Information Literacy: The Role of the University Library Professionals in Digital Era

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Abstract: University library professionals play a key role in maintain and providing the library services. Libraries are major learning medium to enable the education facilitators, researchers and students learning, in providing the necessary information and efficient use of information in digital sources. It is extremely necessary for educators and students, who have to conduct their research and use information sources by searching or retrieving information from the library archives or internet servers, to know and understand information literacy. However, the ability of University libraries to maintain the development of information literate students depends on the involvement and support of administrators. Collaboration is required between academic library professionals and Faculty members who should take up the responsibility to prepare the infrastructure necessary for the integration of information literacy to the university curricula and organization of various activities to promote knowledge and understanding of it among educators and students. Thus this paper highlights the role of university library professionals in utilizing various mechanisms involved in Information literacy.

Keywords: Information literacy, digital source, retrieving information, Collaboration, Infrastructure, various mechanisms

INTRODUCTION
The Information Age began at the 21st century with explosion of information output and information sources. It is realized that that students cannot learn everything they need to know in their field of study in a few years of college. Information literacy equips them with the critical skills necessary to become independent lifelong learners[1]. Information literacy (IL) is described as the ability to locate, access, search, evaluate and use information in various contexts. Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education[1]. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. For students, being information literate is necessary so that they are able to effectively sieve through and identify relevant yet reliable information that they get through the Internet, television, newspapers, tabloids, and friends, among others.

What is Information Literacy?
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. Information literacy enables people to recognize the value of information and use it to make informed choices in their personal, professional and academic lives[2]. An information literate student

- effectively accesses,
- evaluates,
- organizes,
- synthesizes and
- applies information from a variety of sources and formats in a variety of contexts.

Information literacy requires an ongoing involvement in learning and in evaluating information so that lifelong learning is possible.

Need for Information Literacy
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 programmes with various nomenclatures to describe their resources, various services, marking and parking patterns, library use ethics etc[3]. However, the changing library environment requires the libraries to play more important role through information literacy programmes. 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. 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.

- Rapid increase in the stream of information due to information revolution;
- Advent of information and communication technologies;
- Vast variety of information sources;
- Changing shape of libraries;
- Wide dispersal of information;
- Increase in number of users; and
- Research on complex and interdisciplinary topics.

Objectives of Information Literacy
The Ministry of Education, Science, Sports and Culture, Japan has defined the following objectives of information literacy [4,5]:

- Capabilities of judgment (evaluation), selection, organization, and processing of information as well as of information creation and communication.
- Understanding of characteristics of information society, effect of information user society and human beings.
- Recognition of importance of, and responsibility for information.
- Understanding of foundation of information science, learning of basic operation skills of information and information device, particularly computer.
- Construct alternative strategies to reduce the information gap
- Acknowledge the sources of information and ideas; and
- Store the information for future use.

Information Literacy Process Model[6,7]
It consists of 6 stages of the information search process, with two sub-stages each, namely:

(i) Task definition
   - Define the information problem
   - Identify information needed

(ii) Information search strategies
   - Determine all possible sources
   - Select the best sources

(iii) Location and access
   - Locate sources (intellectually and physically)
   - Find information within sources

(iv) Use of information
   - Engage (i.e. read, hear, view, touch, etc.)
   - Extract relevant information

(v) Synthesis
   - Organize from multiple sources
   - Present the information

(vi) Evaluation
   - Judge the product (effectiveness)
   - Judge the process (efficiency)
Information Literacy in Higher Education[8,9]

The horizon has been expanding on the information literacy in higher education with new timeframes creating different kinds of literacy activities – audio-visual literacy, computer or digital literacy, information literacy, etc. To be information literate, one has to have the ability to locate the needed information, determine its relevance and adequacy, and apply it in problem solving and decision making. To gain these skills, different literacy activities are necessary prerequisites. Hence the information literacy becomes an umbrella under which all other literacy is covered. Information literacy has been one of the often deliberated subject in national and international forums and platforms since the advent of information society, and is considered as the individual’s ability to use appropriate tools to find the relevant information, access the information needed, select and evaluate information for accuracy, reliability and relevance and apply the information for the purpose it is sought.

It is becoming increasingly important in the contemporary environment of rapid technological change and proliferating new category of information sources to train the users to utilize them fruitfully. The complexities are day by day increasing and individuals are faced with diverse, abundant information choices, in work place, and in their academic studies and in their personal life. The new domain of information in the digital form is rapidly replacing the traditional printed counterparts, resulting in increased computer skills, processing tools and fast communication network connectivity. Digital information or e-information is more abstract, dynamic and malleable in comparison to printed form[10]. Hence understanding of how to enhance its value and its interaction becomes an important prerequisite for the users in the (digital) information society. This is clearly an indication that the ability to handle and manage information is not just easy and important, but very vital.

In this digital age, users need to be more information literate than ever before. While WWW can contain valid and accurate information, its very nature encourages quick and easy self publication[11]. Without editorial or academic review the content is often of low quality and there is a need for users to be able to recognize the access authentic and useful resources. Furthermore, users need to be able to precisely identify and communicate their information needs to clarify/define a subject or area.

As information is increasingly codified in digital forms, new skills are needed to operate the technology to search for, organize, manage information and use it to solve problems and create new knowledge. Since Internet is a common and popular information communication tool, Information Literacy is often understood as digital literacy.

The print media, rapidly growing electronic/digital media, and the dominance of Internet and WWW as universal channel of communication of information have made information seekers to learn about these developments due to the unpredictable problems surrounding the reliability and the accessibility of information[12]. In this context most often discussed topic is how user can be expected to access the credible information that they find on Internet, because it has enabled an almost limitless amount information to be stored and made available for access and viewing by any one equipped with suitable hardware and software.

In universities the use of electronic information via the Internet is increasing at a faster speed. There is a considerable variety of users in the academic community who are not that much familiar with the use of digitized and networked information. Of course there is a steady growth of technology literacy among the young generation. Even then the library’s user education and Internet training should be directed towards information content rather than technology. In other words, the responsibility for teaching how to read electronic information, how to move purposefully in the networks and how to sort out the useful information is practically left to the domain of library and information professionals.

Role of Librarian in Information Literacy

Information & Communication Technologies have changed the complete scenario in libraries. Now days, library has become the centre point of resource-based learning and the role of Librarian is changing radically with shifts of education paradigms[13,5]. 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. Faculties need training and support to make use of new technologies for effective teaching and learning. The current environment provides an opportunity for librarians to play a key role in the evolution of an integrated information literacy curriculum, in contrast to past efforts which were sporadic and rarely programmatically based.

Conclusion

Acquiring library skills is, in our opinion, the first step a person must take in order to become information literate. Knowledge must precede the process of evaluation. In order to adopt an efficient search strategy, you must know very well the entire typology of information resources. It is what a university library offers to its students: the possibility of getting in touch with the entire range of information resources, on all media. Knowing these resources and the methods developed along the millenniums by the library for organizing information, the student will be more prepared to manage the Internet virtual space.

To conclude, students need to develop the frameworks that will allow them to become self-sufficient citizens who can locate, critically evaluate, and effectively use information--no matter what the format. The message that it is important to not be satisfied with the perceived easiest answer to a question must regularly be reinforced. As Mathies [14] notes, information literacy is an issue that "all educational stakeholders" should care about. Faculty need to be encouraged to better utilize the information expertise available to them by librarians, and librarians have the responsibility to actively promote information literacy in the next generation.

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