Information Literacy Curriculum for Undergraduate Students

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Abstract
Each person should have the opportunity to acquire necessary skills and knowledge in order to understand, participate in, and benefit from, the information society. Therefore, students not only need to master the knowledge that is necessary for information processing, but they should also have the appropriate attitudes towards information processing to develop the capacity for lifelong learning. This article aims to discuss the concept of information literacy, its development, need to become information literate and present scenario in Indian context. An attempt has also been made to design an information literacy curriculum required in college education which should be embedded as a part of the academic curriculum. Thus, there is need to build an effective information literacy program to build information literacy skills in students which are necessary to comprehend what they require in order to meet their information needs for their day-to-day academic endeavors.

Keywords: Information Literacy, Information Literacy Programs, Information Literacy Curriculum.

Introduction
The 20th Century has often been considered as the age of information and technology. Societies are restructuring themselves in ways that react to technological, social and economic change. Recent decades have witnessed industrialized societies being transformed into information-based societies where information plays a central role. In these societies, information is constantly changing in terms of its volume, technical aspects of its storage and retrieval, and in the way it is communicated. This situation has not only increased the amount of information available to users but also created an environment that makes it complex for them to find, access, select, evaluate and handle information. Thus, in order to deal with this situation, librarians and academics in educational institutions of various countries have introduced Information Literacy Programs (ILP) to impart the knowledge and skills that would enable information users with lifelong learning skills.

Information literacy is an ability to find, use and communicate information; it is the keystone of lifelong learning. The ability to read and write only defines literacy, but does not define information literacy in today’s environment. Nowadays, the concept of information literacy includes both computer literacy and information literacy. Information literate people are effective consumers of information. They are critical thinkers and self-directed learners, and they use and communicate information effectively and responsibly. Every member of the society should be equipped with information literacy skills, so as to be able to succeed in school, college, university, profession and in his or her daily life. In order to gain information literacy skills individuals should participate in information literacy programs. Libraries of all sorts should play a central role in teaching information literacy skills and in integrating information literacy into the academic curricula at all levels. Creating and maintaining ILP that will support lifelong learning should become a mission for every library. (Kurbanoglu 23-27).

Background and Concept
The term Information Literacy (IL) was first used in 1974 by Paul Zurkowski in a report to the National Commission on Libraries and Information Science (NCLIS). This report announced the establishment of a national program to achieve universal information literacy by 1984. (Doyle 5). The idea was to make individuals and organizations aware of how machine-aided handling systems can help to identify, access, analyze and obtain data and documents needed for problem solving and decision-making. The various other efforts made to provide the support for the development of information literacy as a concept are discussed below.
In 1983, a program by the name of “A Nation at Risk: The Imperative for Education Reform”, identified the management of complex information in electronic and digital form as an important skill in a ‘learning society’. The report of this program made no recommendation on either the role of the library or that of information resources in K-12 education (K-12 education is education from Kindergarten (5-6 year olds) through 12th grade (17-18 years old). It is used in the US, Canada, and parts of Australia.)

In 1986, ‘Educating Students to Think: The Role of the School Library Media Program’ outlined the roles of the library and the information resources in K-12 education. The three relevant components described in this program were:

- The role of school library media programs in helping students develop thinking skills,
- Theoretical implications of current research on how children and adolescents process information and ideas
- Practical implications and applications of the concepts as the basis for developing an information skills programs in all curricular areas. (Doyle 6).

In 1988, the American Association of School Librarians (AASL), a branch of American Library Association (ALA), published national guidelines for school library media programme. They called their work ‘Information Power’. Information Power called for the shift in the role of the library/ media specialist from a “passive keeper of materials” to a key participant in the learning process.

In 1989, with the release of American Library Association’s final report, the concept of information literacy received greater attention in all educational sectors. During this time, IL was making a headway impact on education and libraries for creating awareness among users. ‘The Presidential Committee on Information Literacy’ defined IL as a set of skills, which require an individual: “to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.”(ALA, 1989)

In 2000, ‘The ACRL’s Information Literacy Competency Standards for Higher Education’ also made an attempt to put light on the concept of IL through its definition. According to this, “Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning.” (ACRL, 2000)

Today, IL has become an issue of global attention. It combines a number of literacy including library literacy, media literacy, computer literacy, internet literacy, research literacy and critical thinking skills.

**Need to be Information Literate**

IL is very important today owing to development of information and communication technologies and its’ application in libraries and information centers. Because of the escalating complexity of this environment, individuals are faced with diverse, abundant information choices in their academic studies as well as in their workplaces. For maximum utilization of information resources in teaching, learning and research, an Information Literacy Program (ILP) is the need of the hour. It makes the end users competent enough for retrieving precise and relevant information as per their needs. According to ‘Information Literacy Competency Standards for Higher Education’ (ACRL 2000), an information literate individual is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one’s knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

Some of the other characteristics of an information literate person as described by Hannelore Rader in her definition include the following:

- Survive and be successful in an information/ technology environment
- Lead productive, healthy, and satisfying lives in a democratic society
- Effectively deal with rapidly changing environments
- Ensure a better future for the next generation
- Find appropriate information for personal and professional problem solving
- Have writing and computer proficiencies
- In short, information-literate people know how to be lifelong learners in an information society. (Loanne and Cooper 9).

**ILP in Higher Education: Indian Scenario**

Effective implementation of IL is possible with efficient ILP. A variety of programmes are being used in the US, UK and other European countries. However, there is a need to develop ILP which are more suitable in Indian higher education environment keeping in view the skills and competencies of college students.

Presently, India has presently 20 Central Universities, 215 State Universities, 100 Deemed Universities. In addition, there are five institutes established under State Act and 13 institutes of national importance.
There are 17,000 colleges, which include 1,800 women’s colleges (Ministry of Information & Broadcasting 2008). The total enrolment of students in universities and colleges is about 9.5 lakhs while the number of teachers is 4.5 lakhs. Only a small percentage of the eligible population is getting higher education in India. India’s educational system is largely traditional and not geared to contemporary social needs, although the situation is improving but at a very slow pace. There are not enough schools and colleges with basic facilities such as spacious classrooms, well-equipped computer labs and libraries, appropriate teacher/pupil ratios, etc.

In India, information literacy is imparted mostly at institutions of higher learning. This includes user education, library instruction and bibliographic instruction programmes which are not adequate enough to meet the present information requirement of the students. In universities, a course on research methodology is included where library research techniques are included, which is conducted for research degree programs. The schools of library and information science and university and college libraries also conduct the orientation programs for their faculty and students to make them aware of electronic resources and how they can use these resources. One such initiative has been taken up by Central Reference Library of University of Delhi. It has organized several ILPs for researchers and faculty in order to make them aware and train them in making use of resources subscribed by the Delhi University Library System. The Department of Library and Information Science has included a paper entitled “Information Literacy Applications in LIS” at Masters’ Level from this academic session, i.e. 2009-2010 so that future library and information professionals will be able to conduct information literacy programs in an effective and efficient manner.

Other initiatives taken up in India include, The Indian Medlars Centre of National Informatics Centre conducts a user-training program in every four month on their information products and services, like, IndMed databases, medIND open access journal literature, OpenMED open access archive, UNCat union catalogue databases, etc., which are designed mainly for health professionals and health librarians. Some orientation programs and refresher courses also impart information literacy competency to the learners. (Ghosh and Das 9)

**Curriculum for Undergraduate Students**

The proposed course work has been designed for three to five year under graduate courses like B.A., B.Com, B.Tech., M.B.B.S., etc. in such a manner that it can be completed in the first 2 years of the course. This course can be conducted as a session of 2 hours a week, around the year and be embedded with the academic curriculum, so that the skills can be applied to real problems. Thus, it would not be a burden on students and will provide them with knowledge which will aid them in their regular course of study.

**Course Content**

**Year – I: Understanding and Finding Information**

What is information?
- Definition
- Concept
- Need for information
- Characteristics of information
- Types of information
- Role of information

**Information providers:**
- Libraries & Information Centers
- Documentation Centers
- Data Centers
- Referral Centers
- Clearing Houses

**Library sources:**
- General books
- Text books
- Periodicals
- Reference sources (like dictionary, encyclopedia, directory, almanac, statistical sources, atlas and maps, gazetteer, etc)
- CD-ROMs (like databases, encyclopedia, etc)
- Online sources (like websites, portals, gateways, blogs, wikis, etc)

**Library services:**
- Circulation
- Reference
- Inter library loan
- Current Awareness Services
- Indexing and abstracting
- Online reference service
- Reservation of documents
- Bulletin board services

**Information networks:**
- DELNET
- INFLIBNET

**Information Technology:**
- Definition
- Need and objectives of IT
- Computer hardware basics
- Input and output devices
- Data storage devices
- MS-Office package
- Creating email accounts
- Sending and receiving emails
- Basic internet browsing through search engines

Information searching:
- From the print sources: Searching information from various types of indexes (author index, subject index, etc)
- From electronic sources: Searching techniques, CD-ROM searching, online searching, searching from free and subscribed databases & websites, downloading, copying and printing

Practice
Library Tours:
- Working hours, membership, rules and regulations
- Introduction to the staff and staff assistance
- Library sources, their organization and techniques to locate them
- Introduction to basic library services such as OPAC use, circulation, reference services, basic internet services and reprography.

Assignment topics will be allotted to the students which will help them in developing skills required to search library sources and use various types of services provided by the library. This problem solving task will also help them in:
- Identification of information needed
- Identification of relevant types of sources where required information can be found
- Selection of information from the identified sources

Year – II: Organizing, Processing and Presentation of Information
Evaluation of information:
- Determination of the authoritativeness, authenticity, currentness and reliability of the information
- Avoiding plagiarism
- Recognition of interrelationships among concepts
- Recognition of omissions and errors in the information (if any)
- Comparison of information gathered with the original problem and adjusting strategies accordingly
- Revision and of the information collected

Organization of information
- Summarization of the information with accuracy and clarity
- Organization and analysis of information
- Re-examining information (if required)
- Drawing conclusions based on the information gathered and its interpretation
- Providing citations and bibliographies using various styles of references like MLA, APA, Chicago manual, Harvard etc

Presentation of information:
- Formats for presentation of information (like printed text, graphical, PowerPoint presentation, online hosting of information)

Practice
Assignment topics will be allotted to the students which will help them in developing critical thinking skills required to:
- Evaluate collected information
- Organize the evaluated information
- Present the information in suitable format

Compilation of bibliographies on allotted topics following proper citation style
Online publishing using blogs, forums, wikis, online journals, etc

Barriers to Information Literacy Education
There are several reasons responsible for ineffective information literacy education; some of them also act as obstacles in integrating the information literacy into academic curriculum as given below:
- There is no standard information policy to guide information literacy practice in India.
- There is lack of awareness among students about the information literacy instruction sessions on offer.
- Instruction sessions are affected by time constraints because information literacy is not allocated official time in university and college academic timetables.
- Attendance by students is voluntary and as a result not all students take advantage of the sessions that are in place.
- There is lack of available resources such as computers and CD-ROMs to support hands-on practice.
- Information skills sessions, as they are currently offered, are not linked to course offerings. Nor are they integrated into mainstream curriculum and therefore do not correspond to the curriculum in terms of content and need. (Lwehabura and Stilwell 183).
Differences between attitude to course content and to delivery between libraries and teaching staff.

Control of the teaching staff over curriculum content.

Inadequate library staffing.

Lack of willingness among students to learn such a program apart from their academic curriculum.

The marginalization of libraries and librarians in assuming a substantive role in the teaching and learning process prevents library professionals from integrating information literacy into the curriculum.

Conclusion
Managing an IL Programme (ILP) in a college has many challenges. Programmes at such institutions often have limited financial resources and are maintained with inadequate staff. However, organizing ILP in higher education institutions will certainly enhance the teaching role of academic library professionals. In a university and college set up, such programmes are increasingly valued by the university authorities and faculty. The inclusion of information competencies as a graduation requirement provides opportunities to incorporate IL into the academic curriculum and foster collaboration between faculty and librarians.

Thus, in order to promote effective IL education several efforts needs to be taken. One of them is mainstreaming information literacy in the curriculum. It should be firmly embedded in subject context, in the curriculum itself because the need to acquire these skills only becomes meaningful to students in a curriculum context.

References


