INFORMATION LITERACY AND THE ROLE OF LIBRARIAN

Anil Kumar Dhiman

Abstract

The present age is Information Age, and the pedagogic implications of this age are that people should learn new skills to use information stored on computers. Libraries and Information Centers have responded by acquiring information technology and encourage computer literacy. The information that is available through libraries, community resources, special interest organizations, media and Internet comes to individuals in unfiltered formats, rising question about its authenticity, validity and reliability. In addition, information available through multiple media poses new challenges for individuals in understanding the landscape of information and to acquire knowledge of how to gather, evaluate and use information in today's world. Information literacy therefore, is increasingly important in the contemporary environment of rapid technological change and proliferating information resources. It enables learners to master content and extend their investigations, become more self-directed and assume greater control over their own learning. With the advances in Information and Communication technologies (Dhiman, 2001, 2002 & 2003), the traditional concepts of organization, user orientation, bibliographic description and dissemination of information are to be fine-tuned to the new environment by the Library and Information Professionals. So the LIS professionals working in the environment have to face challenges for providing the right information to the right user at the right time.

Key words : Information, Information Literacy, Information & Communication Technologies and Librarians

1. Introduction

Information Literacy is the process of knowing when and why information is required, where to find it, and how to evaluate, use and communicate it in an ethical way. It is the combination of all the skills that are required for the effective and maximum use of information. The term information literacy has been used as collective term covering all or several of literacies, viz., computer literacy, digital literacy, hyper-literacy, information technology literacy, interactive literacy, Internet literacy, library literacy, media literacy, multiple literacy, network literacy, oral literacy, and visual literacy etc. These literacies need to be developed and maintained throughout life, not only by information users, but also by librarians and other information workers. Information Literary or IL is variously defined as follows:

- Paul Zurkowski is supposed to be first, who defined information literacy during 1970s as "People trained in the application of Information resources to their work can be called information literates". They have learned techniques and skills for using the wide range of information tools as well as primary sources in molding information solution to their problems" (Jayaprakash and Gupta, 2005).

- Lexon and Walker also define "Information Literacy by characterizing information literate person: one who has the analytical and critical skills to formulate research questions and evaluate results and the skills to search for and access a variety of information types in order to meet his or her information needs" (Jayaprakash and Gupta, 2005).

- Doyle (1992) defined Information Literacy as an individual's ability to; recognize a need for information; identify and locate appropriate information sources; know how to gain access to the information contained in those sources; evaluate the quality of information obtained; organize the information; and use the information effectively.

- US National Commission on Library and Information Science, 2003 defines Information Literacy as "It encompasses knowledge of one's information concerns and needs, and the ability to identify locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand; it is a prerequisite for participating effectively in the information society, and is part of the basic human right of life long learning" (Webb and Powis, 2004).

- Another most cited definition for Information Literacy comes from American Library Association, according to which "Information Literacy is the set of skills needed to find, retrieve, analyze and use information" (American Library Association, 2003).

- A generally acceptable definition was proposed by Association of College and Research Libraries in 2000, which defines IL as '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" (ACRL, 2004).

So, Information Literacy is the ability to identify what information is needed and the ability to locate, evaluate and use information in solving problems and composing discourse.

1.1 Need for Information Literacy

Information is the basic requirement for every human activity and it is important as food, air and water. Information in itself has no value, but its value lies in its communication and use. The need of information literacy may be essential due to the following reasons.

(i) Rapid increase in the stream of information due to information revolution;

(ii) Advent of information and communication technologies;

(iii) Vast variety of information sources;

(iv) Changing shape of libraries;

(v) Wide dispersal of information;

(vi) Increase in number of users; and

(vii) Research on complex and interdisciplinary topics.

1.2 Objectives of Information Literacy

The Ministry of Education, Science, Sports and Culture, Japan has defines the following objectives of information literacy (Anonymous, 1991):

(i) Capabilities of judgment (evaluation), selection, organization, and processing of information as well as of information creation and communication;

(ii) Understanding of characteristics of information society, effect of information user society and human beings;

(iii)   Recognition of importance of, and responsibility for information; and

(iv)   Understanding of foundation of information science, learning of basic operation skills of information and information device, particularly computer.

Broadly, the other objectives of information literacy programme may include the development of skills and competencies, which enable a client:

(i)   to recognize an information gap;

(ii)   to construct alternative strategies to reduce the information gap;

(iii)   to select a strategy;

(iv)   to act on a strategy to find and retrieve information;

(v)   to assess the effectiveness of a strategy;

(vi)   to acknowledge the sources of information and ideas; and

(vii)   to store the information for future use.

1.3   Scope of Information Literacy

Information Literacy includes a range of literacy. The range of literacy may be:

(i)   Traditional Literacy: to read and write;

(ii)   Computer Literacy: to understand and operate computers those are interfaces between information and end-users;

(iii)   Media Literacy: to understand different media storing networked information and use them;

(iv)   Network Literacy: Network literacy for library users consists of two aspects: knowledge of networked information and skills to locate, select, evaluate and use the networked information; and,

(v)   Traditional Information Literacy: to locate, select, evaluate and use information effectively.

(vii)   Visual Literacy : to see and understand the information, and

(vii)   Web Literacy : to locate, select, retrieve and use the information from web.

1.4   Benefits of Information Literacy

The following benefits of information literacy may be observed:

(i)   Expansion of knowledge through substantive operations of knowledge creation.

(ii)   Synthesis of data and information into knowledge.

(iii)   Appropriate and critical application of information and knowledge in problems solving.

(iv)   Enhancement of the critical thinking.

(v)   Incorporation of validated information in the personal or corporate knowledge base.

(vi)   Motivation for self-directed learning, and

(vii)   Appreciation for life long learning

2. Information Literacy Models

A survey of the Literature published around the world especially in the developed countries in the form of documentary sources, conferences and seminar proceedings, case studies related to universities, institutes, countries and websites, standards, policy guidelines and reports are the inspiring indications to a developing country like India and even to other developing countries for that matter to catch up with the main stream. Enormous research has been carried out in the developed countries especially in USA, UK, New Zealand, Australia and Mexico. It has been noticed that the collaboration between the professional organizations and the universities in developed countries has helped a lot in bringing out the standards and performance indicators to judge the Information Literacy competency of the students.

According to Webb and Powis (2004), in 1990 Eisenberg and Berkowitz proposed the Big Six Skills model for information literacy. The Big Six Skills are a 'general problem solving approach to library and information instruction'. The skills are process based and follow a logical order:

(i)   Task definition;

(ii)   Information seeking strategies;

(iii)   Location and access;

(iv)   Use of information;

(v)   Synthesis; and

(vi)   Evaluation

The approach of Big Six Skills is similar to the one advocated in much traditional library user education: thinking through the information search process before actually conducting the search.

UNESCO in 1994 has set up a manifesto for public library; in which information literacy is one of the important issue to be carried out by the Librarians. These guidelines are supporting the various services to be offered by Library and Library Associations in the respective countries. On the basis of these guidelines the network of libraries in education, public services, for disabled people's interest in learning, extension services etc. are setup with workshops and conferences, also some training programs for the information providers as well.

U.K. Standing Conference of National and University Libraries' (SCONUL) Task Force on Information Skills has proposed another model for Information Literacy. This model is popularly known as the 'Seven Pillars of Wisdom' (SCONUL, 1999). According to this, the seven headline skills are;

(i)   The ability to identify the need for information

(ii)   The ability to distinguish ways in which the information requirement may be addressed:

- knowledge of the appropriate kinds of resources, both print and non-print

- selection of resources with 'best fit' for task at hand

- the ability to understand the issues affecting accessibility of sources

(iii)   The ability to construct strategies for locating information

- to articulate information need to match against resources

- to develop a systematic method appropriate for the need

- to understand the principles of construction and generation of databases.

(iv)   The ability to locate and access information:

- to develop appropriate searching techniques (e.g. use of Boolean)

- to use communication and information technologies, including terms international academic networks

- to use appropriate indexing and abstracting services, citation indexes and databases

- to use current awareness methods to keep up to date.

(v)   The ability to compare and evaluate information obtained from different sources:

- Awareness of bias and authority issues

- Awareness of the peer review process of scholarly publishing

- Appropriate extraction of information matching the information need

(vi)   The ability to organize, apply and communicate information to others in ways appropriate:

- To the situation

- To cite bibliographic references in project reports and theses

- To construct a personal bibliographic system

- To apply information to the problem at hand

- To communicate effectively using appropriate medium

- To understand issues of copyright and plagiarism.

(vii)   The ability to synthesize and build upon existing information, contributing to the creation of new knowledge.

So IL is not a single skill, but a combination of certain inter-related skills. And it can be developed or enhanced step-wise in a library environment.

3.   Role of Librarians

Information & Communication Technologies have changed the complete scenario in libraries. Now a days, library has become the centre point of resource-based learning and the role of Librarian is changing radically with shifts of education paradigms. The impact of moving from text-based learning to resource-based learning will involve heavier use of library materials and a demand for more and varied media resources, including print and non-print. Today information has become a major economic commodity. The Librarian is responsible for locating, acquiring, disseminating and tracking information resources of many types. It might include database searching, interlibrary loans, monitoring Internet newsgroups, or maintenance of a computerized library information system. All these tasks involve managerial expertise and information literacy. Every citizen needs to be educated for productive information use. Libraries and Librarians play an important role in the education of people for effective and efficient information use by teaching them information skills at all levels of education to enable to be informed citizens of the country.

Librarians have to identify and select good age-appropriate and age-specific literature. They have to look more too online and other electronic sources to meet the information needs. Acquisitions and selection criteria take on entirely new meaning when considering access to online services. Traditional materials evaluation measures have little meaning when applied to Internet sites. New paradigms of selection and

evaluation evolve with new technologies and their application to the classroom and resource centre. Librarians are key personnel in the implementation of resource-based programmes. They can design an information literacy curriculum, which matches readers' capabilities, because they have the expertise and knowledge to teach these skills. They are leaders in new information technologies as well as extended resources across many disciplines. Their experience with information-finding tools gives them a context for the application of new tools such as the World Wide Web. They must accept that they are good educators and knowledge managers. Today, librarians are really in the most favorable position to be the leaders in developing an information literate community.

Thus, LIS professionals have to play a significant role to promote information literacy in society. There exists a gap between Librarians and the users' information needs. To bridge this gap they need to educate and re-educate themselves to acquire new skills and competencies for a new role and need to cultivate the concept of life long learning of information literacy skills. LIS professionals need to play an important role in the education process by making people aware of a need and motivating the use of information, a new knowledge and a new ability. Some short-term courses or user-orientation programmes may be organized in the libraries for the purposes. There may be two components of the course for information literacy:

(i)   One is orientation, which is primarily concerned with the way of introducing the users to the general techniques of library usage and services available and to the organization layout and facilities of a particular library. During orientation library staff delivers a lecture, which introduces the program, demonstrates the use of the catalogue and shows readers how to access the self-paced on-line tutorial. Readers work through the library catalogue unit of the tutorial and also complete an exercise. They are able to create a network account and configure and e-mail account during one of their orientation week sessions.

(ii)   Other is instruction that is concerned with learning to make use of the information resources available with specific subject disciplines. It consists of library staff demonstrating CD-ROM network and web-based databases, and searching the Internet using search engines and subject gateways. A lecture by library staff called researching a topic is another great motivation for readers to appraise critically the material they find, especially information found on the Internet.

To undertake this core activity effectively the Librarians needs to be:

(i)   Strongly committed from the institutional and library administration,

(ii)   Educate and reeducate themselves and acquire knowledge, skills and competencies.

(iii)   Cultivate the concept of life-long learning through information literacy skills, acquired and developed in the library.

(iv)   Make a library staff proficient in instruction and able to work effectively with faculty/ readers to implement institutional change, and

(v)   To develop a faculty or other staff, who cooperatively team with them and other information-handling professionals involved in the institutions/organizations. The institutions of higher education should also pay attention to promote information literacy in a way by developing statement of mission or goals. The goals should be to:

    •   Prepare themselves to become effective teachers of information literacy programs.

    •   Support themselves and other educators and administrators in playing leadership roles in the development and implementation of information literacy programs.

- Forge new relationships throughout the educational community to work towards information literacy curriculum development.

- Offer opportunities for growth and development in the changing field of information literacy.

4. Conclusion

Information Literacy concept has been widely discussed and implemented in national curricula as well as in tertiary non-formal and lifelong learning in developed countries. The librarians are well equipped to teach such skills, but the major obstacle in promoting Information Literacy programme in developing countries like India is the lack of public awareness of the problem created by information illiteracy. The other obstacles in promoting information literacy are :

(i)   lack of cooperation among professional organization and lack of well articulated and/ or promoted information literacy policies and programs;

(ii)   underdeveloped library & information systems and networks;

(iii)   expensive telecommunication infrastructure services;

(iv)   shortage of information & library educated and trained professionals who would give the necessary impetus to the information literacy promotion and implementations;

(v)   intimidated users who are not so well acquainted with the nature of information and its creation, how information is published and disseminated I.e., the pattern of flow of information within a discipline.

A few suggestions, which can be considered for the induction of information literacy programmes at various levels, may include :

(i)   Government should make efforts in preparing policy guidelines and standards at national level and should come out with the National Information Literacy Programme and establish the National Task Force to monitor these information literacy programmes.

(ii)   The concerned controlling and funding bodies must design and develop the information literacy curriculum at different levels of education initially at institutions of higher education.

(iii)   Conduction of national and regional level seminars, workshops, conferences to redefine and restating the role of information literacy in the growing digital environment.

(iv)   Launching of a dedicated information literacy websites to facilitate the sharing of resources and where the information regarding information literacy programmes can be made available.

(v)   At educational level, UGC should take initiative in directing the higher educational institutions to integrate the information literacy across the curriculum by designing a separate paper at the UG/ PG level students. Universities should also undertake a systematic assessment of student information competence to develop benchmarks, which will help in preparing model list of information competence skills for students entering the University and graduating from the University.

(vi)   All national, regional and local library associations' academies and societies should formulate a Joint Action Committee to evaluate the information literacy movement in the country.

In the last it could be concluded that even if information seekers are able to find out the sources, they will not be in a position to form the search strategies, which are necessary to make the relevant searches. They would not be able to understand what is appropriate to the situation and with lack of information literacy concept, one would not be able to present and communicate the data and findings effectively. The successful implementation of the network services will depend to a large extent on the willingness of the participants to co-operate with each other with a sense of 'give and take'. Besides, in order to bring the concept of Information literacy as a whole, one must not forget the rural community of India. Efforts should be made to develop the villages' community library & information centers with the collaboration with rural public libraries and full assistance should be given to them to make the villagers information literate.

5.   References

1.   American Library Association. 2003. Introduction to Information Literacy. <http://www.ala.org/ala/acrl/acrlissues/acrinfolit/infolitoverview/intotoinfolit/introinfolit.htm>.

2.   Anonymous. 1991. Manual of Information Education. Japan Ministry of Education, Science, Sports and Culture, Tokyo.

3.   Association of College and Research Libraries. 2000. Information Literacy Competency Standards for Higher Education. <http://www.ala.org/acrl/ilcomstan.html>

4.   Association of College and Research Libraries (USA). 2004. Information Literacy Competency standards for Higher Education. ACRL-2003. <http://www.ala.org/ala/acrl/acrlstandrads/standards.guidelines.htm>.

5.   Dhiman, A.K.2001. Role of Library Professionals in the Era of Information Technology. Indian Journal of Information, Library & Society. 14 (1-2) : 81-85.

6.   Dhiman, A.K. 2002. Resource Sharing in Digital Environment through Internet: Problems and Prospects. In H. Anil Kumar, P. Upadhyaya, S.R. Ganpule and P.C. Shah edited 'Internet Engineering for Libraries and Information Centres (Ninth CALIBER-2002 Papers). INFLIBNET Centre, Ahemdabad. Pp. 43-54.

7.   Dhiman, A.K. 2003. Internet Based Library Services. In Pandey S.K. Sharma edited 'Electronic Information Environment and Library Services: A Paradigm' (48th All India Library Conference). Indian Library Association, Delhi. Pp. 99-106.

8.   Doyle, C.S. 1992. Outcome Measures for Information Literacy within the Nation Education Goals of 1990. Final Report to National Forum on Information Literacy Summary of Findings. ERIC Digest No. 351033.

9.   Doyle, C.S. 1994. Information Literacy in an Information Society: A concept for Information Age. ERIC Clearing House on Information Technology, New York.

10.   Jayaprakash, A. and Gupta, V.U. 2005. Information Literacy : Need to Promote the Use of Digital Information Services in Digital Era. In R. Chandra edited 'Libraries, Information Literacy and Lifelong Learning. Indian Library Association, Delhi. Pp. 292-301.

11.   McClure, C.R. 1994. Network Literacy : A Role for Libraries. Information Technology & Libraries. 13 (2): 115-25.

12.   Owusu-Ansah, E.K.2005. Debating Definitions of Information Literacy : Enough is Enough. Library Review. 54 (6) : 366-74.

13.   Pough, L. 2000. Change Management in Information Services. Grower, Hampshire.

14.   Singh, J. 2003. Information Democracy and South Asia. Medallion Press, Ludhiana.

15. SCONUL Advisory Committee on Information Literacy. 1999. Information Skills in Higher Education. Briefing Paper. London.

16. Thompson, H.M. and Henley, S.A. 2000. Fostering Information Literary. College Libraries Unlimited, Englewood.

17. Webb, J. and Powis, C. 2004. Teaching Information Skills. Facet Publishing House, London.

About Author

Dr. Anil Kumar Dhiman holds M.A., M.Sc., MLISc., B.Ed., P.G.D.C.A. and Ph.D. Degree in Botany. He is Fellow and Life member of various professional associations and has 65 papers and 21 books to his credit in both field of his study, i.e., in Library & Information Science and Botany. Presently, he is working as Information Scientist in Gurukul Kangri University, Hardwar. He is also the Editor of UPA Newsletter, an official organ of Uttaranchal Pustakalaya Association. He had also been awarded with APSI Young Scientist Award and Gold Medal in 1999.
Email : akvishvakarma@yahoo.com