CURRICULUM BASED APPROACH TO INFORMATION LITERACY EDUCATION

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Despite the growth of literature and many information literacy programs on higher education campuses, the literature of information literacy and the concept of information literacy as a viable academic subject remain hidden to most professors and policy makers that is pivotal to the pursuit of lifelong learning process. Information literacy remains the least attended agenda and remains invisible to the academia world because it is misunderstood; misinterpreted and academic administrators have not put it on their institutions' agendas and still remain alien to many. There is also a false belief that information literacy is acquired only by experience and a false assumption that technological ability is the same as information literacy. Faculty on the other hand makes information literacy less significant than other educational pursuits and stereotyping the ability of librarians and the accrediting bodies have not yet advanced information literacy to a viable position in higher education. The new information age demands that these barriers be overcome and information literacy take a prominent place within the academic experience that will ultimately accelerate research productivity.

Keywords: *Information Literacy, Information Literacy competencies, Information Literacy programmes.*

INTRODUCTION

The information consumer of the web 2.0 world have evolve into a new dimension ranging from internet to social media and teaching information literacy (IL) to this new section of the consumer is a big challenge with the vast amount of information explosion. Information literacy in an academia world may not be a new phenomenon but to a chunk of digital divide and the digital privilege still remains the big word. It is no doubt very important that students becomes information literate, it may be even more critical for those students planning to become teachers since they need to be able to model and teach information literacy skills effectively to their future students (Carr, 1998; O'Hanlon, 1987; Witt, 2003). It is rather confusing for many that

information literacy is sometimes misunderstood to be ICT literacy or IT literacy which otherwise is a much more subjective in nature. Information literacy is the only medium to address the underlying gap and is becoming an increasingly essential part of university library user education. For all that, it remains a foreign concept to many non-librarians. As Virkus (2004) points out, "information literacy has spread mainly among librarians and information professionals and neither is explicitly or extensively recognized in other circles". The need and responsibility then lies on both the educator and librarian to build in a strong sense on the need for information literacy programs among the new breed of highly ICT savvy students.

WHAT IS INFORMATION LITERACY?

The term information literacy is sometime mistaken for the ICT literacy as Rockman (2004) sees information literacy as "truly a new instructional pedagogy and a change agent for learning". Earlier, however, Shapiro and Hughes (1996), considered information literacy to be an often-used but dangerously ambiguous concept. This may have been true at the time, and there are still many definitions and understandings of the term, but a consensus of a kind has emerged. *Information and how it works*. It is about introducing students to the forms of information available to them, and then helping them determine what sort of information they need for any specific context, how to find it, how to evaluate it, and how to use it effectively and ethically. Emerging research shows that information literacy has various characteristics in different contexts (Lloyd and Williamson, 2008), and indicates people's need for information in order to achieve educational, social, occupational and economic goals. However, according to Martin and Rader (2002) information literacy includes: (i) library literacy; (ii) media literacy; (iii) computer literacy; (iv) internet literacy; (v) research literacy; and (vi) critical thinking skills. Kope (2006) argues that e-literacy must include more than information literacy and computer literacy, and explores the relationships between academic literacy, information literacy and computer literacy. Therefore the need to integrate all the tools together will foster the student with the idea of accessing information and meeting his information needs.

INFORMATION LITERACY COMPETENCY STANDARDS FOR HIGHER EDUCATION

The Association of College and Research Libraries (ACRL) *Information Literacy Competency Standards for Higher Education* were approved by the American Library Association (ALA) in 2000 and endorsed by the American Association of Higher Education

(AAHE). According to ACRL, information literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and effectively use the needed information. In addition, 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 research, become more self-directed, and gain greater control over their own learning.

An information literate individual is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into his or her 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.

The amount and complexity of information with which students have to deal is growing by leaps and bounds. As a result, no course of study, especially in higher education, is adequate unless it helps to develop students' ability to deal with the rapidly increasing information in their fields. ACRL believes that developing lifelong learners is central to the mission of higher education institutions. By ensuring that students have the intellectual abilities of reasoning and critical thinking, and by helping them construct a framework for learning how to learn, colleges and universities provide the foundation for continued growth throughout their careers, as well as in their roles as informed citizens and members of communities.

According to Quarton (2003) information literacy the abilities to explore information resources efficiently and to critically evaluate the results are basic information skills. They are best developed through regular exposure to assignments that are process oriented and that require critical thinking. Students who know how to use information resources and who recognize the essential characteristics and purposes of published materials have a critical advantage when adding to their knowledge base in any discipline; they also have a firm foundation for future course work. Further, because information literacy skills are transferable to other disciplines and

to everyday life, students' futures learning both in and out of the classroom are positively impacted.

Information Literacy Competency Standards for Higher Education provides a framework for assessing the information literate student. It also extends the work of the American Association of School Librarians (AASL) Task Force on Information Literacy Standards, thereby providing higher education an opportunity to articulate its information literacy competencies with those of K–12 so that a continuum of expectations develops for students at all levels. Students will also find the competencies useful because they provide a framework for gaining control over interactions with information in their environment.

Information Literacy Competency Standards for Higher Education consists of 5 standards, 22 performance indicators and a wide range of outcomes for assessing student progress toward information literacy.

Information Literacy Competency Standards for Student Learning

Standard 1: The information literate student determines the nature and extent of the information needed.

Standard 2: The information literate student accesses needed information effectively and efficiently.

Standard 3: The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

Standard 4: The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.

Standard 5: The information literate student understands many of the ethical, legal, and socio-economic issues surrounding the use of information and accesses and uses information ethically and legally (ACRL 2000, p. x).

MISCONCEPTION OF INFORMATION LITERACY AND INFORMATION TECHNOLOGY

There is a mix reaction on the academia world as Oblinger and Hawkins (2006) pointed out a reality that has long been observed by librarians: "Whereas colleges and universities often focus on technology skills, it is actually *information literacy* that should be the concern. Information literacy does not simply confine to knowing how to open a Web browser and type a search term into Google. It is quite amazing, in fact, to read the numerous studies, reports, and educational plans built around "harnessing technology for education," and then to observe how

few of these publications ever mention information literacy or even describe its components. The myth that technological ability equals information and research ability seems to have convinced the best minds in educational thinking today (Jenson, 2004).

As large numbers of studies have demonstrated, however, today's highly technological students continue to fail miserably at most aspects of sophisticated information handling. This problem, in fact, may be both deeper and more subtle than simply constituting a false mythology. The fact is that much technology used by *professors* in today's higher education environment is sporadic and decidedly "old school" in a world in which Wikipedia and text messaging are the technological landmarks of students and PowerPoint is a dark ages application. Academia's version of technology is often very much behind the times. Selwyn (2007) pointed out that the emphasis on making students technologically literate with academic tools they find anachronistic both limits their creative use of information technology and actually leads them to boycott or opt out of academic information technology entirely.

Haas and Neuwirth (1994) critique several misconceptions concerning the relation of literacy to technology: two are relevant in this context. The first is that literacy exists independently of technology and is, therefore, unaffected by it-that is technology is viewed merely as a tool making reading and writing more efficient but has no impact on the nature of literacy. This assumption presumes that

> "the essential processes of reading and writing are universal and unchanging: writers and readers simply exchange their pens and books for word processors, replace their face-to-face conversations with computer conferences and continue to produce texts and construct meanings in the ways they always have"

True and sad to say that many scholars and faculty in India lack the desired knowledge and skills to acquire the right information at the right interface. Google has made scholar and student so dependent on them that Wikipedia remains the savior in their pursuit for knowledge. A few better ones in the research skill domain extends to using Google scholar and accessing information which is a simplified format of search engine and the desire to learn how to use EBSCO and Web of Science database remains a challenge for the librarian. Google Scholar indeed a simplified form of searching but the result can be a thousand hits.

INFORMATION LITERACY INITIATION IN INDIA

The importance of Information literacy in India has taken a great leap in its implications as Ghosh *et al* (2006) pointed out that Information literacy programmes are already in existence in narrower forms in various libraries and information centres in India, in the forms of user education, bibliographic instruction, library instruction, library research, and Library tours. Many advocates of information literacy in India proposed to integrate information literacy programme with the academic curricula of educational systems of India, starting from the school level to the higher education, vocational education, professional education and research degree level. Many schools in India for instance has library hour for the student as a part of information literacy drive and universities in India has gone a bigger steps in setting up information literacy centres and users orientations. There is also a small contribution from Indian Library and Information Science Professionals in the realm of information literacy as most of the college libraries, where Indian students obtain undergraduate education, are poorly equipped with respect to ICT and have little information literacy programmes, as noted by Maheshwarappa and Tadasad (2001) who examined the availability and use of computers among college libraries in Karnataka state.
His study reveals that through university librarian's interviews the skills provided for users by the library staff comprised:

- traditional classification and cataloguing skills and information about library sections where book and archival materials could be traced;
- ability to access information stored on microfiche, audio-visual format and on CD-ROMs;
- learning to open and close a computer;
- composing, sending and receiving e-mails; and
- using the OPAC.

Programs like *Sarva Shiksha Abhiyan* (SSA), District Primary Education Programme (DPEP), National Literacy Mission are some of the initiation done by the government of India (GOI) for right to education but no efforts are shown in information literacy level but rather literacy as the agenda. Grassroots level of information literacy education would bring in a whole

lot of changes in the development of the nation by building a strong information literate individual and a sensible consumer to the digital world.

User awareness program are conducted by various university library in collaboration with UGC-**INLIBNET** Centre (Information Library Network), publishers and Libraries that are base around users willingness to participate in the workshop or the program and as a result it's more of a participation base and doesn't promote information literacy to the desired position. INFLIBNET N-List awareness program was recently organized at Pondicherry University on 28th August and at North Eastern Hill University on 25-26 August, 2011. Such initiation are very productive in the process of informing the users on the electronic resources but the attendance and the responds are confine to a few participant and a some of the researchers and the core users of these resources are never seen in the program. The Academic Staff colleges in Indian universities are one of the forces in driving information literacy, but their roles are confined to participation based and there is a higher need in addressing the chunk of Indian consumers.

States of India those passed Public Libraries Act

Library plays an important role in shaping the knowledge of an individual and imparting the knowledge of acquiring information. Some of the states in India that have taken initiation in implementing library legislation in India are as follows.

States of India those passed Public Libraries Act (legislation):

Tamil Nadu	1948
Andhra Pradesh	1960
Karnataka	1965
Maharashtra	1967
West Bengal	1979
Manipur	1988
Kerala	1989
Haryana	1989
Mizoram	1993
Goa	1993
Gujarat	2000
Orissa	2000
Rajasthan	2005
Uttar Pradesh	2005

Uttarakhand	2005
Pondicherry	2007/2008
Arunachal Pradesh Public Libraries Act,	2009

Table1: ***Library legislation act in India***

INFORMATION LITERACY MODELS

There are many models being applicable around the globe and some tested and well-accepted models are:

1. **SCONUL (Society of College, National and University Libraries)**

It is a seven pillar model used to promote excellence in library services in higher education and national libraries across the United Kingdom and Ireland 45 (Society of College, National and University Libraries). SCONUL identifies seven headline skills:

1. the ability to recognize a need for information
2. the ability to distinguish ways in which the information 'gap' may be addressed
3. the ability to construct strategies for locating information
4. the ability to locate and access information
5. the ability to compare and evaluate information obtained from different sources
6. the ability to organize, apply and communicate information to others in ways appropriate to the situation
7. the ability to synthesize and build upon existing information, contributing to the creation of new knowledge.

2. **The Big6 Skills Information Problem-Solving Approach to Information Skills Instruction**

It is an information and technology literacy model and curriculum, implemented in thousands of schools – through higher education. Some people call the Big6 an information problem-solving strategy because with the Big6, students are able to handle any problem, assignment, decision or task. This bases learning around the six steps: (i) task definition; (ii) information seeking strategies; (iii) location and access; (iv) use of information; (v) synthesis; (vi) Evaluation. Further, in order to solve an information problem of answering a research question, you follow a research process or research steps, it list some steps to be followed such as: (i) the first step is preparing for research**.** At this step you brainstorm ideas and possible

sources of information; narrow your topic to make it manageable; and plan how you are going to do your research; (ii) the second step is accessing resources. Here, you decide what sources of information will be best; find them; and locate the information in them that might be helpful in answering your information question; (iii) the third step is processing information. This is the step where you look closely at the information from your sources; decide what is important; and take notes. Then you organize your information; make sense of it; and develop your own ideas about it (iv) the fourth step to successfully solving your information problem is to transfer your learning. This is the step where you take your ideas and the information that helped you come to them and plan, create and present your findings and solutions. (ALA np)

LIBRARIAN AND TEACHERS AS A FACILITATOR FOR INFORMATION LITERACY: *SHARING THE BURDEN*

There is no doubt that the responsibility lies not only to the librarian alone but the system in general and the educators are in fact the facilitator for information literacy program to the masses. But, teaching faculties do not generally see librarians as full academic colleagues and, thus, have little appreciation for librarians as instructors (Saunders, 2009). This perception arises from the fact that librarians are non teaching staff and no knowledge on research activities and limited teaching experience. The wrong notion or stereotype of a librarian should be avoided so that faculty and librarian can collectively co-operation for information literacy. Since the needs of, say, a physics student will be different from those of a social science student, information literacy programs should be learner centered, and discipline and subject based. Similarly, the needs of a first year student will not be exactly the same as those of a PhD student. The aims and expected learning outcomes of the programs should be explicitly spelt out, and should be specific and achievable

Webber and Johnson (2006) in a British study of key stakeholders within universities found minimal understanding of information literacy among academic administrators. While there was some discussion about information skills, administrators confused information literacy with computer literacy and the need arises to educate the non-teaching IT professional and the administrative staff on the basic differences and come up with a common agenda. As the importance of information literacy as a skill for lifelong learning has grown, librarians and faculty are beginning to realize that they share a common goal in insuring that students acquire the knowledge and skills necessary to be information literate. To deliver their information needs the collaborative effort in bridging the gap. The only barrier to collaborations effort is the belief

that information literacy responsibility lies solely on the librarian and the responsibility is not confine to the departmental level but rather to the whole institution.

Classroom assignment are a good component in inculcating the searching skill in the students but the responds sometime ends up with static website citation and Wikipedia in the references. Quarton (2003) describes teaching strategies faculty in any discipline can use to guide their undergraduate students through the basic library research necessary for writing a solid research paper and

A CURRICULAR APPROACH TO IMPROVE THE INFORMATION LITERACY

The old saying *strike the iron while its hot* truly speak on the need to inculcate the skills needed in seeking information through incorporation of information literacy tutorial in a grass root level and refining it on a later stage of life. As information literacy is a lifelong learning process and the World Summit on the Information Society (2003, para. 29) emphasized that 'each person should have the opportunity to acquire the necessary skills and knowledge in order to understand, participate actively in, and benefit fully from, the information society and the knowledge economy'. Educator plays an important role in shaping the student information literacy skill by introducing information literacy skill in their class rooms. Some argues that information literacy is the job of a librarian, which is partly right but it is complete when the faculty takes time in imparting them in their classroom too as Raspa and Ward (2000) point out that "neither librarians nor instructional faculty can adequately teach the research process in isolation from each other", there should be a collective effort. Students in Indian scenarios are too dependent on the teachers for their information that their desire to seek information goes haywire. The problem is with the system in general were the students are spoon fed thereby making them dependent on the teachers. Introduction of Information literacy program from a school level will empower them and independent in their search for information.

In order to implement higher education information literacy among the students there is a need to incorporate information literacy program in the academic curriculum, so that the skills can be applied to real problems. Thus, it would not be a burden on students and will provide them with knowledge which will aid them in their regular course of study. Outline of the proposal would be as follows:

Year – I: Understanding and Finding of Information

<table>
<tr>
<td>What is information?
o Definition
o Concept
o Need for information
o Characteristics of information
o Types of information
o Role of information
Information providers:
o Libraries & Information Centers
o Documentation Centers
o Data Centers
o Referral Centers
o Clearing Houses
Library services:
▪ Circulation, Reference, Inter library loan, Current Awareness Services, Indexing and abstracting, Online reference service, Reservation of documents, Bulletin board services</td>
<td>Library sources:
▪ General books, Text books, Periodicals, Reference sources (like dictionary, encyclopedia, directory, almanac, statistical sources, atlas and maps, gazetteer, etc), CD-ROMs (like databases, encyclopedia, etc), Online sources (like websites, portals, gateways, blogs, wikis, etc)
Information networks:
DELNET, INFLIBNET,IFLA etc
Information technology
▪ Definition
▪ Need and objectives of IT
▪ Computer hardware basics
▪ Input and output devices
▪ Data storage devices
▪ MS-Office package
▪ Creating email accounts
▪ Sending and receiving emails, basic internet browsing through search engines</td>
</tr>
<tr>
<td colspan="2">Print sources:

Searching information from various types of indexes (author index, subject index, etc)
• From electronic sources: Searching techniques,
• CD-ROM searching, online searching, searching
• from free and subscribed databases & websites,
• downloading, copying and printing
Practice
Library Tours:
• Working hours, membership, rules and regulations
• Introduction to the staff and staff assistance
• Library sources, their organization and techniques to locate them
• Introduction to basic library services such as use of OPAC, circulation, reference services, basic internet services and reprography.</td>
</tr>
</table>

This course will help the students developed skills required in using the library sources effectively and productively on the services provided by the library. This problem solving task will also help them in:

- identification of their individual information needs
- identification and locating relevant information
- Selection of information from reliable sources

Year – II: Organizing, Processing and Presentation of Information

Evaluation of information: • Determination of the authoritativeness, authenticity, current ness and reliability of the information • Avoiding plagiarism • Recognition of interrelationships among concepts • Recognition of omissions and errors in the information (if any) • Comparison of information gathered with the original problem and adjusting strategies accordingly • Revision and of the information collected	**Organization of information** • Summarization of the information with accuracy and clarity • Organization and analysis of information • Re-examining information (if required) • Drawing conclusions based on the information • gathered and its interpretation • Providing citations and bibliographies using various styles of references like MLA, APA, Chicago manual, Harvard etc **Presentation of information:** Formats for presentation of information (like printed text, graphical, PowerPoint presentation, online hosting of information)

CONCLUSION:

Information literacy remains invisible in higher academia and there is a need to address the gap in bridging the misconception. This issue may be summarized with one dangerously all-encompassing statement by Wiliam (2010) that "Information literacy is invisible because few people recognize that there is a problem to address."

It is the nature of higher education (as undoubtedly most educational system) to perpetuate its past successes, even when the world changes, and to fail to recognize looming threats to its future. The investment of the big buy of multiple consortia in special libraries and the academic libraries has increase drastically with thirteen consortia are presently functioning with UGC-INFONET initiated by INFLIBNET (Information Library Network) being the largest consortia both in terms of collection and members**.** The cost-benefit of these resources can be achieved through information literacy and therefore when the need for skills to link the right information to the right situation is recognized as it should be, librarians can only hope that academia will take up the means to help students navigate the new information age. Both

librarians and teachers have a responsibility to seek each other out to begin or enhance their collaborative efforts. Efforts to encourage, collaborate and facilitate that may include the establishment of mentoring relationships between librarians and teacher educators. The joint development of model lesson plans that incorporate IL skills that teacher educators could use as examples with their students, the initiation or expansion of librarian-presented IL sessions for faculty, or simply inviting a colleague to lunch to talk about information literacy. While affirmative progress is being made in incorporating information literacy into teacher education programs (Duke & Ward, 2009), much still needs to be done. As evidenced by many successful collaborations, both teacher educators and academic librarians benefit from working together to prepare future educators to be information literate and to have the pedagogical knowledge needed to teach their future new breed of students acquire the right skills.

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