1. **INTRODUCTION**

1.1 **Digital Library Philosophy**

There are three over-researching guiding principles:

(i) The DL field is imposed of focused on serving research, scholarship and education, but in order to achieve their full benefit for society and a commitment viable business model.

(ii) DL is primarily as a means for accessing information, but in order to reach their full potential, it must go beyond that and support new ways of intellectual work.

(iii) DL provides services primarily to individual users. But it must also support collaboration and communities of practice.

On the other side an alternative principle for a digital library would be to promote social inclusion by providing simple, low cost solutions, to enable as many people as possible to contribute digital contents within coherent library frame work. Therefore, digital library covers the creation and distribution of the types of information over networks, ranging from covered historical materials to kinds of information that have no analogues in physical world. A digital library is a collection of information that is stood and accessed electronically.

Shivmani and Palanisamy (2010) in their paper discussed that now a day’s I.T. has changed the concept of libraries. Each and every library is by step to step going to be digitized. A digital library comprises digital collections, services and infrastructure to conservation.

1.2 **Importance of Digital Library**

Digital Libraries are organizations that employ and display a variety of resources, especially the intellectual resources embodied in specialized staff. Digital are providing useful products and hence these any have many credits:

(i) It select, structure, offer intellectual access, interprets, distribute, distribute, preserve integrity, and ensure persistence. It is subject to the special courtraints and requirement of operating in a rapidly evolving electronic and network environment.

(ii) It preserves integrity.

(iii) It ensures persistence. The integrity of digital object is measures in terms of contents, fixity, reference, provenance and context.
(iv) Digital libraries need to development criteria for measuring their performance in an evolving and highly competitive environment.

(v) One essential measure of the quality of service evaluates performance in terms of cost.

(vi) A second essential measure of service quality takes account of how willing and how responsively a digit library makes information available to its patron community.

(a) Access databases containing titles and descriptions of digital objects.

(b) CDs containing folders of hundreds of images.

(c) Web pages offering prototype public access to images and documents.

(d) A library catalogue system holding MARAC records of object metadata

Shalini (2007) has urged that digital libraries have been a product of as well as active participant and catalyst of the changing time. Digital libraries have emerged as are of the fast developing and continually evolving to technology for information management.

1.3 User Interface

There are four main requirements for user interface in digital libraries:

(i) Web interface

(ii) Consistency – means devising a design template which could provide visual coherence across all collection.

(iii) Flexibility – means enabling users to access library contents in different ways.

(iv) Scalability – means creating an interface that would look acceptable with only three or four collections.

Padmavathi (2011) visioned that new developments will change the information cycle dramatically. Users will be able to access information wherever be located without visiting a library.
1.4 Information Retrieval

Priority should be given in creating a flexible browse able interface to illustrate existing collections, as users need an overview of the content in order to carry out useful searches. Once this was in place, search options were added one collection at one time, using different software solutions for different collections.

Vashishtha (2007) discussed that due to information revolution, digital libraries are developing all over the world to collect, store and communicate the information through electronic media.

1.5 Collection Development

In the early stages of the digital libraries, collection development is not a big issue because the focus is on establishing a collaborative operation, involving all project partners. There are three main provisions for collection development.

(i) To make use of physical collections held by project partners,

(ii) To establish collections by pooling resources that might otherwise result duplication of efforts,

(iii) To create contents.

A coherent collection policy is essential but cannot be created in a vacuum. The policy is likely to require periodic updating and should be reviewed at least once a year.

Organization and methodology of management of diverse collections of digital objects is a number of servers, spread over the internet, that internet with each other to meet user requests. The digital library is not initially concerned with interactions between distributed services, but it did need a system for managing its content. This is less simple than it sounds, with multiple contributors, collections, file formats and access methods involved. Information is held and maintained in several different forms.

Singh, Sukhdev (2006) Developing of digital library is just like the development of conventional library as it also involves the issue of collection, storage, organization and dissemination of information to its perspective users.
There are almost endless possibilities in providing complex search facilities for a digital library, such as, indexing, relevance making, case sensitivity, phrase searching, stemming, pattern matching, Boolean searching and result paging.

1.6 Search

Information providers have designed enhances gateway and navigation services on the interface side and also introduced federations’ mechanisms to assist users through the distributed, heterogeneous information environment. There are many factors involves in search operations:

(i) Hardware
(ii) Storage database or file structure
(iii) Accessibility
(iv) Search Engine
   (a) CGI – Common Gateway Interface
   (b) Java Script
(v) Software

Tariang (2009) reviewed the literature covering the retrieval effectiveness on internet search engine of literature reviewed under appropriate heading and subheadings and mostly published from 1990 onwards.

1.7 Problems of Digital Libraries in India

This is lack of interest on the part of institutions and learners. Absence of action plans or priorities are major hindrances. There is a cute shortage of competent manpower to take up the task of digitizing local content and creating digital information repositories.

Access to digital libraries is dependent upon hardware and software requirement. Therefore, the people from affluent community can meet their requirements. As a result information and knowledge sharing are not provided to all the people, which have similar qualities of information access. Internet is accessed by 21% users in urban India, most of whom are professional, corporate, schools and colleges in urban area. Traditional libraries services
needs to be supplemented by electronic resources making use of information technology, computers and communication.

**Hull (2011)** described private digital libraries and their problems. Moreover, such libraries could not be used properly and highlight problems with managing data and metadata using URI.

### 1.8 I.T. application

A gateway to knowledge: A great responsibility rests on the shoulder of the present day libraries in making India a knowledge resource through ICT applications in processing of information, organizing of information and serving of information to be user’s community of today. Libraries have got to be upgraded in terms of documentary resources and ICT infrastructure with built in provision of training and retraining of library and information professional to equip them fully to gain competencies in the use of different databases and appropriate search engines. Quality of library service is sure to change in e-enabled and ICT support environment.

It is a product of Divan enterprise and a new database of abstract and citations covering 1000 scholarly journals of India and hence fulfills the long felt need of India scholarly information for global access and availability. In India the spade works on ICI began in July 2009 and launched first soft in January 2010 covering 12 subject grouts.

INSDOC perceived the need of consortium of CSIR in 1993 in Bangalore and started functioning in 2001 with the object to provide CSIRS & T staff electronic access to world S & T literature. It entered into agreement on June 2002 with Elsevier and initiated E-journals consortium to access 4500 journals. Moreover, with the emergence and advancement in World Wide Web and IT infrastructure, publishers are able to offer their Journals online. DST joined CSIR consortium. Thereafter in late 2011 both developed consortium “National Knowledge Resources Consortium” enabling on line access to 32 knowledge consortiums serving the users’ i.e. N-List programmed of INFLIBNET Centre, 92137 Full Text Journals, 4814-books). INDEST-AICTE Consortium.

**Padmavati (2008)** Impact of I.T. on libraries and global access to knowledge and sharing information. The concept of storehouse has been changed in modern age libraries giving emphasis library material.
1.9 Libraries of NCR

Most of the libraries and information centers of India have started using information communication technologies in organizing their collections, housekeeping operations, processing retrieval, and dissemination of information to the end users. There are 60% libraries of NCR out of which all the 4 National Institute libraries of NCR are equipped with at least ICT gadgets having fully automated / computerized library housekeeping operations and library services for end users; campus wide network, well connected to the internet either by VSAT, lease line, radio frequency or by broadband dialup connection, and also having access to the digital or e-resources like e-journals, on-line database, CD_ROM databases and online bibliography services, provided by the library and information networks like INFLIBENT, DELNET etc.