

Promoting the Use of E-Resources in Teaching, Learning and Research: A Case Study of DULS

Rajesh Singh

S C Jindal

Abstract

Deals with the impact of ICT on Libraries and Information Centers (LIC) and describes the increasing role of LIC in teaching, learning, and research. Defines Information Literacy and discusses its various components. Enumerates various objectives of Information Literacy Program (ILP) carried out at Delhi University Library System (DULS). Describes various ILP conducted at DULS. Shows the implication of ILP for libraries and its resources, services, and staff.

Keywords: ICT, Internet, WWW, Information Literacy, Electronic Resources, Electronic Databases

1. Introduction

Information and Communication Technologies (ICT) has drastically transformed the way for collection, processing, storage, retrieval and communication of information in libraries and information centers. Particularly, the Internet has completely transformed the traditional method of processing information from collection to communication. It has emerged as the most powerful medium for storage, retrieval and communication of information. "With an unprecedented growth in the quantum of knowledge world wide and the easy accessibility, Internet has become an unavoidable necessity for every institution of higher learning and research". (1) The World Wide Web (www), because of its ability to work with multimedia and advance programming languages, is the fastest growing component of the Internet. "The amount of publicly available information on the web is increasing consistently at an unbelievable rate". (2) It has turned into "a gigantic digital library, a searchable 15 billion-world encyclopedia" (3) and is still growing every minute of a day.

It is increasingly important in the contemporary environment of rapid technological change and proliferating information resources that the users are equipped with basic and advanced skills of information gathering. Today information is available through libraries, community resources, special interest organizations, media, and above all the Internet and WWW- and increasingly the information comes to individuals in unfiltered formats, raising questions about its authenticity, validity, and reliability. In addition, information is available through multiple media, including graphical, aural, and textual, and these pose new challenges for individuals in evaluating and understanding it.

The libraries have always been in the fore front in promoting the use of its collection and services. Be it Bibliographic Instruction, Library Initiation, Library Tour, Know Your Library, Library Orientation, User Education, Computer Added Library Instruction, or Information Literacy Programme, libraries have always been striving to bring its collection and services to users' knowledge. The basic purpose behind all the above



activities has been to maximize the fair use of library resources and services.

The applications of ICT in the realm of libraries have, no doubt, facilitated assistance to libraries in acquisition, storage, and management of collection and in providing various newer services along with the traditional services. However, the changing environment warrants new efforts to promote the usage of library resources and services. Information Literacy Programs, which basically provides necessary information skills, has evolved as a new method for promoting the use of library resources, particularly the electronic resources, subscribed by the libraries as well as available in Public domain for open access.

Keeping in view the huge amount of information available through the Internet, today, again library and information profession is at a crossroad. The LIS profession is striving to find out the ways and means to organize and make accessible this huge information available through the Internet. For maximum utilization of these resources in teaching learning and research, the 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 need. Thus in addition to the traditional library resources and services, today, information literacy is essential to educate the users as to how to determine his/her information need; what are the different information sources, their coverage and features; how to find out relevant and precise information from various electronic information sources; what are the web searching techniques; how to evaluate and establish the authenticity and reliability of information retrieved from public domain; what are the ethics and legalities in using electronic information

sources; how to make proper bibliographic citations etc.

2. DULS Profile

Delhi University Library System (DULS) comprises of 34 libraries in its fold. These libraries, spread through out the university campus, meet the information requirements of various academic communities. Presently DULS hold 14.5 lakh documents, 1477 current periodicals 5 lakh bound volume of periodicals, 3000 CD ROMS, 670 valuable manuscripts, 20,000 M.Phil. and Ph.D. dissertations and thesis. The traditional library services are provided to large user communities which consist of 5,700 P.G Students, 1,100 faculty members, 4,100 researchers in different subject. However, access to electronic resources is provided to larger user communities, which also encompasses the colleges in addition to the university campus. In totality access to electronic resources is provided to 2, 25,000 students, 7,000 faculty members, and 4,100 researchers.

In terms of e-resource subscription DULS is at par with any international university of repute. It subscribes to 30 high value databases covering all the subjects taught through out the university. In addition to this 24 databases are accessible through UGC-Infonet Digital Library consortium. Important open access e-resources are regularly culled out and listed on the DULS website for access. A complete list of e-resources along with URL address is available at <http://crl.du.ac.in>.

3. DULS E-Resource Promotional Activities

Keeping in view the large amount of information resources, especially the e-resources; the huge amount being spent on its subscription; the heterogeneous user community including the under graduate and post graduate students,

researchers, scientists and faculty members; the wide geographical spread of users to the colleges, Delhi University Library System (DULS) has planned and regularly conducting various e-resource promotional activities under Information Literacy Program (ILP).

Our deliberations at the planning of ILP found various reasons that affect the use of e-resources in teaching learning and research. Surveys showed that lack of access, lack of knowledge of what is available, conservative attitudes and lack of computer skills, were often significant obstacles to the use of e-resources (Adams and Bank (4), 1995, Budd and Connaway (5), 1997; Kaminer (6), 1997; Zhang (7), 2001). Similarly Tenopir et al (8), (2003) note, both the availability of full text e-journals and the way work is conducted in a specific scientific field affect e-journals use.

Differences in relevance criteria are also likely to influence information search strategies and e-journal use pattern. Studies show that topical relevance and paradigmatic relevance are two different relevance types. Topical relevance is usually the primary relevance criterion in the natural sciences where as paradigmatic relevance is usually the primary relevance criterion in the humanities. E-journals and databases are likely to be used more heavily in fields in which topical relevance is the primary relevance criterion and less in fields in which paradigmatic relevance is the primary relevance criterion.

4. Information Literacy Program (ILP)

Information Literacy can be defined in terms of a set of competencies that an informed citizen of an information society ought to possess to participate actively and intelligently in that society.

According to Jeremy Shapiro and Shelly Hughes Information Literacy is “a new liberal art that extends from knowing how to use computers and access information to critical reflection on the nature of information itself, its technical infrastructure and its social, cultural, and philosophical context and impact”(9). Thus Information Literacy is not only knowing how to use computers and access information but also evaluating the nature and impact of information in relation to its technical infrastructure and its social, cultural and philosophical context.

The American Library Association's (ALA) Presidential Committee on Information Literacy, final Report defines Information Literacy, 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”(10). In other words information literacy is a set of skills, which enables the individuals to recognize his/her information need. In addition it also enables to locate, evaluate and use the needed information effectively.

A close analysis of the above definitions and a review of the related literature reveal the following aspects of information literacy, which should be kept in mind while planning any information literacy programme. These aspects may be termed as components of a information literacy program.

The very important aspect of information literacy is tool literacy. It is the ability to understand and use the practical and conceptual tools of current information technology relevant to education and the areas of work and professional life that the individual expects to inhabit.

Resource literacy is another important aspect. It is an important aspect for conducting information

literacy programs in academic institutions. It is the ability to understand the form, format, location and access methods of information resources.

Research Literacy is another aspect. It is the ability to understand and use the IT based tools relevant to the work of today's scholars and researchers.

The other aspect of Information Literacy is Critical Literacy. It is the ability to evaluate critically the intellectual, human and social strengths and weaknesses, potentials and limits, benefits and costs of information technologies.

Last but not the least aspect of information Literacy is regarding emerging technology. Technology never stands still, it always advances. This is the ability to adapt, understand, and evaluate the emerging technologies and make use of the continually emerging innovations in IT so as to make intelligent decisions about the adoption of new technology.

Information Literacy is basically a library instruction program. It focuses on content, communication, analysis, information searching and evaluation. In view of the contemporary environment of rapid technological change and proliferating information resources Information Literacy in libraries have become increasingly important. It "forms the basis for life long learning"(11) by enabling the learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning.

4.1 Objectives

On the basis of deliberation at the planning of ILP; various reasons found to affect the use of e-resources in teaching, learning and research; various components and standards of information literacy, DULS has started the innovative

Information Literacy Program with following precise objectives:

- ◆ To acquaint the users with the academic power of Internet;
- ◆ To provide an indication as to what is there on Internet related to the area of study and research;
- ◆ To show how web resources could be of immense use in their academic pursuit and research;
- ◆ To show the usefulness of various multimedia resources on web in teaching, learning and research;
- ◆ To promote the use of subscribed databases in academics and research;
- ◆ To describe specific features of various databases being subscribed by DULS and accessible through UGC-Infonet Digital Library Consortium;
- ◆ To acquaint the users with the use of various search techniques to retrieve relevant information;
- ◆ To recognize the need for information, and to evaluate, organize, interpret, and communicate information in all its formats;
- ◆ To promote that Information Literacy is for participants' academic and vocational success and for lifelong learning;
- ◆ To provide research-integrated instruction in collaboration with the faculty and in alignment with research objectives;
- ◆ To establish a direct interaction between users and library professionals;
- ◆ To explain the necessity of bibliographical citations and its usefulness;
- ◆ To promote the use of standardized citations of bibliographical references;

- ◆ To find out the implications of Information Literacy Program on library services, library staff and users' approach to the library.

Much deliberations have been made for planning and executing various programs under Information Literacy Program. Brief descriptions of these programs are given here under.

4.2 E-Resources Orientation for P.G. Student

DULS is regularly conducting e-resources orientation for the post Graduate students, in the class room environment. It is being conducted through high quality interactive power point presentations comprising of textual, audio and visual information. The presentations consist of defining information needs, various sources and formats of information available, advantages of e-resources over printed resources, searching techniques, various search options, and coverage, features and search strategy of each database concerned with the subject. Multimedia resources as images and videos on the concerned concepts are also explained to the audience. Besides, some important e-resources such as Subject Gateways, Electronic Journal, Electronic Books, and subject specific websites from public domain covering the subject, which are regularly culled out and listed on the DULS website, is also being explained in each department. The presentations are offline presentations, complete in it in all respect. However, they do have hyperlinks for online presentation and interactive searching. The databases covering the subject of presentation are also searched online using various search techniques and explained to the audience.

For the purpose, the prescribed course of study is being used for deriving keywords or concepts for searching through different databases. The

databases subscribed by DULS, accessible through UGC-Infonet Digital Library Consortium and certain public domain databases are selected for practical exposure on selected keywords. Once the presentation is ready it is shown and described to the faculty member coordinating with library from concerned department, before the final presentation. In most of the cases faculty members highly appreciate the presentations and desire that other faculty members from their department should also be invited to attend the presentation. However, in few cases marathon discussion is held with faculty member for inclusion or exclusion of certain web pages. Before the final presentation a feasibility study as regards to the technological infrastructure available in concerned department is done and necessary arrangements are made.

4.3 E-Resource Orientation for Faculty Members

In addition to its vast university campus, University of Delhi has also got large number of constituent colleges in different locations spread over through out the Delhi. All the e-resources are also available to the information users of these colleges. It was again inevitable on the part of DULS to orient the users of these colleges to all the available e-resources. For the purpose four power point presentations on DULS subscribed databases, UGC Infonet databases and open access e-resources available in public domain are prepared explaining the scope, coverage, features, and search methods for all the databases. A presentation on Online Search Techniques is also prepared explaining the various search techniques, limiting or expanding search, common search platforms etc. Each of the search technique is supported by the live example on particular database.

The presentation for teachers also include the updates of the electronic resources; method of extracting topics given to students for various seminars, tutorials, project preparation and other assignments out of the information available in different databases; exposure to various courseware which are internationally available and could be useful for preparing e-learning materials; awareness towards standard citation of references etc.

For conducting e-resources orientation program for college teachers, all the colleges have been grouped into six zones. DULS, on the basis of availability of infrastructure, schedules the program in one of the colleges in a zone and faculty members from other colleges in the same vicinity are invited to attend to the college hosting the program. This is quite a popular program among the college faculty members. We receive overwhelming response at the venue of the program.

4.4 Workshop on E-Resource and Bibliographical Citations

On completion of the first phase of ILP in different departments for post graduate students and college faculty members, as a next step, DULS has started conducting one day 'Workshop on E-Resources and Bibliographical Citations' for Social Science Research Scholars with the financial support from NASSDOC, Indian Council of Social Science Research, New Delhi. Two such programs has already been organized in the year 2006 and 2008.

All the social science departments of the university are requested to send the name, mailing address and contact number of scholars registered either for M.Phil. or Ph.D.. On receipt of the list from the departments, the scholars are invited to attend the workshop. A total of 150-200 M.Phil. and Ph.D. scholars have attended the program each time. The

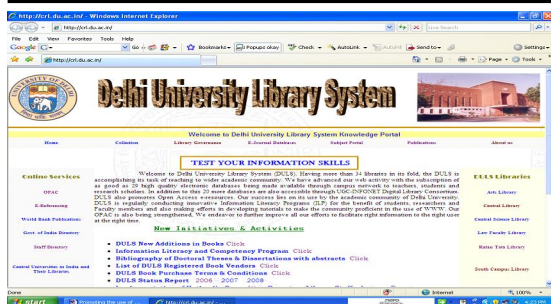
workshop emphasized on IPR issues; plagiarism, how to avoid it; standard citation of references using Chicago Manual of Style; evaluation of electronic resources etc in addition to the areas covered in the presentations for PG Students. The detailed description is published in the proceedings of the 6th International Caliber, 2008(12). Similar programs are also visualized for sciences.

4.5 Hands on Trainings

The e-resource orientation programs at colleges received overwhelming response and as an extension to the orientation programs we are receiving regular requests from most of the colleges for hands on training to the faculty members for effective utilization of e-resources in teaching and research.

Responding to the demands DULS has started providing hands on training to the faculty members in the colleges. For the purpose, depending upon the availability of computer terminals, the faculty members are divided into groups. Each group consists of faculty members from the same subject group or related subject group. Each group attends the training for two days, first day for DULS subscribed databases and second day fro UGC Infonet databases.

The participants are explained the databases of their subject and related areas. Some online practical demonstrations are also made regarding how to register with a database, search for various concepts and publications, how to download full text article, how different search strategies work, etc. However, the participants are made to do all these activities themselves under the supervision of trained library staff. Their difficulties and other issues are solved simultaneously.



(screen shot of DULS website)

4.6 DULS Website

The DULS website is created as tool to serve the user community. It serves as a channel of communication for various activities of the library. It works as a knowledge portal to all the library users. Along with the electronic recourses it enlists various other activities related to the library. The website is updated at regular intervals. It is suitably linked with the University of Delhi website. It provides up to date information on library collection, library rules and regulations, online services, links to the major libraries of DULS, e-journal databases, publications of library professionals, links to other central Universities in India. It also serves as a gateway to announce new initiatives and activities.

As far as electronic resources are concerned, DULS website enlists all the resources on a single web page termed as 'Online Services'. It further provides links to subscribed databases, UGC-Infonet databases, public domain databases, OPAC, DELNET, JCCC@UGC-Infonet, popular magazines, etc.. Through the 'Online Service' webpage users get access to all e-resources, which are further listed on separate page with a brief description. A screen shot of the DULS website is given. The URL address of the DULS website is <http://crl.du.ac.in/>

The website is highly accessed by the user communities. Many more value additions will be made to the website with the passage of time.

4.7 E-Mail Alerts

DULS is regularly updating for the availability, subject coverage, search techniques, common search platform and various other features of e-resources to the faculty members. Periodically complete information of an individual database is created with all possible hyperlinks and the same is mailed to the faculty members.

We believe that it keeps the user up-to-date as far as the databases are concerned. Once the users are aware of the availability they will use it. Besides, we also provide e-referencing service. Users send their queries through e-mails regarding various library services and especially for e-resources. The queries are promptly responded by the reference staff.

4.8 Brochures and Pamphlets

Product brochures, pamphlets, book marks etc. are regularly displayed and distributed among the academic community of the University. These brochures and pamphlets provide a fair idea of a specific database, its subject coverage, searching features etc. The book marks, as they remain in use for longer times, serve their purpose more effectively. Besides, e-brochures and e-pamphlets are also mailed to the users on regular intervals.

5. Implications for Libraries

The feed back of the respondents has formed basis for further improvising the entire Information Literacy Program. Today libraries are functioning in hybrid environment. Most of the libraries are providing traditional as well as ICT based services. Indeed, libraries have been conducting instruction programs with various nomenclatures to describe their resources, various services, marking and parking patterns, library use ethics etc. However,

the changing library environment requires the libraries to play more important role through information literacy programs. The abundance of information available through the Internet in public domain in the form of subject gateways, e-books, e-journals, subject and subject concept based web pages, etc., as well as the information available through different subscription based databases made available by various hosts and aggregators, is bound to play a very important role in teaching, learning and research, particularly in higher education and R&D institutions.

The responses to the various statements as given in the feed back for each program demands libraries to function not only as content based facilitator of information, but also as instructor for imparting knowledge and skills of life long learning to the users. The respondents' expectations from libraries are very high. They have termed Information Literacy Program as an eye opener and a milestone experience in their learning and research. Such programs also provide a proper platform for direct interaction with the library users. Such programs definitely increase the expectations of users from libraries. They expect libraries to be their guide, friend, and philosopher. And hence libraries need to be more helpful, co-operative and mannered. The libraries need, to setup training centers to impart ICT use instructions to the users to provide tailor made services in the form of subject lists and subject portals, create robust ICT infrastructure for high access and usability of electronic resources, to create regular feed back mechanism through suggestion boxes or surveys to design, create and provide innovative services.

The middle level and lower level staffs needs to be trained in ICT services as well as in their manners

because they regularly come in direct contact with the users and their approach with the users makes or mars the image of library.

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About Authors

Mr. Rajesh Singh, Deputy Librarian, University Library System University of Delhi, Delhi.
E-mail: rajeshzone29@yahoo.co.in

Mr. S C Jindal, Deputy Librarian, Delhi University Library System, University of Delhi, Delhi.
E-mail: scjindal@duls.du.ac.in