ILIS: Information Literacy and Informed Society

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Abstract

Information Literacy is critical in the Knowledge Society that every Country wants to establish. Information literate will become part of the informed society. The Information Literacy skills need to be developed from the schools and it should be part of the curriculum in each subject. Teachers need to change their role from teaching to mentoring, guiding, and evolving more adventurous ways of developing learning skills in the students. This paper deals with the information literacy skills, shift from teaching to learning, role of teachers and librarians in information literacy, information literacy and information technology, evaluation of resources, information literacy standards, and benefits of information literacy to the students, citizens and the employees.

Keywords: Information Literacy,

"To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information" - ALA.

1. Introduction:

Information literacy is increasingly important due to the rapid technological changes and multiplying information resources. Because of the increasing complexity of this environment, individuals are faced with diverse and abundant information choices in their academic studies, in the workplace, and in their personal lives. Information is available through libraries, community resources, special interest organizations, media, and the Internet. Lot of information comes through the Internet to individuals in unfiltered formats, raising questions about

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Education system and institutions should take seriously the challenges of the Information Age. This includes restructuring the learning process to reflect the use of information in the real world, changing the role of the teacher from mere teaching to facilitator of active learning, and the librarian as a collaborator in curriculum planning for effective use of information resources.

its authenticity, validity, and reliability. Information is also available through multimedia, including textual, graphics, sound etc, and these pose new challenges for individuals in evaluating and understanding it. The uncertain quality and expanding quantity of information pose large challenges for society. The sheer abundance of information will not create a more informed citizenry without the abilities necessary to use information effectively. But are we aware of what is available, when to use it, and how to find out? Beyond the basic skills of reading, and writing, everyone needs complex analytical skills in the present day Global environment.

2. Information literacy

There are varieties of literacies like print, visual, computational, cultural, computer, scientific and all are important in education. Each of the literacies has a process by which the learner can understand the content unique to a particular area of study. Each of the literacies operates in isolation and each has its own vocabulary and conventions for study. Information literacy, on the other hand, is a potential tool of empowerment for all learners, reached through a resource-based learning approach.

2.1. Definition

"An information literate person is one who:

- recognizes that accurate and complete information is the basis for intelligent decision making
- recognizes the need for information
- formulates questions based on information needs
- identifies potential sources of information
- develops successful search strategies
- accesses sources of information including computer-based and other technologies
- evaluates information
- organizes information for practical application
- integrates new information into an existing body of knowledge
- uses information in critical thinking and problem solving" (Doyle, 1992)

"Information literacy programs encourage shifts in the roles of teachers and learners. Such changes are essential to prepare learners to live and work in an information-centered society to be an informed citizen. Some institutions offer formal information literacy courses. These courses range from for-credit to non-credit, from required to elective, and from distance to face-to-face. They can involve integration with a core curriculum, specific discipline or course, or general information skills" (Donnelly, 1998).

3. Teaching to Learning

In the information literacy environment, students engage in active, self-directed learning activities, and teachers facilitate students' engagement through a more innovative and adventurous style of instructional delivery. Students involved in information literacy activities:

- seek a rich range of information sources;
- communicate an understanding of content;
- pose questions about the content being learned;
- use the environment, people, and tools for learning;
- reflect on their own learning;
- assess their own learning; and
- take responsibility for their own learning.

These students feel good about themselves as learners, and they leave schools feeling passionate about the content that they learnt while in school.

4. Information Literacy and Information Technology

There are possibilities to misunderstand that the Information Literacy is to acquire skills in using Information Technology. Information literacy is related to information technology skills but has broader implications for the individual, the educational system, and for society. Information technology skills enable an individual to use computers, software applications, databases, and other technologies to achieve a wide variety of academic, work-related, and personal goals. Information literate individuals necessarily develop some technology skills.

Information literacy, though showing some overlap with information technology skills, is a distinct and broader area of competence. Information technology skills are interwoven with information literacy. The information literacy focuses on content, communication, analysis, information searching, and evaluation; whereas information technology skills focus on a deep understanding of technology and its use.

Skills in information technology may require more intellectual abilities than learning of software and hardware associated with computer literacy, but the focus is still on the technology itself. Information literacy, on the other hand, is an intellectual framework for understanding, finding, evaluating, and using information activities which may be accomplished with information technology skills by sound investigative methods through critical reasoning. Information literacy initiates, sustains, and extends lifelong learning through abilities which may use technologies but are ultimately independent of them.

5. Resources for Information Literacy

Success of Information Literacy is based on resource-based learning environment. In such an environment, students and teachers make decisions about appropriate sources of information and also how to access them. Apart from more traditional print resources: textbooks, journals, encyclopedia, newspapers and magazines, they also use technological resources such as videotapes and videodiscs, CD-ROMs, software tools, and simulation and modeling tools and critically evaluated online resources on the web.

- They use computer networking and telecommunications for both data access and participation in learning communities.
- They use multimedia technologies for gathering data and also as production tools.
- They use their library to locate and use many of these resources.

In addition to using technological resources, learners also can reach beyond classroom walls into their local communities for materials and authoritative information provided by businesses, social services agencies, citizens' groups, and public and university libraries. The mass media like cable and network television, radio broadcasts, and other national and international print and electronic services also provide rich information.

6. Teachers and Information Literacy:

Those who "know how to learn, because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them" (American Library Association [ALA, 1989, p. 2). If teachers are to use information so that others can learn from them, then teachers must be information literates.

Teachers trying to create an information literate environment need to realize, that teaching is telling, learning is absorbing, and knowledge is dynamic.

- They need to look beyond their classrooms for resources that will enrich the learning environment.
- They have to engage in collaborative activities which enrich their own professional development and their students' learning experiences.
- They need to seek the expertise of their librarians as partner in the curriculum planning process.

Teachers must be prepared to "teach students to become critical thinkers, intellectually curious observers, creators, and users of information" (Lenox, 1993). The goal is to prepare students early on to "learn how to learn" and carry these skills into other areas of their lives so that they can be independent seekers and consumers of information throughout their lives. "Teachers of all subjects must blend their traditional fact-based approach with an emphasis on

learner-based inquiry and the scientific inquiry process" (Lenox, 1993). There should be a shift of some of the responsibility of gaining knowledge from the teacher to the student and allowing students to develop questions, strategies to search for answers, and formulate conclusions. It also means having fewer lectures and replacing them with applied strategies for information literacy

Teachers have to involve students in complex tasks that have purposes beyond the classroom and the teacher's critical evaluation. They have to create collaborative situations to develop students' social skills and problem-solving skills. They have to familiarize with variety of learning tools, both print and electronic, and they need to encourage their students to move beyond the textbook for seeking information and solving problems.

Teachers need to review, evaluate the existing online information resources to include them as readings for the students. It is imperative for the teachers that information gathered on the Web be subjected to the same methods of evaluation as information that is being gathered from books and other publications. There are many useful, high quality Web pages. Many sites have been reviewed, authenticated, or sponsored by highly reputable organizations. Some sites are dedicated to gathering valuable educational resources for educators.

Teachers need to undergo some tasks and the first task is to master searching for pages relevant in their subject. One must research and practice searching techniques to narrow search results to pages that are most relevant to the search topic. After learning to effectively find topical Web pages, the next and most critical task is assessing the pages found. Teachers can filter the information and suggest to students as readings as part of course outline.

7. Librarians and Information Literacy:

Librarians are deeply involved in addressing the issues associated with developing information literacy programs and national and regional efforts to improve program quality. "Librarians led the way in the early 1970s in conceptualizing the idea of information literacy and its relationship to lifelong learning. Early development of the concept of information literacy focused on the future role of libraries and librarians in helping with the use and application of information" (Beherens, 1994). In the field of library and information science, information literacy is rooted in the concepts of library instruction and bibliographic instruction to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information.

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 variety of resources, including print and non-print. This results into the library to re-

evaluate how funds are allocated between the textbook budget and the budget for other resources. Public libraries have to coordinate closely with schools and other learning institutions to ensure access to information resources and technology for all ages and also to remain as a strong community resource for lifelong learning.

Librarians need to strengthen the information literacy programs in the educational institutions. The Information Literacy Librarian, if identified will work with library and teaching faculty to design and implement information literacy programs and initiatives. The Information Literacy Librarian will be a liaison in information literacy matters and will work closely with university general education to assure attention to information literacy issues. He/she will provide faculty development for library and teaching faculty and work to assess information literacy initiatives and programs. In addition, the Information Literacy Librarian can also assume reference services and collection development responsibilities. Responsibilities of Information Literacy Librarian include:

- Serve as the leader of the Instruction Team and play a lead role integrating information literacy into University curricula
- Work with librarians to assess and evaluate the information literacy programs
- Serve as liaison between the departments and programs with respect to information literacy
- Teach library instruction classes
- Assist with the development of tutorials and online or web based instruction to better support students off campus
- Provide traditional and virtual reference and research assistance to the students, users.
- Participate in collection development programs of the library.

As information specialists, librarians need to interact frequently with teachers and learners to provide training and guidance toward sharpening of information literacy skills not only in school and academic libraries but also in public and special libraries as well.

8. Information Literacy Standards:

The Information Literacy standards provide framework in the designing of teaching programs and also assessing the information literacy levels of individuals. These standards help measure the progress of educators and librarians in the schools, Colleges and Higher Education sectors. This provides higher education sector to bring in uniformity to develop students at all levels. The academics, librarians and others can draw certain indicators using the standards to identify the students as information literates.

Standards benefit the Students because they provide a framework for their interaction with information in their area of study. Students will be aware of the need for a meta-cognitive approach to learning, and actions required for recognition of need, identification, and gathering, analyzing, and using information. An Information Literate Student need to demonstrate all the standards though may not be at the same level or at the same time. "The Standards are:

1. The information literate person recognizes the need for information and determines the nature and extent of the information needed
2. The information literate person accesses needed information effectively and efficiently
3. The information literate person evaluates information and its sources critically and incorporates selected information into their knowledge base and value system
4. The information literate person classifies, stores, manipulates and redrafts information collected or generated
5. The information literate person expands, reframes or creates new knowledge by integrating prior knowledge and new understandings individually or as a member of a group
6. The information literate person understands cultural, economic, legal, and social issues surrounding the use of information and accesses and uses information ethically, legally and respectfully
7. The information literate person recognizes that lifelong learning and participative citizenship requires information literacy". (AUL 2001)

9. Benefits of information literacy

The need to handle and use information is present in all stages of life and the acquisition of the competencies of information literacy must be interlinked with the acquisition of the other literacies. Teachers, Librarians and the Students are the triangle in the Information Literacy activities. The first two cooperate, discuss among themselves and integrate the students in the process of learning. The students are guided in their efforts to become information literates.

9.1. Students:

Information Literacy and the resource-based learning programs relieve the information dependency of students from the prepared textbooks and the lectures of teachers for information. It requires active learning, where students take more responsibility in their learning, and the teacher is relieved from the role of an expert. The teacher becomes more important in the role of facilitator of discussions at small-groups or at individual student level. The final result of resource-based learning is usually reflects in preparation of a paper, presentation or end performance. Regardless of where and how information

literacy skills are acquired, they are applicable in any school, play, or work situation.

Resource-based learning accommodates variety of interests and ability levels. Students don't need to read exactly the same materials on the same topic when they are identifying their own approaches to a theme or topic of study. When teachers encourage students to do their own research, students take responsibility for their learning, and they retain more of the information they have gathered for themselves.

- Information literate students are more effective consumers of information resources.
- They learn to recognize that information is packaged in a variety of ways,
    - it is packaged using a variety of techniques,
    - it serves a variety of interests, and
    - it contains a variety of value messages.
- Information literate students are more critical when they make decisions about the resources they use.

9.2. Citizens:

An idle mind is devils workshop as the saying goes and the lengthening life spans and increasing leisure time need information support to be productive, healthy, and also to lead a satisfying life. To respond effectively to an ever-changing environment, people need more than just a knowledge base. They need techniques for exploring, making connections, and making practical use of information.

Information-literate or informed citizens know how to use information to their best advantage in everyday life.

- They will identify the most useful information when making decisions such as where to locate a business, how to vote, or when to have a child etc.
- They will be able to evaluate newscasts, advertisements, and political campaign speeches etc.

Current policy poses unprecedented complexity and international implications in every country like the immigration and "brain drain," the illegal activities, and the global environment. When statistics saturate all aspects of an issue, information literacy enables citizens to recognize deception and disinformation to make a truly informed decision.

The informed citizens appreciate the value and power of information. They believe in the need for information to address problems and questions in their own lives, in their communities, and in society. They understand that information is not necessarily knowledge until it has been analyzed, questioned, and

integrated into their existing body of knowledge and experiences. They are equipped to be lifelong learners because they know how to learn.

9.3. Employees:

Workers must be information literate because the workplace of the present and future demands a new kind of workers. Reading and arithmetic ability simply are not enough. In a global marketplace, data is dispatched in fraction of seconds and in gigabits. The deluge of information must be sorted, evaluated, and applied, and workers must be able to gather, synthesize, interpret, and evaluate. Lack of these skills currently costs business billions annually in low productivity, accidents, absenteeism, and poor product quality.

Employees are expected to keep up with rapid technological advances, to streamline operations and to possess the ability to be proactive problem solvers (Hancock 1993). For the individual worker, the workplace has become a place of overwhelming changes and unlimited opportunities. Adapting to a rapidly changing work environment will mean multiple career and job changes. An early commitment to learning and understanding the role information literacy will enable workers to see the changes as transitional, not traumatic.

10. Conclusions:

Information literacy is a process and the Information literacy skills must be taught in the context of overall process. To be successful, information literacy skills instruction must be integrated with the curriculum and reinforced both within and outside of the educational setting. Information literacy skills are vital to future success.

Knowing how to ask the right questions may be the single most important step in learning. The process that is conducted in order to find answers to the right questions leads to the point at which information becomes knowledge

"In this next century, an "educated" graduate will no longer be defined as one who has absorbed a certain body of factual information, but as one who knows how to find, evaluate, and apply needed information" (Breivik, 1998, p.2). Our ability to be information literate depends on our willingness to be lifelong learners as we are challenged to master new technologies that will forever alter the landscape of information.

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