

## Specialisation in Library and Information Science Curriculum: Steps towards Embedded Librarianship

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### ABSTRACT

Libraries and information centres are established with a mission to provide right information to the right user at the right time and in the right amount. Library and information science (LIS) professionals apply their competencies for achieving this mission of libraries. In the past, LIS professionals were providing services within the premises of the library but now with the aid of technology they can reach to their patrons both within premises as well as outside the premises of the library. This outreach of LIS professionals to their clientele has opened doors for embedded librarianship. To develop appropriate competencies among LIS professionals for becoming successful embedded librarians, LIS schools can play a pivotal role. This paper highlights the dynamic nature of LIS profession and describes the concept of embedded librarianship. Role of LIS schools in nurturing the embedded librarianship is also the part of present paper. Concept of specialisation in LIS curriculum is a step towards nurturing embedded librarianship.

**Keywords:** Embedded librarianship, library and information science, curriculum

### 1. INTRODUCTION

Libraries are regarded as fountains and rich springs of knowledge that illuminate and irrigate the fields of academics, economics, cultural, social, political and many other sectors of the society. Main mission of any library and information centre is to facilitate the easy accessibility of information to library patrons. The library and information science (LIS) professionals provide information in an effective and efficient manner by using different techniques (both manual and mechanical). To fulfill the mission of providing right information to the right person, LIS professional perform different library operations like selection of information sources, acquisition of information sources, processing and preservation of information sources and making information and information sources available to the persons at the time when they require information. Earlier, users were coming to the library for quenching their thirst of gaining knowledge by consulting different sources of information and librarians were providing every kind of help to them, whether in the form of reference services or through inculcating different skills among users by organising orientation programmes or user-education programmes.

#### 1.1 Transformation in Library and Information Centres

With the advent of information and communication

technologies (ICT), libraries and information centers witnessed various transformation after transformation. New trends emerged in the profession of librarianship and there is a paradigm shift in the basic philosophies of the profession. Some of these shifts are:

##### 1.1.1 Paper Media to other Media

In the past, libraries were just the places where one will come across different information sources in print format. Now sources are in digital formats like e-journals, e-books, e-zines, CD-ROM, etc. With the aid of technology, information sources containing audio, video, text, graphics, and images at one place are existing in the market and libraries and information centres acquire these multimedia sources of information.

##### 1.1.2 Possession to Access

Notion of librarians about the size of collection in the past, i.e., bigger the best has changed. Instead of focusing on building huge collection, library professionals now think in terms of facilitating the user's access to information. In the digital environment, library patrons can get access to digital sources of information from any place at any time.

##### 1.1.3 Preservation to Utilisation

Libraries in the past were giving more importance to preservation of documents. However, with the

invention of printing press and due to the revolution brought about by ICT, now library and information professionals give more attention towards making information more and more utilised by the library patrons. All efforts are made by the professionals whereby users information needs can be fulfilled so that users are able to achieve their objectives.

#### *1.1.4 Manual Process to Mechanical Process (Automation)*

Library operations in the past were performed manually but now majority of these activities are being performed with the aid of technology. Different library software packages have been created for modernising the libraries and information centers.

#### *1.1.5 Caretaker to Gatekeeper*

Role of library professionals has also witnessed a marvelous change. In the past they were regarded as custodians of the library resources but now the role of a facilitators are attributed to them. They are equipped with all those competencies necessary for navigating the digital resources available on the ubiquitous World Wide Web. Due to their role new labels are in vogue. Labels like information scientist, knowledge manager, documentation officer, etc., have emerged to describe the role of librarian in the knowledge world.

#### *1.1.6 Isolation to Consortia*

Digital information landscape has provided opportunity for different libraries to join hands with each other for sharing their resources. In India, a number of consortia have emerged like INDEST, UGC Infonet, etc., through these consortia libraries provide effective and efficient services to library patrons for enhancing the chances for fulfilling their information needs.

#### *1.1.7 Free Services to Fee-based Services*

To add value to the information being provided by the library, library charges some fee from the library users. Nominal fee is charged from users who need some value-added service from the libraries. Fee collected from users can be used for upgrading the overall system of libraries to come up to the expectations of all the stakeholders.

#### *1.1.8 Physical Interior Premises to Open World*

Libraries and information centers were performing their operations and providing services to library patrons only within the premises of the libraries in the past but now with the advent of ubiquitous internet, etc., libraries can reach people outside the premises of their four walls.

#### *1.1.9 Traditional Libraries to Virtual Libraries*

All the developments in the information landscape

have provided a favorable environment for the evolutionary and revolutionary trends occurring in the world of libraries. From traditional libraries have emerged, automated libraries, electronic libraries, digital libraries and library without walls, i.e., virtual libraries.

### **1.2 Changing Information Landscape and Role of LIS Professionals**

In the present information landscape role of library and information science professionals has increased. Reason being that there are challenges posed by a number of factors to both library professionals and their customers. Some of these factors are:

- (a) Knowledge explosion;
- (b) Information overload; and
- (c) Information anxiety

These information-related issues have increased the credibility of library and information professionals among the users. The LIS professionals can utilise their professional expertise for solving the problems faced by library patrons due to these reasons. With the aid of technology, LIS professionals can provide their assistance not only within the premises of the library but also can reach to the library patrons at their workplaces easily.

However, LIS professionals need some advanced competencies for delivering their professional obligations in an effective and efficient manner. Users can approach the librarian from outside premises in a virtual mode or librarian can come at their workplaces for giving them professional and technical support in locating right information at the right time. Thus LIS professionals empower library patrons in exploiting information and information sources optimally. Great scientists, philosophers, scholars, etc., have fully recognised the contribution of LIS professionals and have lucidly expressed it in their acknowledgements.

This active participation of LIS professionals with their users has opened a new facet of librarianship, viz., embedded librarianship.

## **2. OBJECTIVE**

The paper objective to study the concept of embedded librarianship and the dynamic nature of embedded librarianship. The LIS education is imparted in universities in Northern India to provide professional human resources to manage the libraries and allied institutions. It also aims to understand the role of LIS schools in nurturing the embedded librarianship in North India.

## **3. METHODOLOGY**

Literature was reviewed to understand the concept and nature of embedded librarianship. It

also tries to understand the role of LIS schools in embedded librarianship curriculum. Data collected from different sources like AIU handbook on LIS, Directories on internet, etc., revealed that there are 21 university departments/Schools and other reputed institutions imparting education in LIS at masters level. However, 13 LIS schools belonging to following institutions responded and provided necessary information for the present study.

1. University of Kashmir (UK)
2. University of Jammu (JU)
3. Guru Nank Dev University (GNDU)
4. Punjab University (PU)
5. Punjabi University, Patiala (PiU)
6. Kurukshetra University (KU)
7. University of Delhi (DU)
8. Aligarh Muslim University (AMU)
9. University of Lucknow (LU)
10. Banaras Hindu University (BHU)
11. National Institute of Science communication and Information resources (NISCAIR)
12. Babasaheb Bhimrao Ambedkar University (BBAU)
13. Indira Gandhi National Open University (IGNOU)

## 4. FINDINGS AND DISCUSSIONS

### 4.1 Embedded Librarianship

Different people have expressed their point of view on embedded librarianship differently. However, the basic consensus is on the participation of LIS professionals among his/ customers either physically or virtually. Dewey<sup>1</sup> defines embedding as a concept in which the one distinct group is integrated with another. As such when librarians involve themselves actively with persons from other disciplines and provide information support both on demand as well as in anticipation of demand lays foundation to embedded librarianship. Shumaker<sup>2</sup> stresses on effective collaboration and closer relationship of library professionals with their customers because the library is focused on the user's needs. Shumaker and Taylor<sup>3</sup> have expressed their ideas about embedded librarian as "Whether your title is 'Knowledge Analyst', 'Field Librarian', 'Informationist', 'Librarian-in-Context', 'Client-Embedded Services Librarian', 'Project Information Specialist', or something else, if a regular part of your work involves participating in a group, community, or organisational unit primarily made up of non-librarians, providing knowledge and information services as a part of the group, then you are participating in a growing trend of embedding librarians and their services in settings outside the library. In a more lucid and simple manner the key element of embedded librarianship

has been explained by Ricco & Myers<sup>4</sup> as: "It is to move the librarians out of the traditional library setting, whether physically or virtually, and into a new framework for providing library services. It shifts the emphasis from reactively answering research requests in a vacuum to developing a unique understanding of what customers need and delivering proactive results". Thus all efforts of embedded librarian are revolving around library patrons. Satisfaction of library patron is the priority of embedded librarianship.

For achieving this satisfaction embedded librarianship is supposed to develop close proximity with the users of library. Glynn & Wu<sup>5</sup> is of the opinion that personal contact, telephone calls, and e-mail messages are just a few of the ways that librarian liaisons can demonstrate a sincere interest in the scholarly activities of department faculty, as well as furnishing new services and materials.

Embedded librarianship can lead to rich dividends for all the stakeholders. Jacobs<sup>6</sup> while addressing the benefits of embedded librarianship comments that it creates 'win-win' like situation which is often used in business to describe a deal that works well for both parties. Embedded librarianship is a winning proposition not only for the constituents served, but for the librarian who has the opportunity to make a positive difference for students and faculty. If library professionals are willing to step outside the library to serve their patrons when and where they are needed, their value to the processes of teaching, learning, and scholarship will be enhanced. In such type of librarianship, LIS professional can use World Wide Web for reaching to their patrons as shown in Fig. 1.

#### 4.1.1 Features of Embedded Librarianship

Some features of embedded librarianship are:

- It is customer-centric not library-centric
- Knowledge of the particular subject/discipline/domain is more important than professional skills possessed by LIS professionals.
- Usually only a small group of users is focused and not the entire population.



Figure 1. Librarian on World Wide Web.

- Services are provided to specialists and not to generalists.
- More focus is given on analysis and synthesis than delivery of information.
- LIS professional get actively involved at the workplace of his clientele than at his own workplace.

Always perform their activities in the context and not out of context. Embedded librarians try their best for satisfying their clientele. It is as such evident from these features of embedded librarianship that they must have thorough knowledge about a particular subject like medicine, agriculture, law, etc., those library and information science professionals who are possessing sufficient knowledge about a particular subject can be successful embedded librarians.

#### 4.1.2 *Examples of Embedded Librarians in Libraries*

Scope of embedded librarianship is very wide. Embedded librarians are having features that make them relevant in any working environment. Some examples of embedded librarianship are:

Librarians working in the profession of medicine need some specialised knowledge for dealing with information related to different branches of medical profession. These embedded librarians in health sector can play a very important role in disseminating right information to the right users of information in an effective and efficient manner. Similarly, law librarians know better about information related to the legal profession. There are LIS professionals who had earned specialisation in the record archives and as record archivists, they can play their important role. Embedded librarians associated with business and financial sector can perform nicely for promoting and achieving the goals of that business.

In the present era, when there is interdisciplinary and multidisciplinary trends operating in the universe of knowledge, LIS professionals can get involved in projects and can work within a team of collaborators Librarians due to their specialised knowledge and competencies will prove their mettle as embedded LIS professionals in the team by offering both customised and anticipatory information services to all the members of that team. In the present IT era there is the need of librarians having specialisation in dealing with digital artifacts. For describing digital objects, librarians create different sets of metadata. Thus, there is scope for metadata librarians.

It is evident that library professionals working in public, academic, school, medical, oriental, agriculture law, defence, etc., and in any other specialised library setting can use embedded librarianship principles to enhance their working and careers.

## 4.2 **Role of LIS Schools in Nurturing Embedded Librarianship**

Library and information science schools play an important role in developing competent professionals for managing libraries of all hues in the society. Through sound teaching and up to date curriculum, LIS schools provide a favorable environment to students for learning new skills and knowledge for performing their professional obligations in an efficient manner<sup>7</sup>. Library science schools are regularly redefining the curriculum contents to make their passouts relevant for today and tomorrow. To achieve this objective, LIS schools are offering specialisation in different areas like health, agriculture, etc., as is evident from the curriculum adopted by these schools.

### 4.2.1 *Specialisation and Embedded Librarianship*

Offering specialisation in the discipline of LIS is actually a step for building embedded librarians. In these specialisations, teachers give exposure to different facets of the subject so that students taking these specialised courses are able to offer effective and qualitative information services to the library patrons. University Grants Commission (UGC), the apex body for governing higher education in India has also incorporated concept of special information systems in its model curriculum report published in year under title CDC-Model curriculum (2001)<sup>8</sup> for LIS. A number of special information systems are enumerated in CDC report. The general objectives of this module as given in the CDC report are to:

- Understand the structure and development of the subject/discipline
- Prepare specialised professional manpower in the subject/discipline for handling information-related activities
- Provide in-depth knowledge and specialised skills in handling documentary and non documentary sources in specific field of knowledge
- Enable the students to design and develop information system in new/emerging areas/disciplines
- Explore feasibility of application of information technology and the related-aspects in their implementation

In the CDC-report, there are 10 elective papers with following nomenclature:

- (1) Health information system
- (2) Business information system
- (3) Agricultural information system
- (4) Social science information system
- (5) Environmental information system
- (6) Legal information system



- (7) Industrial information system
- (8) Archival, Museum information system
- (9) Biotechnology information system
- (10) Rural information system

#### 4.2.2 *Entrepreneurship Avenues for Pass-Outs from LIS Schools*

In the present world of specialisations, pass-outs from LIS schools are having prosperous job opportunities. Few entrepreneurial avenues are:

- Library Consultants: Now a day's corporate sector have realised the importance of information and are very keen in developing their own library for fulfilling their information needs. Here, competent LIS professionals can play an efficient role in developing libraries.
- Automation Consultant: LIS students well equipped with the competencies needed for automation of different library activities can get offers from different libraries for automating the libraries.
- E-resource Manager: LIS students with specialisation have opportunity to act as an expert in managing e-resources in the information system.
- Career Counselor: There are various career counseling agencies. LIS students with excellent interpersonal skills can act as a career counselor.

#### 4.3 Specialisation Offered by Departments

The LIS departments in North India under the scope of this study have responded to these electives differently which is shown in Table 1. From Table 1 it is evident that there is no uniformity among departments in teaching specialised courses. Following observations have been made:

- (a) Seven departments have adopted health information system.
- (b) Four departments are teaching business information system.
- (c) Four departments have adopted agricultural information system.
- (d) Two departments are conducting courses of social science information system
- (e) One department each has adopted environmental information system, natural science information system, and engineering & technological information system.

It is also analysed from Fig. 2 that the contents being taught in these courses mainly revolve around the following:

- (a) Basic concept, scope and development of the subjects
- (b) Information sources both print and electronic
- (c) Information systems at national and international levels
- (d) Information seeking behaviour

Through these contents, the LIS schools try to develop a number of competencies among budding

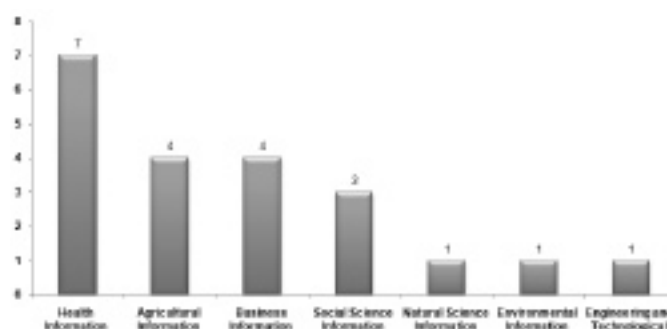


Figure 2. Specialised information system in LIS schools.

Table 1. Specialisation offered by departments

S. No.	Unit	UK	JU	PU	PiU	GNDU	KU	DU	AMU	LU	BHU	Ignou	Niscair	BBAU
1.	Business information system	✓		✓	×	×	✓			×	×	×	✓	
2.	Environmental information system	✓			×	×				×	×	×		
3.	Biotechnology information system				×	×				×	×	×		
4.	Health science information system	✓	✓	✓	×	×	✓	✓	✓	×	×	×		✓
5.	Archival, museums and archeological information system				×	×				×	×	×		
6.	Legal information system				×	×				×	×	×		
7.	Agricultural information system	✓	✓		×	×		✓	✓	×	×	×		
8.	Social science information system			✓	×	×	✓		✓	×	×	×		
9.	Industrial information system				×	×				×	×	×		
10.	Natural science information system				×	×			✓	×	×	×		
11.	Engineering and technology Information system				×	×			✓	×	×	×		
Total		4	2	3			3	2	5				1	1

professionals so that they can become successful librarians of the future. The most important competency for embedded librarians are the skills required for building close relationship with the library patrons. e, LIS schools must take care of developing soft skills among the budding librarians. Besides soft skills LIS professionals must possess sound knowledge and skills about ICT. In the present information landscape librarians should have enough knowledge about the social networking tools and their application in libraries and information centers.

## 5. CONCLUSIONS

Present age is the age of specialisation. In any discipline whether medical sciences, agricultural science, engineering and technology ,etc., all disciplines have developed specialised streams. Librarians when equipped with sufficient knowledge about a particular discipline, can perform their professional obligations in a more effective way. By organising information literacy programs, library professionals can make his patrons proficient in the optimum, effective and judicious use of information for not only enhancing the understanding but productive utilisation of information resources. By providing personal assistance and assistance through virtual means, embedded librarians can raise their professional status in particular and the whole profession of librarianship in general. Thus, the need of the hour is that LIS schools make appropriate measures to impart qualitative education to students by integrating more and more specialisations in the curriculum.

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