

Information Literacy: A Review of Literature

Suvra Chandra

Research Scholar, Department Of Library and Information Science,

University of Kalyani,

Librarian, Fatepur High (H.S.) School

Abstract

Information literacy first appeared in print in a 1974 report by Paul G. Zurkowski written on behalf of the National Commission on Libraries and Information Science. Information literacy is knowing when and why essential information, where to discover it, and how to assess, use and communicate it in an ethical manner. Information literacy methods the basis for lifelong learning. It is common to all learning atmospheres, and to all stages of education. In this paper the researcher made an attempt to study the literature on Information Literacy.

Introduction

A literature review is a text written by someone to consider the critical points of current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and as such, do not report any new or original experimental work. Also, a literature review can be interpreted as a review of an abstract accomplishment.¹¹⁹ literature review a simple summary of an unrelated group of articles. A good literature review will look at the research that has been done and synthesize or pull together those elements that are similar or most pertinent to the theme we have chosen. Reading a literature review can often give us a solid overview of the research on a topic. Literature reviews are often critical sections of scholarly research papers, and are sometimes papers on their own. Literature reviews are most often written by researchers in the sciences and social sciences who report on lab or empirical research.¹²⁰ A good literature review is not a catalogue of what has been written. It should critically interpret each study covered in a review. It should reflect the researcher's own critical thought process. This paper says for a view of Information Literacy

Methodology

For this purpose the abstract of the topic Information literacy is collected. After that each individual article ;'as

scanned, checked, examined and tabulated for necessary date into separate. After that all entries are arrange first according to the subject and then under the subject entries are according to alphabetical order. Finally all entries are arrange chronologically.

Example of Literature Review

Scope-The present study covers the role of the university library in supporting information literacy in UK secondary schools. The study is limited to only secondary schools.

Purpose and Objective – The purpose of this research is to report on the findings of the CrossEd-2 study which investigated the role of the university library in delivering information literacy skills relating to the use of e-resources to secondary schools in the UK.

Design/methodology/approach – A quantitative survey of all university libraries in the UK was undertaken using an e-mail questionnaire to identify the incidence of current collaboration. A return rate of 36 per cent was achieved, and the data provided information on the types of collaboration taking place in a total of 20 universities. These were categorized and used to select a survey population of six university libraries for the qualitative study. Data collection for the case studies was by means of face-to-face and telephone interviews with university librarians, using semi-structured interview schedules.

Findings – Six forms of collaboration were identified with a range of levels of information literacy skills evident. Collaboration is characteristically ad hoc, with little involvement of school librarians. The research revealed six distinct positive aspects of cross-sectoral collaboration for school pupils.

Conclusion- A strategy and a national seminar to enhance collaboration in the UK are discussed. A fundamental lack of understanding of the respective roles of secondary school and university librarians was demonstrated.

Body

This paper argues for a view of Information Literacy policy in School library. A number of studies on core journals in various subjects exist but no attempt have been made to develop a systematic study in the Information Literacy .

Information library in different library

Jagar and Merianalyzed(2007) (1) Mpumalanga provincial library services, South Africa offers public library services in a largely rural new province created in 1996. This paper reports the results of an IL intervention designed for public library works in this province. Mpumalanga gave public library workers the opportunity to develop their information literacy skills and to apply them in their libraries.

Koltay (2011) (2) of this paper is to examine the role of information literacy (IL) and digital literacy under the circumstances and challenges of the Web 2.0 environment. Desk research was done in order acquire a picture about the nature of the Web 2.0 and Library 2.0 in regard to their influence on literacy requirements. The hypothesis that differential literacies have to be offered to diverging groups of users, similarly to traditional library services that cater for different user needs depending on the type of the given library was tested. Professional goals characterize first of all different groups of professionals, teaching staff and researchers, as well as students. Thus, their need in information is different from that

of other categories of users. Consequently, they require literacies similar to services traditionally offered by academic and special libraries. Amateur content is more compatible with the mission of public libraries and it is more suitable for Web 2.0 and Library 2.0 applications.

MacMillan, MacKenzie (2012) (3) describe challenges undergraduate students face in using scholarly article a workshop on reading designed to address those challenges. It seeks to present a study of senior public relations students use, attitudes and confidence levels in using scholarly material.

Information Literacy and Higher Education

Leckie and Fullerton(1999) (4) reported What are science and engineering faculty doing with respect to the development of information literacy in their undergraduate students? To explore this question, science and engineering faculty at two large Canadian universities were surveyed and interviewed regarding their perceptions of their students' information literacy skills and their own pedagogical practices related to such skills. Faculty awareness of, and support for, a variety of bibliographic instruction methods and the perceived role of science and engineering librarians in information literacy instruction also were investigated. Based on the survey results, suggestions for the design of library instruction for science and engineering undergraduates are made.

Halverson and Volker(2000) (5) examined the term Information Literacy is now established in electronic art library. The advent of electronic information has created opportunities, for applying the framework of IL in the library. Three strategies from the following areas will be addressed. They are the help desk, credit course on IL, Infolab.

Manual (2001)(6) in his paper basically said academic librarians have been creating web based tutorials in support of their institutions distance education course and remote students for some time. For credit, distance education, information

literacy classes for undergraduate students, however, have not yet begun to appear in significant numbers. In creating such a course, LIBY 3200 California State University, Hayward, sought to meet the needs of its students better and to explore the potential of distance education. Findings from experience teaching LIBY 3200 suggest that many students are less prepared to function- technologically and cognitively in a web based distance education environment than might be predicted. Design and delivery of course content proved time consuming with few possibilities for short cuts and teaching methods had to be adopted to help the students become autonomous learners, meaningful capable of self directed learning in a web based environment.

Maughan(2001) (7)examine national standards for information literacy have been developed and approved by the Association of College and Research Libraries, little is known about the extent to which undergraduates meet these or earlier sets of standards. Since 1994, the Teaching Library at the University of California-Berkeley has conducted an ongoing Survey of Information Literacy Competencies in selected academic departments to measure the “lower-order” information literacy skills of graduating seniors. The most fundamental conclusion that can be drawn from this survey is that students think they know more about accessing information and conducting library research than they are able to demonstrate when put to the test. The University of California-Berkeley library experience is consistent with earlier study findings that students continue to be confused by the elementary conventions for organizing and accessing information.

Seamans(2002) (8)determine what kinds of services are appropriate and necessary for first-year college students, it is useful to first understand how students acquire and use information during the beginning of their college lives. Questions based on the Information Literacy Competency Standards for Higher Education were used

in interviews with students in order to better understand the kinds of information first-year students at Virginia Tech needed, and how they acquired it during their first semester at college. Students were questioned about their information use during fall semester 2000, using both e-mail questioning and face-to-face interviews. The data collected provided insights into how students acquire and use information, and resulted in suggestions that are being used in revising and improving library services for this population.

Flispohler (2003)(9). state managing a library instruction program at a small liberal-arts college has many challenges. Programs at such institutions often have limited financial resources and are maintained under difficult staffing conditions. This study examines the effectiveness of an instruction program offered at a four-year liberal-arts college with fewer than 3,000 students. The research was designed to assess the effectiveness of the current program and measure it against a pilot group of students exposed to enhanced information literacy opportunities based on the Association of College and Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education. Working with five faculty members, information literacy goals were clearly articulated and implemented into nine sections of first-year writing and speaking courses. Bibliographic analysis, an information literacy questionnaire, and an in-class writing exercise were used to determine whether students in the pilot groups performed better than students receiving the program’s customary library training.

Kavulya (2003)(10) discuss the ability to access, evaluate and use information is a prerequisite for lifelong learning, and a basic requirement for the information society. At the university level, students are expected to contact independent exploration in diverse disciplines and topics and therefore, irrespective of their

areas of study, they need to use information effectively. They should not only master the skill of finding information in print format or electronic formats, but also be able to evaluate and use it competently both in their study activities as well as in their later lives. This paper examines why the acquisition of these information skills is a matter of necessity and they are a prime factor in quality learning in Kenyan universities. It concludes that although there have been efforts to ensure information literacy among university students, there is need to build on these efforts through collaborative efforts between librarians and faculty members particularly through joint curriculum design and implementation.

Parker(2003)(11) describes a combined approach to delivering information literacy skills at The Open University Library. Outlines the aims of the newly formed Information Literacy Unit, and identifies three approaches currently used to incorporate information literacy into the curriculum. Focuses on MOSAIC (Making Sense of Information in the Connected Age), an on-line information literacy course, in particular on issues around assessment, on-line delivery and support, its use as a staff development tool and positive results of a recent survey. Recommends that information literacy is considered at a strategic level in the higher education sector.

Salisbury and Ellis(2003)(12) in their paper reports on an evaluation project conducted at the University of Melbourne during 2002. The objective of the project was to evaluate selected information literacy programs that were provided to students in the Arts Faculty. The three programs that were evaluated used different modes of delivery. The paper discusses the rationale of the project, the methodology and the results of the evaluation

Brier and Lebbin (2004) (13) said stories are powerful teaching tools because of their potential to stimulate the imagination of students and engage them with the

material. The short story gives meaning to abstract concepts, aids memory, makes learning fun, and is time efficient. This article explains the approach to teaching information literacy through the use of short stories, including how to create vivid connections to the Association of College and Research Libraries' Information Literacy Competency Standards for Higher Education. Provides course instructors with examples of how the short story can be used as a platform to discuss information literacy standards.

Nyamboga (2004) (14) in this paper presents the results of a study of training opportunities for library and information professionals in India and how a selection of Indian university libraries are providing information skills and information literacy programmes for their users. The need for training students, researchers and staff to make appropriate use of resources made available in libraries is recognised. Library and information professionals also need continuing professional development courses as new ways of providing information resources are developed.

Mutula, Wamukoya, Zulu(2005) (15) said the study was performed by the authors to determine the status and level of integration of information literacy within the academic programs of Library and Information Studies (LIS) at the University of Botswana. The study revealed that most of the library and information science courses had large components of information literacy content though issues relating to methods of course delivery, resource constraints, duplication of content across courses, poor structuring of courses, overloaded curriculum, and lack of harmonization of courses needed to be addressed. The study established that most of the students were not equipped with requisite information literacy skills to effectively meet the demands of the job market.

Bury, Oud (2005) (16) assumed usability testing can play a valuable role in improving the effectiveness of online information literacy instruction, while

forming a core component in a wider assessment plan. This article aims to discuss the usability testing of an online information literacy tutorial for freshman undergraduates at Wilfrid Laurier University Library. Two librarians, working to fulfill an important mandate of the Library's Information Literacy Task Force, defined goals, created and implemented a modest, though effective, approach to usability assessment. The testing provided detailed information on the ease of use of the tutorial, as well as users' satisfaction levels with content and design. These findings informed subsequent revisions and enhancements to the online tutorial.

Joint, Wallis(2005) (17) investigate the role of national library associations both in promoting information literacy and in advancing the interests of the practitioner library and information worker. An opinion piece based on information literacy practice world-wide and recent debate on the role of national association and professional organisations in the UK. The dynamic role of associations for the library and information profession in a variety of countries world-wide gives an indication.

Li, Leung, Tam (2007) (18) stated the purpose of this paper is to reflect on The Chinese University of Hong Kong Library's development of its web-based Information Literacy Tutorial and how it was incorporated into the mandatory Student IT Proficiency Test. The paper outlines the current trends faced by academic libraries in Hong Kong and the need to provide web-based e-learning tutorials on information literacy skills to support diverse ways of learning. It describes the implementation of the web-based tutorial at The Chinese University of Hong Kong as the courseware of the information literacy section in the IT Proficiency Test. The reference librarian's teaching role is expanding as information literacy instruction becomes increasingly valued by university administrators and faculty. The inclusion of information

competencies as a graduation requirement provides opportunities to incorporate information literacy into the curriculum and foster collaboration between faculty and librarians.

Korobili, Malliari, Christodoulou (2008) (19) The purpose of this study is to investigate the attitudes and perceptions of Greek librarians regarding information literacy programs and their preparedness for such programs. The study was targeted at all professional and paraprofessional staff of the academic libraries in Greece and Cyprus. The instrument was a specially designed structured questionnaire which included 20 questions, in sum 67 variables. Most libraries do not deliver information literacy programs, but some kind of library instruction. Many respondents consider that more money, more librarians and an appropriately equipped space are the best ways to improve information literacy programs. Concerning the information literacy trainers, there are those who emphasize teaching abilities and/or pedagogical experience, and those who emphasize infrastructure and funding.

Trescases (2008) (20) provide an overview on information literacy/library programs for first-year students in Canadian universities and colleges. The paper introduces and discusses periodical articles, monographs and up-to-date research on the subject. It presents anecdotal evidence gained from web site searches of 169 Canadian post-secondary institutions complemented by personal communications from library and student services staff. The study provides information about several types of library services for first-year students currently in use in Canadian academic libraries.

Collins (2009) (21) describe the library instructional program that has been developed at the Z. Smith Reynolds Library at Wake Forest University to teach information literacy skills to elementary and high school students attending academic summer programs. Historical development of the instructional program

is discussed and analyzed. This paper reflects on the importance of students who participate in summer programs having access to library resources including an orientation to the library. The academic librarian is a prime player in reaching out to university staff responsible for coordinating summer enrichment programs on a college campus. The paper highlights the successes and lessons learned in coordinating instructional activities for elementary and high-school students involved in summer camps and explores the benefits of these programs for students and librarians.

According to Baro, Fyneman(2009) (22)Research is carried out in the Faculty of Social Sciences, Niger Delta University, Wilberforce Island, Amassoma, Bayelsa State, Nigeria. The purpose of this paper is to determine the undergraduate students' level of awareness of information sources available in the university, to know their level of digital literacy and to determine the different search strategies used by them. The paper adopts a descriptive survey method and covers the 350 undergraduate students of the four departments in the Faculty of Social Sciences: Economics, Sociology, Political Science, and Geography and Environmental Studies, from which a sample of 105 students is drawn. A questionnaire tagged "Information Literacy among Undergraduate Students of Social Sciences Questionnaire (ILUSSSQ)" is designed to collect data for the paper. The paper reveals that male students in the faculty are more aware and use the information sources available in the university more than the female students. There is significant difference between gender and search strategies used by the undergraduate students in the social sciences. Male students are more digitally literate, they utilize the internet facilities provided in the university library, use different search engines and utilize the CD-ROMs in the e-library section more than the female students.

Yang (2009) (23)of his paper is to provide the findings of a survey of current technologies used in creating information literacy online tutorials in academic libraries. It also aims to inform readers of the technological tools available to develop good online tutorials. The author surveys 372 online tutorials on the library web sites of 100 academic libraries in a random sample from Peterson's Guide to Four Year Colleges 2008. About one-third of the surveyed academic libraries have developed their own online tutorials. Most of the tutorials teach search skills for a specific database. The tutorial contents also include general introduction to library resources, research in a subject area, how-to for an application, and library-related concepts and procedures. One-third of the tutorials have been created by tutorial software. The other technological approaches include portable document format (PDF), Hypertext Markup Language, Common Gateway Interface scripts, WebCT, Stream video, and MP3.

Probert(2009) (24) in his article reports on a project, involving three New Zealand schools, which investigated teachers' understanding of information literacy and their associated classroom practices. Recently published work, while lamenting school students' lack of information literacy skills, including working with online resources, provides little research investigating classroom teachers' knowledge of information literacy skills and their related pedagogical practice. The findings of this project indicate that while some of the teachers in this project had a reasonably good understanding of the concept of information literacy, very few reported developing their students' information literacy skills.

Aharony (2010) (25)said in his current study to review the different publication dealing with information literacy and the emerging trends reflected over the ten years, 1999-2009 in the Web of Science database.

Dabbour, Ballard (2011) (26) The purpose of the paper is to present a cross-cultural

analysis of information literacy and library use among Latino and white undergraduates in an American university. A large-scale, random sample survey of information literacy skills, and library instruction experiences and attitudes was undertaken at a large public university in the USA. More white students accessed the internet from home than Latino students; however, both spent an equal amount of time searching the internet and library databases. Latino students used the physical library more than white students. More Latino than white students had formal library instruction. Over two thirds of the respondents agreed or strongly agreed that their research skills contributed to their academic success. Latino students did not perform as well as white students on the test questions on information literacy knowledge.

Sasikala, Dhanraju (2011)(27) studied Information literacy is a necessary skill that is utilitarian in every aspect of a person's life. For students, information literacy skills would lead to independent and student-centric learning, rather than dependence on the teacher to provide answers to questions or problems that they encounter. This in turn creates a greater responsibility towards their own learning, which would help him become dynamic learners and thinkers who are creative, analytical and efficient instead of mere regurgitators of facts. The present study focuses on the aspect of academic environment.

Shoeb (2011) (28) said the purpose of this study is to assess basic information Literacy competency and the perception of IL behaviour of freshmsn undergraduate business students of Independent University, Bangladesh. Freshman business students were asked to fill a set of structured and sample questions which assessed their level of information skills and basics IL behaviour. The questionnaire incorporated different questions concerning their previous experience of information use and access to information sources. It has been found that IUB

freshman business students require more competencies to solve information related problems.

Baro, Zuokemefa (2011) (29) examine the various IL practices in university libraries in Nigeria, to identify the likely barriers facing IL programmes in Nigeria and to provide suggestions on how best to improve the IL practices. Librarians from 36 university libraries participated in the survey which adopted an online method.

Hodgens, Sendall and Evans (2012) (30) understood in this paper is to examine post graduate health promotion students self perceptions of Information Literacy skills prior to and after completing PILOT an online information literacy tutorial. Post graduate students at Queensland University of Technology enrolled in PUP038 New Developments in Helth Promotion completed a pre and post self assessment questionnaire. From 2008-2011 students were required to rate their academic writing and research skills before and after completing the PILOT online information literacy tutorial.

Venkataramana (2012) (31) carried out a study. Higher education institutions in the 21st century are expected to develop competent information literate students capable of meeting future challenges of global competition and challenging dynamic working environment. In the fast emerging Global Knowledge Society, information literacy (IL) has become essential skill for the students to find, evaluate and use effectively the needed information to achieve their educational goals in view of the rapidly changing technologies and increasing complex variety of information resources. This paper explains the concept of IL, discusses the need and importance of IL and highlights the IL competence standards for higher education. It also discusses the IL initiatives at global level and emphasises the urgent need for the development of IL programmes in Indian higher education system.

Information Literacy and Synthesis

Rader (2000) (32) said since 1973 Reference Service Review has published an annual annotation bibliography of materials focused on library instruction and most recently, information literacy. Publications addressing academic library activities continue to be represented in the large number. The continuing growth of electronic information has made librarians in all types of libraries, more aware of the need to provide ongoing instruction to library users.

Johnson (2001) (33) said this year's annual bibliography includes materials reflecting various aspects of library instruction and information literacy. The academic literature continues to generate the greatest number of citations in these areas, but a small increase in the special libraries area was noted for 2000. The themes of standards for information literacy and assessment were apparent in all areas of the literature.

Rockman, (2003) (34) Concentrates on information literacy, by way of attendance at an international symposium, which was a common theme by the speakers. Records that information literacy is a worldwide phenomenon and not just a movement in the USA. Concludes it is important that students build on a strong foundation of information literacy skills and abilities using the faculty-librarian partnerships fully to do this.

Correia, Teixeira (2003) (35) provide an overview of some of the most recent developments in concepts and practices associated with information literacy worldwide, revealing the paradox that, while information literacy is a key discipline of the information society and knowledge economy and is well-understood in its broader sense, it has made little progress educationally, save for a few exceptions in countries such as Australia, the USA, Canada and the UK. Deriving from the authors' background as university professors, the paper concentrates on approaches to promote information literacy in higher education. The paper concludes by pointing to the

need to expand the debate on information literacy and how to raise ethical and moral concerns in the use of the Internet and the new technologies. It also explores the potential role that the European Commission eSafe (2003-2004) programme can play to encourage research and practice on information literacy in its widest sense, as an intrinsic competency in the fight against the effects of disseminating illegal and harmful content through online and other new technologies. According to Hollister (2005)(36) the purpose and the importance of information literacy initiatives continue to gain recognition outside the walls of libraries. The success of these initiatives depends largely on their integration into institutional curricula. Librarian outreach to faculty and academic departments is instrumental for successful integration. Student services divisions, however, are often overlooked as areas in need of librarian outreach and information literacy instruction. This paper will show how innovative outreach activities have helped to forge a partnership between the University at Buffalo Libraries and the University's Career Services Office. A review of the literature reveals how instruction librarians have employed outreach activities to integrate information literacy into the curricula of biology, business, chemistry, psychology, and many other academic disciplines. Examples of integrating information literacy into academic programs are also in evidence. The aforementioned partnership benefits university students, librarians, and career services personnel.

Ashoor (2005) (37) provide an overview of information literacy (IL) from a global perspective, to highlight problems facing developing countries in initiating IL programs, and state the trends of IL, with a focus on the development of IL programs at KFUPM. A general review and survey of current development areas. IL, which is a resource-based mode of education, has created a greater need to teach students the skills of accessing and evaluating

appropriate information resources and use them effectively.

Simanainen (2005) (38) said the term 'corporate literacy refers to the new comprehensive literacy'. In this article the concept is applied to the government. IL skills can be seen as a multiple extension which relates to the total information acquisition, filtering, interpretation, production, communication and legal and ethical process irrespective of the media form. All organizations as well as communities need a collaborativeliteracy. Here information offers a tool for good and bad. It is possible to use obtained information effectively and to use it responsible for the development of society but it can also be misused. Information held by the government can be used for the inclusion or exclusion of citizens. The government is responsible for the quality of the information it produces. In Finland, the majority of the citizens have access to information produced by the government either via their own computer or by using one at their work place, at school or in the library. Information services are in a key position to awaken awareness about the requirements of IL skills in public organisations. The valuestructure of the presentation reflects the Scandinavian concept of democracy transparency of society, views from the perspective of the citizens and access to information.

Anderson (2006) (39) provide some theoretical considerations concerning information literacy so as to contribute to a theoretically informed point of departure for understanding information literacy and to argue that to be an information literate person is to have knowledge about information sources and that searching and using them is determined by an insight into how knowledge is socially organized in society. Using concepts from composition studies that deal with the question of what a writer needs to know in order to produce a text, the paper outlines some ideas and key concepts in order to show how these ideas and concepts are useful to our

understanding of information literacy. To demonstrate how information-literacy is to have knowledge about information sources and that searching and using them is determined by an insight into how knowledge is socially organized in society, the paper takes a point of departure in Habermas' theory of the public sphere. Concludes that information seeking competence is a sociopolitical skill, like reading and writing skills, connected to human activity. Searching for documents in information systems is a complex and sociopolitical activity. As an expression of human activity we might say that searching for documents and reading and writing constitutes each other. The genre knowledge necessary in reading and writing does also apply when seeking information in systems of organized knowledge as the forms of information determine what can be expected and found in these systems. Information literacy covers, then, the ability to read society and its textually and genre-mediated structures. Information literacy represents an understanding of society and its textual mediation.

Vezzosi (2006) (40) presents an overview of the action research methodology and asserts its suitability as an approach to enquiry and practice in the field of information literacy (IL). An experience of action research is briefly presented and some strengths and weaknesses of this methodological approach are critically discussed. Action research was adopted for investigating the impact of an IL programme on a homogeneous group of students at the University of Parma (Italy). The project consisted of a cycle of four stages: observing, planning, acting, evaluating. Peer observation was adopted both as a validation method and as a support for the reflection on the research process. Action research is a suitable approach for teaching librarians, as it allows them to experience the role of teacher, researcher and reflective practitioner all together, thus favouring reflection on the complex, "multitask" role

that they are playing today. Moreover, action research puts teaching librarians in an attitude of learning from the educational context in which they work, encourages sharing of experiences and promotes change in library context.

Kurbanoglu, Akkoyunlu, Umay(2006) (41) describes the development of a scale designed to measure self-efficacy for information literacy. Cronbach's alpha, item analysis and item discrimination indices, principal component analysis, varimax rotation, and discriminant validity were used to measure reliability and validity of the scale. A 28-item refined version of the scale was found highly reliable and of reasonable length. Further refinement based on principal component analysis indicated three major components, which allow approaching information literacy skills regarding to their complexity levels.

Foster(2006)(42) stated of this paper is to report on the rationale and key learning processes for students of librarianship and information studies (LIS) at the Department of Information Studies, University of Wales Aberystwyth. Its purpose is to raise awareness of the ways in which professional training can incorporate research, and ultimately inform professional practice, and to describe the way in which recent research can be used to shape the curriculum. A literature review, identification of key principles for curriculum development, and discussion of processes is provided. Key learning outcomes for the course are put forward and the approach taken to them described. The description and discussion offered outline key questions for the development of courses aimed at future professionals.

Harrison and Rourke (2006) (43) said of this paper is to describe the integration of information literacy into each year of a Bachelor of Arts and Science (BAS) program at the University of Guelph, Ontario, and to explain the role of librarian mentors in this program. The paper reviews the literature related to mentoring

and librarians, explains the BAS program, and outlines the library's integration into the BAS curriculum. It discusses mentoring, assessment, and future goals, and provides some librarians' observations and advice. The paper demonstrates the benefits of librarian-student mentoring and of integrating information literacy into each year of an undergraduate degree program. Since the mentoring of students by librarians is rarely mentioned in the literature, this description of our mentoring program may inspire other librarians to set up librarian-student partnerships at their institutions. Our successful application of information literacy into every year of a degree program and our partnerships with faculty and students may serve as models for other libraries.

Matoush (2006) (44) discuss to provide an overview of innovative information literacy programs at San Jose State University King library which may serve as models for future academic library information literacy programs. New and innovative information literacy programs at the San Jose State University King Library are discussed and analyzed. These programs include freshman and transfer student literacy programs and a proposal for campus dormitory information Literacy.

Daihani, Rehman(2007) (45) said the purpose of this paper is to investigate the information literacy capabilities of Kuwaiti police officers by focusing on computing and information skills and perceived value of information sources. The study is designed to test the hypothesis that there existed significant differences in information literacy capabilities based on three personal characteristics. A questionnaire-based survey was conducted of 211 police officers enrolled in a training program; 60 percent responses were received and analyzed using SPSS package. It was found that generally the Kuwaiti police officers had weak computing and information capabilities. They were generally poor in searching skills. It was further found that

departmental affiliation exhibited significant differences for computing and information skills.

Jonson, Jent (2007) (46) analyzed of this paper is to set out to provide a selected bibliography or recent resources on library instruction and information literacy. Introduces and annotates periodical articles, monographs, and exhibition catalogues examining library instruction and information literacy. Provides information about each source, discusses the characteristics of current scholarship, and describes sources that contain unique scholarly contributions and quality reproductions.

Johnson, Jent and Reynolds(2008) (47) said the purpose of this paper is to provide a selected bibliography of recent resources on library instruction and information literacy. The paper identifies and annotates periodical articles, monographs, and audiovisual material, in the area of library instruction and information literacy. The paper provides information about each source, discusses the characteristics of current scholarship, and describes sources that contain unique scholarly contributions and quality reproductions.

Edzan (2008) (48) emphasize this paper the development of information literacy initiatives at the various levels within the Malaysian educational system. Information literacy has been embedded within the Malaysian educational system for some time. Information literacy means information skills delivered by the teachers at both the primary and secondary levels. Subsequently, information literacy competencies are further imparted to undergraduates and postgraduates by various academic libraries. The paper looks at the formulation of the National Information Technology Agenda and the initial emergence of information literacy initiatives within Malaysian society. Efforts are being made by various entities to create an information literate society in line with the government's aim of attaining Vision 2020 – the creation of a civil society whereby all citizens will be

information literate and well-equipped as knowledge workers.

Simard (2009) (49) of this paper is to discuss the design and implementation of an information literacy program for the Faculties of Science and Engineering at McGill University. Borrowing from the literature and Bloom's Taxonomy of Educational Objectives, a theoretical approach to audience characterization is used to generate learning outcomes aligned with American Library Association Information Literacy Standards for Science and Technology. Results suggest that a learner-centered program, addressing potential gaps between perceived and actual skills and needs, is well-received by the student population.

Johnson, Sproles and Reynolds (2009) (50) The purpose of this paper is to provide a selected bibliography of recent resources on library instruction and information literacy. The paper introduces and annotates periodical articles, monographs, and audiovisual material examining library instruction and information literacy. The findings provide information about each source, discusses the characteristics of current scholarship, and describes sources that contain unique scholarly contributions and quality reproductions

Shenton (2009) (51) examined Information Literacy has yet to gain any significance coverage in education. This paper considers the often overlooked links between information literacy, scientific inquiry and the generic research process and concludes by advocating that education in schools would benefit from concentrating on the axioms that underpin all three areas. Elements are taken from two frameworks. The first is Big skills approach of Eisenberg and Berkowilz. The second is SCONUL's seven pillars model for IL.

Lloyd (2010)(52) said Information literacy is a rich and complex social information practice that is constructed according to specific practical understandings, rules and

teleoaffective features which characterise a social site or setting. This paper aims to explore the philosophical and theoretical perspective of practice theory, in particular, the ontological work of Schatzki. These perspectives are to be used to frame an understanding of the features of information literacy as sociocultural practice. A theoretical perspective is introduced to examine the concept of information literacy practice by framing this analysis through a site ontology developed by Schatzki. Sociocultural and practice theory are employed in this exploration of information literacy as sociocultural practice and provide a framework for architecture of information literacy practice. Information literacy can be understood as a critical information practice which is organised and arranged through the site of the social, rather than as a reified and decontextualised set of skills.

Resnis, Gibson, Hartsell – Gundy and Misco (2010) (53) The purpose of this case study, created by a faculty learning community (FLC) on research fluency, is to investigate students' information literacy practices at Miami University, including information search process, preparation, differences in students' information literacy skill levels, and how well they transfer these skills outside coursework. Faculty and librarians designed a survey of about 60 questions, which were given to 300 students in faculty's classes by librarian FLC members. FLC members discovered where perceptions among professors, librarians, and students were similar, and where they differed.

Hoyer (2011) (54) This paper aims to discuss traditional conceptions of information literacy as created within an academic context to address information needs within this context. It seeks to present alternative realities of information use outside the academic sector, and to suggest that information literacy instruction within academia does not go far enough in preparing students for the information society beyond university. The aim is then to follow this by discussion of

appropriate information literacy models to prepare young people for information use in a variety of workplace environments. As an example of the application of appropriate information literacy models for successful workplace information use, the Edmonton Social Planning Council youth internship program is examined through a case study of two successful internship projects. This youth internship program provides young people with skills that are highly relevant to their information environment outside the academic sector. It provides them with a framework for interacting with information that can be applied in any academic or non-academic setting in which they find themselves.

Massis (2011) (55) said the purpose of this column is to examine the importance of libraries continuing to provide and enhance information literacy instruction to students in a challenging teaching and learning environment. The approach takes the format of a literature review and commentary on this topic that has been addressed by colleague institutions. The need for the continued development and implementation of information literacy instruction in the library must continue to evolve as a collaborative effort between librarians and faculty to ensure higher levels of student success in library use and research acuity.

Johnson, Sproles and Detmering (2011) (56) discussed of this paper is to provide a selected bibliography of recent resources on library instruction and information literacy. The paper introduces and annotates periodical articles, monographs and audiovisual material examining library instruction and information literacy. The paper discusses the characteristics of current scholarship and describes sources that contain unique scholarly contributions and quality reproductions.

Information literacy development and various challenges

Gorman (2003) (57) in his paper said Asia and Oceania is unique among the regions of the world. It is the first of all the largest and most popular region in the world.

Humanity learns different lessons in different contexts. For development to be sustainable, it must focus on capacity building, enhancing people's capacity to participate fully in their societies in economic, political and social life. From IFLA, we need to recognize that the information society is probably a spent concept and that in fact it has impoverished the development movement by encouraging us to think like technocrats. ICTs would rapidly pervade the entire world including the underdeveloped world. In IFLA's section plans, education remains the key development. Education is the forum that will provide an opportunity to learn the skills of Information Literacy. In many countries distance learning is becoming accepted as the desire to increase the provision of learning develops and the economic need to cut the cost of education grows in tandem with participation levels. Here is a correlation between Information Literacy and information access. Literacy is the driver behind the digital divide. Many libraries can not provide a telephone connection, a computer and a modem. But many library can provide electricity to run this equipment. Continuing professional development is an important key for without ongoing training information professionals fail to learn new skills. We need to provide IL training for librarian for Library school educators for school teachers.

Homann, B (2003) (58) in his paper reports Initiatives by German librarians on taking on board educational work in the field of information literacy or "Informationskompetenz" now seem to be successful. Although a lot of unfavorable organizational and political conditions still exist and much remains to be done, there are now many indicators showing that the mediation of information literacy will be institutionalized within the education system and the everyday work of librarians. In the last ten years of user education work, a lot of methodological experience has been gained and promising

pedagogical concepts have been developed, influenced by Anglo-American concepts of information literacy. However, a great disadvantage for the development of these concepts and for their evaluation is the absence of any central institution capable of supporting this particular aspect of libraries' work.

Hernandez and Urena (2003) (59) said the adoption of the Information Literacy agenda in Spain has been comparatively slow and fragmented due to cultural setbacks during the twentieth century. Since the late 1980s however developments in library services and staffing policies, reforms in education and wide availability of ICTs among the factors, have led to a brighter picture, with academic and public librarians all over the country engaged in IL activities for all types of users though school libraries still lag far behind. The main problems still to be addressed seem to be much the same as in most comparable countries. It is a responsibility for all learning facilitators, social awareness of lifelong learning needs, training of IL trainers, assessing the individual achievements and the institutional outcomes of IL training programmes and a clear understanding of the remit and rationale for different literacies within the information society.

Information literacy E-learning and e-resources

Hadengue (2005) (60) describe a Swiss Virtual Campus project in which an internet-based computer-assisted learning (CAL) package for students in economics and in dentistry was developed. A case study account of a CAL package implementation against a rigorous and well-thought-through pedagogic framework. The paper shows that it is possible to use a CAL package effectively to promote information literacy both on campus and to a distance learning community of students as an accredited form of learning activity, thus showing how e-learning is suitable for the promotion of information literacy both to full-time students and to those engaged in

lifelong learning in the context of professional practice.

Kinengyere (2007) (61) said Uganda has gone a step forward in ensuring that information resources available for researchers and students are maximally utilized. Academic and research libraries are participating in supporting and achieving the missions of their respective institutions by teaching the competency of information literacy (IL). This paper seeks to examine the effect IL has had on the usage of electronic information resources in academic and research institutions in Uganda. It aims to focus on the innovations that Makerere University Library (the biggest and oldest academic library in Uganda) has undertaken to ensure that library users (the Makerere University community and other collaborating universities and research institutions in Uganda) are trained on how to access a variety of available information resources, evaluate the information and apply it to address their needs. Data were collected for the study using interviews to both library staff and users of the selected institutions: two library staff in charge of e-resources and ten students/researchers were interviewed from each institution. However, user statistics for the years 2004-2005, as well as the IL training sessions conducted, were the main sources of information. The study focused on academic and research institutions – Makerere University, Uganda, Martyrs University, Nkozi and National Agricultural Advisory Services (NAADS). The researcher is physically involved in the IL program in Makerere University. The usage statistics were compiled and interpreted. The paper finds that availability of information does not necessarily mean actual use. The study shows that some of the available resources have not been utilized at all. This means that users are not aware of the availability of such resources, they do not know how to access them, or they do not know what the resources offer. All this calls for continued information literacy programs.

IL is very vital in influencing utilization of e-resources. Information professionals are needed to pass on IL skills to library users, while library users should endeavor to find out what information is available online for their consumption. Their attitudes and perceptions also influence the level of utilization.

Nazari and Webber(2012) (62) said the original concept of information literacy (IL) identifies it as an enabler for lifelong learning and learning-to-learn, adaptable and transferable in any learning environment and context. However, practices of IL in electronic information and learning environments (e-environments) tend to question the origins, and workability, of IL on the grounds that the generic models of IL are inadequate for the complex and evolving context of e-environments. Conducting an analytical review of the literature on the approaches taken to adapt IL in e-environments, we discuss how a failure in understanding the dynamic context and components of e-environments and IL have resulted in the emergence of a marginalised way of viewing and practicing IL in these environments. Drawing on Nazari's (2011) contextual study of IL in an online distance learning programme, we propose a holistic way of viewing and practicing IL in EL environments which is aligned with IL origins; it enables the e-learner to conceptualise IL and customise it to their actual learning style and needs. This study can be of value to IL scholars and practitioners who are interested in the concept and practice of IL in e-environments.

Kratochvil, (2013) (63) describe and evaluate the results of evaluation of the e-learning course, Information literacy, which is taught by the librarians at the faculty of medicine, Masaryk University. The survey covers the medical students who enrolled on the course between autumn 2008 and autumn 2010. The students were requested to fill the questionnaire designed in Google Documents and based on the quantitative

method including a five point likert scale combined with closed and open ended questions.

Information Literacy in digital library

Ameen, Gorman (2009) (64) explore in their paper the overall state of information and digital illiteracy (IDL) in developing countries and how it hampers the growth of individuals and nations. The case of Pakistan is to be used as an example to illustrate the endemic state of poor information and digital literacy. It also aims to discuss the general drawbacks to effective IDL in developing Asian countries. To achieve the objectives of the study, the literature review and result of Pakistan-based surveys are used to indicate the state of IDL among university students and faculty in one country while integrating these findings with discussion. It was found that in Pakistan, as elsewhere, IL/IDL practice and training are not the norm in libraries or in education; they are not operational priorities. The low level of IL/IDL among the educated classes contributes to the status quo of information illiterate citizens. It also establishes that becoming “critical consumers” of information is essential for personal and national empowerment.

Markless (2009)(65) analyzed this paper is to explore the problem of how best to conceptualise information literacy in the higher education environment, in order to ensure that any model used is ‘fit for purpose’ and able to effectively support IL teaching and learning. The nature of this problem was illuminated during consultancy for a UK University in which the author was invited to recommend an appropriate IL framework for student use in a specially designed Virtual Learning Environment. This paper outlines the journey that the author took to gain deeper understanding of the nature of information literacy so that a suitable framework could be recommended. The journey involves consideration of relevant principles of learning, the place of student reflection when learning to be information literate, what IL in higher education (HE) should

encompass, the importance of context in developing IL, and the influence of the digital environment, especially Web 2.0. The main features of the most common IL frameworks used in higher education are critiqued. A new IL framework is then offered along with a rationale for its appearance and use. However, it is not presented as an ‘answer’ or blueprint but to encourage critical reflection on current theory and practice. Finally, the author puts forward some ideas for future research.

Information Literacy initiative

Ghosh, Das (2006) (66) stress on Information literacy initiatives in India with special reference to emerging knowledge economy. Knowledge economy in India has emerged since 1990s with the advent of liberalization and globalization of Indian economy. Since then many Indian corporate organizations established their presence outside the country, forming an informal India Inc. in competing globally. The information infrastructure situation in India has also improved a lot since 1990s, not only in the corporate organizations that exploit knowledge resources for the profit making, but also in the public institutions that generate knowledge for the development of all aspects of society and humanity. Judicious use of information resources, available now mainly in the public institutions, especially in the higher educational and research institutions, should be measured in terms of information literacy of the stakeholders. Information literacy is required for effective use, consumption and assessment of information resources available in the institutions. Information literacy can also bridge the gap between digital divide that we observe in many grass-root level initiatives in India in the forms of ‘village knowledge centres’, ‘community information centres’, ‘e-choupals’, ‘gyandoot’, etc. ushered in with the participation of NGOs, developmental agencies and corporate organizations. Present study explores various initiatives in India that address information literacy in

maximizing utilization of knowledge resources. This study also focuses on the various initiatives undertaken by different institutions, starting from the elementary level to the higher educational level, professional societies and other organizations.

Information Literacy in School

Hull, Schultz (2001)(67) review research on literacy in out-of-school settings. Our first purpose is to identify the conceptual advances in theories of literacy that have arisen from non-school-based research and to trace their evolution. We are especially interested in clarifying the historical roots of current theories. A second purpose is to highlight recent research on literacy in out-of-school settings that exemplifies the range and dimensions of current work. Finally, we call for an examination of the relationships between school and nonschool contexts as a new direction or theory and research. We ask, How can research on literacy and out-of-school learning help us to think anew about literacy teaching and learning across a range of contexts, including school?

Foggett (2002) (68), in his paper basically study the fact that much of the library science and educational academic literature suggests that all young people need to be taught information literacy skills as part of their general school education in order to ensure that as adults they will be prepared for life as contributing citizens in the communities of the future.

Merchant and Hepworth (2002)(69) carried out a study. The study was undertaken to examine the IL of teachers and pupils in two UK single sex selective state grammar schools, one providing education for girls and the other for boys. Qualitative research techniques were chosen to enable attitudes and ethnographic data to be captured. The research methods used including observation of 10 teachers and 40 pupils in the classroom, complemented by observation of pupils behavior in the school library and computing facilities,

individual interviews with members of the teaching staff in both schools and group interviews with pupils from different year groups. The majority of the teachers were found to be information literate, although this was more the result of personal interest in information and the role it can play in their teaching than because of any attempts made by the schools or their training to encourage information literacy. Pupils were found to be adept at using a variety of sources to locate information, but the cognitive skills required to achieve this tended to be underdeveloped and received little attention within the school studied.

Lonsdale, Armstrong (2006)(70) describe in this research is to report on the findings of the Cross ED-2 study with investigated the role of the university library in deriving information literacy skills relating to the use of e-resources to secondary schools in UK.

Jorosi and Isaac(2008) (71) said the teaching of Information literacy skills in Botswana's community junior secondary school. It is gradually becoming a national priority.

Mahajan(2010) (72) carried out a study. This study describes education system in India. It based on the British system of education. The Government of India lays stress on education for all. The directive principle contained in article 45 states that the state has to provide free and compulsory education for all until the age of 14 years. According to 2001 census, 65% Indians are literate and almost every child has an access to school with around 95% of our rural education having a primary school within one kilometer of their habitation. The school education in India is at three levels-Primary (classes 1 to 5), Middle (classes 6 to 8) and Higher/Secondary (classes 9 to 12). There are two categories of schools-government schools that are entirely funded by the government and others being the public (private) schools. There are about 888 thousands educational institutions in the country with an enrollment of about 179

millions. Elementary education system in India is the second largest in the world with 149.4 million children enrolled in the age group of 6 to 14 years. All the states and Union Territories of India have adopted a uniform structure of school education, i.e., the 10+2 system of education. Higher education is provided by 237 universities, which include 34 agricultural universities, 15 medical institutions, 39 deemed universities and 11 institutions of national importance and 8 open universities in addition to 10600 colleges. Education in India is primarily the responsibility of the state governments although the central government also plays an important role in higher education. Though education is in the concurrent list of the constitution, the state governments play a major role in the development of education particularly in the primary and secondary education. Para 11.4 of NPE 1986 states that the investment on education be gradually increased to reach a level of 6% of the national income as early as possible. In spite of the resource constraints, the budgetary allocation on education has increased over the years. As part of the mid-term Strategic Plan and the Millennium Development Goals priorities, UNICEF India is also committed to ensuring quality education for all children. Mahmood (2012)(73) presents results of this paper. Here they measure perceptions of teachers about their 3rd grade students' information literacy (IL) skills. The IL standards given by the California School Library Association for 2nd graders were provided to 54 teachers from three private schools of Lahore city of Pakistan to get their opinion.

Bulfina and Koutsogiannis(2012) (74)said the home-school mismatch hypothesis has played an important part in sociocultural studies of literacy and schooling since the 1970s. In this paper, we explore how this now classic literacy thesis has developed a new life in studies of digital media and electronic communications with regards to young people and schools, what we call the new home-school mismatch

hypothesis or new literacy thesis. We report on two studies, one conducted in Australia and the other in Greece, that worked with 14–16-year-old young people to explore the relationships between their use of digital media in- and out-of-school. Our analysis suggests that the relationship between literacy and digital media use in and outside of school is more complex than is often presented in media commentary and in research and points to the need for more careful consideration of the relationship between school and out-of-school practice and knowledge.

Lee, Reed, and Laverty(2012) (75) Graduating preservice teachers were surveyed regarding their knowledge of information literacy concepts, the pedagogy of information literacy, and the role of the teacher librarian and school library programs. The preservice teachers felt poorly prepared to teach information literacy to pupils, had a limited array of information skills, and held a narrow view of the role of the school library. In response to these findings, the education librarians revised their instruction to the preservice teachers by moving the focus from information literacy skills for teachers to strategies for teaching information literacy skills to K–12 students.

Information Literacy Models

Hearn (2005) (76) describe an information literacy (IL) component for an undergraduate program, and to discuss the design and implementation of a faculty/librarian collaboration to teach first-year English students how to do appropriate and thorough research. The librarian was assigned to be a co-instructor in the course, taught a significant percentage of the research material, and participated in the assigning of students' grades. Each session taught by the librarian is described in detail, and the impact of the experiment on the students, the instructors and the college is addressed.

Sharkey (2006)(77) examine information literacy, critical thinking, and computer

literacy in higher education and discuss the application of the information fluency model, created by the Associated Colleges of the South, to the Purdue University Libraries one-credit information literacy course, GS 175 Information Strategies. The case study has a two-part focus. The first examines information literacy, critical thinking, and computer literacy in higher education through a review of the literature. The second part discusses the pilot GS 175 Information Strategies course, shows how the information fluency model was applied, and analyzes the overall success of the pilot. Today, employers and professors expect graduates and students to exhibit critical thinking, analysis, research, and technology skills at a fairly high level. Universities are responding with a more rapid integration and adoption of technology and creating a higher emphasis on information use and retrieval. Increasingly, student research projects are being displayed, presented, and contained in a variety of formats. Library instruction programs and courses need to evolve and adapt to these changes as shown through the successful modification of the GS 175 Information Strategies course.

Mutula, Kalusopa, Moahi, and Wamukoya,(2006) (78) emphasize of this paper is to present findings of the design and implementation of an online information literacy module to first-year students at the University of Botswana. The study population consisted of 103 first-year students in the Department of Library and Information Studies. The population was divided into three equal groups of 34, 34 and 35, respectively, and each assigned a two-hour slot in the smart computer laboratory weekly for five consecutive weeks, to cover five information literacy topics online. Each group was assigned a tutor who received assignments online and graded them. Each topic was followed by questions for students to answer. Findings generally revealed that impartation of information literacy through the online mode could

improve students' competencies perhaps more than the face-to-face instruction approach. Furthermore, respondents preferred a blended instruction approach to a single learning mode. Contrary to expectations, online instruction might not minimize the copying of each other's work among students to a great extent. Finally, online instruction does not necessarily reduce the amount of workload for staff and students, instead more time is needed to design and administer the course.

Emmett and Emde (2007) (79) describe the purpose of this study is to obtain preliminary evidence over a three-year period on the efficacy of a curriculum designed to foster information literacy skills in graduate students in a chemistry bibliography course. Specifically, the researchers examined the application and results of an assessment tool and its connectivity to instructional strategies for improving literacy outcomes. ACRL's "Information literacy competency standards for higher education" provided the basis for the construction of the assessment tool. The instrument was given to chemistry graduate students enrolled in the course at the beginning and at the end of the semester. The assessment results from all three years indicated marked improvements in the average student score from the pre- to the post-test. The assessment provided evidence of skill development over the course of the semester for specified outcomes. The research would have been strengthened by the use of a valid control group of graduate students in related chemistry majors who were not enrolled in the class. The extended study would have supplied rates of improvement in the control group over a given period of time compared with rates of improvement of students enrolled in the class.

Kakkonen, Virrankoski (2010) (80) said of this paper is to document the co-operation between a librarian of a science library and the teaching staff of a university in a project where a pilot course of information literacy was constructed. The central aim

of the project was to integrate information literacy teaching into the bachelor-level studies and thus implement the national recommendation to include information literacy competency in new degree structures based on the Bologna Declaration, which aims to harmonise higher education in Europe. This paper describes how the pilot course of information literacy was constructed and conducted and presents the results of a feedback questionnaire which was sent to the students after the thesis course. Based on the experiences of the teaching librarian and the feedback given by students and their teachers, the integrated information literacy course was found to be very useful and needed. After the course, students had a broader perspective on the information sources of their own subject area and on the scientific information seeking process as a whole.

McKinney, Jones and Turkington(2011)(81) report on the evaluation of a curriculum development project that took place in the Department of Psychology at the University of Sheffield. The project, funded by a Centre for Excellence in Teaching and Learning (CILASS), sought to embed information literacy development in a Level One module using an inquiry-based learning pedagogical approach. Students worked collaboratively to find news stories that were purportedly based on real psychological research and then searched for the related research paper. They reflected on this task and the differences between the two sources as part of the assessed work for the module. The paper synthesizes the results of a number of evaluation instruments (questionnaire, information literacy competency test, focus group, student reflective work) to examine staff and student perceptions of the inquiry task, and how effective the task was in building students' information literacy. A "Theory of Change" evaluation methodology was used to define the scope of evaluation activities. The SCOUNL Seven Pillars of Information Literacy

model is used to structure the findings from the various evaluation methods. Students developed their knowledge of, and ability to search, appropriate academic resources, although they demonstrated a preference for searching via Google Scholar over Web of Knowledge.

Bhatt(2011) (82) highlight in this paper with the concept of information literacy and its needs. Further this paper explores about the information literacy models, information literacy standards, information literacy programmes and initiatives taken in India.

Mackey and Jacobson(2011) (83) discussed Social media environments and online communities are innovative collaborative technologies that challenge traditional definitions of information literacy. Metaliteracy is an overarching and self-referential framework that integrates emerging technologies and unifies multiple literacy types. This redefinition of information literacy expands the scope of generally understood information competencies and places a particular emphasis on producing and sharing information in participatory digital environments.

Davis, Lundstrom and Martin (2011) (84) examine in this paper to explore both instruction librarians attitudes on teaching and how they identify themselves as teachers. Particular attention is to be paid to teaching librarians view on the effectiveness of two types of instruction models : for credit courses and course integrated library instruction.

Wang (2011)(85) assumed the purpose of this paper is to present a model for curricular integration of information literacy for undergraduate programs in higher education. Data are drawn from individual interviews at three universities in Australia and curricular integration working experience at a New Zealand University. Sociocultural theories are adopted in the research process and in the development of the model.

Fosmire (2012) (86) examined in his paper engineering education is moving

increasingly toward an active learning based pedagogy. Information literacy is a life long learning. Several models of engineering design exist. Some popular models are 6 step process appropriate for students under 12 years of age, the informed design model etc. In ISP model we find six steps for solving a problem. The steps are initiation, selection, exploration, formulation, collection, presentation. With the increased frequency of these projects that are problems without a single right answer, engineering librarians are finding more opportunities to work with students throughout their educational careers instead of just in a capstone course. To fully take advantage of this opportunities librarians need to translate their own knowledge of IL into the language of engineering educators and indeed inform the pedagogy of those educators.

Yost (2012) (87) said of this paper is to provide a methodology for the development of a plan to incorporate information literacy education into interior design programs in higher education.

Information Literacy of Critical Thinking

Audunson and Nordlie (2003) (88) discuss the term information literacy does not have an exact parallel in the Norwegian language but information policy strategies as well as educational reforms are nevertheless preoccupied with the main elements covered by the term- the ability to find and critically evaluate information within a learning and ICT based context. Information literacy consciousness seems to be highest in colleges and universities. IL can be regarded as an essential part of education and learning of the political goal of promoting social equality and of industrial and economic innovation and competitive ability. In the first planning document dealing with Norway on the information superhighway, the traditional ideal of equality seemed central. Assignment of responsibility for policies in this field to the ministry of industry and trade may have led to the values of

equality being somewhat toned down at the expense of innovation and competitive ability.

Gregory and Nixon (2003) (89) said the instruction commons information literacy initiative at Iowa State University provides users with both an information literacy program and a virtual space in which students, librarians and members of the teaching faculty at Iowa state can explore new ways of integrating electronic resources and library resource instruction into teaching and learning. Furthermore, the concept of a common implies not just a collaborative information space for students, faculty and librarians but also an area in which an information literacy program can subsist with learning materials which promote IT literacy. The following paper describe the institutional background of the instruction commons its history, funding and organization while also providing a description and tour of the commons. Future directions are also anticipated including the need for effective program assessment with a view to extracting useful planning and management information.

Sonley, Turner, Myer, and Cotton said(2007)(90) report in their paper is the results of a case study evaluating the revision of the assessment methods of an information literacy module. The revised assessment method took the form of a portfolio. During 2004, all six credit modules at the University of Teesside had to be reviewed and restructured into ten credit modules. Following Biggs' principles of constructive alignment, the tutors looked at the existing module aims and learning outcomes. A review of the literature and previous experience informed the selection of the new assessment method by portfolio. An evaluation of the assessment method was undertaken after the module had run. The paper finds that the assessment method had real strengths especially in terms of validity. It was also economical and efficient. Students knew what they were

expected to do and where they needed to put in effort.

Pinto, Cordon and Diaz(2010) (91)stated over the last three decades, promotion of information literacy has become one of the main goals of librarians and academics. As the emergence of information technologies has raised new challenges and roles for users, information literacy has shifted from the concept of simple training to the provision of the skills and competencies that are critical to the improved use of information. A terminological, conceptual and statistical analysis of the main subjects related to information literacy, as well as its evolution over the last 30 years, is provided with the aim of illustrating how information literacy has been progressively incorporated into the library and academic fields.

Leung, and Lee(2011) (92) examine how demographics, addiction symptoms, information literacy, parenting styles and internet activities can predict 'internet risks'. Data were gathered from a probability sample of 718 adolescents and teenagers, aged 9–19 in Hong Kong, using face-to-face interviews. Results show that adolescents who are often targets of harassment tend to be older boys with a high family income. They are targets probably because they spend a lot of time on social networking sites (SNSs) and prefer the online setting. Adolescents who encounter a lot of unwelcome solicitation of personal or private information online tend to be older girls. In information literacy, they are generally very competent with publishing tools but are not structurally literate, especially in understanding how information is socially situated and produced. Implications and recommendations for future research are discussed.

Islam and Tsuji (2010) (93) said the aim of this study is to assess the information literacy competency of information science and library management graduate students at the University of Dhaka,

Bangladesh and to determine their strengths and weakness

Dunaway, Orblych (2011) (94) describe the use of a pre-assessment exercise and in-session assessment questions to determine graduate students' existing information literacy skills and to adjust the content of the instruction session accordingly. The paper seeks to propose that the use of assessments to inform instruction increases the practicality of research instruction. The use of formative assessment creates effective information literacy instruction by acknowledging variation in information literacy skills among students. A librarian partnered with a faculty member to create instruction sessions for graduate level business courses. An open-ended pre-assessment exercise was administered prior to the session, and students' responses were used to determine the content of the instruction session. Assessment questions administered during the session provided the librarian with a measure of the effect of the pre-assessment exercise on students' information literacy skills, and provided students with feedback regarding their individual information literacy and engaged students in the learning process. The pre-assessment exercise and the session assessment questions together created an instruction session that included content that was appropriate for the students in each session. Therefore, these information literacy instruction sessions were more practical and beneficial to the students than sessions based on pre-determined content.

Information Literacy of Education

Korobili, Tilikidou, (2005) (95) provide reliable data for the development of efficient information literacy education in a department of a higher educational institute in Thessaloniki, Greece. It requires in-depth understanding of the current situation as well as future expectations. Two research objectives were set. One was to record the use of resources by students and their perceptions, as well as the expectations of

faculty regarding information literacy skills. The other was to examine the preferences of students and faculty regarding information literacy education. Two surveys were conducted among both students (cluster sampling) and faculty (census) by the utilization of relative structured questionnaire. The project reveals that the percentage of students who use the e-resources of the library is relatively low, and that the few students who attended the bibliographic instruction seminar use the e-resources more for the completion of their assignments. Also faculty were found to do very little in class to motivate students to use library sources for completing long research papers. With reference to students' and faculty's preferences concerning future information literacy education, it was indicated that the greatest percentage prefer instruction at user's request, and a course integrated into the curriculum. Focusing on a course integrated in the curriculum, it is suggested that it is provided at the first or second semester of their studies, to be developed on the basis of librarian/faculty cooperation and supported by demonstration of resources and/or hands-on workshops.

Li(2006) (96) describe the course of information literacy given by the Chongqing University library to cultivate university students' information awareness. Up-to-date information retrieval skills, comprehensive document skills and innovative thinking are encouraged. Adopts a range of innovative teaching/learning methodologies using modern teaching methods and materials; and combines these with scientific and technical consultation and patent agent cases. Describes how this course has been brought into the university undergraduate and graduate teaching plan. The utilization rates for documents and resources in the library have improved; and many other social benefits have been achieved.

Harris and Millet (2006) (97) said the purpose of this paper is to critique the current wave of naming cultures in

information literacy practice, the relationship between information literacy, literacy theory, and fluency theory, and suggests alternative conceptualizations for information seeking behavior. After conducting literature and website reviews, a survey was posted on the Survey Monkey commercial site and librarians were invited to participate. The resulting analysis offers a synthesis of the literature and survey statistics. Fewer programs than expected use "information fluency" as the defining factor in their library instruction programs. However, responses to the survey were useful in thinking about ways to retain a focus on information literacy theory in light of alternate naming conventions.

Dorner and Gorman(2006) (98) stated models of Information Literacy education. Information Literacy education are contextually grounded in western social and intellectual structures..Most of the part these models follow the taxonomy developed in the 1950s by Bloom. ILE mainly used in developing countries. Here author focuses on cultural contextually.

Mokhtar, Majid, Foo (2007)(99) present the findings of a study that investigated the impact of information literacy (IL) teaching approaches, which are grounded in pedagogy, on students' level and applicability of IL competencies. A quasi-experimental control group study was carried out with 476 students, aged from 13 to 15 years old, from four secondary (high) schools in Singapore. The students were given a pre-intervention test in the beginning. Out of the 476 students, 279 students (from two schools) went through a mediated learning intervention programme, while the remaining 197 students went through a multiple intelligence intervention programme. Students were organised into smaller groups of five each, and were given a group project to do. Students in the experimental sub-clusters were exposed to the respective intervention approaches, while students in the control sub-clusters were left on their own to carry out the

project. A post-intervention test was administered to all students at the end of the intervention programmes. The results of the group reports and project evaluation done by three independent and neutral teacher-examiners, as well as those from the pre- and post-intervention tests, found that the application of either mediated learning (or close coaching) or multiple intelligences helped students perform better in the learning and application of IL skills.

Andretta (2007) (100) explore the adoption of a phenomenographic conceptual framework to investigate learning from the perspective of the learner, with the aim of reflecting on the features that this approach shares with information literacy education in general, and with the relational model in particular. The study offers an analysis of phenomenographic research on learning undertaken by Marton, which is further elaborated by examples of collaborative work by Marton and Booth, as well as by Fazey and Marton. The relationship between understanding and learning, promoted by this perspective, is explored in this paper to illustrate its impact on retention and transfer of the learning process. This is compared with the iterative and independent learning approaches promoted by information literacy education, and specific examples are used to illustrate the pedagogical overlap between phenomenography and information literacy. In addition, the paper examines the relational approach of information literacy promoted by the individual and collective works of Bruce, Lupton, and Edwards to demonstrate how the person-world relation, advocated by phenomenography, is used to examine the learner-information relationship promoted by the work of these authors. The paper reflects on the potential impact that phenomenography and the relational perspectives have on pedagogical practices in Higher Education. In particular, it aims to demonstrate how the relational approach, together with the learn-how-to-learn ethos of information literacy, is

fundamental in promoting a framework for lifelong learning that leads to the empowering of the learner through an iterative cycle of reflection and practice, i.e. what phenomenography defines as variation in practice to foster the ownership of learning.

Mokhtar, Majid and Foo(2007) (101) stated in their paper findings of a study that investigated the impact of IL teaching approaches which are grounded in pedagogy on students level and applicability of Information Literacy competences.

Malliari, Nitsos (2008) (102) explore the contribution of, and the need for, information literacy and information literacy programmes in the undergraduate education process. The paper presents the case of a Greek educational institute, via related research, and describes the information literacy programme of the Alexander Technological Education Institute of Thessaloniki (ATEIth). The paper is based on a study at the Institution with the education staff and also the undergraduate students – patrons of the library. In both cases data were gathered using the method of questionnaires. The results of the study reveal the usefulness of information literacy programmes, and the need for the creation of an online information literacy tutorial in the ATEIth. The majority of the respondents in both studies believe that information literacy programmes could be exploited as a means of instruction and should be integrated in the departments' curricula.

Harris (2008) (103)stated the ACRL Competency Standards related to learners' values and value systems has not been interrogated in relation to information literacy theory or practice. This paper aims to analyze the inclusion of values in these and other guidelines and seeks evidence of the development of this topic in the literature. A comparative review of information literacy standards related to values/value systems was conducted. An analysis of the literature engaging issues related to personal or community values

related to information was completed. Suggestions for continued work were based on these findings. Competency standards related to values/value systems are out of place in guidelines designed to assist in the assessment of information literacy instruction. Instead, it is more likely that information literacy development is a form of values education. Korobili, Malliari, Christodoulou (2009) (104) said of this paper is to investigate student information literacy skills in the Technological Education Institute (TEI) of Thessaloniki, Greece, and examine whether courses and/or library seminars make any difference and contribute to the development of information literacy skills. The survey is conducted with students from all the departments of TEI that are enrolled at the sixth or seventh semester of their studies. The instrument of the survey is a structured questionnaire that included 12 questions, and measured a total of 73 variables. A significant percentage of the students have not completed an assignment in the previous semester, are not acquainted with the scientific sources available in the library, and have not attended an information literacy course and/or a library seminar. However, there is a slight difference between those respondents who have "attended an IL course integrated in the curriculum" and those who have not.

Batool, Gedam, Agashe(2009) (105) examined in his paper describe Information literacy is the vital process in modern changing world. Information technology is taking a new shape day by day. Information is greatly generating. For that, people should be enabled to interpret and make informed choice as user of information sources. Information literacy makes the person capable to recognize when information is needed and how to locate, evaluate, and use effectively of the needed information. Here, is discussed the information literacy programmes in India. Now, India has become the Information Technology Powerhouse and to become

the people enabled, there is the need of information literacy in India.

Cordell, Fisher(2010)(106) said the present study which was designed to use questions asked at an Information Commons Desk as an authentic assessment to determine if an information literacy course actually changes research behavior outside of information literacy course assignments. For four years, the initial reference question asked at the Information Commons Desk was recorded, along with demographic information and whether the user had taken the required introduction to information literacy course. A taxonomy of research questions was developed, based on Bloom's Taxonomy of Educational Objectives Handbook I: Cognitive Domain, and each question was assigned a sophistication level, according to the authors' taxonomy. Over a four-year period, means of the taxonomy levels of questions showed a clear trend upward each spring semester over the previous spring semester.

Baro, (2011)(107) highlight the state of information literacy (IL) education in library schools in Africa. Principally, to understand how prepared the library schools are to take the lead by integrating IL courses into their school curricula. The survey was carried out in two parts: first, the researcher conducted a survey of web sites maintained by library schools in Africa to identify the IL course offered and also to analyze the course contents. That was followed by sending an e-mail message containing three research questions to library and information science (LIS) faculty members to ascertain the availability of IL courses in their curricula. Results from the study revealed that, presently, only a few library schools offer the course IL as a stand-alone course in their curricula. Many library schools have not yet incorporated "IL" as a stand-alone course in their LIS curricula, rather, it is briefly discussed as a topic in related courses. The reason being that the LIS departments lack the technological facilities and qualified personnel to teach

the course “IL.” Although not all the library schools in Africa were examined due to language barrier, more than 60 library schools were investigated, among them 20 institutions were found offering IL courses or a related area.

Derakhshan, Singh(2011) (108) of this paper is to focus on academics' point of view towards integration of information literacy into the curriculum. This meta-synthesis analyzed 48 journal articles that examined issues related to integration information literacy into the curriculum. Using the Stevick-Colaizzi-Keen method, a meta-synthesis of seven studies was conducted. This process revealed four themes that outline issues related to the academics perspective: collaboration; information literacy pedagogy; information literacy skills; and knowledge. Chen, Lin(2011) (109) determine the essential features of information literacy; what role it should play in university library user education; and how programs can be best implemented. The researchers systemically surveyed and reviewed publications related to information literacy and library user education. It was found that a well-designed information literacy program benefits the library and its staff, faculty, and students; librarians should play a leading role in the design and operation of programs, but collaboration with faculty, IT professionals and students is essential; programs should be embedded in the curriculum, be largely cooperative, and be problem-based; evaluation and assessment are essential components; emphasis should be placed on first-year students; and, ideally, the librarians will turn into educators and the library will become a learning center combining learning, research and technology.

Nicholson and Eva (2011) (110) said the purpose of this paper is to describe how librarians at the University of Lethbridge Library recently undertook a pilot project to deliver information literacy to satellite campus students using Skype. Distance delivery of post-secondary education is on the rise; this creates unique challenges for

academic libraries who strive to meet the resource and instructional needs of students. This case study outlines the literature review and environmental scan the authors took before deciding to teach their distance education students via Skype, and looks at the successes and challenges of their pilot. Skype has some limitations as an instructional delivery tool; however, for the purpose of this pilot study proved fairly successful and a good “first step” for distance information literacy delivery.

Information Literacy of Technology

Adeyoyin (2005) (111) said to ascertain the levels of ICT literacy among library staff in a range of Nigerian libraries. A survey was conducted among the professionals, paraprofessionals and “other” members of staff of 18 Nigerian university libraries. Analysis of the data showed that, on a self-assessment basis, out of about 268 professional librarians, only 87 (approximately 32 per cent) were ICT-literate, implying that the remaining 181 (approximately 68 per cent) of professional librarians were ICT-illiterate. Of the 358 paraprofessionals in those libraries, only 28 (approximately 8 per cent) were ICT-literate, while the vast majority, some 330 (approximately 92 per cent), were ICT-illiterate. Of the 1,133 “other” staff members in the survey, a minimal 69 (6 per cent) staff were ICT-literate, while 1,064 (approximately 94 per cent) were ICT-illiterate.

Armstrong and Georgas (2006) (112) said the purpose of the paper is to measure the effectiveness of a highly interactive animated tutorial that aims to teach basic information literacy concepts to undergraduates and to determine which factors enhance online learning. The tutorial was evaluated using 30 undergraduate students. Each test consisted of a pre-tutorial questionnaire and a post-tutorial questionnaire. Data from the evaluative testing of the tutorial shows that the tutorial is effective in imparting information literacy concepts to undergraduate students. Students

responded positively to the interactivity and game-like nature of the tutorial.

Godwin (2009) (113) demonstrate that Web 2.0 provides an exciting set of tools for librarians to help their students become more information-literate. Recently, information overload and Web 2.0 have led librarians to adopt practices labelled as Library 2.0. Information literacy can be the key to affecting the learning attitudes and characteristics adopted by the users, caricatured as the “Web generation”. Web 2.0 tools provide new, interactive ways to engage them. The literature is reviewed to provide examples of librarians using Web 2.0 tools to improve the information literacy of their users. Librarians are embracing Web 2.0 as it becomes more mainstream and experimenting with the tools to supplement their information literacy interventions. Many of these are being well received but their quantity and measures of their impact on learning have yet to be assessed.

Moghaddam, and Nahanji (2011) (114) said in their paper the role of IT in the IL of high school students in Hamedan through a comparative investigation into the IL skills of students of ordinary and intelligent high schools. An intelligent school refers to a school in which students make use of IT in education and have a lesson on methods of research and an ordinary school refers to a school in which students do not have any access to IT and have no lessons of methods of research.

Information Literacy Programmes

Gumulak, Webber (2011)(115) identify what motivates young people to play video games, and the extent to which video games are perceived as facilitating learning and information literacy. The study adopted a qualitative approach, interviewing a convenience sample of 28 young people who enjoy playing video games. They were aged between 12 and 19, and all resident in Northern England. The interview transcripts were analysed thematically. Entertainment and challenge were key reasons for playing video games.

Of the respondents 89 per cent said they had learned something from gaming, including skills with real-world application. Respondents used a variety of texts to solve gaming problems and to choose new games. Analysis of respondents' reported information behaviour showed that they were carrying out activities (e.g. searching, evaluating) that corresponded to models of information literacy, and these activities are mapped to the SCONUL Seven Pillars model. The interviewees showed determination in working out game problems and puzzles, rather than opting straight for an easy solution.

Hahn (2012) (116) thought in his paper is to demonstrate how a credit bearing information literacy course was enhanced through the use of video lectures to deliver course content. Students have a choice of how to access course materials video lectures and reading material. A literature review shows that, previously video have been used largely to supplement face to face classes or one shot library instruction sessions. A description details the production of video lectures for one of the courses that satisfies the information literacy graduation requirement at Weber State University.

Witek and Grettano (2012) (117) believed in their paper the analysis being part one of a two part study aims to illustrate the attitudes and patterns users are being habituated to through the functionality of facebook, relate them to information literacy practices and behaviours and speculate their application to information literacy instruction within an academic context. It also aims to lay the groundwork for part two which is to be reported on in a later issue of this journal.

Information Skills Training in the Workplace

Crawford and Irving (2012)(118) said that The study is an evaluation of an employability training programme provided by Inverclyde Libraries in West Central Scotland and the role of information literacy within the training

programme. Inverclyde is an area with high unemployment and pockets of multiple deprivation. Modern, applicable skills are also lacking. The findings are based on interviews with five learners and also one with an adult literacies tutor. The interviews were conducted in August 2009 and a Learning Life Histories methodology was used. Interviewees had mainly previously worked in the service industries and none had post-school qualifications, despite which all the interviewees were highly motivated. Information literacy was found to be between 30% and 60% of course content depending on learner needs. Family influence was found to be the main motivation to enrol on the course and the learners sought personal social development as well as employability skills. There was found to be a lack of appropriate, relevant training materials and a lack of collaboration between the LIS sector and Community Learning and Development in developing them. The article concludes with a number of recommendations including the need to

improve recruitment and course scheduling and planning.

Conclusion

The importance of Information Literacy is broadly accepted now a day. The importance of information literacy in this era of the information society is evident and for this reason IL is gaining a very high profile as an essential aspect within education and in other sectors of life.

Information literacy attempts to address the issues of information overload with methods of churning the ever increasing information at an increasingly faster pace. It transforms information into knowledge that will empower individuals to acquire and use information appropriate to situation. For the purpose of information use intelligently various models and standards designed and developed by varied agencies are very much applicable but still there are some challenges need to be prudently explore for better results and effective and efficient services IL is very important today owing to development of information and communication technologies.

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