest are now being offered by most of the universities in India and UK is shown in the following table.

Table 9: Number of Elective Papers Taught in LIS Schools in India

University	Number of elective papers taught	Number of choices given for elective papers
AMU	1(3) + 1 (4)	7
BU	Nil	Nil
DAV	Nil	Nil
DU	1(6) + 1(3)	9
GNDU	1(5) + 1(3)	8

JU	Nil	Nil
UB	1	3
UM	Nil	Nil
UR	2	4
VU	Nil	Nil

Table 9 indicates the number of elective papers taught as well as the number of choices given for elective papers in India. It shows that maximum numbers of optional papers are offered by University of Delhi i.e. 2 out of 9 whereas AMU and GNDU are offering 7 optional papers out of which students select 2 papers as elective. While lowest number of papers offered by University of Burdwan 1 out of 3 choices. While five universities do not offer optional papers.

Table 10: Number of Elective Papers Taught in LIS Schools in UK

University	Number of optional papers taught	Number of choices given for optional papers
CUL	1	9
LBU	1(3)+1(3)	6
LJM.	1	2
MMU	2	4
RGU	Nil	Nil
UB	Nil	Nil
UCL	2	11
US	Nil	Nil
USH	1	10
UWE	1(4)+ 1(3) +1 (3)	10

Table 10 shows elective papers being offered at LIS masters' level in UK LIS schools and also the number of choices given for optional papers. It shows that seven universities have provision of optional papers while three universities do not offer such papers. It shows that University College London has maximum choice for optional papers 2 out of 11 papers followed by University of Sheffield offering 1 out of 10 papers then by City University London offering 1 paper as optional out of 9 papers.

Names of Elective Papers Offered

An attempt has been made to list out the names of various elective papers being taught at masters' level in LIS schools in India and UK.

Table 11: Names of Elective Papers Taught in LIS Schools in India

India	
Universities	Elective Papers
AMU	<p>Any one from the following three papers</p> <p>Information Sources and Systems in Natural Sciences</p> <p>Information Sources and Systems in Social Sciences</p> <p>Information Sources and Systems in Arts and Humanities</p> <p>Any one from the following four papers</p> <p>Planning and Management of Academic Library System</p> <p>Planning and Management of National Library System</p> <p>Planning and Management of Public Library System</p> <p>Planning and Management of Special Library System</p>
DU	<p>Elective Papers (Any one of the following options)</p> <p>Public Library and Information System</p> <p>Academic Library and Information System</p> <p>Research and Technical Library and Information System</p> <p>Health Science Library and Information System</p> <p>Agricultural Sciences Library and Information System</p> <p>Engineering and Technological Library and Information System</p> <p>Elective Interdisciplinary Papers(Any one of the following options)</p> <p>Print and Electronic Sources and Literature in Humanities</p> <p>Print and Electronic Sources and Literature in Natural Sciences</p> <p>Print and Electronic Sources and Literature in Social Sciences</p>

GNDU	<p>Elective papers (Any one of the following options)</p> <p>Information & Literature Survey in Sciences (Theory & Practice)</p> <p>Information and Literature Survey in Social Sciences (Theory & Practice)</p> <p>Information and Literature Survey in Humanities (Theory & Practice)</p> <p>Bibliography, Literature & Organization of Publications in Punjabi Language Gurumukhi Script) (Theory & Practice)</p> <p>Elective papers (Any one of the following options)</p> <p>Public Library System</p> <p>Academic Library System</p> <p>Special Library System</p>
UB	<p>Any one from the following three papers</p> <p>Academic Library System</p> <p>Community Information System and Services</p> <p>Informetrics</p>
UR	<p>Any one From same cluster</p> <p>A. Academic Libraries with Information Sources and Literature in Natural Sciences</p> <p>B. Academic Libraries with Information Sources and Literature in Social Sciences</p> <p>C. Special Libraries with Information Sources and Literature in Natural Sciences</p> <p>D. Special Libraries with Information Sources and Literature in Social Sciences</p>

Table 11 above highlights the names of elective papers being taught at masters' level in LIS schools in India. It shows that most of the universities in India are offering elective papers dealing with print and electronic resources in various sciences like natural sciences, social sciences, humanities etc. followed by the planning and management of various types of library systems like academic, public, special etc.

Table 12: Names of Elective Papers Taught in LIS Schools in UK

UK	
Universities	Names of Elective Papers
CUL	<p>Any one from the following nine papers</p> <p>Information domains</p> <p>Information law and policy</p> <p>Independent study</p> <p>Web applications development</p> <p>Digital cultures</p> <p>Audiences and marketing</p> <p>Education and training in the cultural sector</p> <p>Programming and its management</p> <p>Evaluation, politics and advocacy</p>
LBU	<p>Two modules from:</p> <p>Semester One</p> <p>Gender and Information</p> <p>Information Services and Libraries</p> <p>The Child and The Book</p> <p>Semester Two</p> <p>Culture and Change Management</p> <p>Digital Cu ration</p> <p>Managing Projects: Managing Knowledge</p>
LJM	<p>Any one from the following two</p> <p>Managing IT Resources (MSc Core)</p> <p>Specialist Information Sources</p>
MMU	<p>Any two from the following</p> <p>Literature & its Readers</p> <p>Applied Web Design and Management</p> <p>Community Information</p>

	Digital Rights
UCL	Any two from the following Advanced preservation Cataloguing and classification 2 Database systems analysis and design Digital resources in the humanities Electronic publishing Historical bibliography Manuscript studies Publishing today Records management Services to children and young people Web publishing
USH	Any one from the following <ul style="list-style-type: none">• Library Services for Children and Young People• Public Libraries• Academic and Research Libraries• Archives and Records Management• E-Business and E-Commerce• E-Government Information• Educational Informatics• Information Literacy Research• Business Intelligence• Digital Multimedia Libraries

UWE	<p>One module from</p> <p>Public Libraries <i>with</i> Services for Young People Special Libraries <i>with</i> Services for Young People Public Libraries <i>with</i> Health & Medical Information Services Special Libraries <i>with</i> Health & Medical Information Services</p> <p>One module from</p> <p>Advanced Information Systems Introduction to Advanced Information Systems <i>with</i> Cataloguing & Classification Publishing <i>with</i> Cataloguing & Classification</p> <p>One module from</p> <p>Academic Libraries Introduction to Academic Libraries <i>with</i> Legal Information Services Government Information Services <i>with</i> Legal Information Services</p>
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Table 12 shows the various types of elective papers being offered by LIS schools in UK. It reveals that most of the schools in UK give wider choice of elective papers. It further shows that the papers offered by most of the schools are mainly dealing with current practice or mainly concerned with ICT components.

Practical Components in LIS Curriculum

LIS curriculum is a combination of theoretical and practical components. Practice is often portrayed at a very simple level as the act of doing something. 'Practice' cannot be lacking theory. It is a constant process of theory making, and theory testing. Practical components in LIS curriculum at post graduate level in India and UK is shown in following table.

Table 13: Practical Components in LIS Curriculum of Post Graduate Programme in India

S.No.	Name of the Univ.	Semester 1		Semester 2	
		Theory	Pract.	Theory	Pract.
1	AMU	5	2	5	2
2.	Bundelkhand Univ.	3	2	3	1

3.	Devi Ahilya Vishvdlya	4	1	3	1
4.	GNDU Punjab	3	2	3	2
5.	Jiwaji Univ.	3	1	3	1
6.	Univ. of Burdwan	8	1	6	3
7.	Univ. of Delhi	4	2	4	1
8.	Univ. of Mumbai	5	6	Project+ Term paper	
9.	Univ. of Rajasthan	4	1	6	1
10.	Vidya sagar Univ.	6	2	3	5

Table 13 shows practical components in the LIS curriculum of one year masters' programme in India. It shows that total number of practical papers taught in various universities varies between 4 to 6. It shows that Vidyasagar University has maximum number of practical papers i.e. 7 practical papers followed by University of Mumbai offering 6 practical papers. While three universities i.e. Devi Ahilya Vishvawidyalaya, Jiwaji University and University of Rajasthan are offering only 2 practical papers.

While in UK in all the LIS schools theory and practical are integrated across the curriculum. Theory and practical papers are not taught separately but practical papers are clubbed with theory in each paper.

Other features of LIS curriculum

While analyzing the data it was found that in LIS curriculum in UK there are many unique papers which are part of the curriculum and only 2-3 papers are part of LIS curriculum in India. The list of these papers in LIS curriculum is listed in Table 14.

Table 14: Specialized Papers Taught for PG Courses in LIS School in India and UK

S. No.	Papers	India	UK
1.	Audiences and Marketing	Nil	CUL, LBU
2.	Automated and Digital Library System	UB	CUL , USH
3.	Computer Law	Nil	MMU
4.	E Publishing/Web Publishing	Nil	UCL, CUL, USH
5.	Information Architecture	Nil	UB, LJM, CUL

5.	Tutorials	x	√	x	√	√	x	x	√	√	√
6.	Case study	x	x	x	√	√	x	x	x	√	x
7.	Assignments	√	√	√	√	√	x	x	x	x	x
8.	Seminars	√	x	x	√	√	x	√	√	√	x
9.	Panel of experts	x	x	x	x	x	x	x	x	x	x
10.	Brainstorming	x	x	x	x	x	x	x	x	x	x
11.	Group work	x	x	x	x	√	x	√	x	√	√
12.	Online discussion	x	√	√	x	√	√	x	√	√	x
13.	Guest speakers	√	x	x	√	x	x	√	x	√	x
14.	Lab exercises	√	√	√	√	√	√	√	√	√	√
15.	Study Tour	x	x	x	√	x	x	x	x	√	x
16.	Presentations	x	x	x	√	x	x	x	√	x	x
17.	Multimedia, blogs, wikis	√	√	x	√	x	√	x	√	x	√

Table 16 shows various teaching methods being followed for teaching LIS post graduate courses in UK LIS schools. It shows that Lectures and Lab exercises and OHP/LCDs are three most used teaching methods followed in all LIS schools in UK followed by Tutorials, Assignments, Seminars, Group work etc. It also reveals that latest teaching methods like Multimedia, blogs, wikis, online discussion are also some common methods of teaching LIS courses in most of the LIS schools in UK.

Students' Evaluation Methods

Effective evaluation of students is successful with effective methods employed. Different types of students' evaluation methods followed in India and UK are described in Table 17 and Table 18.

Table 17: Students' Evaluation Methods Followed in LIS Schools in India

Univ.	Exam	Essays	Case study	Oral presentation	Open book exercise	Formal reports	Individual works	Group projects	Practical works	Course works	Dissertations
AMU	√	-	√	√	-	√	√	√	√	-	√
BU	√	-	-	√	-	-	√	√	√	-	
DAV	√	-	-	√	-	-	-		√	-	√
DU	√	-	√	√	-	√	√	√	√	-	√
GNDU	√	-	-	√	-	√	√	√	√	-	
JU	√	-	-	√	-	-	√	√	√	-	
UB	√	-	√	√	-	√	√	√	√	-	√

UM	√	-	√	√	-	√	√	√	√	-	√
UR	√	-	-	√	-	-	√	√	√	-	
VU	√	-	-	√	-	-	√	√	√	-	

Table 17 shows the students' evaluation methods being followed in Indian LIS schools. It reveals that Exam, Oral presentations, Practical works are most used students' evaluation methods followed in all (100%) LIS schools in India followed by Individual works Group projects, Dissertation, Formal reports in some of the universities. It also shows that other recent methods like Essays, Open book exercises, Course works are not being followed by any LIS school in India.

Table 18: Students' Evaluation Methods followed in LIS Schools in UK

Univ.	Exam	Essays	Case study	Oral presentation	Open book exercise	Formal reports	Individual works	Group projects	Practical works	Course works	Dissertation
CUL	-	√	-	-	-	-	√	√	√	√	√
LBU	-	√	√	√	-	-	√	√	√	-	√
LJM.	-	-	-	-	-	-	-	-	-	√	-
MMU	√	√	√	-	-	-	√	√	-	√	√
RGU	-	√	-	√	-	√	√	√	√	√	√
UB	√	-	-	-	-	-	-	-	-	-	√
UCL	-	√	-	-	-	√	-	-	√	√	√
US	√	√	-	√	-	-	-	√	√	-	√
USH	-	√	-	√	-	√	√	-	-	-	√
UWE	-	-	-	√	-	-	-	-	√	√	√

Table 18 shows students evaluation methods followed in UK LIS schools. It shows that some UK LIS schools don't have examination while it combines various evaluation methods to evaluate the students. It shows that most of the UK LIS Schools use a mix of Exam, Essays, Case study, Oral presentations, Formal reports, individual works, group projects, practical works, course works to evaluate the students. It also shows that Dissertation/ Project are used in all the LIS schools in UK except LJM.

Suggestions

On the basis of findings of this study, the following suggestions are recommended for improvement of the LIS programme at masters' level in India as compared to UK.

i. Nomenclature of the LIS programme at masters' level should be enhanced by incorporating new facets like information and library studies, information and library management, masters in librarianship, and in information studies.

ii. In UK there are variations in names of the department as School of Information Science, Computer Science, Department of Information & Communications but not in a single LIS school the term 'library' has been used as nomenclature of the LIS schools. Thus some uniformity should be maintained in the names of the departments and library word should remain there.

iii. As far as LIS curriculum is concerned more elective papers should be offered, practical and theory papers should be integrated across the curriculum, emphasis should be on enhancing the number of specialized papers like E Publishing/Web Publishing, E-Learning and the Organization, Information Architecture, The Digital Age/Cultures, Working with Information etc. in Indian LIS curriculum.

iv. Emphasis should be on increasing the number of ICT oriented papers in LIS curriculum at masters' level in India and theory and practical papers should be integrated across the curriculum.

v. The departments should try to make course more practice-oriented. As it is a professional course, emphasis on hands-on practice is required to develop skills and competencies among students. This must be thought of seriously.

vi. Teaching Methods should be equipped with more e-learning tools like online discussions, chats, blogs, wikis etc. in India. The current education system merely imparts bookish knowledge with little attention to actual learning and understanding. It should focus on development of problem solving and conflict-resolution skills.

Conclusion

There is no dearth of ideas and proposals about LIS education in India, but there are no constructive steps to rectify the situation from the root level. The reforms taken so far are of the superficial level. This leads to the prevalence of passive nature among faculty, students and professionals. Consequently, it is not an easy task to prepare individuals as practitioners with definable capabilities. The standards for LIS education should stipulate the levels of program, admissions, curriculum, infrastructure, collaboration and employability. These broad categories will provide a framework for linking performance indicators within the subject. Teachers can use these standards and profiles as guidelines for planning activities including technology based, in which students achieve success in learning, communication, and life skills. To upgrade and maintain institutional quality, every department, college or institution should be strictly accredited.

This study reveals that there are many constraints and problems faced by the LIS Schools to impart proper education in India. There is significant difference in the nomenclature of programme, faculty to which LIS school attached, name of the department, mode of study, number of papers offered, types of papers offered, students' evaluation methods, teachings methods in India and UK LIS schools. As far as LIS curriculum is concerned more elective papers should be offered, practical and theory papers should be integrated across the curriculum, emphasis should be on enhancing the number of specialized papers. There is a serious need of having standardization in LIS education system in India. There should be an accreditation council exclusively for LIS education.

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