REVIEW OF LITERATURE

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REVIEW OF LITERATURE

3.1   INTRODUCTION

Review of related literature is very essential for any research.By reviewing the recent related literature the investigator can get an idea about various aspects of the topic such as relevance of the study, methodology to be used for data collection, data analysis etc. It makes a brief review of previous studies on the problem and significant writings related to the topic under study. It also helps to avoid the duplication of research. An attempt has made in this chapter to review some related literature on information literacy.

Angelo (2010)[1] conducted a study on awareness and use of electronic information sources. One of the main objectives of the study was to assess the information literacy skills of livestock livestock researchers in Tanzania. The study was conducted in three livestock research institutes in Tanzania with an overall sample size of fifty respondents consisting of livestock researchers and information professionals.Detailed questionnaires, interviews and observations were the methods used for data collection. Data was analysed by using Statistical Package for Social Sciences (SPSS) and content analysis. The finding of the study was the lack of information literacy skills among most of the researchers and this was found to be limiting their access and use of e-resources.

Beck (2010)[2] made an attempt to study on the use of synchronous virtual reference (VR) tools and their potential for fostering information literacy. The use of Chat software, Co-browse and Second Life were surveyed and follow-up interviews were undertaken. The three tools investigated all merits as ways of promoting information literacy within VR services at the enquiry desk, with chat being the most popular because of its stable and user-friendly nature, and the ease with which it could be integrated with other products such as blogs, web pages and co-browse tools.

Gadd, Baldwin, & Norris (2010)[3] conducted a study on citation behaviour of Civil Engineering students to investigate how to improve students' information searching skills and the resulting reference lists through a new approach to teaching the literature review. The study, analysed reference lists from 47 final-year projects written by Civil and Building Engineering undergraduate students (BEng and MSc). It found that a strong positive correlation between the literature review mark and overall mark for each project, as well as a slightly weaker correlation between the number of references cited and the mark received. An analysis of the number, age, and type of references cited is performed in addition to an investigation into the quality of the bibliographic citations themselves.

Choudhury & Sethi (2009)[4] made an analytical study on the computer literacy of library professionals in the University libraries of Orissa. The main aim of the study was to identify the level of skill and self efficacy presented by the library professionals of University libraries of Orissa.It was comprehensive study on information literacy of University library professionals. Special reference was made to rapidly changing scenario of divergent information resources and its assorted formats and media, which were immensely affected by the ever growing information and communication technology in the 21st century.

Amudhavalli (2008)[5] explained information literacy and higher education competency standards. It observed that information was common to all disciplines, to all environments, and to all levels of education. Developing lifelong learners was central to the mission of higher education institutions ensuring that individuals had the intellectual abilities of reasoning and critical thinking and helping them construct a frame work for learning how to learn. Incorporating information literacy across curricula, in all programmes   and

services, and throughout the administrative life of the University, required the collaborative efforts of librarians and administrators.

Eisenberg (2008)[6] highlighted information literacy as the skill and knowledge that allow us to find, evaluate and use the information. Information skills are the necessary tools that help us successfully navigate the present and future landscape of information. The author observed that information technology affected every person in every possible setting, work, education and recreation. This paper offered an overview of information literacy focusing on the three contexts for successful information literacy and teaching (1) the information process itself (2) technology in context and (3) implementation through real needs and real situations. The article covered conceptual understandings of IL, the range of IL standards and models, technology with in the IL frame work and practical strategies for effective IL skills learning and instruction in a range of situations.

Jagtar Singh (2008)[7] emphasized the sense making approach to the concept and practice of information literacy (IL). After discussing the meaning and purpose of IL, passing references were made to the IL standards, models and guidelines. The information search process was emphasized in this paper. Nature and types of knowledge and learning were also discussed. The paper suggested that IL programmes must be based upon the complexity and diversity of information communities, and cultural hegemony and intellectual imperialism should not be allowed to prevail.

Karisiddhappa & Rajgoli (2008)[8] carried out a study on information literacy programmes and practices of selected institutions at Bangalore. The study observed that libraries had long been involved in training their users in library use, its services and resources. In the digital age, fencing around 'library resources' was an intimidating task, and the instructional needs of

users were changed dramatically as new methods for countries such as India was still in its preliminary stages, as these countries had only recently become fully immersed in the information culture.

Mokhtar & Majid (2008)[9] described the number of documented information literacy standards and guidelines. Based on the distinct characteristics of these standards and guidelines, the authors observed current age and of digitized information and communication technologies. It was often perceived that ICT proficiency was equated to information literacy. The paper was concluded with several recommendations for making ICT and information literacy more dynamic which could be immediately employed for effective outcomes.

Ramesha (2008)[10] discussed lagging behind of the developing countries with special reference to India in taking initiatives and carrying out projects for developing, promoting and implementing information literacy education and training programmes. Pointing to the information literacy situation in both academic and corporate context as well as in the context of business and management education, the paper emphasised that the situation owed to lack of push of external help through financial aid and professional expertise. The author proposed strategy for addressing the information literacy issues which would help individual institution and implementation and start new ones wherever necessary.

Ramesh Babu (2008)[11] explained the concept of information literacy and brought out its standards and performance indicators enunciated by IFLA and UNESCO in the context of school libraries and higher education. The importance of IL for school libraries and public libraries were highlighted. It also discussed the information literacy scenario at international level and in India and recalled the UNESCO's declaration at Prague towards the

information literate society. Finally, it stressed the need for the development of information literacy policy in the education system.

Sharma (2008)[12] described about dimensions of information literacy and library education. The article dealt with the understanding of information and information needs and status of users. The way information literacy and library user education were changing and demanding in the age of World Wide Web and electronic collection had explored. The article highlighted current information net working practices in education centres. The role of librarians as intermediary and facilitator had been analyzed and presented in the perspectives of information literacy. The paper recognized the distinct place of information literacy in the context of online learning and libraries. Need of information literacy in the perspectives of digital libraries and World Wide Web sites and electronic publishing had been discussed.

Wijetunge (2008)[13] provided a brief introduction to the establishment of the National Institute of Library and Information Sciences (NILS) of Srilanka. It discussed its main function and education and training programmes currently offered. It also discussed the changing pedagogical paradigms within the Srilankan education systems and relevance of information literacy. The paper described an international workshop organized by NILS under the auspices of IFLA/ALP in 2004 which gave birth to empowering STM a new IL model. The author stressed on the necessity of developing such a model within the south Asian region and put forward a case study which integrated information skills into the PG diploma in teacher librarianship conducted by NLIS.

Emmett., & Emde (2007)[14] described the assessment of information literacy skills using the ACRL standards as guidelines. The purpose of this study was to obtain preliminary evidence over a three year period on the

efficiency of a curriculum designed to promote information literacy skills in graduate students in a course on Chemistry bibliography. Specifically the researchers examined the application and results of an assessment tool and its usefulness in evolving instructional strategy for improving strategy 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 the three years indicated marked improvements in the average student score from the beginning to the end of the academic year. The assessment showed the evidence of improvement in skill development at the end of the course.

Johnson, Jent., & Reynolds (2007)[15] explained about library instruction and information literacy. The main purpose of the paper was to proved a selected bibliography of recent resources on library instruction and information literacy. It introduced and annotated periodical articles, monographs and exhibition catalogue examining information literacy. The paper provided information about each source, discussed the characteristics of current scholarship and described sources that contain unique scholarly contribution and quality reproductions.

Kannappanavar (2007)[16] explained the concept of information literacy and examined various aspects related to information literacy programmes such as mission goals and objectives, planning administration and institutional support, articulation with curriculum, collaboration, pedagogy, staffing ,outreach and assessment/ evaluation. The role played by the library was also highlighted.

Kinengyere (2007)[17] examined the effect of information literacy on the usage of electronic information resources in the academic and research institutions in Uganda. The paper aimed to focus on the innovations of Makerere University Library undertook to train the library users on how to access a variety of available information resources evaluated the information and applied it to address their needs. Data were collected for the study using interviews of both library staff and users of the selected institutions .The study found that the availability of information did not necessarily meant actual use also. It showed that users were not aware of the availability of such resources and did not know how to access them. The study pointed out that the challenges for the future and provided a number of recommendations for the way forward, which would be helpful, both to the relevant communities in Uganda and to other academic communities in similar circumstances.

Kulkarni (2007)[18] described the importance of information literacy in the transformation of rural India, advent of information age, the role of information in this area and the importance of knowledge powered society. The paper concluded that successful guidance was needed to get the needed information of any kind in whatever format and at any time and stressed on the need for developing information skills and competencies.

Rajalakshmi (2007)[19] emphasized that information literacy was more than computer literacy or the ability to use technology. Instead it was the ability to find evaluate, analyze, integrate, communicate and use information to solve problems, create new ideas and make informed decisions and turn the data in to knowledge. The paper concluded that library and information science professionals and associations need to use evidence based advocacy to Government and iterated that information literacy divide is the critical issue of the information age.

Foster (2006)[20] discussed the rationale and key learning processes for students of librarianship and information studies at the Department of information studies, University of Wales, Aberystwyth. The purpose of the paper was to raise awareness of the ways in which professional training can incorporate research, and ultimately inform professional practice and describe how recent research could be used to shape the curriculum. The author identified key principles for curriculum development and discussed processes. The description and discussion offered outline key questions for the development of courses aimed at future information professionals.

Li (2006)[21] described the course of information literacy given by the Chong quing University Library to cultivate University students information awareness. The findings showed that up to date information skills, comprehensive document skills and innovative thinking are encouraged and adopts a range of innovative teaching and learning methodologies.Using modern teaching methods and materials combines' these with scientific and technical consultation and undergraduate & graduate teaching plan. It is found out that utilization rates of documents and resources in the library have improved and many other social benefits have been achieved.

Matoush, Kalusopa, Moahi &Wamukoya (2006)[22] discussed an overview of innovative information literacy programmes at San Jose State University King Library which served as models for future academic library information literacy programmes. New and innovative information literacy programmes at this library were discussed and analyzed.These programmes include freshman and transfer student library programs and proposal for campus dormitory information literacy. The paper discussed the success, lessons learned and ongoing challenges of the freshman's information literacy programmes and present goals and objectives of the transfer and campus dormitory information literacy programmes.

Mutula, Kalusopa, Moab and Wamukoya (2006)[23] examined the design and implementation of an online information literacy module to the first year students of University of Botswana. Population of the study was consisted of 103 students divided into three equal groups 34, 34 and 35. Each group was assigned a two hour slot in the smart computer laboratory weekly for five consecutive weeks, to cover five information literacy topics on-line.The findings of the study revealed that instructions of information literacy through the online mode could improve student's competencies perhaps more than the face to face instruction approach.

Satish & Vishakha (2006)[24] explained about some information literacy programmes for social scientists in Tata Institute of Social Science, Mumbai.The article identified some of the problems faced by the social scientists and explores e-resources environment for social sciences.Brief outline of content for effective information literacy programmes for the social scientists was suggested. Possible challenges in implementing the same are also discussed.The article concluded by emphasizing the role played by librarians in implementing effective information literacy programmes.

Vezzosi (2006)[25] presented an overview of the action research methodology and asserted its suitability as an approach to enquiry and practice in the field of information literacy. An experience of action research was briefly presented and some strength and weakness of this methodological approach were critically discussed. Action research was adopted for investigating the impact of an information literacy 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 and evaluating. Peer observation was adopted both as a validation method and as a support for the reflection on the research process. The study found that action research was a suitable approach for teaching librarians, as it allows them to

experience the role of teacher, researcher and reflective practitioner all together.

Adeyoyin (2005)[26] ascertained the levels of ICT literacy among library staff in a range of Nigerian libraries. The survey was conducted among professionals, para professionals and other members of the staff of 18 Nigerian University libraries. The questionnaire basis of the investigation gave room for subjective distortions in assessment of levels of literacy; the investigation only considered two categories of skills. The survey concluded that Nigerian University library professionals and para professionals should acquire an enhanced level of ICT literacy. Both staff training and an adequate ICT infrastructure were recommended.

Hadengue (2005)[27] described a Swiss Virtual Campus project in which an Internet-based computer-assisted learning (CAL) package for students in economics and in dentistry was developed. Case study accounts of a CAL package implementation against a rigorous and well-thought-through pedagogic framework were studied. The paper showed that it was 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 was 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.

Hollister (2005)[28] explained how innovative outreach activities had helped to develop a partnership between the University at Buffalb libraries and the University career services office. The study revealed that how instruction libraries had employed outreach activities to integrate information literacy in the curricula of the other disciplines. The positive outcome of the study was integrated library instruction, information literacy workshops,

collaborative collection development and librarians' reference hours in the career service office.

Korobili (2005)[29] provided reliable data for the development of efficient information literacy education in a department of higher educational institute in Thessaloniki, Greece. The main objective of the study 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 preference of students and faculty regarding information literacy education. The projects revealed that the percentage of students who attended the bibliographic instruction seminar used 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. The study suggested that information literacy education should be at the first or second semester of their studies, and information literacy skills might be further developed on the basis of library / faculty co-operation and supported by demonstration of resources and/ or hands on workshops.

Joint & Wallis (2005)[30] investigated the role of national library association both in promoting information literacy and in advancing the interests of the practitioner. Methodology involved was an opinion based on information literacy practice world wide and recent debate on the role of national association and professional organizations in the UK .The study found that the dynamic role of associations for the library and information profession in a variety of countries world wide and gave an indication of how the profession should use its own national association.

Nyamboga (2004)[31] presented the result of a study of training opportunities for library and information professionals in India and how a selection of Indian University libraries were providing information skills and

information literacy programmes for the professionals. The need for training students, researchers and staff to make appropriate use of resources made available in libraries was recognized. Library and information professionals also need and continuing professional development courses, as new ways of providing information resources had been developed.

Pawinun & Kemparaju (2004)[32] made a study on the information literacy programmes in the context of digital libraries. The rapid change of traditional libraries into digital environment influenced the provision of information services. Library and information professionals developed and redesigned the user education programmes to suite the new environment. Various issues involved had been analysed in order to clarify the concept of information literacy. It was not enough to be merely information literate but it was also required to have the skill of handling tools for information. However the competency of information technology need not help user access to information successful without the knowledge of information.In this situation the users should understand both the information itself and the technology for accessing information.

Andretta & Cutting (2003)[33] analyzed the issues raised by the development of an information literacy module for first-year undergraduate students at the University of North London.The study focused on how the module aimed to develop generic, transferable information literacy skills and to foster transition to a more independent learning mode.Information literacy was an essential attribute of the independent learner, consisting of ICT skills as well as more complex information handling competencies. The module was customised to address the needs of a variety of disciplines through the implementation of a plug-and-play structure and a range of delivery strategies to support students with diverse information literacy skills at the point of entry.

Bloom & Deyrup (2003)[34] examined how librarians at a private Catholic University utilized a grant enabling them to team up with members of other campus constituencies to create an information literacy program me aimed toward incoming students, in order to initiate a quality educational experience while improving students ability to do research. The participants employed various instructions and assessments designed to address diverse learning styles. A University of optimum size, a ubiquitous computing environment, a desire to improve information literacy across the curriculum and enthusiastic partners were the combination of elements which had made this project a success.

Davis-Kahl & Payne (2003)[35] discussed a teacher professional development programme funded by Compton Teacher Information Literacy Institute (CTILI) in the Unified Scholl District and delivered by the University of California at Trvine Libraries, Department of Education and Outreach, Teacher Professional Development University and Library Outreach activities and influences were discussed to give back ground on CTILI curriculum development. Institute's goals and objectives were outlined. The study concluded with Plans for future institutes.

Dotten (2003)[36] examined the standards for school libraries in Canada to achieve information literacy. It discussed the important elements involved to acquire comprehensive information literacy skills among students in conjunction with well developed traditional reading and writing skills.The impact of an appropriate staffing model on student learning was considered in terms of the key functions such as teaching, management, staff development, clerical, technical, consulting and professional. The investigator considered the role played by information and communication technology, the impact of the facilities, the impact of adequate funding and the impact of community partnerships on student learning.

Foggett (2003)[37] made an exploratory case study of year 4/5 Government primary school students ACT, Australia. The purpose of the case study was to conduct a survey of students in their use of library facilities in order to establish to what degree, the skills involved in information literacy were being assimilated and practiced by primary school children. The study found that the main reason for not using the library was the unawareness in the sources.

Shashong (2003)[38] made a study to explore the implications of information literacy education with regard to its development in China in the context of an information society. The study was intended to analyze the current status and problems of research and development in the process of educational reform, quality education and informatisation of education, and to make relevant recommendations for the promotion of information literacy education in China. It further explored some specific details in implementing information literacy education in the current information environment, such as determining objectives, designing of the contents and course structure and organisation of the teaching process.

Hernandez & Urena (2003)[39] discussed the adoption of the information literacy agenda in Spain which was 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 other factors, 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 lagged far behind. The main problems still to be addressed seemed to be much the same as in most developing countries. IL as 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 responsibility and reasons for different literacies within the information society.

Homann (2003)[40] observed that initiatives by German librarians on taking on board educational work in the field of information literacy now seemed to be successful. Although a lot of unfavorable organizational and political conditions still existed and much remained to be done, there were now many indicators showing that the mediation of information literacy would be institutionalised within the education system and the everyday work of librarians. In the last ten years of user education work, a lot of methodological experience had been gained and promising pedagogical concepts had been developed, influenced by Anglo-American concepts of information literacy. However, a great disadvantage for the development of these concepts and for their evaluation was the absence of any central institution capable of supporting this particular aspect of libraries' work.

Hughes (2003)[41] studied the main aims and elements of the Big 6, a research strategy developed by Michael Eisenberg and Bon Berkowitz, as an effective tool for helping students learn the research process as an inquiry process. The Big 6 provided a strategy for developing the foundation of higher order thinking skills and the language skills of reasoning and critical thinking, and then applying the understanding of the process and the skills to any inquiry process. It was a well packaged and well supported information problem solving and research strategy that integrated with provincial curricula and the school and classroom programme. It worked with and through information technology to help students to develop information literacy.

Hurst (2003)[42] explained a model for library orientations aimed at academic administrators, faculty and support staff after examining their information seeking behaviours, prior research and demographics. The goal of the orientation was to promote the library's and media centre's services and

resources to encourage this user group to make use of them, and to teach the basic skills needed to address their information needs. The article included the explanation of the processes involved in creating a library orientation programme, and discussion including ideas and thoughts as to further research about the user group or library orientation programme.

Kavulya (2003)[43] examined why the acquisition of information skills was a matter of necessity and a prime factor in quality learning in Kenyan Universities. At the University level, students were expected to contact independent exploration in diverse disciplines and topics and therefore, irrespective of their areas of study, they needed to use information effectively. It included that although there had been efforts to ensure information literacy among University students, there was need to build on these efforts through collaborative efforts between librarian and faculty members particularly through joint curriculum design and implementation.

Lu (2003)[44] conducted a case study of medical school students on problem-based learning and information literacy. Problem-based learning (PBL), equipped medical school students to learn through a series of steps such as identifying issues, gathering, applying and presenting information, evaluating and solving problems. PBL had gained momentum in recent years due to the rapid development of medical technology and medical information. The investigator discussed the role of the library in supporting PBL and the use of the libraries in a PBL context through an in depth interview with medical school students who took PBL courses at Yang-Ming University. The study served as a reference point for any medical school planning to implement PBL and for library to operate as a support system for PBL.

Powell & Case-Smith (2003)[45] conducted a study to assess whether graduates of the Ohio State University's Occupational Therapy division were applying information-seeking skills they learned as undergraduates, and to

seek their advise on ways to improve information literacy instruction for current and future occupational therapy students. The results were analysed to determine the information seeking patterns of the graduates. Majority of the occupational therapy graduates who responded to the survey preferred to use information resources that were readily available to them rather than the evidence available in the journal literature. The findings of the study suggested that occupational therapy practitioners needed access to information systems in the clinical setting that synthesized the research in a way that was readily applicable to patient-care issues. Librarians and occupational therapy faculty must intensify the efforts to convey the importance of applying research information to patient care and inform students the ways to access this information after they graduate.

Skov & Skerbak (2003)[46]discussed the development and present state of information literacy activities in Danish institutions of higher education. It outlined the national policy on information literacy, emphasizing the crucial role of the Danish Electronic Research Library (DEF). The importance of integrating information literacy sessions into the curriculum was highlighted together with an examination of the barriers that made integration difficult. Strategic alliances and new forms of liaison schemes were presented followed by a description of learning resource centers and Web-based tutorials and e-learning activities. The important role of professional groups in setting the agenda for information literacy discussions and knowledge sharing was recognized; and finally, the paper outlined the various educational opportunities open to library school students and academic librarians engaged in teaching information literacy.

Yi (2003)[47] conducted a study based on Individual Research Consultation Services (IRCS) at California State University San Marcos (CSUSM) Library. This article discussed the important contributions IRCS

had made to the information literacy programme. Using quantitative and qualitative evidence, the article demonstrated how the IRCS had supplemented and enhanced the formal information literacy programme at CSUSM. Further the author argued that if formally recognized as a component of the IL program, IRCS would play a more prominent role in building student information competency skills.

Courtney & Patlong (2002)[48] together conducted a case study of integrated information skills using the Virtual Learning Environment Web CT. Web CT was used to deliver information skills tutorials online to be used for revision purposes after skills session in the library. Assessment was also done online and automatically marked by the system. This was a collaborative project between a subject librarian and a staff development officer. The investigators described the development of the project, the student response to the resources and the resulting staff development benefits for the project team.

Cunningham & Lanning (2002)[49] considered information literacy as essential for successful expeditions into the ever-expanding knowledge frontier. Faculty and librarians were able to guide each other, and the learners they serve could change past wastelands to fertile soil and reliable wells to sustain inquiry and cultivate deeper understanding in their fields of study. The authors presented definitions of information literacy, described challenges in promoting it, and offered possible solutions for promoting faculty-librarian collaboration on information literacy.

Fjallbrant (2002)[50] introduced the concept of information literacy and described the impact of information technology on information literacy. The European Union funded EDUCATE project addressed the subject related aspect of information literacy for students scientists and engineers. One outcome of the project was a series of modules covering ways of accessing and searching information that could be used in both formal courses and

distance learning courses or for self instruction. Similar other projects were also discussed.

Merchant & Hepworth (2002)[51] conducted a study to examine the information literacy among 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 for the research to enable attitudes and ethnographic data to be captured. The research methods used included observation of ten teachers and forty pupils in the classroom, complemented by observation of pupils' behaviour 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. Majority of the teachers were found to be information literate and pupils were found to be adopt at using a variety of sources to locate information. The most significant finding was that even though the teachers interviewed were information literate, their skills and attitudes towards information were not being transferred to their pupils.

Seamans (2002)[52] conducted a study to determine the services appropriate for first year college students of Virginia Tech., Virginia, USA, and how students acquired and used information during the beginning of their college lives. Questions based on the information literacy standards for higher education were used in interviews with students in order to understand the kinds of information needed and how they acquired it during their first semester at college. Students were questioned about their information use through email 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.

Andretta (2001)[53] claimed that information literacy skills were essential characteristics of the independent learner and examined the development of the information literacy module devised at the University of North London, UK, for first year undergraduate law students. The investigator provided a detailed explanation of how the information literacy syllabus was developed through examination of the literature. The study was based on the results of two separate questionnaires and categorized the results according to level of abilities, gender and mode of study. Identified issues that arose from the data and that required further analysis for future study.

Bowler, Large & Reiskind (2001)[54] conducted a study to follow three groups of Grade-six primary school students as they access, interpret and use information found on the World Wide Web in order to complete a class assignment. Commented upon information-seeking behaviours, information interpretation skills and information utilization by the students. The study concluded by identifying a series of issues that educators might address if the web was to be successfully incorporated into the classroom. The ability of students to integrate the Web successfully in to their learning was dependent upon teacher understanding of learning outcomes and the instructional strategies used in the design of class assignments.

Harley (2001)[55] suggested that teaching information literacy and critical thinking to freshmen undergraduate students could be more successful if these concepts were demonstrated to be meaningful and valuable in the context of students' daily lives.A proper context could help freshmen acknowledge the need, develop, and value information literacy and critical thinking. As values, both these were able to help counter the effects of the consumerism, superficiality, and knowledge fragmentation characterizing the postmodern condition. A case study of how a lifelong value-based syllabus

for teaching information literacy and critical thinking was incorporated into a University orientation course for first semester freshmen was presented.

Johnson (2001)[56] explained information skills and information literacy.The author described the work of the Sconul Task Force on information skills, set up as a result of the increased awareness on information skill training which was an important strategic issue for university and college libraries. The Task Force produced an outline model of information skills known as the 'Seven Pillars Model'. The paper described a number of further initiatives which were being pursued, and referred briefly to US and Australian work in this area.

Maughan (2001)[57] conducted a survey to assess information literacy among undergraduates of the California University at Berkeley in selected academic departments to measure the 'lower-order' information literacy skills of graduating seniors.The most fundamental conclusion drawn from the survey was 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 study findings revealed that students continued to be confused by the elementary conventions for organizing and accessing information.

Tseng (2001)[58] investigated the information needs, information literacy and information seeking behaviour of children. A questionnaire was used to identify elementary students' purposes, frequency and knowledge of using the public library, computers and networks, and their methods of seeking information.The study revealed that the differences in each dimension between male and female students, and between different grades. The implications for OPAC system design, library use instructions and improving information services in public libraries were suggested.

Bruce (2000)[59] conducted a study on information literacy researches to understand the development of a collective consciousness that represented the newly appearing territory of information literacy research.The investigator analyzed the information literacy research territory as it was represented by the emerging collective consciousness of information literacy researchers. Five dimensions of the collective consciousness were proposed: sectoral location of the research; ways of information literacy; research object; research approaches and paradigms; and disciplinary influences. These dimensions were used to reveal the character of the information literacy research territory.The study revealed how different kinds of research approaches influenced on the object of research, and demonstrated how the five dimensions work together in the development of new studies.

Chang & Shyu (2000)[60]conducted a study to investigate information literacy for pre service teachers in elementary schools. The subjects were 497 students drawn from teacher education schools in Taiwan. The independent variables were pre service teachers' gender, academic degree, majors, schools and prior experience of using computers and the dependent variable was information literacy.Data were analyzed through t-tests and one-way ANOVA. The results indicated that pre service teachers' gender, facilities and resources, hours per week of surfing the Internet and the courses taken for the educational applications of computers all had a significant influence on those pre service teachers regarding information literacy.

Machet & Behrens (2000)[61] together made a study on the new information literacy course at the University of South Africa.The investigators focused on the specific Unisa context, which determined leading methods and modes in the distance learning environment. The study was based on the sample of students in southern Africa who came from an impoverished school environment to University. In order to make those students well prepared for

tertiary studies, independent information handling skills and advanced competencies in using information in a meaningful way were required.With specific problems sketched as background, the development and content of the information literacy modules were outlined.

Nieuwenhuysen (2000)[62] focused on some courses related to information literacy, information technology and information retrieval organized at the Vrije University, Brussel and the University of Antwerp, Belgium. The paper described the components of the courses and gave a brief overview of the contents, aims and evaluation procedure; a series of slides related to the course contents, question tasks, problems and practical exercises for the students, case studies be carried out by each student as part of the evaluation procedure and provided an extensive bibliography about the subjects covered in the courses.

Breivik (1999)[63] reviewed the effects of library based instruction in the academic success of disadvantaged undergraduates. Resource-based education remained the model for education, and a clear vision of this goal remained important. It concluded that much progress had been made over the past ten years in articulating what information literacy was and in establishing national standards for it.

D' Esposito & Gardner (1999)[64] made a focus group interview survey, involving school students at Monmouth University, New Jersey, to determine the students' perceptions towards the Internet, both in general and in comparison with library resources. Although participants acknowledged that the Internet was available on the library and library web pages were accessible on the Internet, the general perception was that the library and the Internet were two separate and unrelated entities. Students reported that the library or a library/Internet combination was acceptable to satisfy their research needs than Internet alone. The implications of the findings for future

research fall into two categories: library training and promotion of library resources.

Majid & Abazova (1999)[65] investigated the relationship between computer literacy of academic staff and their use of electronic information sources .The impact of other factors such as age, gender and educational background on the use of electronic information sources was also investigated.A statistically significant relationship was found between computer literacy and the use of electronic information sources and services. The study revealed that computer literate academics use electronic information sources more frequently. Similarly, a significant relationship was noted between the age of academics and their use of electronic information sources.

Clyde (1997)[66] discussed information skills in terms of the development of information literacy, the skills needed to use information purposefully and effectively. The investigator discussed the knowledge and skills required to use a computer based information source, warned about changing basis of information skills as a consequence of the development of the Internet and cable television and examined information filtering and monitoring tools.The study considered the possible impact of the vast amounts of information and services available through the Internet for professionals and people in business and reflected on the future role of the librarian and information professional in the provision of information.

Bruce (1995)[67] viewed information literacy as a significant issue in the library community and recognized it as an important issue of the higher education community. This theoretical framework drew together important elements of the information literacy agenda specifically for tertiary educators and administrators. The frame work examined three areas of primary concern: the possible outcomes of information literacy education, the nature of

information literacy education, and the potential role of stake holders, staff developers and learning counselors in helping staff and students to be information literate.This theoretical framework forms part of the Griffith University Information Literacy Blue print.

Ford (1991)[68] described changes and challenges in the area of information literacy. It included making connections, addressing information overload, recognizing new roles for librarians in promoting information literacy, the ability to learn how to learn, addressing changing user needs, serving users from different backgrounds, enhancing awareness of the role of academic and research libraries among non-library professionals, awareness of changes in information technology, and participating the need for and leading productive change.

The concept of information literacy is of recent origin though if varied form existed, since long, large scale studies are yet to in this area.The literature reviewed in this chapter reveals that most of the literature in the area of IL are articles and not long scale studies. The major studies available in this area are of western origin and large scale Indian studies are very limited.

References

1. Angello, Consolata. (2010). The Awareness and use of electronic information sources among livestock researchers in Tanzania. *Journal of Information Literacy, 4* (2), 6-22.

2. Beck, Daniel. (2010). The Role of information literacy in the provision of virtual reference services at the enquiry desk. *Journal of Information Literacy, 4* (2), 91-94.

3. Gadd, Elizabeth., Baldwin, Andrew., & Norris, Michael. (2010).The Citation behaviour of Civil engineering students.*Journal of Information Literacy, 4* (2), 37- 49.

4. Choudhury, B K., & Sethi Bipin Bihari. (2009). Computer literacy of library professionals in the university libraries of Orissa: An Analytical study. *IASLIC Bulletin, 54* (1), 15-30.

5. Amudhavalli, A. (2008). Information literacy and higher education competency standards. *DESIDOC Journal of Library & Information Technology*, *28* (2), 48-55.

6. Eisenberg, Michael. B. (2008). Information literacy: Essential skills for the information age. *DESIDOC Journal of Library & Information Technology, 28* (2), 39-47.

7. Jagtar Singh. (2008). Sense making: Information literacy for life long learning and knowledge management. *DESIDOC Journal of Library & Information Technology*, *28* (2), 13-17.

8. Karisidhappa, C. R., & Rajgoli, Iqbalahamd U. (2008). In Search of information literacy programs and practices:Survey of selected

institutions of Bangalore. *DESIDOC Journal of Library & Information Technology, 28* (2), 28-38.

9. Mokhtar, Intan Azura., & Majid, Shaheen. (2008). Information literacy standards, guidelines and their implementation: An Analysis. *DESIDOC Journal of Library & Information Technology*, *28* (2), 5-12.

10. Ramesha. (2008). Information literacy –need for an urgent action in India: A Strategic approach. *DESIDOC Journal of Library & Information Technology, 28* (2), 66-72.

11. Ramesh Babu. (2008). Information literacy-competency standards and performance indicators: An Overview. *DESIDOC Journal of Library & Information Technology, 28* (2), 56-65.

12. Sharma, Sangeeta. (2008). Information literacy and library education: Explaining dimensions in librarian's role. *SRELS Journal of Information Management*, *45* (2), 169-180.

13. Wijetunge, Pradeepa. (2008). Improving information skills of the postgraduate students of NILIS University of Colombo: A Case study. *DESIDOC Journal of Library & Information Technology, 28* (2), 18-27.

14. Emmett, Ada., & Emde, Judith. (2007). Assessing information literacy skills using the ACRL standards as a guide. *Reference Services Review*, *35* (2), 210-229. Retrieved April 15, 2008, from Emerald database.

15. Johnson, Anna Marie., Jent, Sarah., & Reynolds, Latish. (2007). Library instruction and information literacy 2006. *Reference Services Review, 35* (4), 584-640. Retrieved April 11, 2008, from Emerald database.

16. Kannapanavar, H.M.. (2007). Information literacy concepts and programs. *Indian Journal of Library and Society, 20* (3/4), 133-141.

17. Kinengyere, Alison Annet. (2007). The Effect of information literacy on the utilization of electronic information resources in selected academic and research institutions in Uganda. *The Electronic Library, 25* (3), 328-341. Retrieved April 15, 2008, from Emerald database.

18. Kulkarni, S.A. (2007). Library as an agency for information literacy. *Indian Journal of Library and Society*, *20* (3/4), 172-141.

19. Rajalakshmi, P.M. (2007). Towards an information literate society. *Indian Journal of Library and Society*, *20* (1), 10-19.

20. Foster, A.E. (2006). Information literacy for the information profession: Experience from Aberystwyth. *ASLIB Proceedings, 58* (6), 488-501. Retrieved April 11, 2008, from Emerald database.

21. Li, Xuejing. (2006). Course building and implementation of information literacy instruction for changing university library. *Library Management*, *27* (617), 362-369. Retrieved April 11, 2008, from Emerald database.

22. Matoush, Toby Laigh. (2006). New forms of information literacy. *Reference Services Review, 34* (1), 156-163. Retrieved April 15, 2008, from Emerald database.

23. Mutula, Stephen., Kalusopa,Trywell., Moahi, Kgomotso.,& Wamukoya, Justus. (2006). Design and implementation of an online information literacy module experience of the department of library & information studies,University of Bolswana. *Online information Review, 30* (2), 168-187. Retrieved April 11, 2008, from Emerald database.

24.   Satish, Kanamadi., & Vishakha, Vichare. (2006). Information literacy programmes for social scientists: A Tool for harnessing e-resources. *SRELS Journal of Information Management, 43* (3), 283-293.

25.   Vezzosi, Monica. (2006). Information literacy and action research: An Overview of some reflections. *New Library World*, *107* (7/8), 286-301. Retrieved April 15, 2008, from Emerald database.

26.   Adeyoyin, Samuel Olu. (2005). Information and communication technology literacy among the staff of Nigerian University libraries. *Library Review*. *54* (4), 257-266. Retrieved April 15, 2008, from Emerald database.

27.   Hadengue, Veronique. (2005). E-learning for information literacy: A Case study. *Library Review, 54* (1), 36-46. Retrieved April 11, 2008, from Emerald database.

28.   Hollister, Christopher. (2005). Bringing information literacy to carrier services. *Reference Services Review, 33* (1), 104-111. Retrieved April 15, 2008, from Emerald database.

29.   Korobili, Stella. (2005). The Necessity of information literacy education in marketing departments. *New Library World, 106* (11/2), 519-531. Retrieved April 15, 2008, from Emerald database.

30.   Joint, Nicholas., & Wallis, Jake. (2005). Information literacy and the role of national library and information association. *Library Review, 54* (4), 213-217. Retrieved April 15, 2008, from Emerald database.

31.   Nyamboga, Constantine M. (2004). Information skills and information literacy in Indian University libraries. *Program: Electronic Library and Information Systems, 38* (4), 232-239. Retrieved April 15, 2008, from Emerald database.

32. Pawinun Prapat., & Kemparaju, T D. (2004). The Information literacy programmes: A Case of digital libraries. *SRELS Journal of Information Management, 41* (1), 67-78.

33. Andretta, Susie., & Cutting, Andrew. (2003). Information literacy: A Plug-and play approach. *Libri*, *53*, 202-209.

34. Bloom, Beth., & Deyrup, Martha. (2003). Information literacy across the wired university. *Reference Services Review*, *31* (3), 237-247. Retrieved April 11, 2008, from Emerald database.

35. Davis-Kahl, Stephanie., & Payne, Lisa. (2003). Teaching, learning and research: Linking high school teachers to information literacy. *Reference Services Review*, *31* (4), 313-319. Retrieved April 15, 2008, from Emerald database.

36. Dotten, Rose. (2003). The National emphasis: Where it counts. *School Libraries in Canada, 23* (1), 15-17.

37. Foggett, Tracy. (2003). Information literacy at the primary school level. *Australian Library Journal*, *52* (1), 55-63.

38. Shashong, Fu. (2003). Information literacy education in China in the context of an information society. *Journal of China Society for Scientific and Technical Information, 22* (2), 238-249.

39. Hernandez, Jose Antonio Gomez., & Urena, Cristobal pasadas. (2003). Information literacy developments and issues in Spain. *Library Review. 52* (7), 340-348. Retrieved April 15, 2008, from Emerald database.

40. Homann, Benno. (2003). German libraries at the starting line for the new task of teaching information literacy. *Library Review*, *52* (7), 310-318. Retrieved April 11, 2008, from Emerald database.

41. Hughes, Sandra. (2003). The Big 6 as a strategy for student research. *School Libraries in Canada, 22* (4), 28-29.

42. Hurst, Leslie. (2003). The Special library on campus: A Model for library orientations aimed of academic administration, faculty and support staff. *Community and College Libraries*, *11* (2), 31-64.

43. Kavulya, Joseph Muema. (2003). Challenges facing information literacy efforts in Kenya: A Case study of selected libraries in Kenya. *Library Management*, *24* (4/5), 261-222. Retrieved April 15, 2008, from Emerald database.

44. Lu, Hsiu-ting. (2003). Problem based learning and information literacy: A Case study of medical school students. *Bulletin of Library and Information Science,* (45), 73-87.

45. Powell, Carol A., & Case-Smith, Jane. (2003). Information literacy skills occupational therapy graduates: A Survey of learning outcomes. *Journal of Medical Library Association (JMLA), 91 (4)*, 468-477.

46. Skov, Annette., & Skarbak, Helli. (2003). Fighting an uphill battle: Teaching information literacy in Danish institutions of higher education. *Library Review, 52* (7), 326-332. Retrieved April 15, 2008, from Emerald database.

47. Yi, Hua. (2003). Individual research consultation service: An Important part of information literacy program. *Reference Services Review*, *31* (4), 342-350. Retrieved April 15, 2008, from Emerald database.

48. Courtney, K., & Patlong. S. (2002). Integrated information skills – a case study using the virtual learning environment web CT. *Education Libraries Journal*, *45* (1), 7-11.

49. Cunningham, Thomas H., & Lanning, Scott. (2002). New frontier trail guides: Faculty-librarian collaboration on information literacy. *Reference Services Review*. *30* (4), 343 –348**. Retrieved April 15, 2008, from Emerald database.

50. Fjallbrant, Nancy. (2002). Information literacy for scientists and engineers: Experience of EDUCATE-DEDICATE. *Program: Electronic Library & Information System, 34* (3), 257-268. Retrieved April 11, 2008, from Emerald database.

51. Merchant L., & Hepworth, M. (2002). Information literacy of teachers and pupils in secondary schools. *Journal of Librarianship and Information Science, 34* (2), 81-89.

52. Seamans, Nancy H. (2002). Student perceptions of information literacy: Insights for librarians. *Reference Services Review*, *30* (2), 112-123. Retrieved April 11, 2008, from Emerald database.

53. Andretta, S. (2001). Legal information literacy, a pilot study. *New Literacy World, 102* (1166/1167), 255-64.

54. Bowler, Leanne., Large, Andrew.,& Reiskind, Gill. (2001). Primary school students, information literacy and the web. *Education for Information*, *19* (3), 201-223.

55. Harley, Bruce. (2001). Freshman, information literacy, critical thinking and values. *Reference Services Review*, *29* (4), 301-306. Retrieved April 11, 2008, from Emerald database.

56. Johnson, H. (2001). Information skills, information literacy. *Library Association Record, 103* (12), 752-753.

57. Maughan, P. D. (2001). Assessing information literacy among undergraduate: A Discussion of the literature and the University of California – Berkeley assessment experience. *College and Research Libraries*, *62* (1), 71-85.

58. Tseng, S. S. (2001). A Study on the children's information needs, information literacy and information seeking behaviour. *Bulletin of the Library Association of China*, (66), 19-45.

59. Bruce, C. (2000). Information literacy research: Dimensions of the emerging collective consciousness. *Australia Academic and Research Libraries, 31* (2), 91-109.

60. Chang, Y-L., & Shyu, H-Y. (2000). A Study of information literacy for pre service teachers in elementary schools. *Journal of Educational Media and Library Sciences, 38* (2), 203-228.

61. Machet, M., & Behrens, S. (2000). Information literacy through distance learning. *Innovation,* (21), 8-14.

62. Nieuwenhuysen, P. (2000). Information literacy courses for university students: Some experiments and some experience. *Campus-wide Information System*, *17* (5), 167-73.

63. Breivik, Patricia Senn. (1999). Take II–information literacy: Revolution in education. *Reference Services Review, 27* (3), 271-276. Retrieved April 11, 2008, from Emerald database.

64. D' Esposito, J.E., & Gardner, R. M. (1999). University students' perceptions of the internet: An Exploratory society. *Journal of Academic Librarianship, 25* (6), 456-61.

65. Majid, Shaheen., & Abazova, Alfia Fanilievna. (1999). Computer literacy and use of electronic information sources by academics: A Case study of international Islamic University Malaysia. *Asian Libraries*, *8* (4), 100-111. Retrieved April 15, 2008, from Emerald database.

66. Clyde, A. (1997). Information skills in an age of information technology. *Emergency Librarian*, *24* (4), 48-50.

67. Bruce, C. S. (1995). Information literacy: A Framework for higher education. *Australian Library Journal*, *44* (3), 158-70.

68. Ford, Barban J. (1991). Information literacy. *College and Research Libraries, 52* (4), 313-314.