CHAPTER - II

REVIEW OF LITERATURE

This Chapter deals with the relevant review of literature. An analysis of review of literature is the key focus of any research. It enables one to be aware of the past and current trends in any particular branch of research. Research on user studies in library has attracted the attention of various scholars and researches. They have contributed to various research outputs and an analysis of these research findings it enables the researchers to concentrate on a new area of research. Hence, a review of a few works deserves due attention on the part of the present study.

The review of literature have been studied in three headings. They are:

1. User studies in General
2. User studies in Social Science
3. User studies in Pure Science and Applied Science

2.1 User Studies in General

Line (1962)\(^1\) conducted a survey on the attitudes of students to the library, as well as on certain aspects of library use at Southempton University. The findings of this survey were that students appeared not to be availing themselves of the help library staff could give them, even when they were aware of it, and to be making little use of the reference material in the library. A high proportion of students (60 per cent) reported that they
often found that a book they wanted was not on the shelves. They wanted more books confined to the library. It was also found that women were using the catalogue more frequently than men. The students who have been at the university longest and those who use the library most have the most favourable attitudes to the library staff. Line stated that "There is a general impression that students use libraries for less than they ought to and before librarians can change this, they need to find out why". This survey also revealed several other problems and deficiencies and on the basis of which a number of changes in library policy and practice were instituted.

A follow-up study by Line and Tidmarsh (1965) was carried out with a sample of 322 undergraduates. The survey revealed that there was the expected high correlation between the extent of borrowing and readiness to use the catalogue. Two features of the survey call for special comment. The first is the greater use made of libraries by women. They used the university library far more for recreational reading, and borrowed more from it for vacations, they used the catalogue entries; they had more confidence in the library staff, but were more reluctant to ask them queries, and were more 'intimidated' by the library on first arrival, more of them attended library tours and seminars. The explanation lies in personality factors; presumably women are on the whole more amenable, and perhaps more conscientious than men, more ready to admit they need help, and less ready to criticise.

Secondly, social science students show remarkable improvements over 1962 in such matters as book purchases, use of catalogues as a first
resort personal acquaintance with library staff, estimates of staff helpfulness and willingness to ask them questions, and progress in the use of the library and hey were well ahead of other faculties in some of these aspects, as well as in their evaluation of seminars.

The two surveys are an excellent illustration of the concept of survey, policy evaluation, policy implementation and re-survey—a sequence, which is rare in this field.

Allen (1970)\(^3\) conducted a study of student and faculty member attitudes and the degree of their utilization of community of college libraries. He found that there are several variables which affect the use of community college library such as the age of the institution, the attitudes of the faculty members, the attitudes of the students, the geographical location of the institution and the institution's internal climate.

Urquhart and Schofield (1972)\(^4\) conducted two major surveys to measure readers' failure at the shelf in three university libraries.

The result of this survey will enable the librarian to establish priorities, the difference in rates of failure for different subject areas of the library will call for a reassessment of book purchasing policies. The third use of this survey will have understanding of reader problems and attitudes.

Burns and Hasty (1973)\(^5\) conducted a survey of user attitudes toward selected services offered by the Colorado State University libraries, and conducted that most user studies have emphasised the descriptive rather than the analytical in their reporting and were conducted by practicing
librarians or information scientists with little or no attention to the adoption of rigorous methodology.

Dhyani (1974)\(^6\) conducted a survey of 100 readers at Rajasthan University library, Jaipur. The study revealed that generally the readers showed interest in using the library at the college level. However, only a few made use of the library at the university levels. The users surveyed were not clear even about the elementary library terminology. The survey revealed that there was general ignorance about the subject approach of the catalogue. The other finding was ignorance about handling of reference books. The survey recommended that library instruction should be imparted to the students, reference service, by competent staff, should be given, every member should be given a library handbook, library service should be properly organised, documentation list, including current awareness list, should be circulated.

Saha (1978)\(^7\) describes the survey and findings from the point of view of quantum of library use, pressure of demand from various category of users, peak hours of library usage at various 'service points such as reference, text book binding etc. The observations noted help in making library services more need oriented and satisfy greater percentage of demand in a better way.

The above studies have turned out to be mostly academic in their content and have not necessarily provided any significant indicators for application in practical context.
Gratch (1979) conducted student and faculty use survey of Drake Memorial Library, State University of New York, College at Brockport, to evaluate user perceptions of library effectiveness and to obtain further information about user expectations and requirements. This study was used to identify gaps in total library service. The responses indicated highly favourable student attitude about library services, facilities and staff.

Overall, student library users and the faculty users surveyed were quite satisfied with facilities, services and staff. No major changes were required but certain continuing efforts were needed; such as: the improvement of library atmosphere and the allocation of adequate funds to provide extended hours before examination period.

Mulder and Ed Parr (1981) the librarians of two Western Australian Colleges of Advanced Education, have combined to carry out surveys of student attitudes to their respective college libraries. Both colleges have substantial teacher education programmes, have similar enrolments and library holdings, yet library use patterns differ significantly between them.

Information was sought on student attitudes to the college library and attitude scores were recorded by relating students' actual feelings about the college library, to their concepts of the ‘ideal’ library.

Olanlokun (1982) conducted this study to determine the attitudes of the major interest groups in Nigerian university on library policy, use and service specifically, the attitudes of the faculty, students and librarians on adequacy of resources, quality of library collections and library services.
The study reveals differences in the pattern of library use by the faculty members and students. A majority of the faculty members and student respondents indicated that they needed more library staff assistance in journal, audio-visual and government document sections. The majority of the librarians did not find the faculty members of much help in building library collections.

The findings strongly suggested more interactions with the patrons. It emphasized that users needs should also be given greater attention.

Neygen (1982)\textsuperscript{11} conducted his study of students' attitudes towards the behavioural approach to library and information sciences: an experiment involving the group as an agent of change. The purpose of this study was to develop and an agent of change. The purpose of this study was to develop and test a training design that would modify library student’s attitudes towards a behavioural science and towards psychology.

Kawatra (1985)\textsuperscript{12} conducted the study on the user studies: State of the art, which highlights the attitudes of the users, findings of the user studies and also the reasons for conducting various user studies. The author aims to find out information seeking attitude of users, suggest areas of user attitudes for research, indicates the gaps in knowledge of users and outlines the techniques which might be useful for undertaking further research.

A study conducted by Curtis and Hurd (1993)\textsuperscript{13} on information seeking behavior, including use of major bibliographic tools by faculty members at the Illinois University at Chicago revealed that over 70 percent
of the faculty used Index Medicos or MEDLINE. It was also found that there was a wide variation in the number of format of secondary services sessions are to be conducted for the users on how to use new formatted of bibliographic tools.

Butterwick (1994)\textsuperscript{14} reports the findings of a survey of business information needs in Northern Ireland and investigates information topics of most interest to business, topics posing difficulties; the availability of internal facilities for acquiring information; attitudes to business information provision; types of sources used; satisfaction ratings for sources used; information gathering habits; spending on information and preferred media.

Hert and Skutnik (1995)\textsuperscript{15} describes about the data on information needs and uses that were collected during Internet training from students in information networking classes at Indiana University, USA, during 1993 and 1994. LH-Information needs, events, which led to the needs, and the sources used to resolve the needs were identified and categorized. The study discusses several implications for Internet trainers.

Patterson (1995)\textsuperscript{16} discusses the status of tribal libraries in the USA and summarizes the information needs identified by Native Americans. The study looks at current developments and explores the future of library services to Native Americans. It presents a brief historical overview of the development of tribal libraries on reservations. Today 200 of the 500 or so tribes and Alaskan Native Villages have libraries, but most of them are
struggling to survive. Information needs identified by tribal members, having high importance include those dealing with employment, vocational training, legal and civil rights and health. Local tribal history and culture also ranked as strong interests. It also considers how this information needs can be met and discusses the future of Native American library services. Although technology offers the potential to bring library services, materials and resources to Indian people in large numbers, there are significant barriers, such as lack of funding or leadership that can prevent this becoming a reality.

Vreekamp (1995)\textsuperscript{17} also looked at the attitudes of journalists in nonmetropolitan settings. His studies concentrated on journalists in Curacao, an island in the Caribbean, and Zeeland, a remote island located in the Netherlands. Vreekamp found that journalists in these smaller settings had information seeking attitudes that reflected the parochial attitudes of the communities in which they lived. Consequently, their information behaviors relied heavily on established ties to the community, if the journalists were perceived to be "insiders," while those who were considered "outsiders" were forced to be more creative in their attempts to secure information and to research their stories more thoroughly. Education did not play a role in information seeking behaviors, but age, gender and lifestyle did. One interesting finding of his research, found through interviews conducted, was that “Journalists are hostile or just baffled by arranged, indexed, pre-coded information.” (p.49) Vreekamp likens this
attitude to perhaps a worldview held by journalists wherein organized information is akin to the organized power structure of business and politics, of which, he postulates, they are inherently distrustful. Whether this is true of all journalists working in small communities, regardless of their location, or true of journalists in less developed countries, such as Curacao and the Netherlands, would be fodder for further research. Certainly a companion study focusing on the information seeking needs of U.S. journalists working in remote communities would prove most interesting.

Devadason and Pratap (1996)\(^\text{18}\) discusses that the identification of information needs is essential to the design of information systems in general and to the provision of effective information services in particular. But it has been found to be a difficult task as it is almost an investigative or detective work. In order to identify information needs one should adopt various methods to gather information on the various factors that influence the information needs. No single method or tool will serve entirely. A careful selection and blending of several techniques depending on the user whose need is being studied is necessary. In fact, the “information needs identifier” should study, prepare and equip him/her self thoroughly to perform the task of identifying information needs. A formal step by step procedure, which can be adopted to study the information needs of a majority of users, is proposed in this paper. Besides gathering and recording the information needs, a careful analysis is to be made to distil actual needs from the data gathered. It is hoped that the methodology
discussed here, would be easy to perceive and be translatable into practice. It is to be noted that the methodology would become clearer and clearer as each step is put into practice enhancing the understanding of the scenario and help in fine tuning the procedure to suit particular situations. Moreover it has been found that the proposed methodology is not only useful in identifying the information needs, but also has a profound impact on finding ways and means of satisfying such needs. In other words, the information needs identifier would discover, as a by product, several ideas, tools, methods and techniques of satisfying the users in meeting their needs.

Marcella (1996)\textsuperscript{19} describes the results of a Scottish Library and Information Council funded project into the business information needs of companies in the rural areas of the northeast of Scotland. Based on a survey by questionnaire, interviews and case studies. He describes the information providers available to rural businesses, the pattern of present use of such agencies by companies, the nature of respondents’ information needs, problems in accessing information and attitudes to IT.

Marcella (1997)\textsuperscript{20} discusses that for many university libraries and their users, the Internet represents potential and potential does not satisfy information needs, but it does raise expectations, which in turn place enormous pressure on the library and information services. He examines the sources of the expectations and this pressure, which include mass media; perceptions of academic staff and students; and the US scenario where Internet use is integrated into the library's pattern of service
provision. He further draws attention of the Academic Librarians in the Social Sciences (ALISS) forum for discussing information technology and Internet developments, which aim to dissipate fear through sharing expertise.

Nicholas and Martin (1997)\(^{21}\), two British researchers, have published the most comprehensive case study of journalists' information needs thus far. Fifty semi-structured 81-hour taped interviews of journalists at 3 major British national newspapers were conducted. The study focused on needs and not habits or behavior; thus, hard data on current journalistic practice is not included. Based on their findings, they developed a framework for understanding the operating requirements (e.g., subject, function, viewpoint, etc.) of journalists' utilizing twelve information needs characteristics. (See Appendix A). Four barriers that stand in the way of journalists being able to meet those information needs are also used in data analysis. They are: time, access, training and information overload.

Hammond and Mitchell (1997)\(^{22}\) report a survey on the information seeking behaviour of practitioners in accounting, architecture, psychology and recreation/tourism. The aim was to improve information skills instruction programmes for students. Fewer than half of the survey respondents had discipline-specific library instruction. Practitioners identify a need for information but a low use of electronic resources. Data support the necessity of information skills for those entering the professions. Instruction should be information centred rather than library centred. Continuing education for professional’s information finding is needed.
Shoham (1998) reports results of a 1994-1995 questionnaire survey of faculty members in 2 Israeli Universities, to discover whether changes in scholarly communication have occurred in the wake of technological changes that have added new media and tools and altered the structure and composition of library collections. 477 questionnaires were returned out of 2361. Research focused on 3 components of the information gathering process: the researcher's needs and approaches; channels of access to information; and information sources. Five basic approaches to information and 8 information channels were defined. He further concludes that, despite extensive changes in higher education, institutions and libraries that have occurred during the previous 45 years since the interest in information gathering behaviour began, patterns for obtaining information remain conservative and have resisted transformation. Professional periodicals are still the most important tools for obtaining professional information and monographs still play a major role.

Ziji and Gericke (1998) made a study on information seeking patterns of artists and art scholars at the Vaal Triangle Technikon, South Africa. The preferred information sources were found to be in order of preference periodical articles, library books, personal contact with other scholars in the field, books in private collections, visits to art galleries and the internet. The preferred methods of information seeking were conducting own searches in catalogues of OPACS and asking a librarian and searching on the internet. There appears to be a place for both print and electronic media in the information seeking references of artists and an increasing
interest in electronic media as serious implications for information providers of the future.

Mercer and Wotherspoon (1998)\textsuperscript{25} report results of a questionnaire survey, conducted among UK rural communities, to examine the current information needs of users in these communities, their difficulties in obtaining information and to assess the acceptability of information provision through information technology (including the Internet and World Wide Web). The study took as its central point, the 1993 report, prepared by Capital Planning Information Ltd. for the British Library Research and Development Department (BLRDD) and Department of Heritage: Library and information in rural areas of England and Wales. It also concludes that there is currently a much greater awareness of the information needs of rural users, but this awareness is stifled to some extent by factors regarded as being beyond the control of library authorities and others. Great reliance is being placed on the use of information technology to provide information to and within rural communities.

Oosthuizen (1998)\textsuperscript{26} reports on a research project of which purpose was to determine the information needs of teachers in a black metropolitan informal settlement in South Africa. A survey was conducted on a sample of 206 teachers from 42 primary and secondary schools in the Orange Farm area. The survey report discusses the findings and in view of the complete lack of library services or any other available resources, makes recommendations. The most important recommendation is that a mobile
library service for the teachers should be started with the cooperation of the educational authorities, local government and the Provincial Library Services.

Anwar (1998)²⁷ portrays results of a questionnaire survey of academic librarians’ perceptions of their continuing professional development needs in Malaysia. The study concentrated on the continuing professional development environment in academic libraries; constraints affecting participation; suitable period and duration for continuing professional development activities; and potential completeness for developing continuing professional development programmes in the areas of professional, information and communication technology, management, and research skills. It presents a range of recommendations to develop these continuing professional development programmes.

Fizdani (1998)²⁸ reports results of a questionnaire survey to determine the information seeking behaviour and use of information resources by graduate students at Botswana University. The purpose of the survey was to determine their information requirements and their awareness of library services available to them. Data were gathered from 144 students out of a total of 223 part time and full time graduate students. Findings indicated that guidance in the use of library resources and services is necessary and that periodicals textbooks are the most popular sources of information for course work and research and that students need to be taught how to use the library. The study recommends that a further questionnaire
survey be conducted on students' ability to use information resources and administered during registration to all master students.

Apeji (1999)\textsuperscript{29} assessed the resources and services of the library of Nigerian Educational Research and Development Council and found that library resources mainly consist of books and back volumes of journals. Available resources were found relevant and accessible but inadequate

Dresang (1999)\textsuperscript{30} Points out that the environment for youth changed dramatically in the digital age, but our paradigm for studying their information seeking behaviour has not. Proposes not only more research in the field, but also the adoption of a new research paradigm which involves studying youth in serious yet informal information seeking situations. The new paradigm presents 2 opportunities: (I) a closer collaboration with youth themselves as partners in constructing research (rather than as objects of it), and (2) a fresh look at how children and teenagers define success in their searches.

Banwell and Dixon (1999)\textsuperscript{31} present the findings of the GINN project “Governors Information Needs”, which took place between January 1996 and December 1997. The central hypothesis underlying the project was that individual school governors, in England and Wales, have individual information needs, which are not being well met at present. The research has found this hypothesis to be the case. The project was designed to study whether: governors get the information they need; governors know what they need; and if they get it, whether they use it effectively. The study
considers whether the information they use is the best available in relation to the decisions they must make. Findings indicate that school governors mostly do not use information or have much notion of operating in an information culture. They state the opinion that it is important for them to be well informed; and yet the main source of information used by school governors is the head teacher, whose management of the school the governors are legislated to oversee.

Chakrabarti and Basu (1999) explain that information need of any community is incumbent upon its economic conditions and its reactions to these conditions. Socio-economic aspects include various needs of the community media, stratification in the community leadership, roles of different groups e.g. women, men, etc., information on political conditions, relationship with the community, the electoral process and the government needs for infrastructural resources such as roads, electricity, markets, schools, health facilities.

Kuruppu (1999) explains understanding the information needs and behaviour of workers in an organization is the basis for designing and developing information systems and services to adequately satisfy their needs. The study discusses information needs, information seeking behaviour, and methods used in studying them, especially in research organizations, and the importance of such studies. It also considers the use of the findings of such studies in making decisions relating to the design of information systems and services, as well as the impact of emerging
information technology on information users and their information seeking behaviour.

Marcella and Baxter (1999) report the results of a survey of information needs and information seeking behaviour of a national sample of the UK population. Major findings include that the majority of respondents had sought information in the past and that an even greater number predicted a future need for information. Over three quarter of respondents said that they would use public libraries and between half and three quarters would approach Citizens Advice Bureaux, Post Offices, Government departments or family and friends. Face to face communications and reading a book were the most popular means of accessing information, but a wide variety of other preferred options were cited. Only a small proportion expressed a preference for using a computer to seek information, and there was a clear emphasis on public libraries as an appropriated location for accessing electronic information.

Majid (2000). Adequate knowledge about the information needs and seeking behaviour of users is vital for developing library collections, services and facilities to meet their information needs effectively. The purpose of this study is to identify the information channels used by the International Islamic University Malaysia (IIUM) law faculty members, information sources preferred by them, methods employed for getting the needed information and their library use pattern. A questionnaire was distributed to 80 IIUM law faculty members and 66 filled in questionnaires
were returned, giving an overall response rate of 82.5 percent. It was found that respondents used various sources for acquiring the needed information. Books were ranked as the most important source for teaching and research purposes, followed by law reports and statutes. Respondents preferred to first consult their personal collection before resorting to other information providing sources and agencies. The Online Public Access Catalogue (OPAC) and CD-ROM were the most frequently used IT-based sources and facilities. E-mail was the most popular among the Internet-based services and applications. On the whole, respondents perceived IIUM library collections, services and facilities as adequate to meet their information needs effectively.

Mahapatra and Panda (2001) in the article "Information needs of the working Journalists in Orissa: A study" provide an insight into the various information needs of working journalists in Orissa. They also analyse data received from 226 working journalists representing 40 newspaper organisations. The study depicts the specialisation of working journalists, their frequency of information requirement, mode of dissemination preferred, information sources explored, mode of services opted, and their information privations. The study asserts that subjects primarily concerned with the professional work and image of the working journalists are rated utmost significant.

Haruna and Mabawonku (2001) Examines the information needs and seeking behaviour of lawyers in Lagos, Nigeria. Results reveal that
many lawyers perceive the need to know the latest decisions of superior courts as their greatest professional information need. Other expressed needs include: knowing recent legislation; information local and international seminars and conferences; information on acquisition and application of legal know-how. The library has been identified as the most heavily consulted information source for job-related information, but librarians do not fulfil their role in meeting the information needs of lawyers.

Lin and Liu (2003) to facilitate searching and navigation, much information has been hierarchically organized into categories with different levels of generality. However, users still suffer information overload in querying a hierarchical information space, since they often cannot make their aspects of interest precise "... enough. One way to alleviate the problem is to interactively identify those information categories that correspond to the users' information needs (INs). In that case, information of interest may be found in a more dedicated space (i.e. subset of categories), promoting both search precision and user satisfaction. This paper presents a technique that employs text mining to build each category’s profile through which users’ INs may be interactively identified. The profiles are mined incrementally so that the system may adapt to the ever changing information space. The technique is shown to be effective in mapping users’ INs to suitable categories without requiring the users to enter long queries, conduct many interactions, and suffer heavy cognitive load. It may serve as an
intelligent intermediary in various applications that link users to suitable information categories and service departments.

Foster (2004). The paper offers a new, nonlinear model of information-seeking behavior, which contrasts with earlier stage models of information behavior and represents a potential cornerstone for a shift toward a new perspective for understanding user information behavior. The model is based on the findings of a study on interdisciplinary information-seeking behavior. The study followed a naturalistic inquiry approach using interviews of 45 academics. The interview results were inductively analyzed and an alternative framework for understanding information-seeking behavior was developed. This model illustrates three core processes and three levels of contextual interaction, each composed of several individual activities and attributes. These interact dynamically through time in a nonlinear manner. The behavioral patterns are analogous to an artist's palette, in which activities remain available throughout the course of information-seeking. In viewing the processes in this way, neither start nor finish points are fixed, and each process may be repeated or lead to any other until either the query or context determine that information seeking can end. The interactivity and shifts described by the model show information seeking to be nonlinear, dynamic, holistic, and flowing. The paper offers four main implications of the model as it applies to existing theory and models, requirements (or future research, and the development of information literacy. Central to these implications is the creation of a new nonlinear perspective from which user information-seeking can be
interpreted. The implications of the model, and the wider perspective it suggests raise many questions, hypotheses and point to a wide range of future research. Beyond everything the model offers a useful way to ask questions about information seeking.

Odongo and Ocholla (2004). This article reports the results of a study aimed at identifying the information needs and uses of the informal sector in Uganda. The demographic and business characteristics of these entrepreneurs are highlighted and empirically tested with regard to their information needs. This study has largely employed qualitative research methodologies, such as the critical incidence technique for interviews with 602 informal sector entrepreneurs from a variety of trades. Observations of the entrepreneurs' work environments and historical methods were also employed. The results suggest that modern/exotic models of information transfer based on textual media and ICT exhibit less impact on the entrepreneurs' information needs and use at macro levels because of poverty, illiteracy and poor information infrastructure. It is however noted that most 'elite' model share a platform with information behaviour of entrepreneurs at the macro levels. The study concludes that an appropriate model for information behaviour for the information poor community must be grounded on oral traditions and indigenous knowledge and be sensitive to poverty, infrastructure and illiteracy. Recognition is also made of the need for information repackaging and the use of appropriate media for information provision.
Patitungkho and Deshpande (2005). This article reports the results of a study of the information seeking behaviour of faculty members of Rajabhat Universities in Bangkok, Thailand. Data was collected by using a questionnaire from seven faculties in Rajabhat Universities. Results show that most of respondents (forty one percent) stated their method of seeking information by consulting a knowledgeable person in the field. Two hundred and thirteen respondents (82 percent) seek information for preparing lectures. Fifty-four percent of faculty members access more documents was references from a book. It is revealed that most of the faculty members (57 percent) used textbooks. Seventy four percent of respondents read information materials in Thai and twenty four percent read materials in English. The Internet had been almost universally adopted; they trace materials from the library via the Internet. Google.com was used for searching information by respondents. They use frequently e-mail for communication. It is found that 42 percent of respondents use the ERIC (Education Resources Information Centre) database. The majority of respondents faced the common problem while seeking information i.e. unavailability of information.

Kari (2006). This article explores one question: what does Internet searching has to do with personal development? Personal development means that individuals improve their own abilities, skills, knowledge or other qualities by working on them. The paper reports on a qualitative case study, in which a single participant was interviewed and her Web searches
observed. Information search strategies seemed to form a spectrum of developmental sophistication. Four major types of relationship were found: a) the Internet in the context of development; b) development in the context of the Internet; c) development affecting Internet use; and, d) Internet use affecting development. There were some informational phenomena, which exhibited regression, the converse of development.

Seth and Parida (2006). The authors mentioned that there are various studies conducted in the area of information needs of students, teachers, scholars, scientists of various academic institutions and research organisations in India and abroad, but the authors has selected to study the information needs and requirements of a particular community, i.e. the SC/ST, the most educationally undeveloped and largest disadvantaged community in India. The present study is focused on the information needs and seeking behavior of the SC/ST students, researchers, and faculty, with specific reference to higher education in Orissa. The aim is to assess the information needs of SC and ST communities in higher education, to identify the most useful sources of information, and to obtain suggestions for further improvement of these communities. The study reveals that the progress of people from scheduled caste and scheduled tribe in higher education is unsatisfactory. SC shows more progress, and urban areas fare better than rural institutions. This area of librarianship is neglected and needs immediate and continuous attention in Orissa.
Harinarayana et al. (2008)\textsuperscript{44} ascertained that majority of the users were visiting libraries to study in library and for borrowing books and textbook service was the most highly sought after service. Author concluded that libraries were lacking behind to provide specific information.

Shashi Singh (2009)\textsuperscript{45} stated that power point presentations were used in a demonstration to explain how to use various types of e-resources and databases, both subscribed and in the public domain. Based on the feedback analysis, it was found that instruction materials was useful (94.90%), 88.47% respondents are now better prepared to use e-resources.

Nicholas et al. (2009)\textsuperscript{46}. Purpose – This study provides evidence on the actual information-seeking behaviour of students in a digital scholarly environment, not what they thought they did. It also compares student information-seeking behaviour with that of other academic communities, and, in some cases, for practitioners.

Design/methodology/approach – Data were gathered as part of CIBER’s ongoing Virtual Scholar programme. In particular log data from two digital journals libraries, Blackwell Synergy and OhioLINK, and one e-book collection (Oxford Scholarship Online) are utilized.

Findings – The study showed a distinctive form of information-seeking behaviour associated with students and differences between them and other members of the academic community. For example, students constituted the biggest users in terms of sessions and pages viewed, and they were more likely to undertake longer online sessions. Undergraduates and
postgraduates were the most likely users of library links to access scholarly databases, suggesting an important “hot link” role for libraries. Originality/value – Few studies have focused on the actual (rather than perceived) information-seeking behaviour of students. The study fills that gap.

Thanuskodi, S. (2010)47 to know the internet has emerged as the most powerful medium for storage and retrieval of information. Since past few years free online information sources like e-journals, e-books, e-data-bases have increased considerably. The traditional library systems are going to transform into digital library systems. Information-seeking is important for students of agricultural sciences who have access to many dedicated electronic resources. Internet and CD-ROM were the most frequently used IT-based sources and facilities. Results of the present study show that majority of the students does not have own personal computer or laptop. Study reveals that the majority of the respondents (57.28%) feel that the internet and electronic resources cannot replace the print resources.

Esakkimuthu, Jeysnshankar and Murugan (2011)48. This study describes a survey on the effective use of the library resources, internet and electronic resources by the users of selected special libraries in Tamil Nadu. It also examines the library facilities, time spent, utilization, purpose, internet search engine and problems based on retrieving information by scientist.
It is suggested that infrastructure should be extended as per climatic conditions. Air-conditioner facility may be extended at least in the reference section. The electronic media articles can be stored and transported in a very compact way than the print resources.

Prabhavathi. (2011)⁴⁹. The present era is an era of information and knowledge revolution. Many electronic resources have been made most available in the libraries. The increase in availability of information on the Web has affected Information seeking behavior. Innumerable types of information, in a large variety of formats and from many different locations, are all available at one place. In the modern society, the types of information and the media which present them have become manifold and multifarious, offering men and women a choice from a wide spectrum of vast selection. Regardless of the group in a human society that is discussed, each one bases its actions upon current information and discards the earlier data. Philosophers emphasize the direct, experiential acquisition of knowledge in the material, physical plane of existence as the most proper form of information. So, no one can deny that knowledge and information are vital.

Mathurajothi (2012)⁵⁰. The study aimed at finding the use of e-resources by the PG students of Gandhigram Rural Institute-Deemed University, Gandhigram. 301 questionnaires were distributed among the respondents from seven departments out of which 222 were returned. Results show that 45% of the respondents use internet for educational purposes and 32.9% of the respondents use internet for checking e-mail. Google is the most used search engine and yahoo is their second choice. The
purpose for the use of e-resources revealed that most of the respondents are using e-resources for their project work since they have submit the project report as part of their syllabus. 36% of the respondents are using e-resources for preparing seminar presentation.

Periodicals are the main source for updation of current knowledge in general and subject area for the college students and staff. The journals are very important to provide the latest research news. The magazines and the newspapers are the main source to update general knowledge. In this paper, the reading habit of periodicals of the college library user is discussed by using the filled questionnaires collected from the library users of Kongunadu Arts & Science College.

From the analysis, ‘27’ respondents are reading the periodicals daily. So, more than 50% of the respondents use the periodicals atleast once a day. ‘30’ respondents use the periodicals. ‘33’ respondents use the general magazines. ‘38’ respondents say that reading periodicals reading is very much useful. The periodicals are really very much useful to the staff and students of their education in collegiate education. It helps them to update their knowledge periodically.

Kumar (2012). Searching for relevant information on the World Wide Web is often a laborious and frustrating task for casual and experienced users. To help improve searching on the web based on a better understanding of user characteristics, we investigate what types of knowledge are relevant for web based information seeking, and which knowledge structures and strategies are involved. The growth rate of the
web is exponential. The study explores different aspects of web search behavior of university students. All these aspects contribute to the way in which the students search the web. Main findings include the use of web for academic tasks, preference of Google and problem of slow speed.

Aforo and Lamptey (2012). Understanding information, seeking behaviour is of great significance to libraries and publishers. This study therefore investigated the information needs and the information seeking behaviour of lecturers in the Faculty of Law, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Open and closed ended questions on information selection, type of and purpose for seeking information, and problems involved in seeking information were administered to the Law Lecturers. Significant differences in measured parameters were assessed with Pearson’s Chi-square test using Graph Pad Prism version 5.00. Results indicated that the primary purpose for seeking information was; to obtain useful materials for research work (75%), background reading (62.5%), and keeping updated with knowledge in their field of specialization (56.3%). Law Reports, Law Journals, and Textbooks (93.8%, 81.3%, and 81.3% respectively; p<0.0001) were said to be the most useful source of information. Preference for information access was mainly electronic resources (p≤0.001). The majority (68.8%) of Lecturers sought for information daily. All Law Lecturers saw the Sir Arku Korsah Law Library as an important place for seeking information; there is a positive correlation between adequacy of library materials and frequency of library visits. The
information needs of Law Lecturers were diverse but the Law Lecturers relied greatly on law reports, law journals and textbooks. Information professionals could analyze these findings and design, develop, and introduce new library information services for lecturers.

2.2 User Studies on Social Science

Alire, Camila Ann (1984)\textsuperscript{53} conducted a survey concerning doctoral students in Colleges of education who were involved in library research work. The findings of this study were that research scholars stated that they thought knowledge of the library and its resources was important to their academic success. They further stated that library usage was also important for their academic success. Need for bibliographic instruction and library research methodology was stressed.

Karisiddappa, Sangam and Maheswarappa (1989)\textsuperscript{54} investigates the information use pattern of Indian historians as to their use of different sources; various approaches to locate information; difficulties faced in the use of information, and awareness and usefulness of information services of the National Social Science Documentation Centre (NASSDOC), New Delhi, based on data collected through questionnaires. Findings of the study have some implications for planning and organisation of information services.

Devarajan (1989)\textsuperscript{55} conducted a survey on Information needs and use pattern of Humanities Scholars working in the various departments in the University of Kerala. The study was conducted to understand the
information needs, information gathering behaviour and use pattern of
information of the humanities scholars. It is apropos to understand the
definitions, connotations and scope of the humanities as a field of the study.

Sethi (1990)\textsuperscript{56} made a study on information seeking behaviour of
social scientists. Result indicated that they did not differ in respect to how
they seek their information in their choice of channels and sources of
information. The information seeking behaviour of social scientists in
developing and developed countries tends to be different on account and
storage utilization of information.

John (1997)\textsuperscript{57} describes the information needs, use pattern and use
behaviour of social scientists and delineates the investigation on aspects like
objectives, methodology, analysis and interpretation and general trends with
areas of research augmented to give supporting via-media and data that
benefit them. The study reveals the information needs of social scientists in
respect of documents in their variety of bibliographic form, their
organisation and other services rendered by the library. The study adopts the
survey method based on the questionnaire. The author distributed 130
copies of questionnaires among the research scholars in Social science, of
which 91 were responded. The data analysed in respect of researchers
information needs, use pattern and use behaviour in various disciplines in
social sciences are brought as a consolidated.

Ngah and Sze (1997)\textsuperscript{58} presents a quantitative analysis of 100
references retrieved on the information use and needs of humanities
researchers, consisting of journal articles (57 per cent), dissertations (26 per
cent), conference proceedings (11 per cent) and books (6 percent). Three journal titles were found to contribute more than one third of the articles on this subject. About 88 per cent (23) of the dissertations are doctoral theses submitted to universities in the USA. About 51 per cent of the retrieved items were published between 1980-1989 which form the peak of studies in this area and the situation stabilizes to an average of about 2 studies a year in the post 1990 years. The bulk of the studies are about characteristics of information sources used and of these citation studies are predominant. Information needs and use in the field of literature, history and music (62 per cent; 41) constitute the majority of studies in this area. The review studies come under 3 categories; the library and humanities scholars; research and information seeking behaviour of the humanities researchers and the characteristics of sources used.

Singh Chandel’s (2000)\textsuperscript{59} study is a users study of the libraries of ICSSR Institutes in Madya Pradesh. Dr. Baba Saheb Ambedkar National Institute of Social sciences (BANISS), Mhow and Madya Pradesh Institute of Social Science Research (MPISSR), Ujjain are two ICSSR Institutes in Madya Pradesh. The author conducted the survey to know the users' views regarding the available information & resources in the libraries for their use and the effectiveness of the services rendered by the libraries to the users.

Haruna and Mabawonku (2001)\textsuperscript{60} examine the information needs and seeking behaviour of lawyers in Lagos, Nigeria. Results reveal that many lawyers perceived the need to know the latest decisions of superior courts as their greatest professional information need. Other expressed needs include
knowing recent legislation, obtaining information on local and international seminars and conferences and on acquisition and application of legal “Know-how”. The library has been identified as the most heavily consulted information source for job-related information. However, libraries do not fulfill their role in meeting the information needs of lawyers. Recommendations are made on the basis of the findings.

Shokeen and Kushik (2002)\textsuperscript{61} studied about information seeking behaviour of social scientists working in the universities located in Haryana. They reported most of the social scientists visit the library daily. The first preferred method of searching the required information by the social scientists followed by searching through indexing and abstracting periodicals, and citations in articles respectively. The social scientists use current journals followed by books.

Bates (2002)\textsuperscript{62}. The emphasis in much information seeking research at the current time is on the social and cultural context of human interaction with information. This effort is highly desirable, but is incomplete. The model to be developed here has integration as its objective in two senses: 1) to provide a single model that incorporates both information seeking and searching within it, and 2) to integrate the social and cultural with the underlying biological and physical anthropological layers of human experience with respect to information seeking and searching.
Meho and Tibbo (2003)\textsuperscript{63}. This paper revises David Ellis's information-seeking behavior model of social scientists, which includes six generic features: starting, chaining, browsing, differentiating, monitoring, and extracting. The paper uses social science faculty researching stateless nations as the study population. The description and analysis of the information-seeking behavior of this group of scholars is based on data collected through structured and semi-structured electronic mail interviews. Sixty faculty members from 14 different countries were interviewed by electronic mail. For reality check purposes, face-to-face interviews with faculty members were also conducted. Although the study confirmed Ellis's model, it found that a fuller description of the information-seeking process of social scientists studying stateless nations should include four additional features besides those identified by Ellis. These new features are: accessing, networking, verifying, and information managing. In view of that, the study develops a new model, which, unlike Ellis's, groups all the features into four interrelated stages: searching, accessing, processing, and ending. This new model is fully described and its implications on research and practice are discussed. How and why scholars studied here are different than other academic social scientists is also discussed.

Suriya, Sangeetha and Nambi (2004)\textsuperscript{64} carried out a research work on "Information seeking behaviour of Faculty Members from Government Arts Colleges in Cuddalore District." The purpose of their study was to investigate, how faculty members seek information from the library. It
mentions that most of the respondents 61 (38.12 percent) visited the library several times a week to meet their information needs. Regarding the type of search made by the respondents the majority of the respondents 91 (56.87 percent) made their search by subject.

Chinnasamy et al. (2008)\textsuperscript{65} made a survey on the usage of electronic resource by management students of Jansons School of Business, Coimbatore. They also studied the impact of electronic resources on the academic work. The study reported that the students used electronic resources for academic and the frequency of use was very high.

Sivaraman and Paramasivam (2012)\textsuperscript{66}. This article deals with the study about the Information Use Pattern of Faculty Members of Arts and Science College in Dindigul District, Tamil Nadu the study covers method adopted by Faculty for keeping a breast of current developments amount spent in information gathering, utilization of library: services, use of information channels and to assess the adequacy availability and accessibility of the college library collection.

The respondents in this study area have varied levels of knowledge on information services. The study also quantified the respondent’s tie allocation to visit library. Majority of the respondents have utilized the library only to read text books. The research helped to find out the association between different levels of respondents and opinion about the reference services. Based on the use pattern of the college libraries, care has been taken to attract the users to visit library more frequently and ‘spend
their valuable time in the library to exploit the college library information resources, facilities and services to meet their user’s needs.

Balasubramanian and Beula (2012). This study aims to find out the availability of information sources and services available in B.Ed. colleges in Kanyakumari district, Tamil Nadu, India. Majorities of the colleges satisfied the services of the library and suggested to develop the new the new technologies in the library.

The libraries play an important role for supplying information sources to the users. The teacher education college trainees are taken under the study. From this study, it is found that the most the users got timely help from their library staff also demand to develop electronic library. The users are having sufficient knowledge about the print and electronic sources.

2.3 User Studies on Pure Science and Applied Science

Krishna Kumar (1968) conducted a survey concerning teachers and research scholars in the Department of Chemistry, University of Delhi. The important finding of this survey was quite a large percentage of research fellows do not use the library as much as they ought to. The majority of the researchers (71 percent) feel the need to improve their skill in the use of science-technology literature. The research fellows depend much more on the departmental library than the University library. But the teachers seem to use both libraries about equally. It was found that existing services being provided by the University have not been publicized sufficiently. The respondents were in favour of getting photocopying service in the library.
The university library should build a sound collection and should try to get all the essential periodicals. The survey has underlined the importance of communication between the librarians and the users. It was interesting to note that many persons showed interest in the training programme for librarians. It was also found that the approach to the services provided by the libraries used by respondents was rather critical. On account of change of teaching system it is expected that there will be increased use of the library resources and services. All this will have important implications for the university library.

Friendlander (1974) surveyed medical school faculty to determine the mode of the library in their work-related information seeking and to identity percentage of informal source use was reported, particularly talking to co-worker or to an expert, When formal school library or their personal library most frequently. The most easily accessible source was found to be used by most medical school faculty.

Malhotra (1990) studied the role of the faculty in promoting library use by the post graduate students. Two independent samples of post-graduate students have been taken one each from Haryana Agricultural University, Hisar and Punjab Agricultural University, Ludhiana to make an in-depth study. This study identified and ranked statistically a total of nine variables which could be used to predict whether method of instruction of teachers is library based or otherwise. The stated hypothesis has been tested by the use of Spearman's Rank Correlation Coefficient in two different sample groups and their results compared.
Korah and Devarajan (1991) report the results of a study of the information need and use patterns of scientists using literature on rubber technology at the Rubber Research Institute of India. The study investigated use patterns of different types of materials, the adequacy of the library collection and services, information strategies and other aspects. Findings indicate that there is a need to expand the library services in areas such as the acquisition of foreign language periodicals, filling in of gaps in titles, organising user training programmes and the building up of collections of dissertations.

Urquhart and Crane (1994). A survey of trained nursing staff in Plymouth (UK) indicated how national professional development proposals for nursing staff might affect the information and library services of the Tor and South West College of Health in Plymouth. A structured interview of five per cent of the acute and community staff included a vignette (case study information problem) designed to elicit the level of information-seeking skills and perceptions of information sources, including the various local libraries with health care collections. Content analysis of the vignettes showed that about one-third of the respondents were confident information seekers. Another third appeared lacking in information-seeking skills. The information-seeking strategy was associated with the group that used more than two sources of information, and this group was also more likely to mention use of a library than the other group which used two or fewer sources of information. However, there was no significant difference
between those groups on (i) use of informal sources (colleagues, specialists) and (ii) mention of literature searching and journals. Study of the sources mentioned, particularly libraries, pointed to the need to consider networking and/or integration of health care library services.

Mendes and Meadows (1997) report results of a joint questionnaire and interview survey to determine the ways in which 4 groups of health professionals (consultants, junior medical staff, nurses and administrators) working in 3 hospitals in Brazil and 3 hospitals in the UK, use libraries and information resources. Patterns found in the 2 countries were compared. The investigation was carried out in 2 stages. The first stage examined the role of the library and the second looked at information activities that did not involve the library. They conclude that the information activities of health professionals in Brazil and the UK follow a generally similar pattern, which in overall terms fits the general picture gained from previous studies. However, UK health professionals clearly have better access to publications (particularly periodicals) than their Brazilian counterparts, due to the latter's problem of the acquiring foreign publications, the language barrier, poorer access to electronic information resources and greater difficulty in attending conferences. They further recommend that teaching hospitals in Brazil should make greater use of electronic communication and act as a focus for the information needs of non-teaching hospitals.
Adedibu and Adio (1997)\textsuperscript{74} studied on the information needs and information seeking patterns of medical students at Lautech Ogbomoso using a questionnaire method. The survey revealed that 70 percent of respondents spent 3-8 hours per week in the library consulting books relevant to their areas of specialization, and 68 percent of this category approached the library staff for assistance in searching the books for their choice. The entire sample agreed that the library staffs are always willing to assist. Various suggestions were made by the respondents for the improvement of the library.

Niongmeta and Ehikhamenor (1998)\textsuperscript{75} report results of a questionnaire survey of the needs for information and its availability to 200 health professionals in Cameroon. These reveal need for health information for the purpose of current awareness, diagnosis, effective patient management, and about new drugs, while informal channels of information such as discussion with professional colleagues and allied health specialists, seminars, workshops and conferences have been quite useful, printed sources are indispensable and the high cost of information materials and the non-availability of effective information systems in Cameroon are serious constraints to accessing and using health information. The study argues that the starting point for addressing the problem of health information services would be the articulation of a health information policy as a vital component of health care delivery' at all levels of the healthcare system.
Pelzer, Wiese and Leysen (1998) report results of a questionnaire survey, conducted with veterinary medical students at Iowa State University in 1997, to determine their general use of the Veterinary Medical Library and how they sought information in an electronic environment. Comparisons were made between this study and an earlier study (Bulletin of the Medical Library Association, 76 (4) 1988, 328-333). Basic patterns of student activities in the library were found to be unchanged. The 1997 students used the library most frequently for photocopying, office supplies, and studying coursework; and they preferred textbooks and handouts for current information. However, a major shift was seen from the use of print indexes and abstracts in 1987 towards the use of computerized indexes and other electronic resources in 1997. 60 per cent of the students reported using the Internet for current information. Overall use of electronic materials was highest among students receiving the problem based learning method of instruction. Most of the 1997 students indicated that electronic resources would be important for future education needs, particularly the wealth of information and services available on the Internet and World Wide Web.

Majid, Eisenschitz and Anwar (1999) discusses about the vital role of the library in the improvement of scientific and technological research and the acceleration of the innovation process. An understanding of the information needs as well as the ways scientists use their libraries is crucial for efficiently meeting their information needs. This paper explores the methods used by Malaysian agricultural scientists to get information from
their libraries, the factors influencing library visits and the occasions for extensive library use. It was found that most scientists visit libraries personally when they need to search the library OPAC, scan periodicals, or use other Sources for identifying new information on their topics. However, they send junior scientists or paraprofessionals to get photocopies of articles, to check out books or to get information from sources already known to them. It was also found that scientists used their library extensively while preparing research proposals and writing reports.

Biradar, Anita and Ushalata (2001)\textsuperscript{78} conducted the survey to know the use pattern of periodicals by Medical practitioners. The study reveals that 76.67\% and 75\% of medical practitioners need current information on new procedures and medicine respectively, 56.67\% of medical practitioners get periodicals through medical associations while major percent (86.67\%) of them get current information through seminars, conferences and workshops. Besides 57.67\% and 53.33\% of doctors use e-mail and Internet as a major communication media.

Zawawi and Majid (2001)\textsuperscript{79} little attention has been focused on the information needs and information seeking behaviour of health Science professionals in developing countries, particularly in Malaysia. This study explores the information needs and information seeking behaviour of biomedical scientists at the Institute for Medical Research (IMR), Malaysia, the oldest and most advanced medical research centre in the country. A total of 84 questionnaires were distributed to the biomedical scientists and 54
completed questionnaires were returned with an overall response rate of 64.3 per cent. Results indicated that biomedical scientists use a variety of information sources to satisfy their information needs. Biomedical scientists who were solely involved in research work considered periodical articles as the most preferred information source. On the other hand, researcher-lecturers considered books as the most preferred information source in meeting their information needs. Both categories of scientists also considered interaction with colleagues as an important source for satisfying their information needs. The study also revealed that in spite of having access to modern and up-to-date digital information sources, most respondents still preferred using printed materials. Nonetheless, CD-ROM was the most utilized IT-based source. For the Internet-based information sources and applications, electronic mail was the most popular while other applications were used infrequently.

Khalil (2001)\textsuperscript{80} Presents a brief analysis of the information seeking behaviour and needs of consumers with regard to health information. The field of consumer health information is emerging slowly but surely, as consumers strive to understand diagnoses, maintain states of wellness, or even practice precautions to avoid known triggers of illnesses.

Perry (2002)\textsuperscript{81}. The improvement of customer service: by organizations requires that information about their users needs and expectations be determined. The Implementation of focus groups can allow clients to share knowledge about their needs and to use this information to
improve customer service. Describes how focus groups were used to assess the effectiveness of Kentucky University's Agricultural Information Center (AIC) in providing user services, where it is hoped that the experiences described will help other organizations gather data, assess performance and use the resulting information to improve customer service. The feedback shared by these focus group participants was instrumental in redefining the information centres’s immediate goals and developing its Five-Year Strategic Plan. These immediate goals included creating an effective marketing plan, redesigning the library instruction seminars and improving other public services offered. The data gained from these focus groups gave the AIC a clear picture of how these goals could best be achieved and provided more helpful information than any single evaluation tool used previously. Discusses the purpose of focus groups and describe the process of planning focus groups, implementing them and analyzing the resulting data to improve customer service.

Satija and Sandhu (2002) conducted a survey study to seek information behaviour of the farmers of Punjab. The study reveals that more than 60% of its population still lives in rural areas. There are 12,780 villages in Punjab. Farmers are progressive and they have since 1960s adopted the new technology relating to agriculture, comparatively earlier and faster than their counterparts in other states.

Abba Buba and Jonathan Ocheibi, (2003) A Survey data describes the results of an investigation on the information needs and information
gathering behaviour of Medical doctors in Maiduguri, Nigeria. A total of 158 Medical doctors (128 males and 30 females) were used for the study. The overall response rate was around 70.2 percent. Medical doctors need specific medical information to enhance their knowledge on a day-to-day basis, particularly with the information explosion such as e-mail and internet facilities. Medical doctors prefer the use of publishers catalogues as the most important source for new developments in their relevant fields. Many do not have access to local data bases that are supposed to have remarkable impact on their information gathering behaviour.

The study carried out Esmail and Uma (2003) use pattern of information sources by under-graduate students of Engineering Faculty in Annamalai University. It is observed from the study that under-graduate students heavily depend on books, class notes, popular magazines, newspapers, notes of seniors. The other sources are least used by under-graduate students viz., microforms, biographical sources, almanacs, memoranda diaries and letters.

Kumbar (2005) carried out a study and reveals that the utilization of electronic resources by research scholars in CFTRI, Mysore. 75.71 % of respondents indicate the electronic resources have changed the way of doing research.

Rokade (2006) carried out the present paper succinctly and describes that the evaluation of electronic information services in the light of current status of its services and INFLIBNET (Information Library

Network) services in agricultural university libraries in Maharashtra. It has been concluded that a thorough study of the electronic information services are preferred by the users to the other types of services. It is recommended that the INFLIBENT should also include the ICAR under its coverage and should provide electronic information services to all the agricultural university library users in India in collaboration with ICAR.

Gopalakrishnan et al. (2008)\textsuperscript{87} has conducted a study on Information Use Pattern by the Academicians of NIFT Centres in India. This study is to examine the information needs and information use pattern of the academicians of seven institutes of fashion technology in India.

Davies (2010)\textsuperscript{88}. This paper provides a narrative review of the available literature from the past 10 years (1996-2006) that focus on the information seeking behaviour of doctors. The review considers the literature in three sub-themes: Theme 1, the Information Needs of Doctors includes information need, frequency of doctors’ questions and types of information needs; Theme 2, Information Seeking by Doctors embraces pattern of information resource use, time spent searching, barriers to information searching and information searching skills; Theme 3, Information Sources Utilized by Doctors comprises the number of sources utilized, comparison of information sources consulted, computer usage, ranking of information resources, printed resource use, personal digital assistant (PDA) use, electronic database use and the Internet. The review is wide ranging. It would seem that the traditional methods of face-to-face communication and use of hard-copy evidence still prevail amongst
qualified medical staff in the clinical setting. The use of new technologies embracing the new digital age in information provision may influence this in the future. However, for now, it would seem that there is still research to be undertaken to uncover the most effective methods of encouraging clinicians to use the best evidence in everyday practice.

Isabella, Esmail and Nagarajan (2012). Depending upon the academic need of the staff and students the usage of the e-resources could be varied. The study analyses the difference among the staff and students of Pharmacy colleges located in Chennai city, Tamil Nadu. The study focuses on the place of access, mode of learning, search engines used, browser, search mechanism adopted and purpose of accessing the internet and e-resources by the faculty and students for their academic demand.

E-resource is playing a crucial role in contemporary academic society. The academic community of any discipline can derive tremendous advantages from this e-resources for updating their knowledge and there in no exception that pharmacy society also. In the present study most of the students and faculties are frequently access and use the e-resource for their study and research work. From the study it is revealed that, to learn e-resources access skills, the students are lag behind the faculty and it is suggested that the management of the institutions should properly organize training programme for the benefit of the students. With regard to search mechanism adopted by the students mostly, they are using basic search and training is need to use of advanced search mechanism for accessing e-resources.
Bakkiaraj, Sathiyamurthy, Esmail. (2012)\textsuperscript{90}. This study presents the Use of E-Resources by Researchers of Agricultural Faculty, Annamalai University, Tamil Nadu, India. A questionnaire consists of 23 questions and designed to elicit the opinion of research scholars of agricultural faculty, Annamalai University. There are 13 departments in agriculture faculty, Annamalai University. But the questionnaires were distributed only ten departments of agricultural faculty, Annamalai University. Among the total number of 132 research scholars 124 questionnaires were responded. From the study it is revealed that majority of the research scholar in the faculty of agriculture have been used e-resources for their research work.

Kumar and Dominc (2012)\textsuperscript{91}. Most of the engineering colleges in Coimbatore, Tamil Nadu have implemented ICT facilities to their libraries. The availability of right information at the right time and the right form is of utmost importance to user for their knowledge and development activities. Some measures have also been suggested for the improvement of existing ICT based resources and services. This paper describes the study on user about the digital library services provided by engineering colleges at Coimbatore.

The study examines the library users’ opinion on book circulation systems in engineering colleges in Coimbatore City, Tamil Nadu. A structured questionnaire was distributed to 800 users in engineering colleges in Coimbatore City. The users have given their opinion on book reservation facilities, books borrowing facilities, display of new arrivals, availability of
journals / magazines, supporting of library staffs etc. Majority of the respondents have utilized the library only to read text books.

The study on Library Users Opinion on Book Circulation Systems in Engineering Colleges in Coimbatore, Tamil Nadu is very helpful in documenting Information Literacy and Library Information Services. The respondents in this study area have varied levels of knowledge on information services. The study also quantified the respondent's time allocation to visit library. Majority of the respondents have utilized the library only to read text books. The research helped to find out the association between different levels of respondents and opinion about the reference services. Based on the use pattern of the engineering college libraries, care has been taken to attract the users to visit library more frequently and spend their valuable time in the library to exploit the engineering college library information resources, facilities and services to meet their user’s needs.
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