
INFORMATION LITERACY TEACHING IN HIGHER EDUCATION ENVIRONMENT

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Abstract

The paper seeks to provide an overview of information literacy developments and initiatives taken up in a higher education sector in an international environment and some of the information literacy models which are in use in an international level are also observed. The article is based on literature reviews and models discussed here could help India and other developing countries to develop their own Information literacy programmes

Keywords: Information Literacy

1. Introduction

Information is as essential to our survival as water, food, shelter and clothing. Information is, however, much more than a survival tool. Information unleashes our imagination and challenges our preconceptions and thereby provides us with a pathway to personal growth and fulfillment.[1]. In a digital world where the amount of information doubles every two years, students need to evaluate resources carefully and determine how to use relevant information to solve problems and make wise decisions.[2].

The information society calls for all people to become information literate which means that they should not only be able to recognise when information is needed but also be able to identify, locate, evaluate and use effectively information needed for decision making or fulfilling different goals. Information literacy (IL) is increasingly important in the present context of the information explosion and concomitant uncertainties about its authenticity, validity, and reliability. For the students, regardless of their discipline, information literacy skills enable them to master content and give them the confidence to proceed with investigation, be self-reliant and have a sense of being in control of their learning. [3]

1.1 Definition of Information Literacy:

Information literacy is a set of abilities requiring individuals to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” (American Library Association. Presidential Committee on Information Literacy. Final Report. [4]

Chartered Institute of Library and Information Professionals, defines “Information literacy is knowing when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner.”[5]

According to a presentation by Town at the first international conference on Information Technology and Information Literacy in Glasgow, in 2002, the SCONUL approach to information literacy can be described as follows:

“...information literacy is knowledge rather than simply skill, achieved by education rather than training, created through partnership between professionals and is a lifelong endeavour that is contextual in field and service access.” [6]

1.2 Electronic Information Literacy

The more electronic resources libraries acquire and make available to users, the greater the demand for instruction in how to access and use those resources effectively and efficiently. Bruce, a well-known Australian information literacy researcher, notes:

“The idea of information literacy, emerging with the advent of information technologies in the early 1970s, has grown, taken shape and strengthened to become recognized as the critical literacy for the twenty-first century. Sometimes interpreted as one of a number of literacies, information literacy is also described as the overarching literacy essential for twenty-first century living. Today, information literacy is inextricably associated with information practices and critical thinking in the information and communication technology environment” [7]

“Information literacy includes information technology skills, such as use of computers, software applications, and information retrieval tools, but it is a broader area of competence that encompasses the content, analysis and communication of information.”[8]

1.3 Information Literacy Teaching

The continuing growth of electronic information has made librarians more aware of the need for assistance and instruction to all types of information seekers. Librarians are becoming more concerned that library users will need more training and skills development in using the World Wide Web, so they can become more critical, evaluative and responsible information consumers. As a result, librarians are increasingly placing information-skills instruction modules on the World Wide Web to address instructional needs of remote users and to build virtual libraries.[9]

The traditional method of teaching library skills and teaching information skills in electronic era is given in Table No.1 [10]

Table No.1

Comparison of Teaching Library Skills and Information Skills	
Teaching library Skills	Teaching Information Skills
Library viewpoint essential, the user adapts	Learner viewpoint essential what kind of knowledge does the learner need in information work?
Guidance given by the library	Cooperation between faculty staff and librarians essential
Teaching as a secondary function	Meaning of pedagogical skills in the libraries emphasised
Teaching uncoordinated	Standards form a basis for the cooperation between libraries both nationally and internationally

1.4 Need for Information Literacy Teaching:

All the universities are witnessing a rapid growth in computer networking and the use of computerised databases to access information in their libraries. In fact, most academic libraries today are “hybrid libraries”, adding the new e-library features to their traditional library services. Table 2 illustrates the changes to and new characteristics of library services.[11]

Table 2

The Changes in Library Services		
	Traditional Library	Library in electronic age
Catalogue	Local OPAC or card catalogue access	Online catalogue with web-interface and remote accessibility
Collection	In-house print, micro form, and audio video materials	articles-books and so-on: librarywebsites leading to selective online documents & resources
Circulation	In-person check out at library during library hours	Online access to e-books, online renewal of checked-out materials
Instruction	In-person instruction in classroom library	Online instruction: in-person instruction with online components
Inter library loan (ILL) and document delivery	In-person submission of ILL request; books and articles delivered through mail and fax	Online ILL request, and articles delivery via e-mail in addition to traditional delivery
Reference	In-Person contact at reference desk	Online reference including simple e –mail reference and real time virtual reference
Reserve	Materials housed in library reserve area	Online accessible electronic reserve

Information literacy is therefore essential for university students and faculties to cope with new online services in and provide a competitive advantage to themselves and the wider society. Without the training it is unlikely that electronic information sources will be used effectively. The users of the library or the students of higher education lack the sophisticated skills that are needed to exploit the libraries research potential. It is necessary for users to have the requisite skills to obtain relevant information quickly and effectively from electronic sources and become what is often referred to as 'Information literate' When all aspects of library services enter cyberspace, it becomes inevitable for IL instruction to go online. Reaching a larger population, accommodating different learning styles, reducing librarians' time, reducing teaching repetitiveness, are some of the advantages of Online IL programme.

1.5 Goals and Objectives of Teaching Information Literacy

Information literacy also aims to teach students how to find information and prepare them for lifelong learning because they can "always find information needed for any task or decision at hand". [12] This is important in the context of today's information society in which information is the most critical resource and basis for competition [13]

According to American Library Association the Information Literacy objectives are identified as follows [8]

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. An information literate individual is able to

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- To determine the extent of information needed
 - To provide access the needed information effectively and efficiently
 - To evaluate information and its sources critically
 - To 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

2. Background Study

Since 1974 information literacy has been an area of increasing interest to librarians and information professionals and there is a huge amount of literature on the topic, especially from the United States, Australia and Europe. There are many Organizations (such as the Australian and New Zealand Institute for Information Literacy, and the Association of College and Research Libraries, Institute for Information Literacy in the U.S. as well as individual libraries in many countries are working to make their users information literate. Research in information literacy at Sheffield University in the U.K. has resulted in a website with links to many information literacy developments around the world [14]

In UK the Conference on Information Technology and Information Literacy in Glasgow, March 20-22, 2002 demonstrated several examples of good practice. For example, the British Open University, Edge Hill College of Higher Education, Cardiff University, Cranfield University, University College Northampton and the University of Sheffield have developed interesting information literacy programmes. Many programmes are based on the SCONUL model.[15]

A study undertaken by Joseph Muema Kavulya to investigate to what extent university libraries in Kenya are providing information literacy programmes, conclude that although there have been efforts to ensure information literacy among university studies, there is need to build on these efforts through collaborative efforts between librarians and faculty members particularly through joint curriculum design and implementation.[3]

The article addresses the development and present state of information literacy activities in Danish institutions of higher education. It outlines the national policy on information literacy, emphasising the crucial role of the Danish Electronic Research Library (DEF). The importance of integrating information literacy sessions into the curriculum is highlighted together with an examination of the barriers that make integration difficult. Strategic alliances and new forms of liaison schemes are presented followed by a description of learning resource centres and Web-based tutorials and e-learning activities. The important role of professional groups in setting the agenda for information literacy discussions and knowledge sharing is recognised; and finally, the paper outlines the various educational opportunities open to library school students and academic librarians engaged in teaching information literacy [16]

3. Information literacy programmes in the international environment

3.1 College and University Programs

- CSU Information Competence Initiative (California State University System)

Describes the numerous information “competence” initiatives throughout the CSU system. Includes descriptions of projects system wide resources and related links. <http://www.calstate.edu/LS/infocomp.shtml>

- Information Literacy and the Library (Penn State University)

Delivers a good picture of local initiatives in defining and implementing information literacy instruction in higher education. Illustrates efforts by librarians to collaborate with faculty in planning and participating in the development of instruction. Also provides a list of other information literacy programs, freshman year experiences, tutorials, position papers, and bibliographies. <http://www.libraries.psu.edu/instruction/infolit/>

- Information Literacy Group (University of Calgary)

Describes the University’s information literacy program, including an action plan, the recent annual report, group minutes back to February 1996, definitions and competencies, and a survey of undergraduate library use strategies. Also provides a number of links to related Internet resources. <http://www.ucalgary.ca/library/ILG>

- Information Literacy Instruction in Higher Education: Trends and Issues

Written by Abby Kasowitz- Scheer and Michael Pasqualoni. This June 2002 ERIC Digest examines characteristics of successful programs, presents approaches currently being taken by academic libraries to support information literacy instruction (ILI), and addresses common challenges in developing and maintaining ILI programs.

[http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED465375\(.pdf.file\)](http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED465375(.pdf.file))

- Information Literacy Project (University of Arizona)

Provides a good view of comprehensive and systematic information literacy planning at a large public university. These pages incorporate project development documents, competencies, definitions, descriptions of projects from other universities, program components, and links to collected data <http://www.library.arizona.edu/library/teams/InfoLit2000/infolit.shtml>

- IUPUI Instructional Teams (Indiana/Purdue at Indianapolis)

Presents information about a systematic model of instructional collaboration between librarians and faculty developed and documented in 1998. (<http://www-lib.iupui.edu/itt>) The purpose of the Project for Standardized Assessment of Information Literacy Skills (SAILS) has been to develop an instrument for programmatic level assessment of information literacy skills that is valid and thus credible to university administrators and other academic personnel. <http://sails.lms.kent.edu/index.php>

- SUNY Connect: Information Literacy (State University of New York)

Solid reports on multi-institutional collaboration in information literacy. Includes four reports on incorporating information literacy into the SUNY system, and on development of a web-based course. <http://www.sunyconnect.suny.edu/ili/iliover.htm>

- UWired (University of Washington)

Describes the many facets of a remarkable program combining technologies, librarian/faculty collaboration, and information literacy. Components include items labeled as the vision, people, places, initiatives, history and evaluation. <http://www.washington.edu/uwired> [17]

3.2 Models for Teaching Information Literacy:

- Drew Smith's "Directory of Online Resources for Information Literacy," lists examples of information literacy programs in higher education. Using that list as source I have listed below perhaps the best know programs. (URL: <http://nosferatu.cas.usf.edu/lis/il/>)

- Examples of model programs include:

Arizona: University of Arizona, The Information Literacy Project (URL: <http://dizzy.library.arizona.edu/library/teams/infolit/InfoLit2000/infolit.shtml>)

California: California State University San Marcos (URL:<http://library.csusm.edu/departments/ilp/>)

California: University of California — Berkeley (URL:<http://www.lib.berkeley.edu/TeachingLib/>)

Consortia: Associated Colleges of the South (ACS) Information Fluency Project
(URL: <http://www.colleges.org/~if/>)

Florida: Florida International University (URL:<http://www.fiu.edu/%7Elibrary/ili/iliprop1.html>)

Indiana: Earlham College (URL: <http://www.earlham.edu/~libr/library/>)

Kentucky: University of Louisville, Lifelong Learning Through the Libraries (URL:<http://www.louisville.edu/infoliteracy>)

Kentucky Virtual Library. (URL:<http://www.kyvl.org/>)

Washington: University of Washington, UWired Program : (URL:<http://www.washington.edu/uwired>)

Wisconsin: University of Wisconsin — Parkside (URL:<http://www.uwp.edu/information.services/library/>) [18]

The Big6.com: Teaching Technology & Information Skills Provides useful information about this popular model of information literacy instruction, including examples of its application within various educational contexts, lesson plans, a bibliography, Web sites, And Big6 the electronic discussion and newsletter <http://www.big6.com>.

Association of College & Research Libraries Information Literacy Web Site:The Association of College & Research Libraries gateway to and a gathering place for resources on information literacy. This site is focused on improving the teaching, learning, and research roles of the higher education community.<http://www.ala.org/ala/acrl/acrlissues/acrlinfolit/informationliteracy.htm> [17]

4. Possible solutions for promoting collaboration on information literacy

Librarians play a vital, and evolving, role in collaborating with faculty to implement the changes necessary for an effective information literacy curriculum. The Library recognizes that successful teaching of information literacy skills requires a campus wide partnership which combines the expertise of Library

staff, academic staff and other teaching and learning support services. Collaboration is essential to ensure that information literacy skills are embedded in the university curriculum at every level and in every academic course. [19]

Many library educators believe that IL should not be limited to one age group or one educational level. Many are of the opinion that user education is a continuous process which should be performed for all groups. Indeed, it has been observed that in order to ensure that users are equipped with sufficient methods of accessing, evaluating information from a variety of sources and synthesizing the information into a coherent whole, training can be organized around a level of difficulty of information and or of user educational background [20]

5. Information Literacy in developing countries

Developing countries face a number of problems which stand in the way of developing their IL programs. The major problems confronting these countries are the traditional educational system, lack of required human resources in the library and financial constraints and lack of support by the management. Unfortunately, the educational system in many developing countries does not encourage student initiatives and critical thinking. Moreover, the ratio of faculty to students is disproportional and educational institutions lack basic facilities such as functional classroom buildings, appropriate computer labs and library facilities.

6. Information Literacy Programme in Indian Scenario

Information literacy is a key component of, and contributor to lifelong learning. Since higher education institutions vary widely in mission and student body, ILI Information Literacy Programmes are to be designed, tailored to meet specific needs of the users rather than a prescribed set of criteria.

Education systems and institutions must take seriously the challenges of the Information Age. The central theme of higher education institutions (HEIs) in many parts of the world is to develop lifelong learners with the intellectual abilities of reasoning and critical thinking. Any training in skills provided towards this direction not only leads to the use of the library systems effectively but also adds value to them.

Based on the literature reviewed and keeping in view the present scenario of educational system and financial crunch in higher education environment in our country, it is felt that the prominence should be given to information literacy in higher education system. Introducing Electronic information literacy program in an academic setting is an institutional issue for the university, as well as the library. In India University Grants Commission (UGC) has taken sincere efforts to bring a boost in the higher education system by introducing UGC-INFONET E-Journals Consortium project. Information and Library Network (INFLIBNET) which is the co-coordinating agency for UGC-INFONET Project is conducting various training programmes, user awareness programmes, workshops and seminars to research scholars, faculty members and library staff from more than 40 universities across the country, on how to access these abundant resources offered by the UGC. [21] INFLIBNET is also responsible for providing training to university library professionals in the use of this network for providing a variety of services to the users. Examples include:

- Computer application to library and information services (CALIS) – a four-week intensive training programme focusing on the practical aspects in the use of computers in libraries.
- Workshop on Automation and Networking of University libraries (WANULIP), which covers the implementation of INFLIBNET in university libraries.
- Onsite training in various topics.

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- Training in library management systems for university library staff..

There are several institutions that run continuing professional development courses and programmes for library and information professionals in India. Indian National Scientific Documentation Centre (INSDOC), Professional bodies, such as the Indian Library Association (ILA), the Indian Association of Special Libraries and Information Centres (IASLIC) and the Society for Information Science (SIS), are also involved in continuing professional development in this area. University of Hyderabad Library had run training sessions in small groups with hands-on experience for all users, with training to use the OPAC being given priority.[22] Punjab University, Patiala has organized seminar on information literacy.

7. Conclusion

The ultimate goal of any library service is to ensure that the clients are able to access the information for purposes for which they require it. This raises the need to teach information literacy to clients with the goal of assisting clients to identify and select relevant information using appropriate search strategies and being able to evaluate, organise and synthesise that information into a meaningful presentation. The library professionals should take initiative in conducting various information literacy programmes in the university environment and update their skills by attending various seminars and workshops conducted by various organizations .

Information literacy programs require inclusion not only of faculty and staff throughout the institution, but also the staff of the library department. It is certain that in higher education environment of developing countries sooner or later need to embrace the information literacy programmes and endeavour to create an information literate society.

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