Literature review

Padmavathi, R. and Seyyuraj, P. (2010) said that the concept of store house has been changed to information centers. Scholars making use of network and other resources sharing activities, national and international cooperation and global access of information.

Parekh, H (1999): Defined as “A database describing documents via bibliographic entries, composed of the fields, some of which may be queried.


*Simmon, R* (2001) describes the use of CDS/ISIS for Russian drawing management in LPSC/ISRO. ISTIC has developed a large information retrieval system of CDS/ISIS. The system is completely compatible with English and Chinese and run also under the MVS operation system on IBM. The retrieval function and commands of the system are similar to the DIALOGUE system. *Gowda* (2007) describes the duplicate records checking, an advance program and *Goba* describes about manuscript databases.

**Majumdar, S. (2006)** have highlighted the impact of computers in the pedagogical process, and use of various computer application in education like drill practice, tutorials, simulations, problem solving application, etc. *Payola* (1989) have suggested that roles of instructors and students should be reconsidered in the changing education scenario.

**Sokar, Zeev (2005)** has observed that soon scholars and researchers would be using the electronic medium for information abdication, usage, and sharing. He emphasized the need for teachers and students to use electronic information sources, considering that interactive electronic application were of much assistance in posing questions, proving and analyzing answer.

Many researchers have agreed that both educators and students would benefit from the rich resources of internet as it has opened new ways for supporting the learning
process. Several studies have discussed the impact of the internet on collaborative and independent learning. Lifelong education opportunities that became possible with the internet have also been highlighted. Currently, several academic institutions have been offering a variety of course on the Net, targeting different segments of society. Van Dijik and Hacker, Kenneth (2003) investigated how academic has been using the internet services and resources. They noted that 100 per cent of US universities were connected to the internet and the academics were among the first to participate in internet activities. Paul, J. (2002) has emphasized the importance the internet as a learning tool as it provides easy and quick access to almost unlimited global information as well as easy and fast communication. The author reported that assignments become more meaning full with the implementation of the internet as student was more intrigued and interested while conducting their own searches.

**Daly, A.E. (2005)** has highlighted the importance of the internet for distance learning and other educational services. She felt that student would use the Net for sharing their concepts and information on certain project. Academic staff would interact electronically with their students thus improving the quality of education. A study undertaken by Cullen, Rowena (2003) suggested that internet connectivity improved facility collaboration and supervision of distance education and external research student. Paul, J (2002) noted that discussion group of the internet might be the most represented part of the society in the internet discussion groups as they had greater access to the information superhighways through university settings.

**Overall, Patricia (2005)** has analyzed the use of hypertext in the university educational process. They felt that it was very difficult to achieve the aims of education with textbooks that linear and sequential presentation of information. They conclude that the structure of the hypertext might help university students of
become familiar with the interactions within the phenomena and to study them from different viewpoints and contexts.

Several studies have indicated that powerful CD-ROM retrieval packages as well as user-friendly internet navigating tools, such as Netscape Navigator and Microsoft Internet Explorer, were more suitable for end-user searching. Development of online public access catalogues provided users and easy tool for retrieving needed information about library collection without wasting their time. Arora, J. (2006) argued that only knowing where resources were located was not enough to solve literature acquisition problems. Knowledge of appropriate electronic information sources, supported by adequate searching skills, was desirable to identify and retrieve the needed information. They study emphasized strong need for end-user education and computer literacy enhancement to benefit from a huge collection of electronic information resources.

Due to rapid advancement in information technology, the pedagogical process is undergoing quick transformation. More academic institutions are integrating computer applications and internet in the teaching process. Effective use of this electronic information would be cumbersome without proper computing and information retrieval skills.

Biradar, B.S. (2006) present “the basic purpose of an academic library to provide sufficient information for making informed decision is embedded in academic library mission statements and hidden agendas may preclude the purchase of specific controversial materials. As new formats are designed production costs increases and library funding shrink, decisions about what information and which formats acquire become increasingly difficult to make. The design of common in systems also means that much of the information about the words minor being with
held form average researcher. The growth of electronic means disseminating and preserving information could lead to control of intellectual freedom and access to information because a small group of people will determine what is on the internet. Only by building and sustaining comprehensive academic collection and developing effective means of resource sharing will intellectual freedom be upheld.”

Eynon, R. (2005) considered “the present challenge to academia is invest in electronic services that will turn the ocean of data currently available into sound, useful and compelling information products, the process of filtering, labeling reining and packaging i.e., process of edition and publishing, requires resources and will be shaped by the electronic world in the significant ways. Examines the roles of the academic institute and the electronic publisher in this process from an economic, as well as utilitarian, perspective, considers the cost, storage and networking problems facing universities and their libraries as they contemplates how to take advantage of electronic publications. This concludes that universities should be down to electronic information services because of their superiority in instruction; they reach beyond the academy, and their power in the creation of new ideas and the expansion of human potential. When artfully done the digital sharing of ideas seems likely to expand that potential significantly.”

Since the study is based on Punjab University Libraries and their users, profile of the University was through essential to be presented precisely containing its historical background courses of study, etc.

Mudwi, M.S.E. (2005) stated that the conventional libraries are now in transforming phase. The techniques of accumulation gathering of information, processing it and way of disseminating it among the readers have also drastically
been changed. The librarians, therefore, have to get acquainted with the new trends of fruitful training on library automation and electronic information handling which they are lacking. An attempt has been made to draw a strategic plan for electronic information handling for library professionals. He also suggested some points to the librarian for information handling technology strategy are undertake a systematic assessment of readers information competence skills for readers, develop pilot information competence programs of course, utilize computer software that enables the librarians for information competence and develop a workbook and checklist to assist the subordinates for information competence.

**Bansoda, S.Y.(2008)** shows the result in her survey that library not to be currently involved in coordinated purchasing of printed or electronic resources .Nevertheless, a variety of actions at different levels are highlighted. She also concludes that the field of documentary consortia in France is not very organized and the absence of a determined policy concerning electronic scientific documentation at national or any other level has resulted in a constructive approach, often leading to reorganization of equipment that may culminate in wasted energy, time and money. .Nevertheless, consortia for the purchase of electronic scientific documented are being created in France but this processes continuous to lag behind many European countries.

**Somasundaran, E.(2004)** revealed that in the age of digital evolution escalation price of electronic information, resource sharing is critical for effective functioning of libraries. Increased availability of information in digital format high cost of journal subscription compels the libraries to work together. Technical advancements provide a platform for digital resources sharing and offer many opportunities for librarians to become more technical and professional.His work also attempted to identify the needs and factors influencing the electronic resources
sharing and presented requirements and strategies for effective resource sharing in academic libraries.

**Swaminathan, E. (2004)** discussed how libraries have and can address digital divide through collection development. He also discussed how collection development has changed in general through emergence of digital technology. He also concluded that libraries have always been leaders in creating change and the digital era brings yet another occasion to leave a mark.

**Singh, Sukhdev (2006)** describe that electronic publishing has led to a new era of information communication. The e-journals are becoming an effective and popular medium of communication these days. It has been observed that 41.46% of the users were satisfied with the service but not satisfied with quality of internet.

**Keywords:** Electronic publishing, e journals.

**Gopalkrishnan, S. Sarvanan, T. (2010)** wrote in his paper library use pattern, needs, sources of information, information seeking pattern, performance of the library in satisfying the needs of users and barriers to use the library resources.

**Keywords:** E-resources use pattern.

**Sathiyaurthy, M.G. and Araventhan, M. (2010)** describe the importance of information and use of resources to all users. Author analyzes the access of e-resources and duration of utilization and methods of seeking information.

**Keywords:** E –resources, Line utility.

**Sankarnarayanan, D. and Nagarajan, M. (2010)** analyses the use of e-resources in Agri Universities and treated e-resources as first source of information.

**Keywords:** E-resources, Digital resources.
Singh, Neetu (2011) stressed the services of information providers for maximum utilization of e-resources and discussed fast changes in technology and services of academic libraries.

**Keywords:** Academic libraries, E-resources.

Anil Kumar and Singh, Jasvir (2011) presented the result of the study of user’s awareness in Delhi University. Further stressed the need of training of student, staff, scholars to make appropriate use of information resources and services.

**Keywords:** Information resources, Delhi University Library.

Sharma, C. K and Singhal, N. S. (2011) described impact of I.T. On libraries and the network in order to facilitate global access to knowledge and sharing information international and international cooperation.

**Keywords:** I.T., Network.

Venkatesan, S. and Sharma C.K. (2010) The article present and overview that a knowledge management is helpful to each and every organization and the users, but it need understanding, wisdom and cooperation to meet the challenges accessing library material.

**Keywords:** Knowledge Management, Library cooperation.

Nattar, S. (2010) discussed the technologies which are essentional for libraries. Database developments standard, Protocol, Search engine, Document delivery services are essentional for digital technology for maximum utility to users.

**Keywords:** New technologies, Digital environment

**Keywords:** E-books, Internet.

Mishra, L.N. and Singh, Shaily (2009) describe preservation and conservation of library material and check the deterioration. There are many factors affect the preservation process likes environment, biological atmosphere. It is also necessary to create user friendly environment and preserve library material.

**Keywords:** Preservation of library material.

Balasubramaniam, P and Bala dhamdayatham, A (2009) discussed the objectives of digital library, library network for e-learning and various projects of digital libraries in India.

**Keywords:** Digital library, E-learning.

Durga Prasad (2009) describes collection development in university and college libraries. There should be a framework of collection development policy and modified as per needs of the users. Open access intuitive may allow free access.

**Keywords:** Collection development, Open access initiative.

Sudesh Kumar and Akhil Kumar (2009) discussed that I.T. and E-information have contributed significantly to paper pollution by bringing out more print publications. The submission of ICT has solved this problem in academic libraries in 21st century.

**Keywords:** e-information, I.T.
Sharma, C. K and Ravendra Kumar (2009) The author has given and significance of electronic resources and its impact on library services. Further describes information retrieval services and the resources like CD-ROM.

Keywords: e-resources, CD-ROM.

Stephen, S. Laneyad and Saravanam, P. (2007). The study is intended to study e-mail usage among the academic professionals. Various aspects of e-mail is by survey methods. 96 academic libraries considered and carried out this study to arrive important findings.

Keywords: e-mail

Verma, Naresh Chandra (2007) discussed that digital library information collection, resources, and services facilitates on-line searching and access daily users with up to date information. This paper discusses the advantage and disadvantage of digital libraries.

Keywords: Digital Library-resources.

Natarajan, M (2007) discusses and analyze the web mining and web content. Information extraction, generalization and automatic retrieval of relevant documents to satisfy the users need while searching from the digital library websites.

Keywords: Web mining, web analyst.

2. Objectives of the study –

The objectives of present study are as under –

1. To study area of information technology.
2. To study information recourses available in University libraries.
3. To study the area of information services.
4. To organize and provide and access to information.
5. To study the information services provided by Punjab University libraries.
6. To survey the resources available in Punjab University libraries.
7. To conclude the present position and its evaluation of the resources and services of University libraries of Punjab.