

## LIS EDUCATION IN DELHI: A COMPARATIVE STUDY OF D.U., JMI AND IGNOU

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**The paper confines itself to a Comparative Study of LIS Education in D.U., JMI and IGNOU. The LIS Education in India is about 106 years old. The paper presents the differences and similarities in LIS curriculums of the three Universities, in view of professional requirements evaluated on the basis of some latest terms and techniques.**

**Keywords:** LIS Education; India, Central Universities; Library Association; LIS Curriculum.

### INTRODUCTION

The LIS education in India is about 106 year's old system, as the first formal training course was started in 1911 in Baroda [1], though the Library training courses were conducted between 1901 and 1906 in the Imperial Library (now, National Library, Kolkata). Later it was extended to LIS professionals working in Calcutta (now Kolkata) as well as in other states. The first LIS course at the University level had started by Asa Don Dickinson, the University librarian of Punjab University (part of undivided India) in 1915 [2].

In 1929, Madras Library Association (MALA) started a School of Library Science for training college and school librarians in the state of Madras. The Bengal Library Association had started training camp for librarians in 1935, which was upgraded to certificate course. The LIS courses got enhanced in 1935 when a diploma course in library Science was started due to the efforts of Dr. M.O. Thomas, Andhra University. In 1938, a postgraduate diploma course in librarianship was started by Madras University by taking over the course earlier offered by MALA. In 1941, Banaras Hindu University (BHU) had also started postgraduate diploma course in librarianship. In 1945, University of Calcutta started a one-year diploma course in library, which was upgraded to BLIS in 1969. Prof. S.R. Ranganathan had started postgraduate diploma in University of Delhi in 1947. The first batch was awarded diploma in 1948. It continued for the award of BLIS in 1949. In the same year, a two-year programme for MLIS was introduced replacing the BLIS programme. The University of Delhi was the first university in the entire British Commonwealth that started doctoral programme in library science. In 1956 Nagpur University and M.S. University, Baroda also started library science courses. By the end of 1960, Library science courses were also started in five more universities namely Hyderabad, Osmania, Panjab, Poona and Rajasthan. In fact, there were 12 library schools in 1960s, Library science courses were also started in five more universities namely Hyderabad, Osmania, Panjab, Poona and Rajasthan. In fact, there were 12 library schools in 1960s, Library science courses were also started in five more universities namely Hyderabad, Osmania, Panjab, Poona and Rajasthan. In fact, there were 12 library schools in 1960s, conducting library science education in India at all levels except the M.Phil. degree [3].

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At Aligarh Muslim University, the foundation of the Department of Library Science was laid way back in 1950-51 with the introduction of a 'Certificate Course in Library Science,' by the then University Librarian, Late Prof. S. Bashiruddin. The course proved so popular that after a few years, the University decided to run two courses a year. Encouraged by the success of the certificate course, Late Prof. S. Bashiruddin introduced 'Bachelor of Library Science' in 1958-59 with full time Lecturers for the first time in the country. The Certificate course was discontinued in 1968-69. Subsequently, 'Master of Library Science' was introduced in 1970-71. Another pioneering step taken by the Department in the year 1986-87 was the introduction of Library Science as a subsidiary subject at B.A. level in the Faculties of Arts and Social Sciences. Realizing the need and importance of research in the subject, the Department started M.Phil. /Ph.D. programme since 1990-91. Meanwhile the department shifted from the rear portion of Maulana Azad Library to the present building in Kennedy Hall Complex in 1995. In line with the UGC's model curriculum (2001), the syllabi of the courses offered by the department have been thoroughly revised and introduced from the session 2003-2004.

A significant change can be seen in LIS education system in India due to support of the University Grants Commission. Today, there are nearly 100 universities and colleges offering LIS courses and 27 universities that conduct these courses through distance education in India. According to the UGC Model Curriculum (2001), there were 14 Certificate courses, 12 Undergraduate Diploma Courses, 68 Bachelors' Degree and 75 Master Degree programs.

The ongoing research activity in LIS departments is also commendable, with 63 university departments offering Ph.D. Degree programs and 16 M. Phil. programs. In addition, the National Institute of Science Communication and Information Resources (NISCAIR), New Delhi and the Documentation Research and Training Centre (DRTC), Bangalore are offering a two-year Associateship in Information Science. Recently, DRTC renamed its course as MS-LIS. Thus, over a period of time, LIS education has grown into a full-fledged discipline with courses being offered at various levels from the Certificate levels to the Ph.D.

level by university departments, colleges affiliated with universities and national institutions. However, the Certificate courses, are still being offered by state-level library associations with few exceptions [4].

### Level of Course

Presently, Library and Information Science courses in India are offered at six levels namely, Certificate course in LIS, diploma course in LIS, Bachelors course in LIS, Masters course in LIS., M.Phil. (LIS), and Ph.D. (LIS). Certificate and Diploma Courses are conducted by Library Associations and Institutions (Non-University level), whereas B. Lib.I.Sc., M.Lib. I.Sc., M. Phil, and Ph. D. are conducted by LIS departments of Universities, be it Central, State or Private Universities. The courses offered by NISCAIR and DRTC shall also come under this category. These courses are also offered by the open universities and institutes of correspondence courses, attached to the universities (non-formal) under distance learning mode added a totally new dimension to LIS education in India. The Curriculum Development Committee (UGC, 1990) report suggested that some special courses may be offered on the Topics Pertaining to recent advances in the subject as well as electives of B. Lib.I.Sc., & M. Lib.I.Sc., Programs, for example the Application of information Technology in Libraries, Marketing of Library Services, etc. [5].

Library and Information Science education has today become a full-fledged discipline in its own right. Library schools attached to universities and affiliated institutions are treated at par with other departments. They are conducting courses leading to degree status of B. Lib.I.Sc. M. Lib.I.Sc., M.Phil. and Ph.D. Two candidates have been awarded D.Litt. in LIS. There are 89 Universities that offer regular courses, whereas 31 universities are conducting courses through correspondence or distance mode. However, Certificate and Diploma courses have not been taken into account. A break-up of the number of universities, including those offering LIS Education in Distance, is as follows:

- 126 Universities /Institutions are offering Bachelor's degree
- 90 are offering Master's Degree,

- 16 are offering M.Phil. degree
- 59 are offering Ph.D. degree

### OBJECTIVE OF THE STUDY

The main objectives of the study are as follows:

- To assess the status of existing LIS educational system.
- To assess the course curriculum of LIS education.
- To assess the LIS related knowledge provided to the LIS students.

### SCOPE

The paper confines itself to the comparative study of LIS education system in three central universities of Delhi, namely Delhi University, Jamia Millia Islamia University and IGNOU. LIS programme.

### LITERATURE REVIEW

Lot of literature on LIS Education in India is available, some important contributions have been mentioned here under:

Keeping in view the requirements of digital age,) Nwakanma [6] LIS has made his assertion that LIS education programs must provide IT based knowledge to students of bachelors with the level of competence commensurate with the demands of entry-level positions in the field, particularly in the rapidly evolving area of information technology (IT).

Kumar and Singh [7] stated that there is a substantial need for re-skilling the existing knowledge of library professionals and thus:

- Library faculty should continuously develop and restructure curricula to encourage learning.
- Library educational system should plan in advance of times and build up education programs that respond to market needs, fill the skill gaps & prepare manpower for trouble-free transition to digital resource handling.

- Coordinated and well planned research efforts in LIS research is desired to help the professionals to better serve the society but also make them more vital for employment.
- Library and Information Science course must contain technological developments more applications for better performance in services.

The LIS Schools in India must adapt themselves to the changing environment so that their products are able to meet the challenges posed by the changing environment [8].

In India, LIS education and its curriculum are still traditional and have failed to impart the required knowledge and skills which are required for the use of Information and Technology among students. The LIS students therefore have little competition potential in the information market. LIS professionals thus lack the technical skills, IT skills which are necessary for the electronic environment of this century [9].

Sunil Kumar [10] reviewed the “Issues and challenges of Indian Library Education and Services in a Knowledge Society”. He indicated that the present libraries are completely different from the traditional libraries. The Library Professionals should know how to work in the Information and Technological environment. The curriculum contents should be balanced and relevant to the prime objective of the LIS education. The revised curricula must cover the all emerging areas in the field of LIS. A course on Information Literacy would be helpful in developing competency in and make the library professionals to cope with the latest information resources.

The LIS education needs to be re-oriented keeping in view the changes emerging in the university and professional environment. There is a need to re-engineer the process of the LIS education with the required vision [11].

Rath [12] emphasized LIS education and training as an essential component of the knowledge society in creating appropriate human resources befitting the national and global job market. He suggested the LIS curriculum and syllabus must be designed on a need base related to the latest trend and developments in this profession. The generic skills for library and information professional include:

- Skills to communicate effectively.
- They should attain the skills to think creatively and have problem solving skills.
- Able to build Public Private Partnership (PPP).
- Possess skills to work in a team and pursue projects.
- Have high professional and ethical standards.
- Other skills include technology applications skill, appropriate information literacy skills and also a commitment to lifelong learning.

These skills are required to be able to encompass the changing nature of profession to ensure an acceptable, adaptable and accountable profession.

Baby and Sudeep [13] also recommended that Library schools must provide training for the students. The major responsibility of the LIS departments in India is to groom LIS students in Knowledge Management, Information Technology and professional values of librarianship, as practiced in libraries and as guided by the vision of the 21st century librarianship. Human resources are the most important resources in a library. The present day library needs staff with a proper mixture of skills in:

- Knowledge Management
- Information Technology
- Subject Knowledge

The development of human resources in the library is particularly essential. Education and training of LIS students and converting them into information professionals need changes in the LIS curriculum, continuing education programmes and specialized training programmes. In order to meet with the professional competencies, it is high time to take the initiative to modify the pattern of education, learning and teaching methodology in the field of LIS. The present environment requires new skills for library and informational professionals.

A study conducted by Antherjanam [14] on LIS Education, Training, Research in Kerala, which indicated that the quality of LIS manpower depends on the quality of the LIS School too. The survey was conducted in view of obtaining the actual situation of Library Schools, Libraries and LIS researchers in Kerala. It is suggested that the Library Professionals

have to explore new methods for developing their skills and new techniques for enhancing their services to readers. However, the LIS training courses provides the latest information and updates the professional skills of the students according to the demand of the new age. Library schools should aim to attract bright and creative teachers and students and research activities should be encouraged.

The impact of information technology on Library and Information Science Education has created new challenges whether to go for education for information to promote up-skilling of library professionals into information professionals. In consideration of the latest emerging new information society, education for information will provide ample scope to information professionals in a variety of academic, corporate and government environments. Information Science as an academic discipline shall enable learners to get them acquainted with the various methods and techniques of information handling such as storage, analysis, retrieval, and over all organization of information systems and their performance in transfer. There is thus an urgent need to revamp the entire Library and Information Science education in India [15].

## METHODOLOGY

The research methodology used involves designing of two questionnaires for the purpose of the study, one for the LIS faculty and the second for LIS students.

A census survey of 146 LIS students (of Delhi University and Jamia Millia Islamia) and Random Sample of 59 LIS students (of IGNOU) i.e. total 205 LIS students and 33 LIS faculties of three selected Central Universities located in Delhi have been used for this study.

These observational visits were also made to the selected LIS educational university, such as, Deptt. of Library and Information Science, of Delhi University; Jamia Milia Islamia University and IGNOU Study Center, namely, Delhi Library Association, New Delhi. Structured interviews were conducted among LIS Educational professionals.



## LIS EDUCATION: CENTRAL UNIVERSITY IN DELHI

### Department of Library and Information Science, Delhi University

The Department of Library and Information Science in Delhi University was established in 1946. Dr. S. R. Ranganathan, Prof. S. Dasgupta and Sir Maurice Gwyer had put great efforts for the establishment of the Department of LIS. It was first full-fledged Library Science Department in the India. This department has played a vital role in the development of Library education in India.

In the year 1972, the department had introduced Computer and its Application in Libraries, Information Storage and Retrieval and Library Systems Analysis & Statistical Methods in its curriculum and subsequently in year 2004 again new papers were introduced in B.L.I.Sc. and M.L.I.Sc. courses further revised

in the year 2009 in view of Information and Computer Technology applications in Libraries. A special paper on Information Literacy Applications in LIS was introduced at the M.L.I.Sc. course and an exclusive paper on Marketing of LIS Products and Services and Management Consultancy. The Department is adequately equipped with an excellent ICT infrastructure for students.

### Courses Offered

The Department of Library and Information Science, Delhi University is currently offering LIS courses, namely Bachelor of Library and Information Science (B.L.I.Sc.), Master of Library and Information Science (M.L.I.Sc.), Master of Philosophy (M.Phil.) and Doctor of Philosophy (Ph. D.) respectively. The data collected about the courses offered by the universities has been made available in a tabular form and elaborated.

### Syllabi of Various Levels of Courses

**Table 1: Bachelor of Library and Information Science (B.L.I.Sc): Syllabi of DU**

<b>1<sup>st</sup> Semester:</b> In this semester different subjects are covered namely “Library, Information and Society”, “Library Classification, Theory and Practical”, Basics of Information Technology in LIS, Theory and Practical” and “Project work related to Literature and Field Survey”.
<b>2<sup>nd</sup> Semester:</b> In this semester different subjects are covered namely “Management of Library and Information Centre”, “Information Sources and Services”, “Library Cataloguing, Theory and Practical”, and “Internship Programme”.

**Table 2: Master of Library and Information Science (M.L.I.Sc) : Syllabi of DU**

<b>1<sup>st</sup> Semester: -</b> In this semester different subjects are covered namely “Information Systems & Programmes”, “Advanced Knowledge Organisation: Classification (Practical)”, “Advanced Knowledge Organisation: Cataloguing (Practical)”, “ICT Applications in LIS (Theory)”, “Research Methodology”, and “Marketing of Library & Information Products and Services”.
<b>2<sup>nd</sup> Semester (Compulsory Papers):</b> In this semester different subjects are covered namely “Information and Communication Technology Applications in LIS (Practical)”, “Information Storage and Retrieval System”, “Information Literacy Applications in LIS”, “Public Library and Information System”, “Academic Library and Information System”, “Research and Technical Library and Information System”, “Health Science Library and Information System”, “Agricultural Science Library and Information System”, “Engineering and Technical Library and Information System”, “Print and Electronic Sources and Literature in Humanities” “Print and Electronic Sources and Literature in Natural Sciences”, “Print and Electronic Sources and Literature in Social Sciences”, and “Project Work”.

**Table 3: Master of Philosophy (M.Phil.) : Syllabi of DU**

**Part –I:** In this part different subjects are covered namely “Research Methods”, Library Planning & Management”, “University & College Library System”, “Research & Technical Library System”, “Public Library System”, “Information Processing & Organization”, “Information Transfer & Dissemination”, “Comparative Librarianship”, and “Education for Library & Information Science”

**Part-II :** In this part only Dissertation is covered

### Awareness Study of Modern ICT based Techniques amongst LIS students

To know the awareness of Modern ICT based Techniques amongst LIS students of Department of Library and Information Science, Delhi University questionnaires were distributed among the all the LIS students (full census) including B.Lib.I.Sc. M.Lib.I.Sc., M.Phil. and Ph.D.

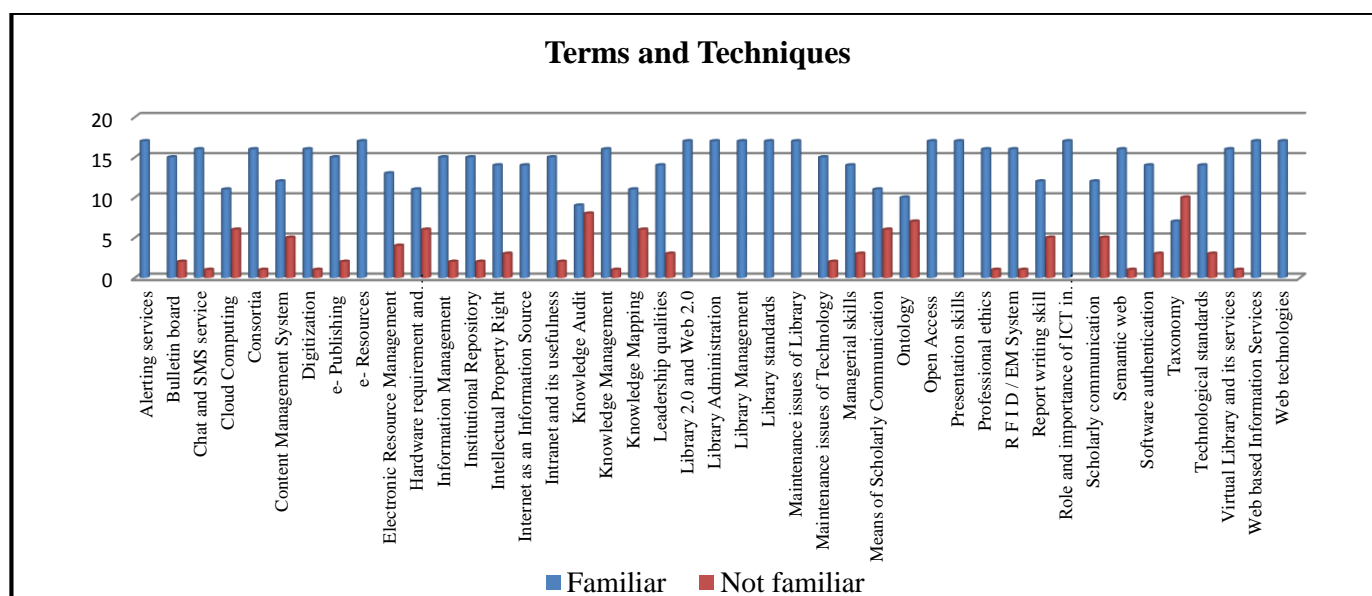
The 54 (fifty-four) questionnaires were distributed amongst B.L.I.Sc students to know their awareness about Modern ICT based Techniques. Out of 54, only seventeen (17) questionnaires were responded, as illustrated hereunder.

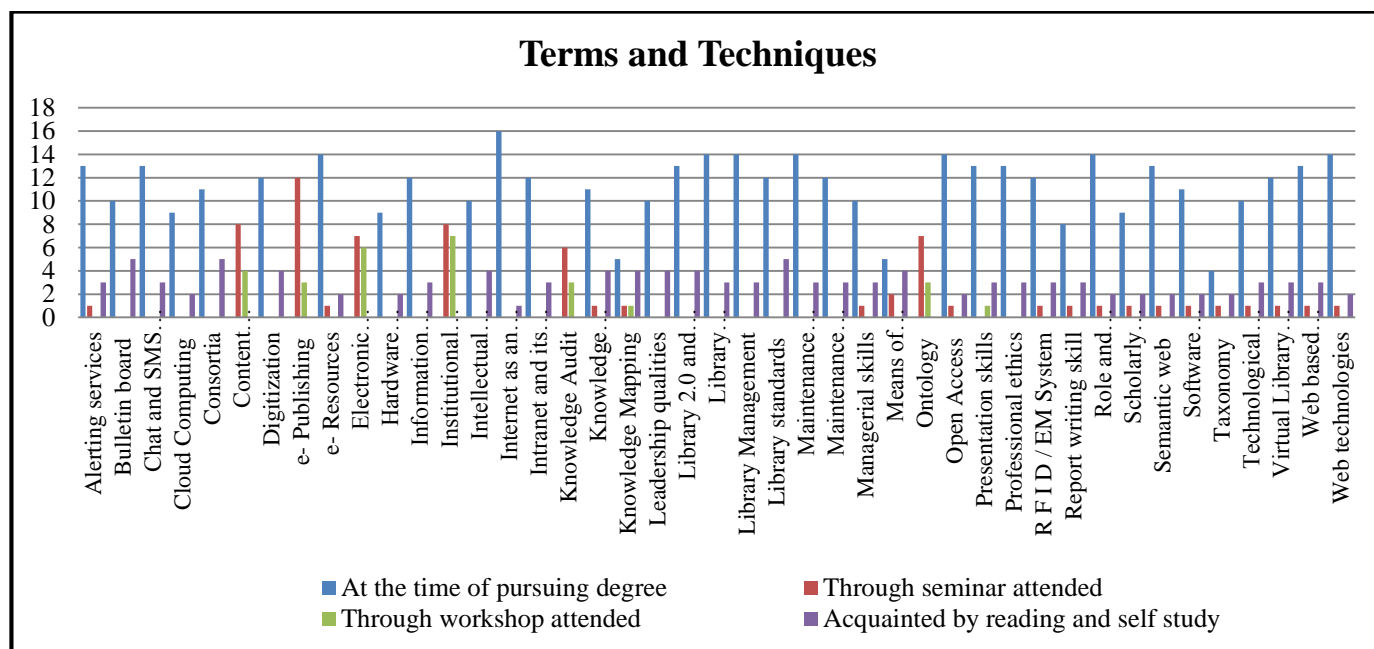
The 40 (forty) questionnaires were distributed amongst M. L. I. Sc. students to know their awareness of which only 13 were responded, rest could not, as have illustrated hereunder.

Similarly, 12 questionnaires were distributed amongst M.Phil. & Ph.D. students to know their awareness about ICT based techniques.

Responses from only six (6) respondents are illustrated as under:

- Bachelor Degree of Library and Information Science, Delhi University:** Some of Students of B. L. I. Sc., DU are not familiar with Bulletin board, Chat and SMS service, Cloud Computing, Consortia, Content management system, Digitization, E-publishing, Electronic resource management, Hardware requirement and configuration, Information management, Institutional repository, Intellectual property right, Intranet and its usefulness, Knowledge audit, Knowledge management, Knowledge mapping, Leadership qualities, Maintenance issues of technology, Managerial skills, Means of scholarly communication, Ontology, Professional ethics, RFID/EM system, Report writing skills, Scholarly communication, Semantic web, Software authentication, Taxonomy, Technological standard and Virtual Library and its services.

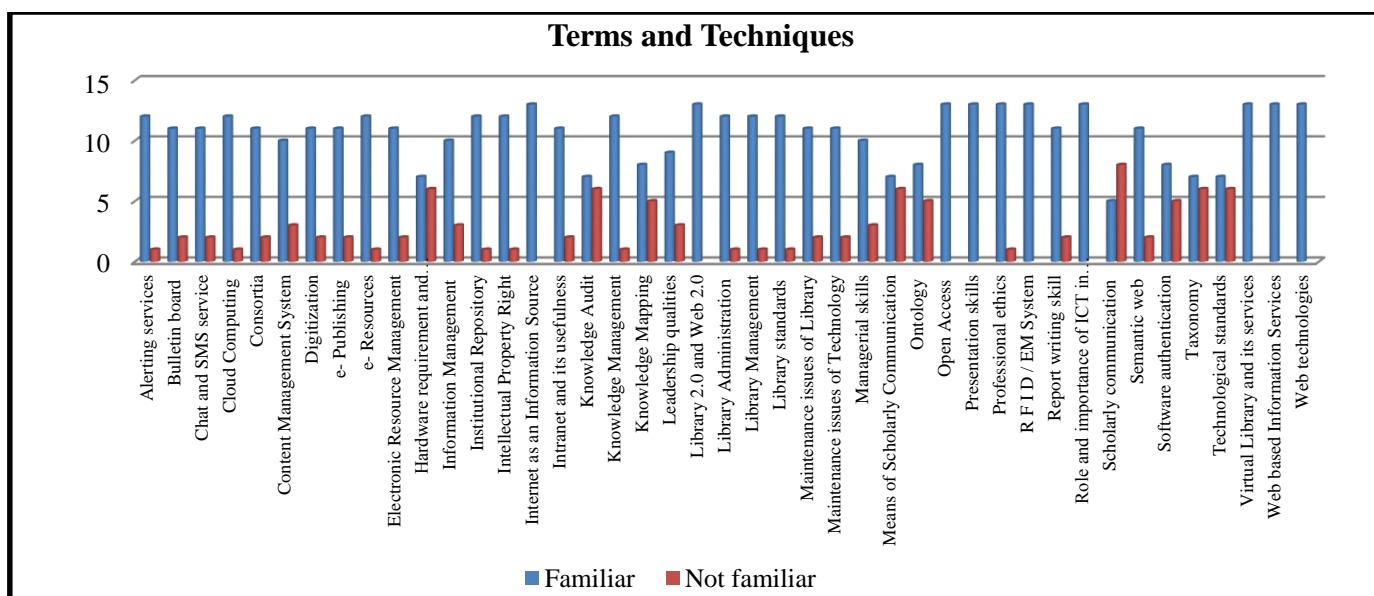


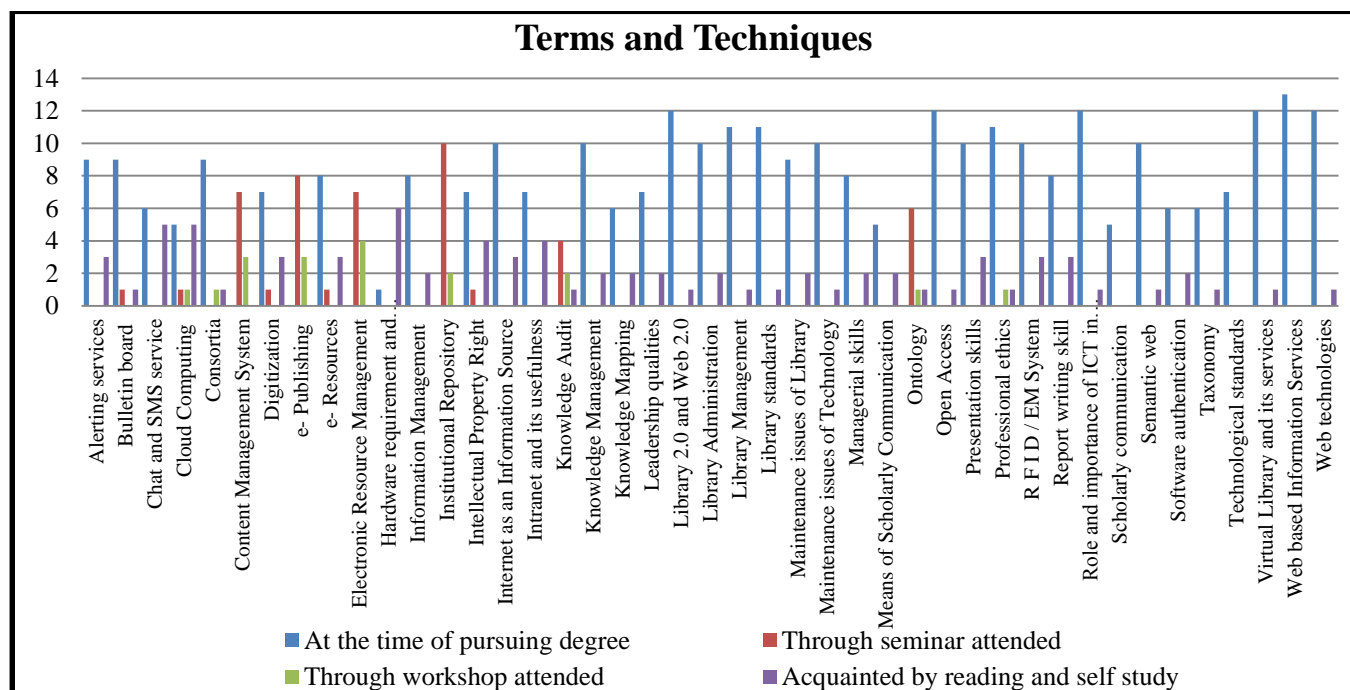


### • Master Degree of Library and Information Science, Delhi University

Some of Students of M. L. I. Sc., Delhi University are not familiar with Alerting services, Bulletin board, Chat and SMS service, Cloud computing, Consortia, Content management system, Digitization, e-Publishing, e-Resources, Electronic resource management, Hardware requirement and configuration, Information management, Institutional repository, Intellectual property right,

Internet and its usefulness, Knowledge audit, Knowledge management, Knowledge mapping, Leadership qualities, Library Administration, Library management, Library standards, Maintenance issues of library, Maintenance issues of technology, Managerial skills, Means of scholarly communication, Ontology, Professional ethics, Report writing skills, Scholarly communication, Semantic web, Software authentication, Taxonomy, and Technological standards.

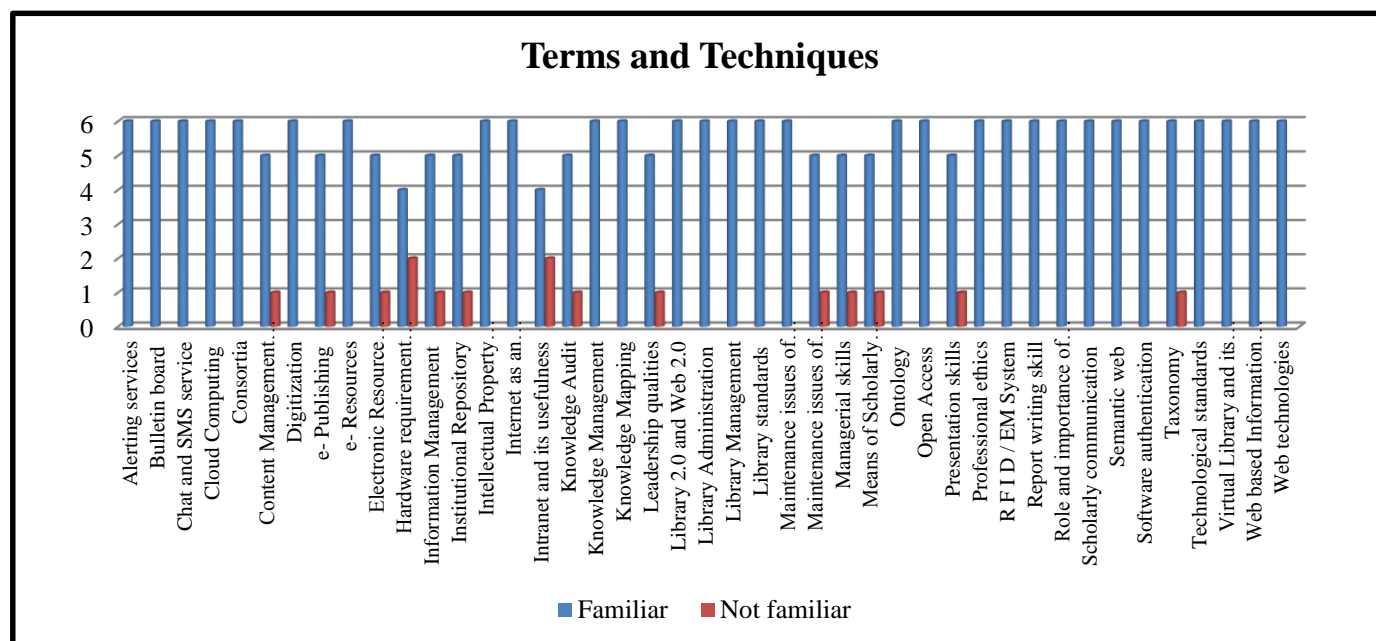


**Master Degree of Library and Information Science, Delhi University**

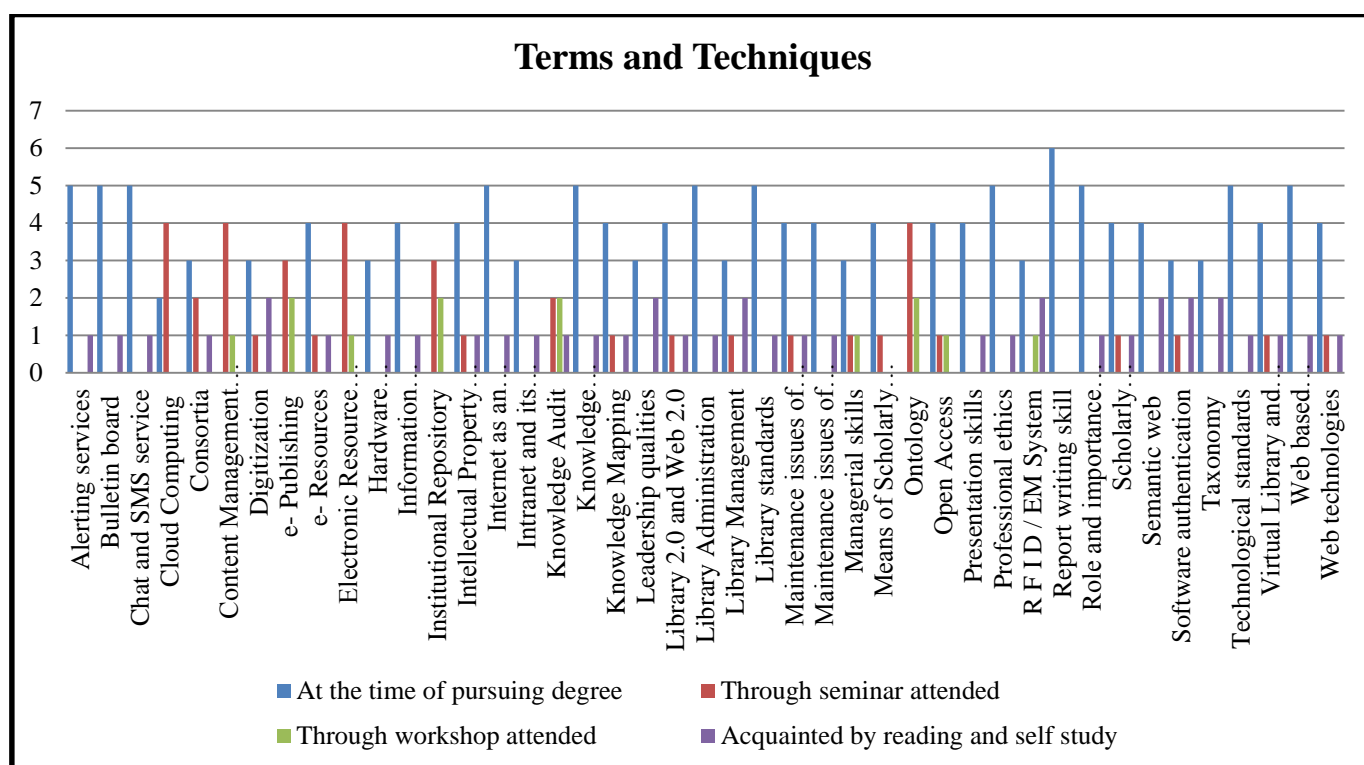
- Master of Philosophy/Doctorate of Philosophy in Library and Information Science, Delhi University**

Some of Students of M.Phil./Ph.D. Delhi University are not familiar with Content management system, e-Publishing, Electronic resource management, Hardware requirement and

configuration, Information management, Institutional repository, Intranet and its usefulness, Knowledge audit, Leadership qualities, Maintenance issues of technology, Managerial skills, Means scholarly communication, Presentation skills, and Taxonomy.

**Master of Philosophy/Doctorate of Philosophy in Library and Information Science, Delhi University**





## Department of Library and Information Science, IGNOU, New Delhi

### Courses offered

The Department of Library and Information Science at IGNOU is a part of School of Social Sciences (SOSS). It offers different programmes in Library and Information Science namely, Bachelor of Library and Information Science (BLIS), Post Graduate Diploma in Library Automation and Networking (PGDLAN), Master of Library and Information Science (MLIS) and Doctor of Philosophy in Library and Information Science (Ph.D. in Library and Information Science) respectively.

### Syllabi of various Courses

Looking at the tremendous demand of the B. LIS Program and the changing scenario of the library and information activities, the BLIS Program at IGNOU was completely revised in the year 2000.

Library and Information Science (LIS) as a discipline has been completely revolutionized in view of advent of ICT in realms of libraries. The networked society necessitates instant access to information. User needs also have undergone a sea change. LIS professionals require updating and reorientation of their subject know how, in order to serve their users best.

The course wise details of the syllabi are illustrated as under.

**Table 4: Bachelor of Library and Information Science (BLIS): Syllabi of IGNOU**

This course covers different subjects like “Library, Information and Society”, “ Information Sources and Services”, “Organizing and Managing Information”, “ ICT Fundamentals”, “Communication Skills”, “Management of Library and Information Centre”, “Document Processing: Practice”, “Information Products and Services”, and “ ICT In Libraries”.

**Table 5: Master of Library and Information Science (MLIS): Syllabi of IGNOU**

This course covers different subjects like “Information, Communication and Society”, “Information Sources, Systems and Services”, “Management of Library and Information Centres”, “Information Processing And Retrieval”, “Fundamentals of Information Communication Technology”, “Information and Communication Technologies Applications”, “Preservation and Conservation of Library Materials”, “Research Methodology”, “Academic Library System”, “Technical Writing”, “Informetrics and Scientometrics”, “Public Library System and Services”, and Project Work/Dissertation.

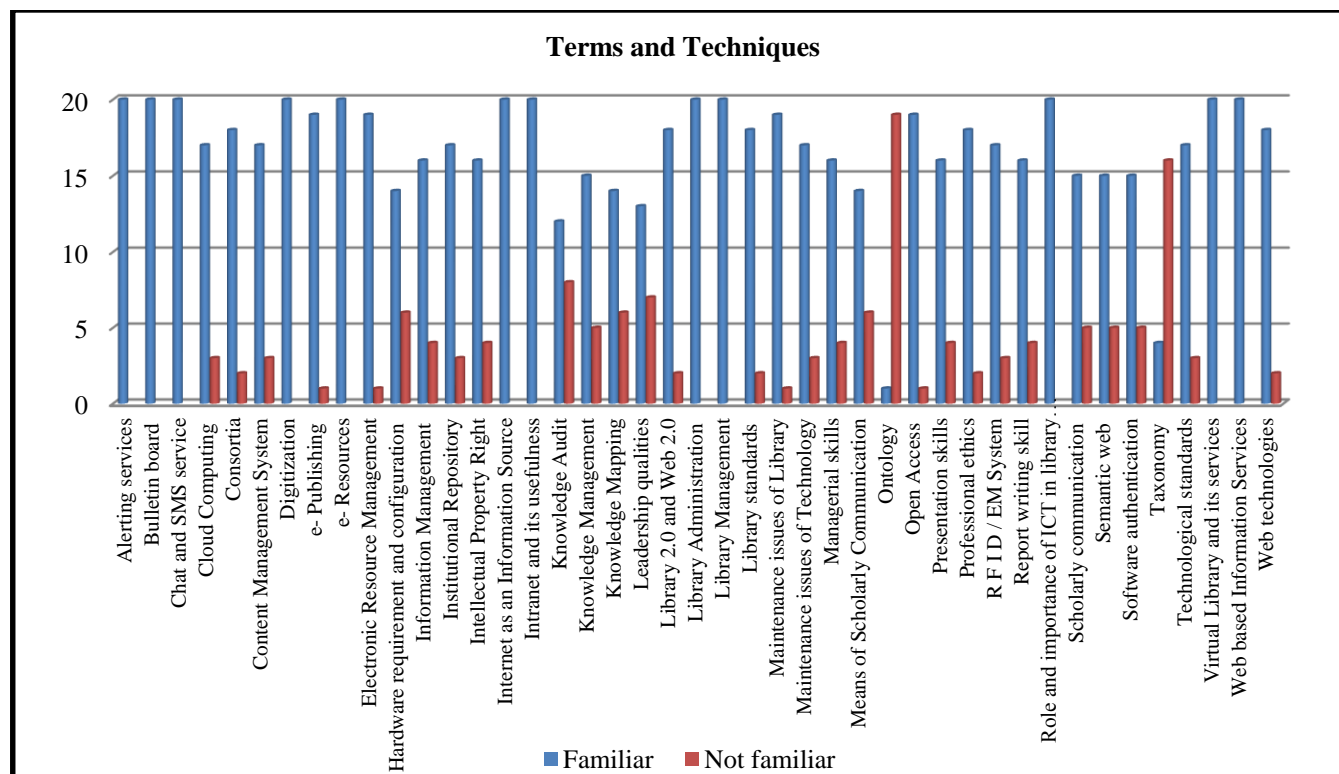
The 40 (fifty-four) questionnaires were distributed among the B. L. I. Sc. Students to know their awareness about ICT based Library techniques. Out of 40 questionnaires distributed amongst B. L. I. Sc. Students, only twenty (20) were responded as illustrated hereunder:

The 14 (fourteen) questionnaires were distributed among the M. L. I. Sc. Students to know their awareness about ICT based Library techniques. Out of 14 questionnaires distributed amongst M. L. I. Sc. Students, only nine (9) were responded as illustrated hereunder:

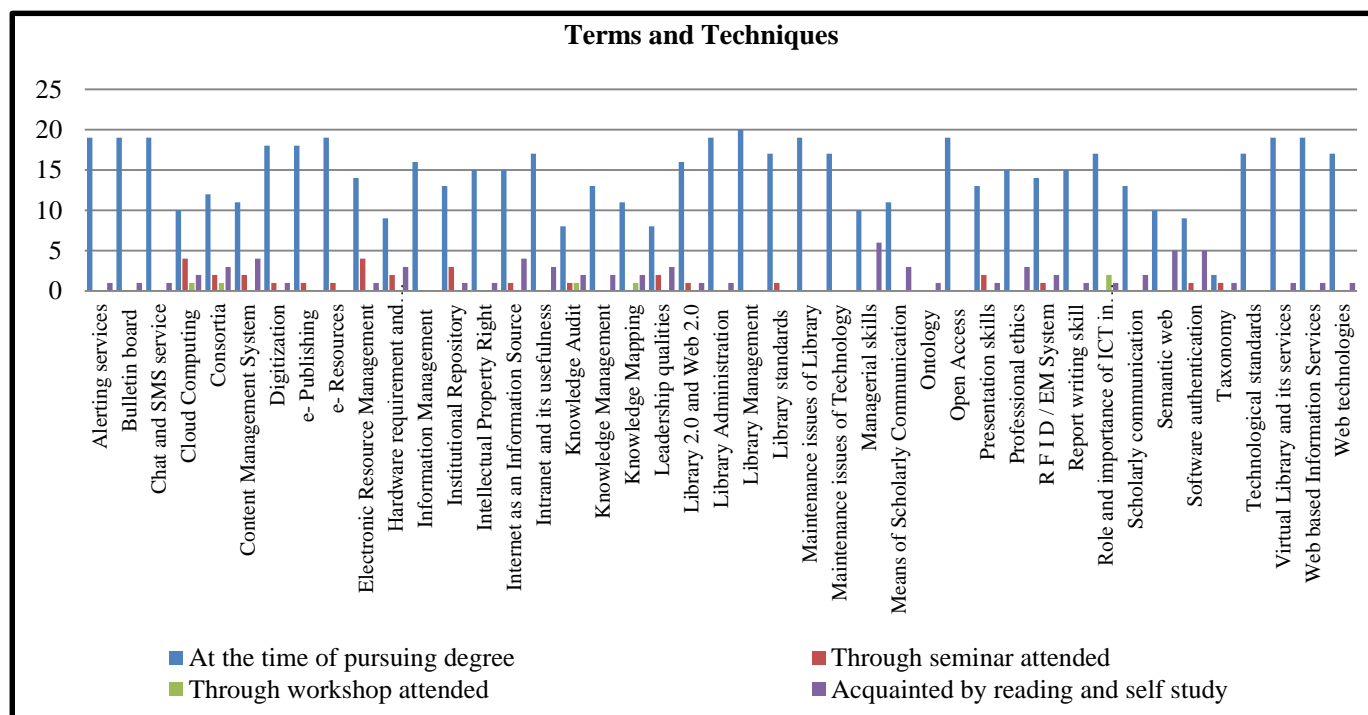
The 5 (five) questionnaires were distributed among the Ph.D. students to know their awareness about ICT based Library techniques. Out of 5, only two (2) were responded as illustrated below:

### • Bachelor Degree of Library and Information Science, IGNOU

Some of Students of BLIS, IGNOU are not familiar with Cloud Computing, Consortia, Content management system, E-publishing, Electronic resource management, Hardware requirement and configuration, Information management, Institutional repository, Intellectual property right, Knowledge audit, Knowledge management, Knowledge mapping, Leadership qualities, Library 2.0 and Web 2.0, Library standards, Maintenance issues of library, Maintenance issues of technology, Managerial skills, Means of scholarly communication, Ontology, Open Access, Presentation skills, Professional ethics, RFID/EM system, Report writing skills, Scholarly communication, Semantic web, Software authentication, Taxonomy, Technological standard and Web technologies.



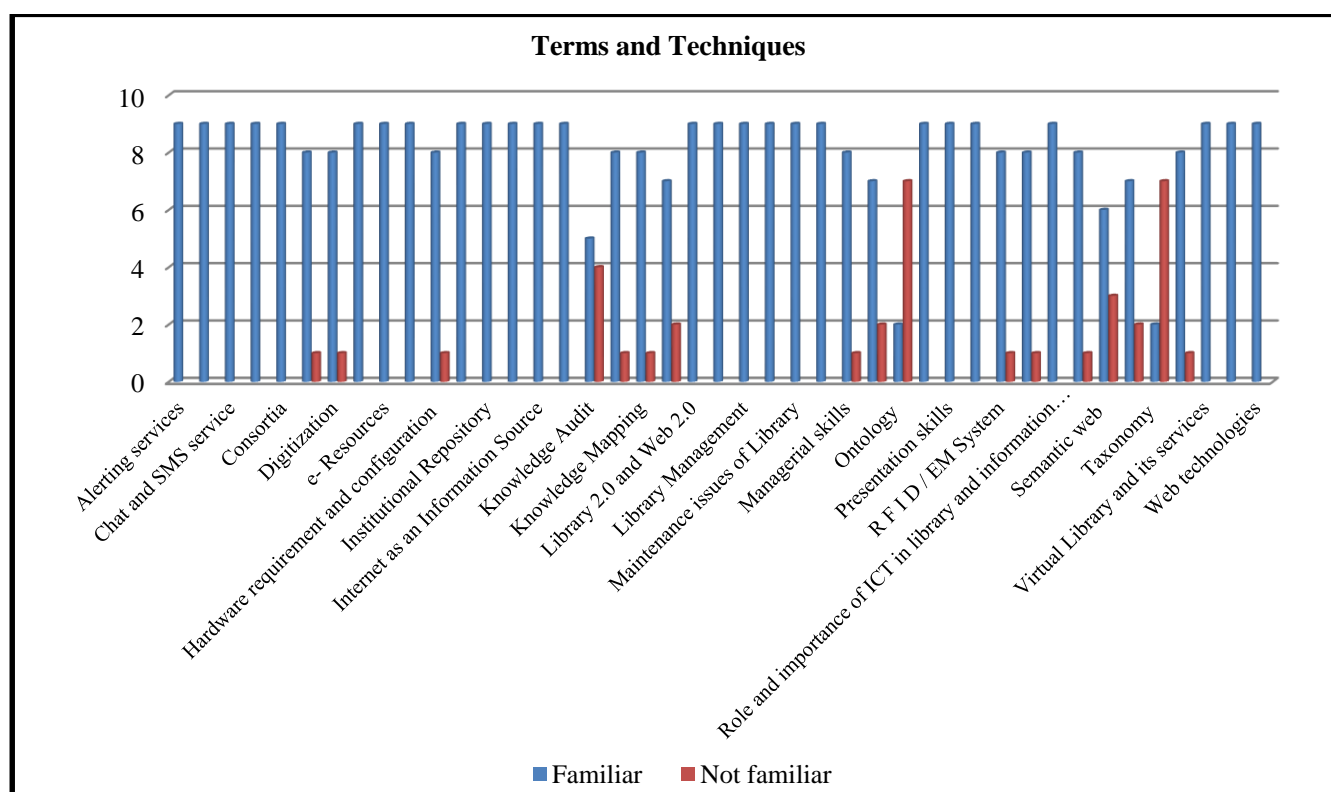
## Bachelor Degree of Library and Information Science, IGNOU



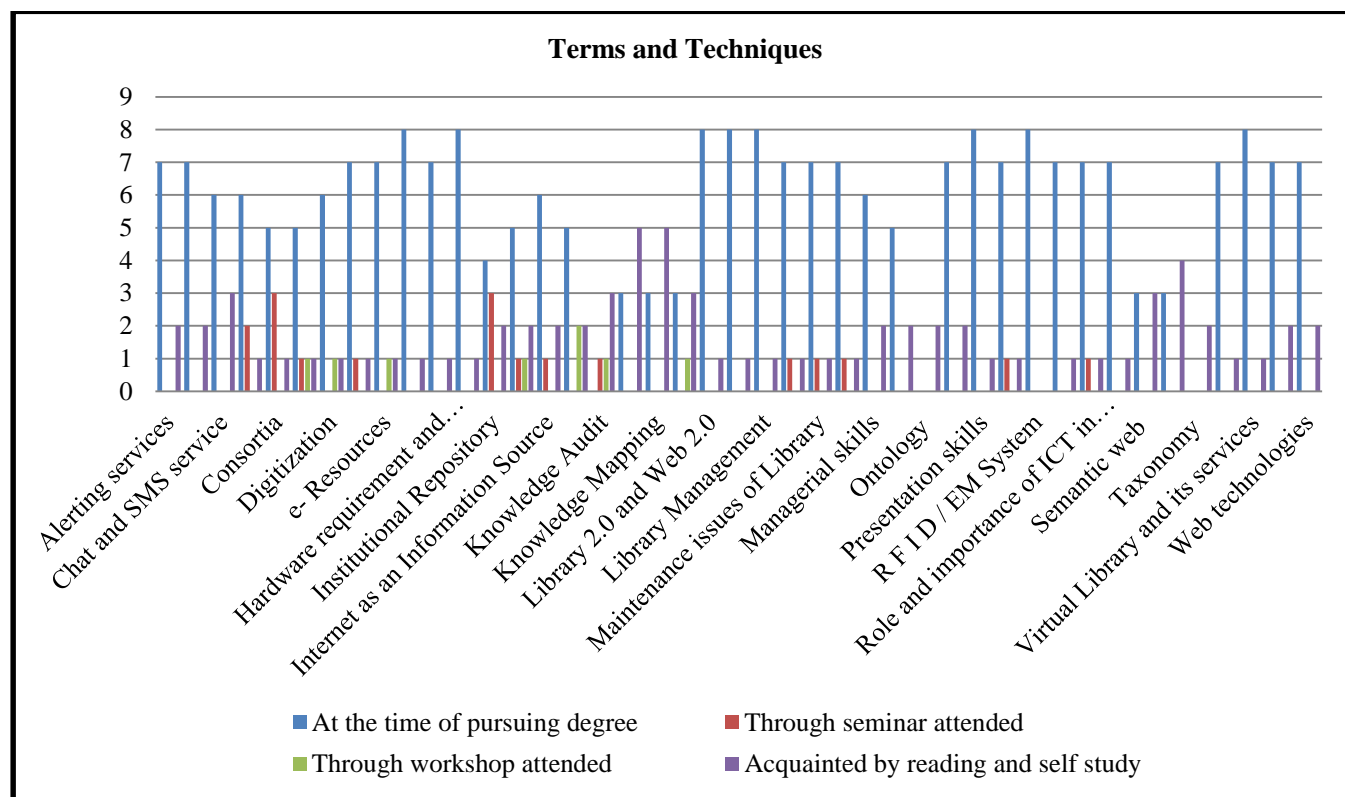
### • Master Degree of Library and Information Science, IGNOU

Some of Students of MLIS, IGNOU are not familiar with Content management system, Digitization, Hardware requirement and configuration, Knowledge audit, Knowledge management,

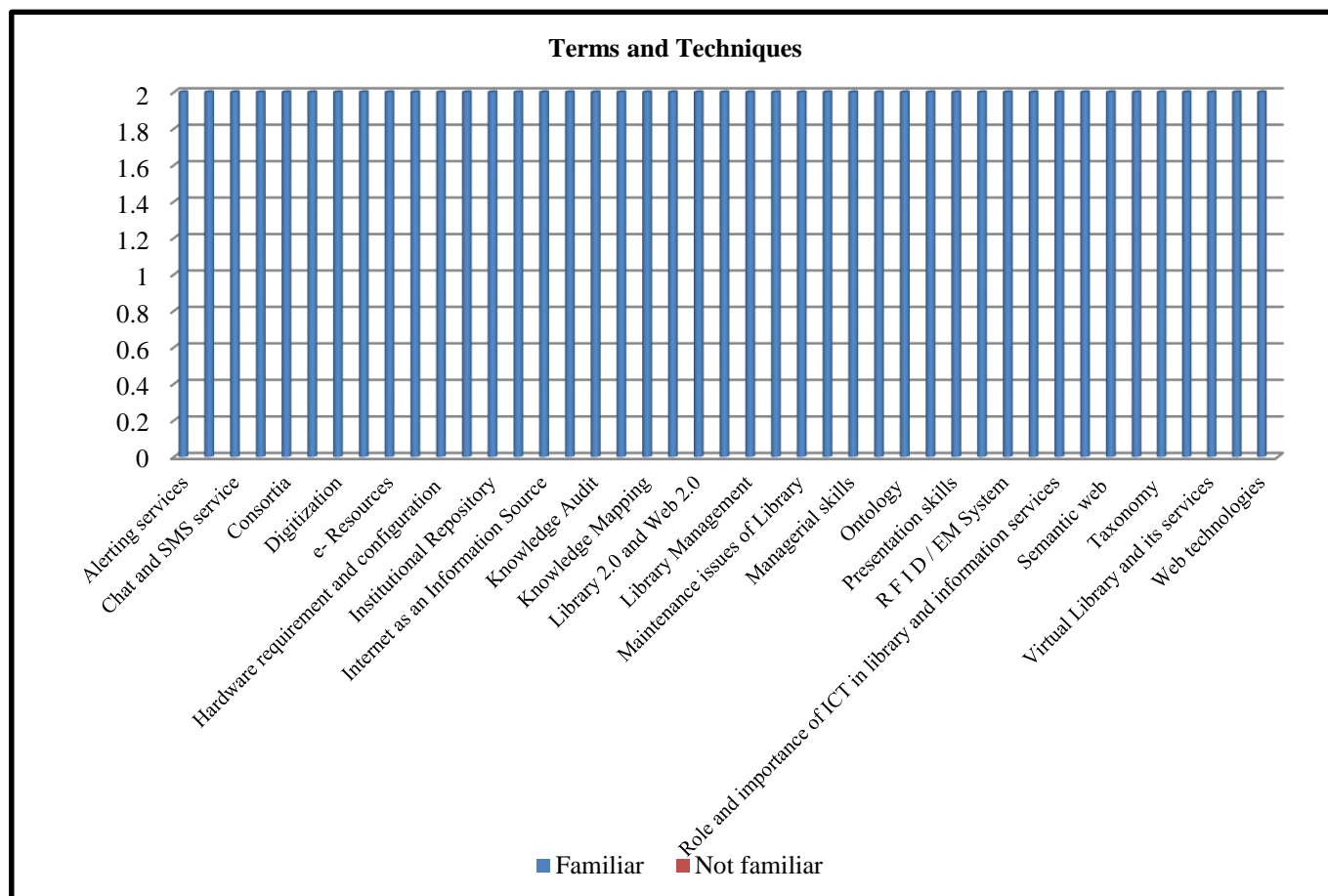
Knowledge mapping, Leadership qualities, Managerial skills, Means of scholarly communication, Ontology, RFID/EM system, Report writing skills, Scholarly communication, Semantic web, Software authentication, Taxonomy, and Technological standard.



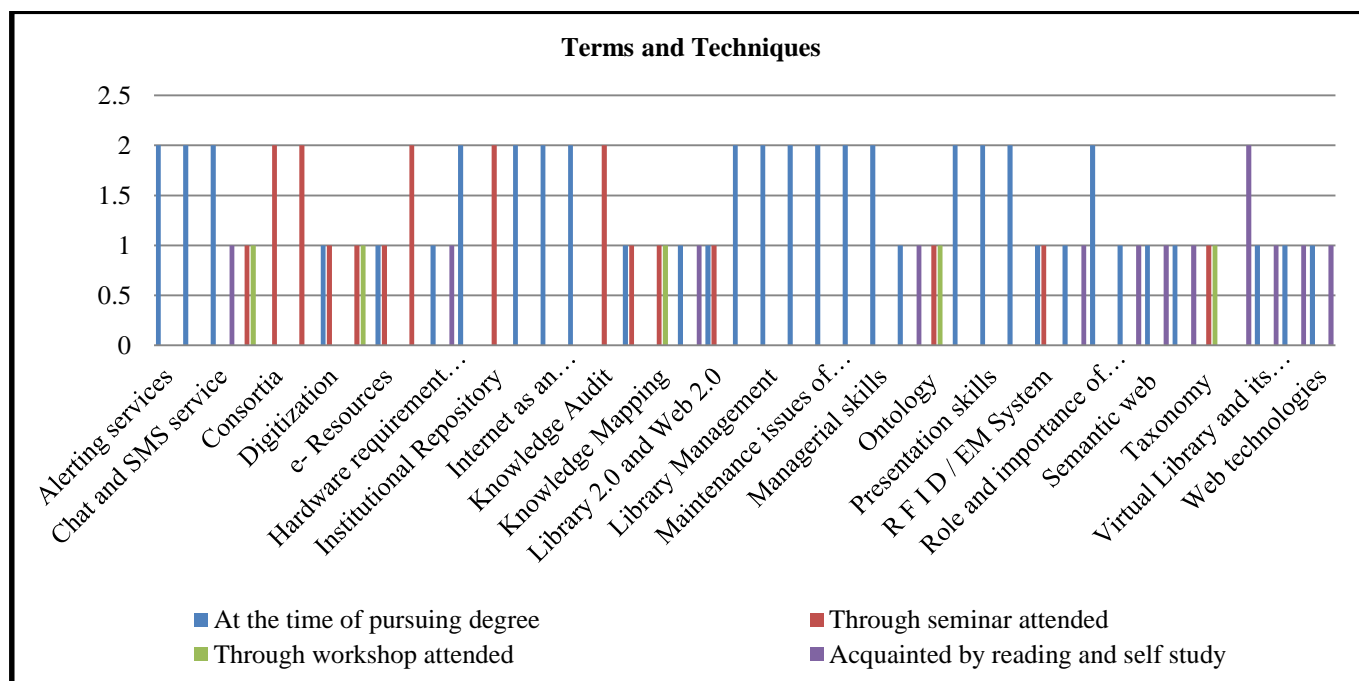
### Master Degree of Library and Information Science, IGNOU



### Doctorate of Philosophy in Library and Information Science, IGNOU



### Doctorate of Philosophy in Library and Information Science, IGNOU



#### Department of Library and Information Science, Jamia Millia Islamia University

##### Course offered

The Department of Library and Information Science is part of Social Science Faculty of Jamia Millia Islamia University. This department offers

Bachelor's Degree in Library and Information Science through regular mode of education.

##### Syllabi Course-wise

The researcher provides details of the syllabi course-wise illustration in tabular form as under.

**Table 6: Bachelor of Library and Information Science (B.L.I.Sc.): Syllabi of JMI**

The course contents covers "Foundation of Library and Information Science", "Knowledge Organisation, Information Processing & Retrieval-Theory", "Library Classification-Practice" "Library Cataloguing-Practice", "Information Sources and Services-Theory", "Information Technology: Basics -Theory", "Management of Library and Information Centres", "Information, Communication and Society"

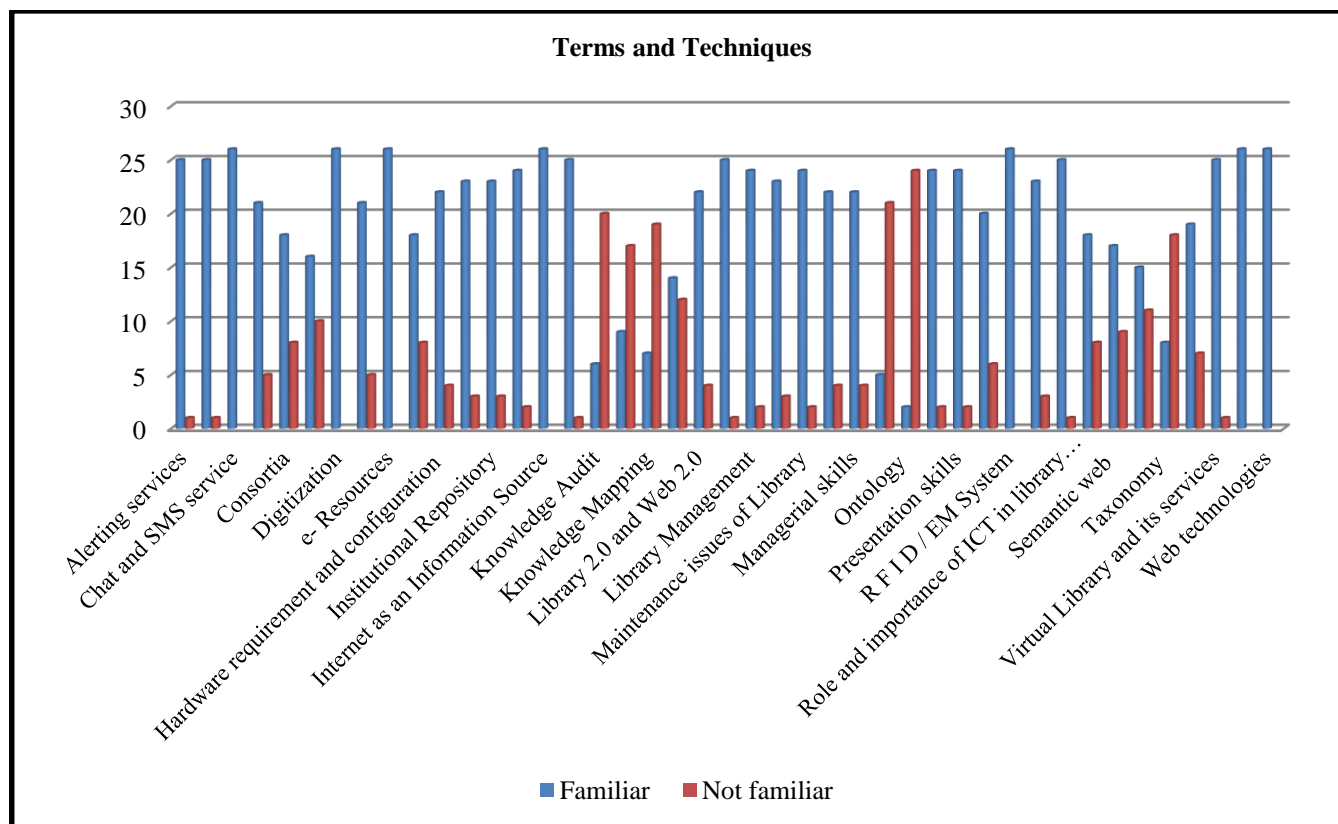
To know the status of awareness of new ICT based terms and techniques amongst the LIS professionals of Department of Library and Information Science, Jamia Millia Islamia University questionnaires were distributed among all the Library Science students (full census), i.e. Bachelors Degree of Library and Information Science. Out of 40 questionnaires distributed among the B. L. I. Sc. students to, twenty-six (26) were responded, as illustrated here under.

- Bachelor Degree of Library and Information Science, JMI**

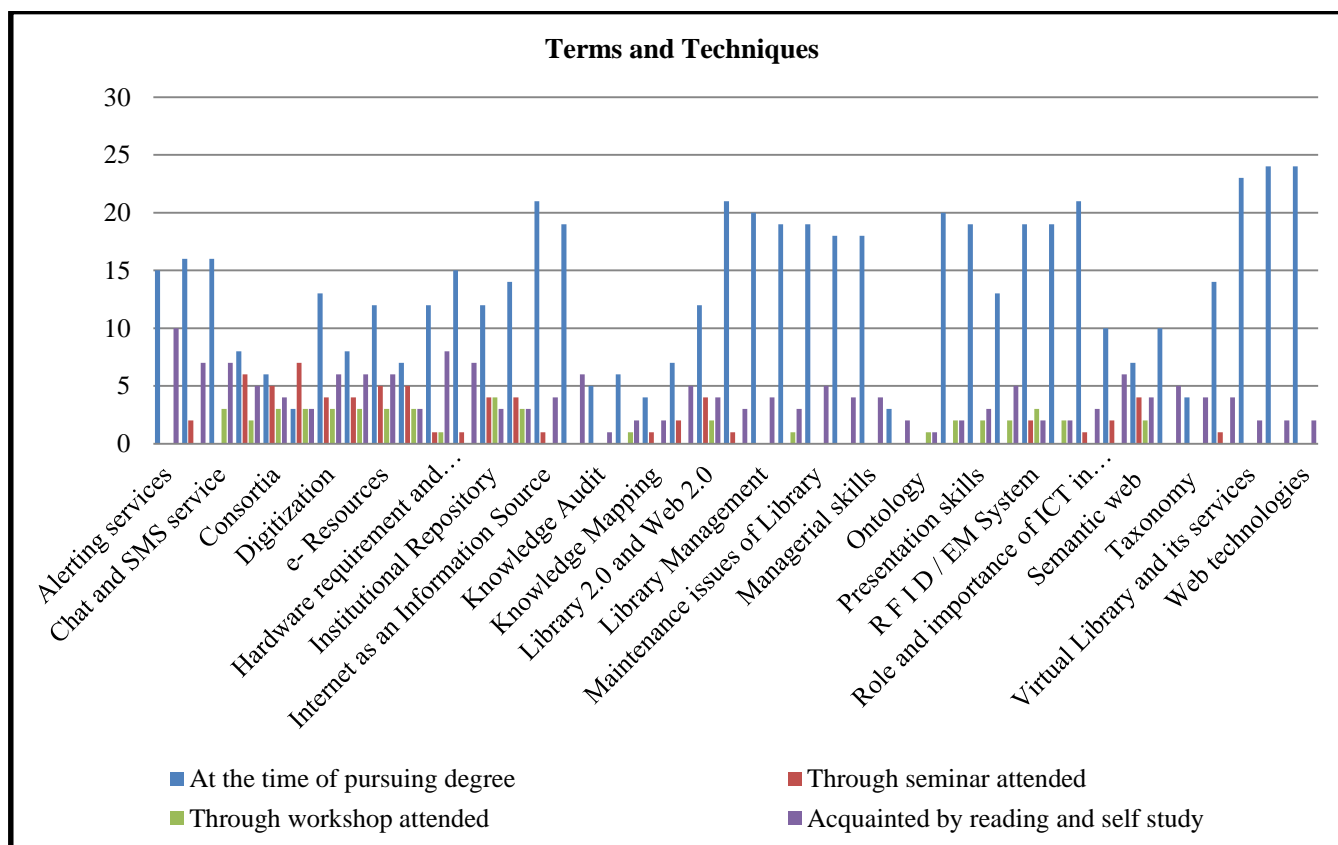
Some of Students of B. L. I. Sc., JMI are not familiar with Alerting services, Bulletin board, Cloud computing, Consortia, Content management system, e-Publishing, Electronic resource

management, Hardware requirement and configuration, Information management, Institutional repository, Intellectual property right, Internet and its usefulness, Knowledge audit, Knowledge management, Knowledge mapping, Leadership qualities, Library 2.0 and Web 2.0, Library administration, Library management, Library Standards, Maintenance issues of library, Maintenance issues of technology, Managerial skills, Means of scholarly communication, Ontology, Open access, Presentation skills, Professional ethics, Report writing skills, Role and importance of ICT in library and information service, Scholarly communication, Semantic web, Software authentication, Taxonomy, Technological standard, and Virtual library and its services.





### Bachelor Degree of Library and Information Science, JMI



### Assess the status of present curriculum with respect to latest terms and techniques

S. No.	Terms and Techniques
1	Alerting services
2	Bulletin board
3	Chat and SMS services
4	Cloud Computing
5	Consortia
6	Content Management System
7	Digitization
8	e-Publishing
9	e-Resources
10	Electronic Resource Management
11	Hardware requirement and configuration
12	Information Management
13	Institutional Repository
14	Intellectual Property Right
15	Internet as an Information Sources
16	Intranet and its usefulness
17	Knowledge Audit
18	Knowledge Management
19	Knowledge Mapping
20	Leadership qualities
21	Library 2.0 and Web 2.0
22	Library Administration
23	Library Management
24	Library standards
25	Maintenance issues of Library
26	Maintenance issues of Technology
27	Managerial skills
28	Means of Scholarly Communication
29	Ontology
30	Open Access
31	Presentation skills
32	Professional ethics
33	RFID/EM System
34	Report writing skills
35	Role and importance of ICT in Library and Information services
36	Scholarly communication
37	Semantic web
38	Software authentication
39	Taxonomy
40	Technological standards
41	Virtual Library and its services
42	Web based Information Services
43	Web technologies

On the basis of the literature surveyed, the Curriculum of LIS courses must include the following terms and techniques in order to produce new age library professionals.

OBSERVATION		
Department of Library and Information Science, Delhi University	Department of Library and Information Science, IGNOU	Department of Library and Information Science, JMI
<i>Chat and SMS services, Cloud Computing, e-Publishing, Intellectual Property Right, Knowledge audit, Knowledge mapping, Ontology, Scholarly communication, Semantic web, Taxonomy are not covered in present syllabi.</i>	<i>Cloud Computing, Content Management System, Institutional Repository, Knowledge Audit, Means Scholarly Communication, Scholarly Communication, taxonomy, Virtual Library and its services are not covered in present syllabi.</i>	<i>Chat and SMS services, Cloud computing, Content management system, Digitization, e-Publishing, e-Resources, Electronic resource management, Institutional repository, Intellectual property right, Knowledge audit, Knowledge mapping, Maintenance issues of library, Maintenance issues of technology, Means of scholarly communication, Ontology, Open Access, RFID/EM System, Report writing skills, Scholarly communication, Semantic web, Software authentication, Taxonomy, Technological standards, Virtual library and its services, Web based information services, and Web technologies are not covered in present syllabi.</i>
<i>Note: The above said terms and techniques are not covered in the present course curriculum.</i>		

The questionnaires were distributed among the faculty members of Department of Library and Information Science, Delhi University, IGNOU Program Study Centre, Delhi Library Association and Department of Library and Information Science, JMI to know the status of the curriculum in view of build a new age LIS professional.

## RECOMMENDATIONS

- The syllabi of the all courses should be revised at the earliest. Most of the practical applications of Information and Technology should be introduced in the syllabi.
- The syllabi of all the central university libraries should be the same according to their respective courses.
- A common entrance examination should be conducted for admission in the bachelors' degree course.
- The Bachelor's degree and Master's degree should be clubbed together to follow integrated pattern of two years Master's degree program.
- Integrated M.Phil. and Ph.D. program may also be introduced by these Central Universities.
- For distance mode of education, virtual learning system must be introduced, to enable students to understand the subjects efficiently.

## CONCLUSION

Education of the masses is extremely important for every nation, which in common parlance is categorized as Education-rich and Education-poor countries. The Education in general is also categorized into formal and non-formal education. The education is also conducted through regular and distance mode.

The article evaluates, Library and Information Science educational system in three central universities of Delhi i.e. Delhi University; IGNOU and Jamia Millia Islamia.

The Department of Library and Information Science, Delhi University is conducting four types of courses namely, B.L.I.Sc., M.L.I.Sc., M.Phil. and Ph.D., through regular mode of education. The syllabi of these courses were revised in 2009. It has been observed that most of the latest terms and techniques are not included in the present syllabi, which must be updated as per the requirement of a new age librarianship. The Department of Library and Information Science, IGNOU are conducting three types of courses namely, B.L.I.S., M.L.I.S. and Ph. D. through distance mode. The syllabi of the B.L.I.S. course was updated in 2014, which

covers almost all the new terms and techniques related to LIS profession, but the syllabi of MLIS is still very conventional, which must be updated at the earliest. The Department of Library and Information Science, Jamia Millia Islamia conducts only B.Lib.Sc., course through regular mode. The syllabi needs updated according to the demand of latest LIS profession.

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