CHAPTER - I

INTRODUCTION
INTRODUCTION

Libraries are mainly entrusted with a host of predetermined tasks acquiring organizing, preserving, retrieving and disseminating information to the users. Right from ancient times to the present internet era, the primary objective of library has always been its. However, the way this purpose has been achieved has drastically changed.

Information technology has influenced the very nature of business and management libraries. They are undergoing significant changes today not only in outlook but also in function, services, methods and techniques for collection development, processing and dissemination for information (Singh & Krishan 2004). The conventional set up of brick and mortar libraries that store information within a constrained physical space have given way to data centres that integrate data sources around the globe by way of networking. Libraries have not yet explored their full potential to the full (Miao, 2001) with the advancement in technology and its direct application to libraries, business and management libraries are becoming lean and agile libraries that streamline information supply. The pervasive nature of the internet, coupled with platform independent database connectivity is turning library portals more and more effective.¹

If we talk on the progress of last two decades, the country has been preparing for 21st century. The electronic revolution has brought out innovations in the field of information technology. Modernization has gifted mechanized preservation and dissemination of the information. The scientists and academicians are thinking of online services and networking of information system. Keeping in view the advancement in technology and many folds increase in information. Government has initiated number of steps. Now the documents are given due recognition and store items are no more considered in the list of government. The under for
dealing with the unwanted document has been issued by ministry of finance. Documents for formulation national policy for library and information science.

The use of library will create awareness in users about their rights. They will also know the other’s achievements. The competition will encourage them to think about themselves and about other too.²

As a result of increased activity, knowledge is expanding tremendously and the expansion can be treated as knowledge expansion. With slow increase we are closet to our heritage or past but with speedy change it is not within the reach of the present generation. As implications of the explosion present day student/ user has to read more. In this way self study has become more important.

Library is a live agency to promote education. Professor Yashpal, Ex. Charimanj. UGC a leading scientist in his forward of INFLIBNET report has stressed that “the role and growth of information and knowledge is faster than even before and still accelerating. There are enormous number of new development ts both in applications and pure thought.” He further added that the education and creative members of the society should have quick access to whatever is happening in their own country and the world over.

It is assumed that whole of the knowledge generated throughout the world is shared through the various type of publications such as book, and journals. If it is true a good substance of knowledge is not reaching to the scholars of universities and colleges as the universities are not in a position to purchase each and every published document, this handicap of purchasing the new arrivals is applicable to each and every institution .If we want to bear par with the international development, then a quick access to what is being done in the country and abroad must be established by removing all constrains of distance, language and other man made barriers.
It is not possible for teacher to know everything even that has to be known in the field of his specialization. In a class lecture only a broad out line of the subject is given. to get the comprehensive knowledge one has to depend on the books which are generally available in libraries. The real learning can be performed in the libraries. It, therefore, becomes essential for students to come closer to libraries to establish relation with the books. Library is the heart of the university education. It is a treasure house of knowledge.

The adequate library services within such institutions were developed for raising the standard of higher education in the country. After independence high priority has been accorded to develop appropriate collections and also attention has been paid to provide necessary equipment to cope with the application of the modern technology. In pre-independence era the universities and the college for years together in the country continued without adequate building, collection and organized services. In the beginning the collections were housed in some less used area in the custody of some caretaker clerical staff. A new light spread services. Then the libraries were realized as information services centers.

For common purpose co-coordinated development (networking) of library and information centers is an urgent need of the nation. It will bring quality in services. libraries will be able to work as centers for self directed learning, which in turn will be of full use of human resource. The library services should be expanded to reach every one in every condition. It should not be restricted in any case.

Modernization has accepted application of technology to scope with the faster growth. At present people of our country has general feeling that technology will minimize the job opportunities and this fear of pushing youth prevent them to accept the new light coming from the scientific and technical development of the world. Where the modernization will generate potential and creative thinking for understanding international socio cultural linkages.
Libraries all over the world have their own place of importance in the scheme of higher learning. There is no doubt that when libraries of universities and colleges are ignored or not given due recognition, the country as a whole suffers because the standard of study, teaching and research mainly depends upon the qualitative and quantitative services rendered by the university libraries. Many people like to give more importance to formal teaching than to information teaching; but in the case of higher education which involves these of libraries intensively, the libraries take precedence over the classroom. It is so because a teacher may at best be able to make an exposition of a subject through outlines, hints and guidance. If student is keen to go beyond this and seek more knowledge to supplement his classroom learning we have to necessarily depend on the library.4

The value of information has now been recognized by all and the present age is rightly called the “Information age” Everybody expects to get timely, reliable and precise information. Expectations from libraries and information centers for providing such information have now increased. The special libraries in India have accepted this challenge to the new information age and have geared themselves to provide documentation/information services to meet the objectives of their parent organization. However, university libraries are slow in coming out of their slumber. It should be in the fitness of things that university libraries also intensify their documentation/information services.

Most of us have grown up in non digital, non networked information environments. The information generation and flow is largely print oriented. With a small portion mainly surrogates of print publication, available in electronic form such as OPACs, CD-ROMs and online databases, Authors, publishers. Libraries and the users have co-existed in a relatively stable and slow paced information environment. But this scenario is rapidly giving way to the global network information environment, exemplified today by the internet. It is anticipated that within the next few years significant portion of scholarly information will be
produced and accessed over the internet, in digital form. A large number of scholarly publications like journals, reports, preprints are already accessible on the internet from the user’s desk-top computer. Authors and publishers today have easy means to publish on the internet and reach the end users directly, by passing the library. How can this challenge be met?

The term library usually invokes in our mind a storehouse of information in the form of print on paper publications like books, journals, reports, etc. and newer media such as films, filmstrips, video and audio cassette. Most of us view the library as a place where such information ‘containers’ are acquired and organized for the purpose of consultation, search, extraction and information dissemination. While the walls of the libraries have begun to be less solid with the use of technologies like OPACs, CD-ROM and online systems, libraries are still largely associated with buildings that house a variety of information ‘containers’. This image is being seriously challenged today by the rapidly emerging ‘network information environment digital information that is produced managed and accessed over computer networks. Developments taking place over the internet is an indication of these trends.

At attempt is made in this papers to indicate the changes being brought about by the internet in the generation and flow of scholarly information, and the implications of these to the library and information profession, But we first begin by summarizing the information world that we have been familiar with.5

THE FAMILIAR INFORMATION WORLD

Key aspect of the information environment most of us have grown up with and living in today is that it is mostly non-digital and non-networked. Figure 1 illustrates this environment.
Speaking within the area of scholarly information most of the information flow, from the point of its generation to its use, is in the form of print publications like journals, conferences, books, etc. A portion of these, particularly the abstracting and indexing journals, have been made available in electronic form, first in magnetic tape form and now in the form of CD-ROMs and diskettes. Many of these electronic databases are now accessible online through vendors like knight rider and STN international. In parallel, libraries around the world have also developed varieties of OPACS, Local bibliographic databases and computerized services like SDI, facilitating improved access to their collections.

Several key features characterize this information environment

A. Most of the primary publications are in print form only.
B. Libraries are considered essential for the purpose of acquiring, organizing (classification, cataloguing) and providing access to publications.
C. Users are generally expected to visit libraries and other such information stores for browsing. Consultation and borrowing of publications.
D. Focus of libraries is mainly on acquiring print publication for ‘just in case use, i.e. publications is acquired in the belief that they will be used by some users some day.
E. Purchase of print publications is assumed to give ownership to its purchaser for example journal purchased by the libraries.
F. Limited duplication of library materials through photocopying is considered’ fair use’
G. Focus is on developing mechanisms that facilitate easy identification of primary publications catalogues. A & journals, document lists SDI services, etc.
H. Electronic access is limited largely to bibliographic (surrogates) and other such textual information
I. Large delays in publishing and distribution of print publications.
J. Users generally do not have easy access to recently published primary material.

K. Authors (information producers) generally cannot publish on their own and do not have control over the publishing and distribution systems. In this information chain key players have been the print publisher, libraries, and database publishers.

![Diagram of the information world]

- **INFORMATION PRODUCERS**
- **PUBLISHING SYSTEM**
- **PRINT PUBLICATIONS** (JOURNALS, BOOKS, A & I JOURNALS, ETC)
- **ELECTRONIC VERSIONS** (CD-ROM, TAPE, DISK, NEWS WIRES, ETC)
- **ONLINE SYSTEMS** (DIALOG)
- **ACCESS & DISSEMINATION SYSTEM** (LIBRARIES, INF. CENTRES, ETC)
- **USERS**
  - **INFORMAL CHANNELS** (CORRESPONDENCE, TALKS, SEMINARS, ETC)
  - **END USER ACCESS**

Figure 1. The information world we are familiar with (non-networked environment).
(Including CD-ROM publishers) and online database hosts. They have been responsible for the publication and dissemination of significant portion of scholarly information, in comparison to the informal information exchange among information producers and users.)

SHARING OF INFORMATION RESOURCES:

This is the most important area where libraries are going to exploit the potential of internet effectively. No village, town, city, state or country can afford to survive in isolation in this era of globalization without detriment to its socio-economic interests. Libraries, like other segments, can not ignore approach. No library can afford to acquire every document which was, is and can be of interest to its patrons. Therefore, sharing of resources is a viable alternative to meet the requirements of the library patrons at economies rates. The resources of libraries can be shared in more than one way. OPACS are going to serve as useful tools for identifying the library owning a copy of the required book, journal or other reading material and e-mail technology would be used for getting copies of research papers or other material from hitherto has been only a paper concept in Indian setting, will become workable reality for exchange of information. There will be a lot of saving in time and money for getting a book on inter library loan. In other words except the delivery and return of the document, physically, rest all will take place by internet tools such as e-mail and FTP.

Consortium approach for subscription of e-journal bibliographical as well as full text- for libraries with similar clientele is another sector, where internet is going to play a vital role. Under this programmed a consortium of libraries with similar interests if formed. A group of journals. Full –text/ bibliographical databases, required by these libraries, is subscribed by the consortium. These databases are shared by the participating libraries through internet. Ministry of human resource development, Govt. of India has already established a consortium INDEST OF
IITS, IIMS, NITC and IISC for subscription and sharing of full text databases of journals in the disciplines of engineering, science and management UGC and CSIR have established UGC info net and ICAR net consortia respectively with similar objectives. ICAR is also working along the same lines. This approach will benefit the libraries in augmentation of their resources at economic rates. Only internet could make it possible.

INDIA

In India the need for resource sharing has been recognized and the librarians are trying to form a large community in an effort to tackle the ever increasing demands for better services quantitatively and qualitatively in an environment already overstrained by the non-availability of materials and services as well as adequate finances.

Forced, motivated or logic driven the librarians are coming out in large number from their splendid isolation, resulting in marked change in the information scenario. Consequently a large number of library resource sharing networked like the Metropolitan Area, networks such as CALIBER (CALCUTTA), DELNET (DELHI), BONET (BOMBAY), PUNENE (PUNE, MALIBENT (MADRAS), HYLIBNET (HYDERABAD), ADINET (AHMEDABAD), INFLIBNET (UNIVERSITY AND RESEARCH INSTITUTIONS AND DESINET (DEFENCE LABORATORIES AND TIFACLINE (technology parse) are rendering service. A host of agencies like the NISSAT / DSIR, Department of electronics, INSDOC/CSIR, DESIDOC/DRDO, DBT, NIC AND TIFAC/ DST ARE INVOLVED. Viewing from the participant’s side, it is common to find an institution participating in more than one network, for example, CDRI Lucknow has already access to NISSAT networks, SIRNET and BTISNET.
Speaking broadly, the objective of each network is:

1. Better utilization of funds through sharing of resources by creation of commonly usable data-based and communication between libraries.
2. Automating the function of individual libraries at a local level for effective and efficient services to the users.

The purpose of the following pages is to evaluate the working of INFLIBNET, CALIBNET AND DELNET.

INFLIBNET

The launching of INFLIBNET – information and library Network by the University grants Commission (India) in May 1991 was a great landmark in the history of library and information activities. The laudable aim of INFLIBNET is to establish a national computer communication network to link libraries and information centers, institutions of national importance, R & D institutions, etc. and thereby improve capability in information handling and services. It is a programmer of academic excellence to be achieved through establishment of a mechanism for information transfer and access to support scholarship and academic work. It sill help facilitate pooling sharing and optimization of scarce library resources. as a major programmer it will help modernize libraries and information centers in the country through application of information technology.

In the western countries full advantages has been taken of computers and communication technologies in operating a variety of networks towards resource sharing and optimization of library resources,. The OCLC (online computer library centre) in the United States is the fine example. The OCLC supports resource sharing among nearly 7,000 libraries of US and a few other countries, with a Union catalogue database of 13 millions bibliographical records and 223 millions locations. It has almost eliminated the original cataloguing work in individual libraries. It is sincerely believed that the INFLIBNET Project, when implemented
will lead the country to have a library network of similar character as that of OCLC.

CANADA

The network scene of libraries in Canada is somewhat different than we notice in UK and USA. CISTI (Canadian Institute for scientific and Technical information) which holds million books and conference proceeding, over 50,000 serials and millions of technical reports from around the world, offers a number of services including CAN / OLE (Canadian online enquiry service) and document delivery. About 2500 users use CAN / OLE every day. CISTI maintains a union catalogue of 50,000 serial titles with over 20,000 current titles. There is no union catalogues of books made by CISTI but DOBIS and UTLAS are two main union catalogues of books with locations details. Though DOBIS is mostly handed by the National library of Canada, UTLAS is a commercial library network.

USA

USA is the birth place of library networking and by now libraries in each state are networked to local, regional or national networks sometimes a library is participating in several networks simultaneously, the major Us library networks include AMIGOS (DALLAS); BCR (bibliographic centre for research), aurora CAPCON Washington; FEDLINK, Washington; ILLNET, Springfield, 21: INCOLSA (INDIAN LIBRARY Cooperative services authority), Indianapolis; MINITEX library information Network, Minneapolis MLC (Michigan Library consortium), Lansing; MLNC (Missouri commission) Lincoln, Ne: NELINET, Newton, Ma; OLIC, Rancho Cucamonga Ca; OHIONET, Columbus, Oh; PALINET. Philadelphia and PRLC Pittsburgh, pa.

US department of education has been promoting vigorous policy on library networking. it offers networking grants, supports inter-library loan projects;
automation and retro conversion projects resource sharing schemes etc. besides providing regular federal grants annually to the public and academic libraries. For instance, the department supports the public libraries for using INTERNET in a big way. According to the final report of the national Commission libraries and information science published in June 1994, 20.9% of the public libraries are already connected to INTERNET. It recommended more federal grants to let all public libraries join INTERNET.

DELIVERY OF INFORMATION

Delivery of information to their clientele local or distant has been the primary objective of all the libraries. Before the advent of internet, manual methods were the mainstay of this services. Now the libraries have found an effective handle in internet to achieve this objective. Delivery of full-text of articles by one library to another or by the library to distant users was an arduous and costly job until the use of internet in libraries. Time taken and cost incurred on the supply of information to the distant information users through such modes as fax, couriers, etc. has reduced drastically. Libraries and document delivery agencies in developed countries are using internet tools like FTP and email for instant delivery of information. Sophisticated software e.g. Ariel (developed by Infuriate inc) (http://www.infortrieve.com/ Ariel/) have been developed and implemented to handle such services. Access to bibliographical databases and conducting searches on them, access to OPACs and provision of personalized services such as SDI can be accomplished at minimal cost and time. Publishers and individual needs rather than library needs. This is one area where the Librarians are likely to be sidelined from the information delivery chain.
USER EDUCATION

User instruction, though an important aspect of library services is almost completely ignored in Indian libraries. Traditionally, this programmer was meant to upgrade the skill of the library patrons in the use of catalogues, classification systems, indexing and abstracting services citation indexes, reference works and a number of such other tools for information retrieval. It is essential for the enlightened information users to acquire skills in the use of modern information delivery and information retrieval tools such as OPACS, email web browsers, FTP etc. User education has, therefore, become all the more important nowadays. Beside giving hands-on training, the instructional material, library rules, library policies, library services available and other important information can be put on the library’s website as a part of user education programmer. This material can be accessed by the information users though internet, and used for updating their skills. Internet will, thus make user instruction a more valued component of library services.
1.1 INFORMATION GATHERING HABITS OF INTERNET USERS

We are living in the so called ‘Information society’ or ‘information age’ where information is one of the important factor of life. Kemp (1976) said the ‘indeed, information has been described as the fifth need of man ranking after air, water, food and shelter.

Everyone needs information about everything even in his day to day life also. People need information right from the organizational level to the personal level, from the highly educated and experience person to school children, from a very famous person to an ordinary person, for taking the right decision in every step of life. Modern society incessantly produces and uses information. Information diffuses through society in many ways. In this information age there is so much of information being generated that we are confronted with information explosion, information pollution and exponential growth of information. Due to this information explosion or information sources. With the impact of new technologies such as information technologies most people are interested in accessing the information through these sources because of faster accessibility.10

INFORMATION NEED

Information is need in every field of life. Everybody needs information in everyday life like in education, research etc. The information need is different from one person to another which means that it will not be the same though it might be similar.

Kumar (1990) defined that user are different in (1) Attitude and Believes, (2) Goals or Objectives, (3) capabilities (4) Uses, (5) Communication Attitudes (6) Experiences and Habits, (7) cultural Backgrounds, (8) The sources they used. Line (1974) defined that information need is what an individual ought to have for his work, his research, his edification, his creation etc. Hernon and chen (1982)
defined that information need occurs whenever people find themselves in situation that required some from of knowledge for resolution. Ford (1980) and Krikelas (1983) defined ‘Information need as an awareness or recognition of not knowing or existence as an input-process-output model. The basic components of the systems are (1) problem existing situation (2) problem-solving process and (3) solution.

Seeking means when a human beings search something which they want to get it means that the thing which they don’t have but they need it. Information seeking is the process of searching the information from the information resources. Information seeking differs from person to person, that is the ways and means they are using in seeking and the information they need are different.

**INFORMATION GATHERING**

One of the myths in some media industry circles is that the web is primarily about communication (e-mail and instant messaging) and that everything else is secondary or not important. The study found that information was a core part of web usage along with communication, shopping and entertainment. In fact, for many people in the study, it has become a habit to turn to the internet first when seeking information of practically any type. For the study participants, information included news that they gathered regularly as well as breaking news stories, since many believed that news websites would be updated more quickly than television or radio news. It also included everyday information needs such as weather, local movie times, or driving directions. A number of study participants said that they used the dictionary, maps, yellow page directories and telephone information services far less often because they could get the same content faster or cheaper on the internet.

Information searches were also part of the mix. Some of the searches were through search engines and some involved simply going to content sites that had certain
types of information. One woman said that she was getting married in a few months and she went regularly to a content site for brides to learn about finding a caterer, choosing flower arrangements, etc. Other mentioned content sites that they used regularly for health information, sports stories, the stock market, and many other topics.

RECOGNITION OF QUALITY CONTENT SITES

A few people in the study, mostly college students, said that they used blogs for political commentary, humor and links to other content. Having received a lot of attention in recent months, most blogs can be described as personal journals or diaries. However, the blogs that study participants used were like newsletters. Some had achieved their own brand identity and were viewed by study participants as quality content sites others were viewed as a form of vanity press. As in the offline world, there is a broad range of types of publications on the web. The long term role of blogs is still to be determined.

Information comes from a variety of sources and is applied to a range of purpose. People use information for many reasons. Here are some. You can probably think of more.

- To widen knowledge
- To develop skill
- To reduce uncertainty
- To deepen understanding
- To solve problems
- To gain inspiration
- To save time and effort
- To secure power / advantage and even
- To be entertained for students, information is a very important ingredient for;
- Essays, report, projects and dissertations.
- Practical exercises and laboratory work
- Seminars and discussion group.
- Revision and examinations.

There is no shortage of information television, radio, newspapers, journal, books, posters, the internet and even what we hear in meetings and lectures. Sometimes we don’t particularly want it all but it keeps on flowing!

Surrounded by so much information, what is the problem?

One Problem is finding the right kind and the right quality of information from the vast amount available.

Gauging the appropriate level and quality of your information can be a time consuming.

Information for a reason information Gathering.

Many people complain of having too much information; too many things to read, too much to absorb. It’s hard to stem the tide of information, because new events, ideas and discoveries are always Turing up. In these circumstances we have a risk of being overload with information and some techniques for sifting are needed. Information is available from a variety of sources through a variety of means. An effective search, and one likely to be of increased benefit, takes into account this diversity rather than simply going to the shelves in the library for the relevant text book or books. The many different sources available to you at university and beyond will include the following:

- Journals
- Text books
- These
• Newspapers
• CD-ROM
• Internet(On-line Information)
• Audio / Video taps.
• Microfilms and microfiche.
• Slides
• Your own notes and experiences
• Your academic staff and other department resources
• The work of friends and other students.

In addition there are also a large number of other sources including reports, surveys and policy statements from government, local government industry, commerce, professional bodies, charities, voluntary organization and so on.

An imaginative approach to gathering information is likely to reveal more interesting and beneficial results in terms of being able to present a reasoned and balanced insight in your studies.

EFFECTIVE INFORMATION GATHERING

Utilise your time more efficiently and effectively.

• Develop critical thinking through the use of sifting / sorting techniques.
• Broaden your outlook and inform you subject understanding through the exploration of more diverse sources. Information gathering can be used for a variety of different reason ; however, the main benefit with regards to your academic studies is that you will become aware of more diverse sources, opinions and approaches which can only enhance academic Work\textsuperscript{12}. 
INFORMATION GATHERING BEHAVIOUR

Information seeking behavior is the technique or the process of searching for the information. Information seeking behavior depends on the types of information need of the people. So information seeking behavior arises when the person is able to recognize what type of information gathering which means that after identifying what type of information they need they search for it and gather it from different sources following their techniques or processes of searching (i.e. a simple or complex search)$^{13}$

Information is an amorphous concept, less indeed it able to precise definite information described as the fifth need of man ranking after air, water, food of shelter (kemp, 1976,p.101) information. Collection, transfer and use are all pervasive and universal activities in all works of life. Knowledge is general and information in particular become more meaningful and explode in to power only when it transferred and communicated the other wards information is activated by communication. Information of communicate are equally important in the effacer effective of any enterprise they have definite with performance of R & D organization and industries as well the purpose of transfer and communication of information is ‘USE” seeking of communication informative are two side of same coin from the view point of individuals concerned. Both have same purpose. Use information which has no use is no information thus the central thread the whole range of activities reality to information transfer and communication ‘USE” A wide range of research work centred around use and user of information called used and user studies have bopped up last four decades. The new abundance of information and its father fragmentation to net the needs and interest of merged social, ethnic, religious, intellection, political communical and erase, interests and unlikely to facilitate intercrop facedown of sharing. Mass broadcasting locked
diviner by generally aimed at the lowest common denominated a shared experience.  

An attempt is made in this theses to indicate the changes being brought about by the internet in the generation and flow of scholarly information, and the implications of these to the library and information profession. But we first begin by summarizing the information world that we have been familiar with.

An attempt is made in this theses to indicate the developments that are taking place today for the information professional to exploit the internet, to serve the users better.

Providing latest information to their clients has been one of the most important goals of library and information science (LIS) professionals. They have responded very quickly to the new information technologies as soon as they became available, be it computer, online searching, CD-ROM technology or communication networks. Urgency of providing latest information to the researchers have been the main reason behind this response. An equally important reason has been the enormous volume of print media which made it practically impossible to locate the desired information manually and the costs involved in it. The attraction of electronic information processing has brought LIS professionals and computer experts very close to each other. Through online searching and CD-ROMs, librarians have very fast access to information but this access is limited in scope. The international communication networks provide virtually unlimited access to librarians. Internet is such a concept which places information on a librarian’s disposal.

Access to electronic information of all kinds has been a major boon to academic libraries. We and our patrons now have access to more accurate and precise information than ever before. The impressive pace of technological change
influences all aspects of human communication. It is crucial that libraries prepare a range of response to the pressing library questions in the electronic era. There are also other factors that shape the vision the academic library today and in the near future.

The internet has many user-friendly tools, which help the user to interact with the internet and get the information they need. Some of these are Gopher, Archie and World Wide Web (WWW). The internet is a rich resource of information and provides the information to its users faster than any other resources. Therefore it became the most popular resource of information.

INFORMATION: A DEFINITION

Information is a necessary and vital input in any decision-making process in an organization. However, it is not available in ready form; rather it has to be generated from data which acts as a raw material that needs some processing.

![Fig. 1.2.1 Information Generation](image)

Thus, information in its unprocessed form is called data, which is generated as a by-product of transactions taking place in the organization. Information, on the other hand, is processed data and has an element of surprise. Information reduces uncertainty and triggers action. Davis and Olson have defined information as data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in current or perceived value in current or prospective actions or decisions.
TYPES OF INFORMATION

Broadly speaking, information could be classified on the basis of the purpose for which it is utilized, into three main categories namely:

i. Strategic information,
ii. Tactical information, and
iii. Operational information.

STRATEGIC INFORMATION

Strategic information is required by the managers at the strategic level of management for the formulation of organizational strategies. This relates to long-term planning policies of the organization as a whole. For example, information pertaining to new technologies, new products, competitors, etc.

TACTICAL INFORMATION

Information in this category is used in short-term planning and is of use at management control level. For example, for sales analyses and forecasts, production resource requirements, annual financial statements, etc. This type of information is generally based on data arising from current activities of the organization. However, some of the tactical information, such as competitor information, may arise from sources external to the organization.

OPERATIONAL INFORMATION

Operational information applies to short periods which may vary from an hour to a few days. It is generally used by decision-makers at the operational level. It is often required for taking immediate action. Examples of operational information may include current stocks-in-hand, work-in-progress levels, outstanding order from customers, etc. The source of such information is usually current activity data.
INFORMATION QUALITY

Quality of information refers to its fitness for use, or its reliability. Some of the attributes of information, which influence the quality of information are discussed as follows.

TIMELINESS

Timeliness means that information must reach the recipients within the prescribed timeframe. For effective decision-making, information must reach the decision-maker at the right time, i.e. recipients must get information when they need it. Delays, of whatever nature, destroy the value of information. Timely information can ensure correct executive action at an early stage. B. K. Chaterji (1974) has gone one step further and said that information delayed is information delayed. Similarly, many short-term business opportunities may be lost. For example, a discount on bulk purchases offered by a supplier may be lost because of late reports. The characteristic of timeliness, to be effective, should also include up-to-date, i.e. current information. In other words, timely information does not mean in time information only rather it means timely as well as up-to-date information.

INFORMATION MARKETING

Over the last once decade, Indian libraries have been encountering server financial crunch. The scientists and the educationist, more often than not, have been pleading their case, with out any tangible success, from various for a for adequate financial support as necessary evil for the good quality education and research. All the old soothing phrases: ‘libraries are egalitarian’, ‘libraries are social institutions’, ‘libraries are free’, libraries are for public good’, libraries should be funded by the state’, and so on are considered as outdated models in this age of globalization and free market, when no commodity or service can be fetched without a price. In order to lessen their miseries, they have, slowly and insidiously,
begun charging for certain aspects of their social, free and egalitarian services will be the first to fall in the category of ‘paid services’. Libraries can establish linkage with the ‘corporate information users; for providing information services against charge. Internet facilities in the libraries can be used for information services to such ‘paying-patrons’. Thus Internet offers some opportunities to libraries for information marketing.17

FREEDOM OF INFORMATION

In 1945 the chapultepec Act adopted by the inter American an conference on problems of war and peace proclaimed for the first time “ the freedom of international information flows, in 1946 the unrecalled in its resolution 59 that freedom of information is a fundamental human right and is the touch stone of all freedom to which united nation is consecrated on 10th Dec 1948 freedom of information was enshrined in the universal declaration of human right whose article 19 is most categorical expression there of.

“Everyone has the right to freedom of opinion and expressions the right includes freedom to seek services and impact information and ideas through any media and regardless of Frontiers”18

INFORMATION SCIENCE

Face to face contact with clientele is a passive function, whereby a community information service is located in particular building or room and the clientele call the person to seek the information for themselves or from the staff by enquiry at an information desk. It has the advantages that most up to date information is available, provided the services has carried out is information gathering efficiently the client can the questioned to reveal what information is required.19

“Directories are the most useful publications that a communicate information services produce”
Newspapers local radio and latterly by cable television can the important vehicles far getting information to the public in addition to the usual fare of sensate stories.\(^\text{20}\)

For many users it appears both that information overload with regard to the internet isn’t the problem we anticipated and also that any inconvenience that may be caused by the amount of information available was a small price to pay for all the benefits.

Nevertheless, how to avoid the problem was particularly interesting in that it highlighted major differences between information professionals and end-users. Some of the ways that internet users avoid information overload are discussed below.

Adopting a self-imposed time limit; this was common practice – the favourite figure being between 10 and 15 minutes per search. As mentioned earlier, the extent of hyperlink ‘hopping’ was less than might have been expected, and keeping to a time limit was, therefore, not a problem. Also our studies were undertaken with a professional group for whom time was a very precious commodity. End users who are unfamiliar with different search engines, advanced searches, directories and subdirectories happily use. Only the default search engine, take minimal care over their query terms and are unfazed by obtaining 20,000 hits, Their usual practice is to scan the first 10 hits and if no positive result is obtained to switch off and turn to a different source, advanced searches also adopted time limits, but their search behaviour tended to be far different.

Advanced search techniques; Librarians are discerning in their choice of search engines. Cyber search was mentioned in terms of authoritative information, as is outlined later. Though narrow searches in an attempt to avoid overload, many advanced(librarian) users choose search engines which facilitate truncation, phrase searching and Boolean logic, All of these facilities are provided by Alta
Vista, yahoo, and many other search engines. Indeed, using these advanced search techniques was the almost universally cited method librarians gave of overcoming information overload. Many said, in one content or another, that it was part of their job to confront and solve problems. It is the library’s role to filter, sort establish relevancy quality, appropriateness.

With the internet being famous for its user friendliness, and web browsers being intuitive as possible, it is perhaps not surprising to discover that many journalists were unaware of the various advanced search techniques available. Lacking training, time and, possibly, motivation to experiment, they blissfully use the default option, type in a few terms and examine the resulting hit list.

Choosing specific known sites; as has been outlined in this report, this is a favoured tactic for most internet users, and helps solve not only the problem of overload, but that of quality and authority also. The use of the ‘book mark’ facility was cited in this context by nearly everyone as a major benefit even where, as in the case of national newspapers, this was a communal file, as few individuals had their own terminal. Where individuals had their own networked PCs, the use of bookmarks was even more extensive.

At Sunday Business, for example one journalist had all the electronic national daily papers in one folder, specialist financial publications in another, and other directories of business or economic information in a third – Just as in a hard copy filing cabinet. The value of the book mark as a means of preventing overload is probably the most appreciated of all the web’s retrieval devices. When one national newspaper editor was told of its potential structure and contents he described the facility as’ wonderful’

SDI, baskets, filtering, for the new media journalist the internet was rather than an agent of overload, its solution. Techniques such as selective dissemination of
information (SDI), including intelligent agents that find the information you want
can rank it for you, were much appreciated by this group. According to Richard
withey (1997) this information sorting process may paradoxically, become, so
accurate that efforts were already underway in 1997 to build in an element of
serendipity for the users – journalists for instance- who cannot define their
interests that closely.  

1.1.1 INTERNET

By the turn of the century, information, including access to the Internet, will be the
basis for personal, economic, and political advancement. The popular name for the
Internet is the information superhighway. Whether you want to find the latest
financial news, browse thought library catalogs, exchange information with
colleagues, or join in a lively political debate, the internet is the tool that will take
you beyond telephones, faxes and isolated computers to a burgeoning networked
information frontier. The internet supplements the traditional tools you use to
gather information, Data Graphics, News and correspond with other people. Used
skillfully, the internet shrinks the world and brings information, expertise, and
knowledge on nearly every subject imaginable straight to your computer.

INTERNET: A NETWORK OF NETWORK

The internet is one of the most important and complex innovations of mankind. It
is a powerful means of communication, dissemination and retrieval of information.
It is a network of network connecting thousand of smaller computer networks
together so that other networks may share information present in one network. It is
one of the powerful / effective tools or technologies ever produced for getting
information on fingertips from any part of the world even sitting at ones own
location.
The internet has made tremendous impact on the academic activates with the faculty, researches and students, with the advent of internet, a significant transition can be seen in their approach and way they seek information and the methods they employ for research and learning activities. This has become possible as internet provides a wealth of new course materials and act as a powerful supplement to the traditional ways of studying and learning. Internet is now facilitating, electronic communication and exchange of ideas and collaboration in research globally. Internet can be accessed for the latest development in one’s areas of research at an amazing speed. The internet, therefore, creates an excellent platform on which the academic community can perform their activities in a rejuvenated manner.

Internet, the ‘network of network,’ consists of a large number of interconnected computer all over the world and offers access to unimaginably large amount of information data and interpreted materials in a timely, cost effective and comfortable manner. Being a very powerful and dynamic tool for communication, it is the largest single source of information at the global level.

The services available on internet have been increasing day by day, which has become channel for communication where text, sound and graphics are easily available. The internet offers a wealth of information to the users. It is a source of up–to-date information and assistance related to education teaching and research in science and technology, social science and humanities, in medical science biotechnology, management and computer science. Many organizations set up an ‘INTRANET’. This is the network used in the internet to communicate and share information across the organization. In universities INTERNET can be useful for instant information among the faculty members, research scholars, students and administrations with the campus.

The first publicly accessible internet services in India were established on 15\textsuperscript{th} August 1995. When Videsh Sanchar Nigam limited (VSNL) launched its Gateway
Internet Access Services (GIAS). Initially the GIAS was available only in Delhi, Mumbai, Kolkata, Chennai, Bangalore, and Pune. Now the internet has been expanded. The next couple of years should witness an exponential growth, both in the number of internet users and in the quality of the services.\(^{25}\)

In the era of networked information, internet the largest worldwide network of network, has emerged as the most powerful tool for an instant access to information. Information is now just a ‘finger touch’ distance away from the user and it would not be inappropriate to say that the internet has become the biggest global digital information library which provides the fastest access to the right kind of information in nana-seconds of time to end-user at any time and at any place in the world. The internet has become the most extensively used information sources that empowers the average person to get in roaming with the latest information Today’s user can no longer depend on conventional information sources to cope with the latest development in their respective fields.

The internet has emerged as a powerful educational tool, with the increasing impact of information and communication technologies on higher education, all those concerned with higher education are attempting to grasp how ICT could help in modernizing the process of teaching, learning and research. with the advent of the internet, following dilemma arises in higher educational system.

- Learner is not dependent on teacher for interaction; and
- Teachers can give lectures virtually to unknown learners.

So, in this era, teachers and students can carry forward their work on the internet in ways that are similar to and tightly intertwined with the traditional ways that they learn, teach and study in libraries, class room, laboratories, seminars,
conferences, etc. the internet can provide access to essentially unlimited resources of information not conventionally obtainable through other means.\textsuperscript{26}

In the ocean of information available on the internet, it is the search engines that enable the users to filter and access the relevant information. Search engines/search services are the new trend in the internet business.

The World Wide Website (WWW) or the internet is different from anything’s that we have known in the human history. Within this virtual world of the internet one can only see and hear things but cannot feel them physically. This limitation of the web forces us to find new ways to interact with the web.

For instance, in the physical world, if we want to buy a book, normally we look around for a book store, go to the store, and buy the book. Here, several elements like, street name, Lane number, door number, landmarks, a sign board the web. Further, the entry of commercial players made the search engines market more competitive resulting in more sophistication of the search engine services.

New search services like” Excite” and “ WebCrawler” have introduced concept-based searching and full text indexing respectively. Excite used statistical analysis for word relationship and word association to improve the relevancy of search results. While WebCrawler has introduced a new practice of indexing full text of the web pages that it lists rather than the URL. This improved the accuracy of results and the relevancy ranking of such results.

The followings years- 1995, 1996, 1997 have seen the entry of bug guns in search engine market both in terms of their size and advanced features.” Alta vista” has incorporated advanced features like natural language queries, Boolean and other advanced search techniques, supporting multimedia search for photos, music, and videos and providing tips for good searching. Similarly another search engine named “Income “ (now a part of yahoo search engine) has introduced a directory
search engine powered by ‘concept induction’ technology. This has raised the bar for competition in the search engine business.\textsuperscript{27}

There is an oft-quoted saying on technology, ’what is new at dawn is obsolete by dusk,’ information technology has radically changed the perspective of the whole information system, particularly with the emergence of computer applications, telecommunication networks, fax, CD-ROM, email, optical scanning, hypertext and hyper-media, video text and tale-text, multimedia technology, online databases. Electronic publishing, voice mail services, teleconferencing, radio paging, mobile phone system, etc. The internet is one of the most important and complex innovations of mankind. It is the most modern worldwide system of information transfer. It is referred to as inter-network system and is described as a network of networks. This conjures up an image of something mysterious that magically connects people information and computer from the point of generation to the point of use by anyone and anywhere in the world.\textsuperscript{28}

Internet is a network of computer spread across the world. It is an outgrowth of Advanced Research Project Agency network (ARPANET,) launched in 1969 by the United states Department of Defence as a component of Defence, Advanced Research agency, to meet the needs of researches working in the defence industry of USA. The ARPANET grew slowly, from a handful of computers in 1971 to more than half a million in 1990, when it ceased to exist; but internet continued to grow to 65,000 networks, 32 million computer and 100 million users spread over 140 countries in 1998. Internet population of the world is projected to swell over 400 million users by the end of 2010. It has now spilled out of the academic world to the general public for information access as well as fast and inexpensive means of communication. Letter writing might become a things of the past in the near future.
Frustration of academic and research institutions with overload commercial internet backbone led to the emergence of internet2. It was launched by a consortium University corporation for Advanced Internet of 34 US academic and research intuition in oct. 1996. At present, over 227 connected to internet. It has corporate patrons like IBM, Microsoft, Cisco systems, Intel and Qwest communications International, who use it as a test for future applications.

Internet2 is a mesh of hundreds of high speed networked linked by low-delay, high fibre optic backbone, called Abilene, spread over USA and linked to other counties. Like internet, it is a networked of networks. High speed - it transmits data at speed up to 2.4 Gbps which is 45000 times faster than a 56 Kbps modem is what differentiates it from internet. Multi-tasking is another key internet 2 feature which allows a single data stream to travel across the internet and then send it to multiple destinations while the present internet submits separate data streams.

CONNECTIVITY TO INTERNET

For using applications and resources of internet one must have connectivity. There can be four levels of connectivity to internet which are describe below reference librarians find that one they have identified quality internet resources, they are often more valuable than their print and commercial counterparts.

TECHNICAL SERVICES

The internet greatly enhances both circulation and inter-library loan primarily, through increased access to online catalogues which allow a patron greater convenience in completing an online search; additionally the patron can check holding records at the office or at home. Thus providing internet access to the library catalogue place it on the patron’s desktop and can actually increase the use of the library collection. If a patron comes to the desk with a potential inter-library loan request one may find a nearby library that can help without going, through
the hoops of other bibliographic utility. Cataloguers can also benefit from using online catalogues in the same way the OCLC and RLIN were used.\textsuperscript{30}

**HISTORY & DEVELOPMENT OF THE INTERNET**

In its infancy, the internet was originally conceived by the Department of Defence as a way to protect government communication systems in the event of a military strike. The original network, dubbed ARPANET (for the Advanced research Projects Agency that developed it) evolved into a communications channel among contractors, military personnel, and university researchers who were contributing to ARPA projects.

The network employed a set of stranded protocols to create an effective way for these people to communicate and share data with each other. ARPANET popularity continued to spread among researchers, and in the 1980’s the national Science foundation, whose NSFNET, linked several high-speed computers, took charge of the what had come to be known as the Internet. By the late 1980’s, thousands of cooperating networks were participating in the Internet. In 1991, the U.S. High Performance Computing Act established the NREN (National Research & Education Network). NREN’s goal was to develop and maintain high-speed networks for research and education and to investigate commercial users for the Internet. The rest, as they say, is history in the making. The Internet has been improved through the developments of such services as gopher and the World Wide Web. Even though the internet is predominantly thought of as a research-oriented network, it continues to grow as an informational, creative, and commercial resource every day and all over the world.

**WHO PAYS FOR THE INTERNET?**

There is no clear answer to this question because the internet isn’t one “thing”, its many things. No one central agency exists that charges individual Internet users.
Rather, individuals and institutions that use the Internet pay a local or regional internet services provider for their share of services. And in turn, those smaller Internet services providers might purchase services from an even larger network. So basically, everyone who uses the internet in some way pays for part of it.  

The internet is one of the most exciting technological developments humankind has experienced since the advent of the printing press. Throughout history, people have looked for ways to advance the way they produce goods and services to make them more efficiently and effectively over time. Many new technologies have contributed to that advance. The personal computer is one, and the internet is the most recent providing more efficient and enjoyable ways to receive information, advertise, compare shop, make purchase, experience a community regardless of physical location, and do many other yet-to-be-conceived activities in the future.

Developments on the internet are fast-paced. To be a better professional in any field you need to know how to harness these developments in your own endeavor, both in study and in work. Many young internet entrepreneurs started their own web sites and developed internet applications while still in college, you, too, may want to take this route. With a good idea and the help of some of your fellow students, you may apply a brilliant idea on the net that could make you a millionaire. However, in light of the many failures the web has seen, your idea would have to be really good.

WHERE DID IT COME FROM?

The internet was originally developed from work which was done for the US Department of Defence who during the cold war years were concerned that in the event of a nuclear attack, their communications system could be knocked out by a very small number of missiles hitting key communications centres. Thus they set about developing a distributed system, which could withstand the destruction of
any number of its component nodes and still remain functional, the benefits of this approach were readily apparent and its use academic and research institutions into academia.

TECHNACALITIES HOW DOES IT WORK?

In simple terms, the internet works by breaking down all information which needs to be transmitted into packets which contain not only the data to be transmitted but also information about where it has to go, where it came from, and what other packets of data it relates to. Because these packets are in a standard form, and a standard method of addressing is used for them, they can be passed from any “Internet aware” point on the network to the next until reach their destination.33

THE DEVELOPMENTOF THE INTERNET

Today, the internet is a network, with millions of servers. Tens millions of people take for granted that with a simple phone connection via their modems or permanent cable link, they can access a huge number of files from internet servers, do research, participate in electronic discussion, shop, make purchases and make payments. Just a few years ago, the picture was completely different.

In 1969, the US Department of defence’s Advanced research Project agency(ARPA) wanted to established a communication network that would operate in case of a nuclear strike as an alternative to telephone, radio and television, all of which might quickly become non-functional in a nuclear attack. One of the most important features ARPA sought was that the network have no central point for controlling communications. A system was developed in which messages could travel from one point to another through any number of routes. Thus, if one line was destroyed there would be other lines through which to route messages to a node. The result was internet’s pre deceso, ARPANET a network that was launched with a mere four computer. And with distributed control, the
system had no one centralized vulnerable point through which anyone could either control or disable the entire systems.

In today’s terms ARPANET was a modest network, participants placed files on their computer so that other could find and access them, the government soon found that ARPANET provided an effective way for researchers to communicate easily with each other. So ARPANET was an open system designed for the free flow of information, but available only to members of academic institutions and some of the defence community.³⁴

GROWTH OF THE INTERNET

Physically the internet is a network of communications media to which millions of computers are connected. This major line of communication is called the backbone. It is a network of copper lines, optical fibres, and radio satellites. The backbone is actually owned, augmented and maintained by telecommunications companies and internet services provides such as venison, WorldCom, sprint and AOL. The computers that are linked directly to the backbone and carry the files accessed over the internet are called internet servers. A typical internet user connects to the backbone through a local area network at work or by dialling up and connecting directly to a server via a modem and phone line. A growing number of house holds are also linked through fast lines such as DSL. And cable, when industry watchers speak of so many hundred millions of internet users, they refer to people who have dial-up or faster access to an internet server. In internet terminology these people are often referred to as internet surfers. We will call them users or surfers interchangeably.

When speaking of internet growth, some people refer to the addition of servers to the network (that is, the linking of additional computer directly to the backbone) and other refer to the increase in the number of user of the network (that is, the
number of people with access to the internet). Indeed, the growth on both counts is impressive; in 1991 there were just several hundred servers on the internet. By mid 2001 more than 115 million internet servers were counted by the internet software consortium, a non-profit research organization. Undoubtedly, these numbers will continue to grow. The great majority of these servers are owned by commercial enterprise. In fact some of the fastest growing business in the world are internet service providers (ISPS), the companies that set up links to the internet connect servers to the internet and provide access for organizations and individuals who do not have their own servers on the backbone.

As ironed earlier, which some internet administrative operations were initially overseen by U.S. government agencies, the internet is not owned or controlled by anybody. Nobody decides who may connect another servers to the backbone, who may log on, or how internet resources should be used between and within organization. Several non-profit organizations, such as the internet corporation for assigned names and numbers (ICANN), www consortium W3C and internet engineering task force IETF are devoted to initiating technical standards and new domain names, but none controls the network’s use. ICANN supervises registration of new domain names for server as explained later. This freedom from authority and rules may be one reason for the tremendous growth of what is often referred to as the net.  

INTERNET SCENARIO IN INDIA

In India also the use of internet has been increasing since 1994 to present date. The National Association of software and services company (NASSCOM) conducted a survey in June-July 2000 in 68 cities that constitutes the 92 percent of the total internet users in India. According to NASSCOM’S survey, 36 percent of the world’s population access internet today. In India, the internet markets grew steadily in terms of subscribers, with the number of active subscribers projected to
touch 1.5 million figures in March 2002. This represents an increase of 30 percents over 1.1 million figure in March 2001. In fact nearly 85 percent pc owning households already have net connections. The same is true of business establishments with internet penetration reaching nearly 40 percent. There is still pending demand of internet connections. It is expected that with the improvement in bandwidth, it is likely to grow 2.3 million December 2003, 6 million 2005, 18 million in 2007, 3 million users will be increased by 2010. It has been found that 40 million are internet subscribers in that 20 million broadband.

INTERNET SERVICES

The services available on internet has been increasing day to day, which become channel for communication where text, sound and graphics are easily available, library and information professionals cannot afford to miss the opportunity for acquiring the knowledge of handling internet for their library users. Library users are now demanding the e-mail / internet services which forces the professionals to learn more about the internet services and tools so that better services can be provided to their clientele. Internet is a storehouse of information, which is not organized properly for easy retrieval. Any person for getting instant and new information, recreation, recreation, educational purpose, research and development, business, health care etc can use it. This is possible thought the followings major tools and services available on internet for communication and searching of database or desired information – electronic mail, Telnet file transfer protocol (FTP) bulletin Boards systems (BBS) and World Wide Web (WWW).

India has been a late starter in the use of internet technology education and research network(ERNET), jointly sponsored by UNDP and Department of Electronics, Govt. of India in 1998, become the first country wide Internet services provider (ISP) to the academic and research institutes and Govt. offices. In the early stages, internet connectivity was restricted to e-mail services, but Videsh
Sanchar Nigam limited started offering commercial services in August 1995. The monopoly of VSNL was done away with the announcement of ISP Policy of the Govt. of India in November 1998. This policy opened avenues for both private as well as public sector agencies for entry in this area. Presently, around 200 ISP and dealers in Internet services having national, regional and local coverage are operating across the country. The national ISP scenario is dominated by Bharat Sanchar Nigam limited, Mahanagar Telephone Nigam limited, Videsh Sanchar Nigam limited, National Informatics Centre, ERNRT India, sify Ltd, Data Infuses ltd, and Tata Internet services Ltd. The internet is spreading its wings to individuals in urban areas institutions, govt. offices and commercial establishments.

Ever since the internet sector has been deregulated by the Govt. of India, the number of internet subscribers and users is growing very fast. A report of survey conducted by TRAI, reproduced in the Table below, cast reflection on the penetration of internet in India.

<table>
<thead>
<tr>
<th>Date</th>
<th>Connections (millions)</th>
<th>User (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 31, 2002</td>
<td>3.42</td>
<td>6.84</td>
</tr>
<tr>
<td>March 31, 2003</td>
<td>3.64</td>
<td>7.28</td>
</tr>
<tr>
<td>Dec. 31, 2003</td>
<td>4.14</td>
<td>8.28</td>
</tr>
<tr>
<td>March 31, 2004</td>
<td>4.55</td>
<td>9.10</td>
</tr>
<tr>
<td>March 31, 2005</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>March 31, 2007</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>March 31, 2010</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: TRAI survey for the period from March 31, 2002 to March 31, 2010
INTERNET SERVICES PROVIDERS

Despite large number of ISPS, 10% of the ISPS have 90% of the subscribers. The state-owned BSNL and NTNL have grown rapidly to hold first and second place in terms of subscribers. The growing popularity of cybercafés has been playing a big role in fuelling internet development in India. However some major ISPS are discussed here.

Videsh sanchar Nigam Limited (VSNL) : VSNL was incorporated on April 1, 1986 under the India companies act, 1956 as Govt, owned corporation to succeed overseas Communications service. In February 2002, Govt. of India under its disinvestment policy, released a part of VSNL’s equity to Tata group, Consequently, administrative control of VSNL passed into the hands of this group. It is under the management of this group that VSNL is now charting in future course. The company operates a network of earth stations, switches, submarine cable systems and value added services nodes to provide a range of basic and value-added services. VSNL’s main gateway centres are located at Mumbai, NewDelhi, kolkata and Chennai. The international telecommunication circuits are derived via intelsat and inmarsat satellites and wide-band submarine cable systems. VSNL lunched India first full internet Services for public access on August 14, 1995. Until a few years back, this was the only the OISP in the country to offer Gateway internet access services. Internet services oven have seen tremendous growth over the last one decade. It had a subscriber-ase of over 8, 65,140 as on march31, 2004 including dish net DSLs subscriber base of 2, 64,631 which VSNLI took over during 2003-04.

Bharat Sanchar Nigam limited BSNL : Department of telecom operations became a corporation and was christened as Bharat Sanchar Nigam limited on October 1, 2000. Today, BSNL is the number one telecommunications company with largest
ISP base. According to a report of the Telecom Regulatory authority of India, BSNL had largest Internet subscribers base 11, 28,172 in the country as on March 31, 2004. General Managers. Telecom District at each District Headquarter of the country is the appropriate authority for internet connection.

ERNET India: ERNET was launched by the Department of Electronics, Govt. of India and UNDP in 1986. Eight premier institutions NCST, five IITS, IISC and DOE – were the first to get internet connectivity through Ernest. It is supposed to be the first network to have started providing access to internet to the educational network using both TCP/IP and ISO-IP protocols, but since 1995, almost all traffic is carried over by TCP/IP. This Network, having started with a few institutions, has at present over 80000 users from 780 organizations representing a cross section of universities, research institutes, Govt. offices, public sector Undertaking and private establishments. The satellite WAN using VSAT technology, has facilitated reliable the quick access from remote areas. International connectivity is achieved through gateways at New Delhi, Bombay, Bangalore and Kolkata. Recently ERNET has been registered as an autonomous scientific society under the department of information technology, Govt. of India with a new name 'ERNET INDIA' to provide internet services to India is participating with UGC for implementation of UGC Info net and has also entered into an agreement with ICAR for providing internet connectivity to ICAR Institutes and agricultural universities.

NICNET went into operation in 1988 as an official organ of National Informatics Centre, New Delhi. It was established to create information centres at district levels, and link them up through a satellite based computer communication network.

MTNL was founded in 1986 to serve the telecom needs of Delhi, and Mumbai. After the announcement of ISP policy, and started offering internet service to the
general public, and started offering internet connectivity in these metropolitan cities in July 1999. It is presently offering a wide spectrum of internet related services: ADSL (asynchronous Digital subscriber line), broadband internet services to its telephone users, internet services via leased lines, internet telephone users, internet services via leased lines, Internet telephony services, email over telephony MTNL mail service, website and web server hosting services, pre-paid and post paid internet access services through PSTN and ISDN dial up modes, bill payment services and bill alert services.

Satyam info way, rechristened as sify limited in Dec 2002, an internet arm of Satyam computer services limited sify because India’s first private ISP to announce internet services in 12 major cities of the country in December 1998. Presently, its internet backbone has reached 73 points of presence in India. Sify’s internet access business, as on March 31, 2004, was approximately 6,58,1,92 retail subscribers.

However a complete list of internet services providers may be seen at the website of TRAI at URL: http://www.ttrai.gov.in/indireport2.htm.37

THE INTERNET’S GREATEST INFORMATION RESOURCES

Librarians have always relied on expert individuals for assistance; this approach is in no way unique to internet environment. But the ability to connect so many individuals quickly and cheaply and to rapidly receive so much free advice in return is certainly a special quality unique to the internet. Academic librarians themselves can also benefit from participating in electronic discussion groups in a number of ways.
ACADEMIC LIBRARIES AS INTERNET PUBLISHERS

The technologies and tools used for making information available on the internet are relatively inexpensive and easy to implement. Also with extensive knowledge of the nature of information, of patron needs, and of specific subject domains, academic librarians possess a unique blend of skills that can go a long way in improving the internet’s publishing process.\(^{38}\)

INTERNET RESOURCE

Resource available through internet may be divide into two major classes. i.e. User assistance resource which assists the user in using internet and documentary resource which provide the primary source material for research. The national science foundation NSF network services centre NNSC published Internet resource guide which through information on all the resource available through internet. Some of the resource useful to library professional is described in the followings sections. Resource available on the Internet is E-journals.\(^{39}\)

WHAT IS E-MAIL?

Regardless of the level of connectivity you are sure to have access to some form of ‘e-mail’(electronic mail)- as opposed to ‘snail mail’ (TRADITIONAL POST OFFICE VARIETY). E-MAIL IS THE MOST BASIC FUNCTION OF NETWORKS. It allows people on networks to communicate with each other and through interconnected ‘gateways’ to talk to people on other networks as well.

E-mail or electronic mail, also one of the most populate and heavily used function of computer networks. The ability to compose, send and receive messages within minutes and without regard to time zones or office hours is invaluable. With e-mail you can effectively avoid the routine delays associated with snail and the frustrations experienced by getting caught up in game of “telephone tag”.

It is important to remember however that while communications over the net usually take only seconds to reach their destination, in some cases, they can take minutes, hours or even as long as a day or two. E-mail allows people on the internet to exchange messages with each other’s-mail is still the most commonly used function of the internet and it is used primarily to access listservs and bulletin boards, the electronic discussion lists through which people with similar interests can share information and ideas or engage in lively debate.

FUNCTIONS OF E-MAIL

1. Access and read incoming mail messages.

2. Print incoming mail messages.

E-MAIL APPLICATIONS IN LIBRARIES

E-mail is used in many different ways in libraries and information centres. Librarians tend to be avid participants in library listservs (e mail discussion group) in order to communicate with other librarians around the world. They may post difficult reference questions, suggest resource debts policy and so on.

E-mail is a fine tool for answering reference questions from the patrons of the library. This form of reference allows librarians to answer questions when they can fully devote time and energy to finding the appropriate information resources, and allows patrons to submit queries even when the library is closed.

Internet is a global interconnection of network of networks. The concepts of inter networking of networks exists, in earlier days also. According to the internet society, it consists of today over 30,000 networks in 96 countries. World Wide Web made the internet usage more popular among the users. Internet has made it possible to reach any people or access any information on the cyberspace.
INTERNET FOR LIBRARIES

The role of library in the context of internet is highly revolutionized. On one hand the internet reduced the task of library in retrieving the library paradigm the information. On the other hand, the library paradigm has shifted from locally storing information to facilitate the connectivity to the distributed information centre world wide.

The users of libraries who were geographically limited earlier have now expanded world wide. The valuable information present in our library can be fed to our home page and be made available to users everywhere. Thus the users of the library have become unlimited.

So, library has an onerous responsibility of collate, distribute and be depository of local information talent resource to the world wide community and connect retrieve and disseminate the information available all over the world to the local users depending on their need and priority.

APPLICATIONS OF INTERNET TO LIBRARY FUNCTIONS AND SERVICES

Perhaps no other recent innovation has impacted the library profession to such a great extent as internet. It has created profound impact on library and information science by offering new models of information delivery and a vast information source. Not only is our world of librarianship becoming an interconnected global community, but the early use of internet has changed fundamental roles, paradigms and organizational culture of libraries and librarians as well.

1. Acquisition: E mail is one of the most effective service offered by internet.
   
   - We can send a suggestion form to the users of library by email and get prompt response of their requirement.
Through email, correspondence with Booksellers and publisher become very easy and speedy.

Reminders can also sent by email to the users and booksellers etc.

Bibliographical details can be downloaded from the internet.

Online catalogue searching saves our time and repetition of the work.

Online Booksellers are also available on the internet E.G.amazon.com


2. Classification:

There are many classification systems available on the internet

- E.g. BUBL-user DDC
- Cyber Dewy

3. Cataloguing:

There are many cataloguing systems on the internet.

- E.g. Internet.
- CORC
- NETFIRST
- OPAC

4. Circulation

- Interlibrary loan
- Reminders can be sent to users by email or they can be informed online
- User requests
- Direct Borrowing

5. Preservation and storage
JSTOR Project

6. Serial collection
   ▪ Acquisition process
   ▪ E-journals
   ▪ Link to the free E-journals

7. Resource sharing
   ▪ Union catalogues can be accessed, added, downloaded
   ▪ Access to databases over networks e.g. ohoonet, WLN, OCLC, BD.
   ▪ Full text journals access

8. Reference services;
   ▪ Linking to useful sites
   ▪ Subject guides
   ▪ How to search
   ▪ Answering short range and long range questions

9. Services
   ▪ ILL
   ▪ Document delivery services
   ▪ Reference/ Inf. services.
   ▪ CAS
   ▪ Recent additions
   ▪ Content pages
   ▪ SDI
   ▪ From library collection
   ▪ Databases
   ▪ Internet sources
OPAC
- Database access
- Bibliographical
- Free full text of certain journals
- Free databases e.g. Medline
- Silver platter

The growing use of WiFi hotspots is accelerating this form of access and has achieved a level of general recognition. Even zagat now publisher a guide to wifi hotspots. While still at an early stage of development wireless access to the web from mobile device such as PDAs and advanced cell phones is expanding the number and types of locations where people can get on the internet. Collectively they contribute to a pervasive environment of web access; homes, offices, dorms, hotels and public locations.

There are social network

ONLINE FRIENDS NETWORKS:

Orkut: India’s most popular social network, this google owned service was set up by former google engineer orkut buy in his spare time. Once a hit with users, it is far behind in the global popularity stakes. Orkut has faced some issues because of its previously open nature. Which included accusations of fostering ‘hate’ and underage sex. After legal problems in 2007. Orkut substantially cleaned up the network, but by then, the damage was done by high end users had begun switching over to Face book.

1. New, clean layout with enhanced user privacy.

2. But its past reputation will haunt it.
Face book: It’s difficult in imaging that there is someone out there who hasn’t heard of Face book. The world’s largest social network, with over 200 million users, begun when a small group of Harvard students, led by Mark Zuckerberg, decided to keep in touch with each other. It soon opened out to other US campuses and eventually in 2006, to everyone, According to internet metrics services Comscore. Face book is the second most visited social networking site in India as of December 2008, after orkut.

1. Users can enable high privacy levels to keep themselves secure.

2. Recently, users have faced phishing attacks and identity theft.

My space: Most popular with musicians and actors, who use the site to host music and movie clips, this site was picked up by Rupert Murdoch’s Newscorp, a few years ago and its immense popularity made Google give it a lucrative advertising deal. However, the site has failed to keep up with face book’s popularity globally and recently laid off 30 per cent off its work face.

1. Several bands have been discovered on the networks.

2. Its India specific service has yet to catch on.

Video sharing: You tube has started a video revolution – it’s as simple as that. The service—which allows anyone to upload video clips on to the net from your baby’s first steps to a music video that you recently shot commands a big chunk of internet traffic today. According to estimates, every minute of the day, over 10 minutes of content is being uploaded on to the services. All smartphones manufactures are bundling You tube applications into their devices. However, google executives acknowledge that they are far from monetising the services.

- Copyright owners like music companies are also posting their own content.
- Still far too much illegally posted copyrighted content abounds.
Other video sharing services **Hulu**: is a video services promoted by us TV network NBC and has high-quality online broadcasts of their shows. However, users from India cannot access Hulu. Other sites include Vimeo and Daily motion. Several India video sharing sites failed because of the massive bandwidth costs involved.

**ONLINE PROFESSIONAL NETWORKS:**

Linkedin: this site is possibly unique among social networks in the sense that it claims to be profitable through advertising and “premium” membership. According to statistics, there are 41 million user on linkedin. of which two million are from India (the second largest user base after the US) virtually every large company and executive featured in this story has a linkedin account and there are example galore of how India inc, is using linkedin to find talent and do more.

- Extremely popular among India inc. and growing by the day.
- Lay out is slightly clunky compared to other services.

Blogging: Most blogging sites are also “social media” by definition – they allow anyone and everyone to create a blog. Also, if the blogger allows it, anyone with net access can post a comment on the blog. Which can be moderated, Blogging is the oldest form of “read-write” online social media, but has now reached a stable phase. The most popular free blogging services online where anyone can set up a blog are.

- Blogger / blogspot
- Wordpress

Microblogging: Twitter is a blazingly fast growing services; Nielsen online estimated Twitter’s growth at a staggering 1,382 percent a month with an estimated 100 million user Caveat. A Harvard study estimated that 10 percent of these users, by and large, created 90 per cent of the contact. Twitter essentially
allows users to send out their thoughts in 140 characters or less. Only a third of 
twitter users are active, though, and India has an active” Twitterati” of an 
estimated 10,000 people. Several Indian companies are now embracing the 
services.

- Immensely popular and highly useful during breaking news event such as 
  26/11.
- A lot of “tweets “are pointless fluff and marketing on twitter is a double 
edged sword.

Other types of social networks. :

social bookmaking ; this is a way for internet users to share with each other sites 
that they visit making their book marks visible to the whole world popular services 
include Digg reedit and delicious.

Photo Sharing : sites like Flickr ( owned by yahoo) Picas (owned by Google ) and 
snappish (owned by HP) are popular sites that host pictures, which can be 
commented on and viewed by almost anyone, it can form networked with other 
people who share similar photography related interest.

Music sharing: The most popular here is last.fm where people can listen to music 
of their choice as well as join group of people with the same musical taste Last.fm. 
Indian social media sites; Big Add promoted by Anil Ambani, it had a high 
pitched lunch. The site has several “star” members, including Amitabh Bachchan 
and Ram Gopal Varma.

Yarri : this site also made a lost of noise at the time of its launch in 2007, but 
seems to have lost out to international competitions.
INTERNET USERS

“AS USER ENGAGEMENT GROWS WITH IT, INTERNET WILL GROW FASTER THAN OTHER MEDIA”

Much is known about internet use in general but little in detail. Book reviews abound but few books are produced.

The students were the chosen ground for much of our research because they are information seekers, users and disseminators on a grand scale. If there were any lessons to be learned from the introduction of the internet to an information environment, they would all be found here, where information is life blood. Although there were, indeed, lessons to be learned, they were perhaps not the ones expected. They were, however, lessons that can be applied to any professional environment and are therefore illuminating in a general sense.

We assumed the greatest clamor to use the internet would come from young, male IT-literate graduates expecting to use the system as of right. This proved not to be the case. Conversely, we thought many established information seekers would eschew the web with equal force, grounded as they were in traditional fact-finding methods, again, we were wrong. We also thought take up would be substantial despite any resistance from traditionalists.

In his study of the use of information technology by senior executives, Keaner (1999) found that although senior executives were computer literate, computers were not widely used in their offices for accessing important information. Less than 1 per cent of information came directly from computer (clearly, that from the internet must be an even lower figure 0, despite the fact that many had networked PCs on their desks. Keaner found that oral information was the much preferred medium of communication and information gathering with 81 percent of transactions being of this type, with business associates, external centers, and so
on. 80 percent information received was unsolicited; ‘information providers must have decided that various items of information were of value to the executive.

In the education sector, too, internet take-up slow, Fewer than one in five teachers were sufficiently familiar with computer to make full use of them in schools in 1998, according to a survey publicized in the Independent (1998). The unreferenced study took place among staff in technology colleges, which as the paper points out, include some of the best equipped schools in the country. It showed that the biggest task by far, with regard to the government’s pledge that by 2002 every school will be connected to the internet, will be to train teacher to make the most of information and communications technology.

This lack of take-up does not appear to extend to information professionals; 94 percent of those interviewed in our studies used the internet, this was supported by a questionnaire returned by 43 media librarians, which provided some quantitative data about media librarians, internet use and provision. 93 percent of the librarians canvassed said they had internet access at their newspaper and 74 percent used the facility of the internet users one–third used it all the time 28 percent used it heavily some of the time and the rest 39 percent used it occasionally. 45

Non believers: this group comprises those who are not interested in the internet. They have a variety of practical reason for this, and would be unlikely to adopt the system even if they had desktop access. Apart from problems of time constraints and job status, the biggest factor for this group is that of authenticating data.

Miller (1978) adopts the second approach; He measured how people compensate for information overload by using various tactics such as filtering and abstracting.

Before our studies on internet use, we felt that they concept and manifesting of the phenomenon would depend on so many variables amount of information required
time factors and so on that we decided not to define or explain it. We let our subject themselves, those at the cutting edge, set the parameters.

Internet is most useful in present day life. Users are rapidly using for searching many types of information frequently.\textsuperscript{47}

**FACTORS INFLUENCING USE**

A large number of factors have been attributed to whether the internet is used or not ease of access, age and gender among the most notable. These factors and other less common ones, such as training, online experience, and seniority were looked at, in an attempt to understand use and non use of the internet.

Access: lack of internet access appeared to be the major explanation for the low and uneven internet take-up among students, it not elsewhere. This is the most fundamental factor of all, although one that seems to have been neglected by commentators who are too quick to assume computer literacy (linked with age) and skill in a windows environment the most important factor in the equation, As the government has recognized in its drive to encourage youth take up, of the Internet use of an information system (as with anything) is a direct function of access.

Having home access plainly increases the opportunities to search the internet. Interestingly, those who made extensive use of the internet at work and had home facilities also tended to use the internet a lot at home. Indeed, in some cases their home facilities outstripped those they had at home. In other words, heavy internet users were so equally at home and at work. We found no cases where frustration at lack of work access prompted people into heavy use. Indeed, home access was generally obtained through experience at work that proved the benefit of using the net. Data from surveys of internet use also relent internet take up by older age groups.
Seniority: we found that the internet attracted much more attention and enthusiasm from senior managers and editors than from their junior colleagues. Age and seniority tend to go hand in hand. The middle aged having emerged successfully from the scramble to get established in their early careers. Can now both experiment at work (certainly it was mainly those in authority who had desktop access) and have the resources and with to use home PCs with internet access. In many cases seniority gives people the luxury of more flexible work practices, more autonomy and more job security. These were found to be the ideal conditions to install internets in the internet amongst those in the 50 to 62 age band.

Contrast this situation with young newly qualified professionals, who don’t have the autonomy or time to experiment with the internet. Interviews in the tabloid press revealed a high degree of job uncertainty and anxiety, with junior staff employed on short term contracts with extremely heavy workloads. Marr (1997) even report cases of reporters being paid by each column inch of their material published. Many are so busy that they don’t have time to communicate with their newspaper’s library staff. Let alone attend internet training sessions. Looking through the glass panel separating the library from the features of one national newspaper, the information mangers ruefully remarked that the young men and women frantically working just a few yards from him probably didn’t even know where the library was (no longer marked by rows of cutting files), let alone have an idea of what information facilities were available.

Experience of online searching: this is another indicating that internet use is more likely to come from older or more senior workers. Although the internet in its present form – is relatively new, electronic information systems have been around for over 20 years. Of course, until recently online searching was the prerogative of the information intermediary; nevertheless in some professions and in some circumstances end users have been exposed to such systems for time. A good idea
of electronic searching may, for example, have been built up simply from a series of information needs or reference interviews, where the end-user is encouraged to frame a request in a manner appropriate to the searching systems if not necessarily to formulate an exact Boolean request.\(^{48}\)

Bob Jeffrey’s editor of the herald, sees the internet, in the form of web publishing, as a way to cut raw material and distribution costs. He is also mindful of the decline in newspapers readership and is casting an eye at the future of the market when a new generation of children, educated on screen, become news consumers, also his evaluation of the internet as a great research tool has not been formulated simply on the basis of the quantity and quality of the information available in its vast databanks and open access files, but also on the basis of the costs that would be incurred by obtaining this information from other sources.\(^{49}\)

CATEGORISING INTERNET USERS

Given the sheer number and variety of people searching the web, consideration has also to be given to categorizing them into meaningful groups. Non internet studies have largely neglected this subject because of the homogeneity and relatively small size of the user group being studied typically library users or academics.

From the data that I have accumulated there are notable patterns of internet user groups and it is possible to discern six general categories of user or non user from the started user and attitudes of those studied. In descending order of use they are; Net worshippers; the economically driven; pragmatists; occasional dippers; enthusiastic novices and non believers.

Net worshippers: These are the young computer generation IT whizzed kids who have embraced every aspect of the internet and are culturally committed to it.
appropriately they often work in new media and include both those who have become enchanted with information technology through their contact with it as has encroached upon their normal duties, and those who have chosen their profession on the basis of their interest.

Net worshippers generally comprise the stereotypical young graduate male, although there are also many older (some in their 50s) fanatics, they see the internet as a means for introducing a form of democracy to the news business – current management structures are far too top down for their liking.

Techniques such as selective dissemination of information are popular, particularly as a cure for information overload. Here Net worshippers speak the same language as information professionals and share the same (information) concerns. Indeed, this group of users seems to embody the blurring of the role of end user and intermediary that the internet has been said to occasion.

The economically driven: these people are attracted to the internet for the wealth of free information it provides for what they regard as little time expenditure. Although minority of the overall sample, they are the predominant group working in small media organizations, with low budgets and a small turnover. Desktop internet access is the norm in these offices, with Sunday Business and Microscope magazine being example. Internet skills are high, and the economically driven are adept at using the system to access information that would otherwise be expensive to obtain. For example, journalists at Sunday business managed to find a tremendous amount of financial information from the internet. There was little evidence of searching for the obscure or offbeat information the internet is know to provide.

Many of the economically driven are at the top of the profession. Many interviewees in this category cited examples of where locating information on the
One newspaper editor gave the example of one of his colleagues researching a particular judge and the cases he presided over, and how an enormous amount of information was retrieved from the World Wide Web (WWW) that would have cost much more time, trouble and money from anywhere else.\textsuperscript{50}

Pragmatists; this group incorporate the internet naturally and easily into array of general information sources. They do not regard it as heralding a fundamental shift in society or, less spectacularly, as an excellent way to reduce company bills, but they do appreciate the internet’s convenience power and extended information reach. The great majority of information professionals and librarians fall into this category, where their working environment is well served with internet connections. End-users who have desktop or otherwise easy access to the internet also tend to fall into this category.

Pragmatists look at each enquiry and make a professional decision as to whether it should be researched from online services, cutting hardcopy books, CD-ROM, the internet or a combination of these sources. Sometimes the internet is the chosen medium simply because a relevant site might have been bookmarked on other occasions the net is employed because information required is considered to be off the beaten track as far as online services go. A majority of librarians cited ephemeral, wired or unofficial information as that best sought from the internet. Although journalists tend to stick to trusted official sites. Both interviews and observation indicated that the internet was used when researching general concepts or ideas of a broad nature and online services to answer specific questions.

Pragmatists are not necessarily heavy or very frequent Internet users. In fact the extent of internet use refers to be the function of the availability of alternative sources. Most internet users are accomplished users of all the available sources and system. Amongst pragmatists, heavy internet users are simply heavy information
users. Indeed there is evidence that already some practitioners are so used to working with the internet alongside other sources that they house ahead stopped seeing it as anything special.

Uralian information manager Helena Martin (2000) suggests that more and more end users are falling into the category of pragmatic user. This isn’t surprising given the sudden dramatic increase in internet access in places such as the Guardian and News international.

The librarians usually manage to find a relevant item ‘straight away’ from the web. This maybe due less to the more expect searching skills of librarians than to attitude or the part of the end user. We could be witnessing here the emergence of the embarrassed non user.

Occasional dippers; this group uses the internet only when other sources do not solve their information problem. Generally this category ‘s low use of the internet is not through any dislike of it – in many cases they would use it more if they had either better access, training or time.

It has been found in the latest research that take up is increasing where access has been afforded to end users. Therefore, the occasional dipper, while probably never disappearing, may become less common, Training and time constraints continues to be barriers the latter probably contributing to the new phenomenon of the ‘embarrassed non user’ mentioned above.

Occasional dippers are similar to the enthusiastic novices, describe below, in their outlook. In another way, however, they are very different- they have tested the waters, and now; if only in a general sense, what the internet can do for them. They do not have access at home, and offer a variety of reasons for this (slow CompuServe accounts, systems incompatible with work environment, expense and
so on). Indeed, there was little evidence of journalists frustrated by their lack of workplace access spending time at home undertaking internet enquiries.

Enthusiastic novices; these are people who don’t know exactly what the internet offers, but are intrigued by what they have heard, and express interest in using it. They generally blame time constraints and lack of training opportunities for not mastering the system. 51

The primary survey for the study was conducted in early 2006 amongst 16,500 household coverage 65,000 in major metros and small towns in India. With additional coverage of 10,000 business and 250 cyber café owners not include rural areas. According to the finding youth are the main drivers of internet usage in India. College students and those are the biggest segment on the internet Both these segments have the highest proportion of conversion of Even users to “active users of internet.”

Beside the youth, the internet hungry small towns are further fuelling the growth. As per the survey, smaller are increasingly embracing the internet evolution and are pushing growth from below.

Smaller cities and towns have shown a whopping 142% you growth and one account for 25%.

INTERNET USERS

Information Gathering Now a habit for many:

This latest PEW internet project survey confirms that information gathering has become a habit for many Americans, particularly those in the 55% of households with broadband connections. Home broadband has now joined educational attainment, household income and age as the strongest predictors of internet activity. For example, 78% of home broadband users look online for health
information, compared with 70% of home dial-up users. Home broadband users are twice as likely as home dial-up users to do health research on a typical day—12% vs. 6%. High-speed, always on connections enable frequent and in-depth information searches, this is particularly attractive if something is at stake. And the searches aren’t confined to medical issues. In politics, for example more people are paying attention to this presidential campaign than they did to any other recent election. Seven in 10 registered voters say they have given ‘quite a lot of thought’ to the coming presidential election, and many are going to spread news and information about their candidate of choice or the race in general.53

INTERNET USAGE STATISTICS THE INTERNET BIG PICTURE

WORLD INTERNET USERS AND POPULATION STATS

<table>
<thead>
<tr>
<th>World Regions</th>
<th>Population (2008 Est)</th>
<th>Internet Users dec.31,2000</th>
<th>Internet Users Latest data</th>
<th>Penetration (% population)</th>
<th>Users Growth 2000-2008</th>
<th>Users % of Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>975,330,899</td>
<td>4,514,400</td>
<td>54,171,500</td>
<td>5.6%</td>
<td>1,100.0%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Asia</td>
<td>3,780,819,792</td>
<td>114,304,000</td>
<td>657,170,816</td>
<td>17.4%</td>
<td>474.9%</td>
<td>41.2%</td>
</tr>
<tr>
<td>Europe</td>
<td>803,903,540</td>
<td>105,096,093</td>
<td>393,373,398</td>
<td>48.9%</td>
<td>274.3%</td>
<td>24.6%</td>
</tr>
<tr>
<td>MiddleEast</td>
<td>196,767,614</td>
<td>3,284,800</td>
<td>45,861,346</td>
<td>23.3%</td>
<td>1296.2%</td>
<td>2.9%</td>
</tr>
<tr>
<td>North America</td>
<td>337,572,949</td>
<td>108,096,800</td>
<td>251,290,489</td>
<td>74.4%</td>
<td>132.5%</td>
<td>15.7%</td>
</tr>
<tr>
<td>LatinAmerica/Caribbean</td>
<td>581,249,892</td>
<td>18,068,919</td>
<td>173,619,140</td>
<td>29.9%</td>
<td>860.9%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Oceania/Australia</td>
<td>34,384,384</td>
<td>7,620,480</td>
<td>20,783,419</td>
<td>60.4%</td>
<td>172.7%</td>
<td>1.3%</td>
</tr>
<tr>
<td>World Total</td>
<td>6,710,029,070</td>
<td>360,985,492</td>
<td>1,596,270,108</td>
<td>23.8%</td>
<td>342.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
INTERNET USERS IN THE WORLD BY GEOGRAPHIC REGIONS

Estimated internet users are 1,596,270,108 for March 31, 2009.

WORLD INTERNET PENETRATION RATES BY GEOGRAPHIC REGIONS
Penetration rates are based on a world population of 6,710,029,070 and 1,596,270,108 estimated internet users for March, 2009.\textsuperscript{55}

India had, as on September 2008 45.3 million active internet users. This is according to the I–cued (internet in India) study released recently and conducted
annually by Internet and Mobile Association of India (IAMAI). Active Internet users are those who have used the internet at least once in the last month.\textsuperscript{57}

Some statistics about internet users in India

**Percent of internet users are from smaller towns.**

Mumbai: According to the internet in India 2007 published jointly by the internet and mobile association of India and IMRB International, 41% of the internet users in India are from the so-called smaller towns and cities according to a study jointly conducted by the two organizations.

Cities and towns with a population of 2 lakhs to 10 lakhs have shown the fastest rate of growth in internet adoption since 2000.

In stark contrast the share of top eight metros and mini metros (by population) has fallen from a peak of 77% to a modest 38% in 2007, according to the report.

Commenting on the finding of the report, -- Mohan Krishna Senior Vice President IMRB Internet and country manager BIRD Group, IMRB said “the distribution of internet users among the four classes of cities covered by the I-curd has been
steadily becoming more equitable, a sure sign that internet is being gradually but steadily expanding to the smaller towns and cities.

Welcoming the trend Dr Subba Ray president, Internet and mobile association of India “The town class distribution of internet use in 2007 certainly reflects the aspiration of sections non- metro population to live locally but connect globally.”

Better availability of bandwidth, lower cost of computer, increasing computer literacy and awareness of the usefulness of internet as a tool for communication and commerce are some of the factors that is taking the internet to smaller towns and cities of India.

The cities covered by the survey include Mumbai, Delhi, Chennai, Kolkata, Bangalore, Hyderabad, Ahmedabad, Pune, Luck now, Ludhiana, Coimbatore, Guwahati, Surat, Nagpur, Bhopal, Durg, Trichy, Bellary, Panipat and Jalgon covering 65,000 households.

Town class definitions:

Top 8 Metros: The top 8 cities in India in terms of population

Small Metro: Other towns which is not a part of top 8 metros but have more than 1 Million populations.

Non Metros: Towns with a population between 0.5 million towns.

Small towns: Urban centers with a population of less than 0.5 million.58

Number of internet users in Asia is 5,29,701,704, Though Asia has only 16% of populations of the world, 37.6% of total internet users are Asian which is great. Of them around 60 million are from India. India is 3rd in Asia (1st is china (220 million) and 2nd is Japan (87.5 million) as per as internet users are concerned.
India has 13% of internet users in Asia and 7.36% that of the world. But the sorrowful fact is only 5.3% of people in India use internet. The reason of this is, most of the people in India don’t know computer. 70% of people who know computer have used internet which is a healthy sign.

Now, we will see mainly which age group and which type of people use internet in India. 19-40 years age group is major section (85%) using internet in India.
.85% of Internet users in India are male which is not a very good sign. Among working women, only 11% use internet. The ratio is almost half (6%) in case of non-working women and even worst in case on housewives (2%). The scenario is much better in case of young men (33%), also 15% older men, 14% school going kids and 21% college students use Internet in India. 46% of net users are graduate 26% are post graduate. Among these, 2/3rd of user use internet 2-3 times a week 62% uses internet from offices as in most of the offices, it is free.

Next, let us see from which cities most users come. Mumbai has the maximum number of internet users (3.24 million) in India. Followed by Delhi (2.66 million). The top ten cities where people use internets are Mumbai, Delhi, Bangalore, Kolkata, Chennai, Pune, Hyderabad, Ahmedabad, Surat and Nagpur. The total numbers of internet users of those 10 cities are 37% of the total numbers of internet users in India.

Now take a look which types of cities majority of users browse. Most of the users use net for emailing (95%) which is obvious. Next is job searching (73%) showing crisis of getting job in India followed by chatting sites (62%), social networking sites (51%) and quite interestingly mathematical sites (48%)

The top internet sites browsed by users in India are the following.

1. Yahoo
2. Google India
3. Google
4. Orkut
5. Youtube
6. Rediff
7. Blogger.com
8. Windows live
9. Rapid share
10. Wikipedia

So, briefly this is the situation of internet users in India. Though internet ownership has seen growth of 32% compared to last year which is a delighting fact, there are some concerning factors too. Those are

1. Only 5.3% people use internet in India which is very low
2. Most of the users are male (85%). The female percentage should increase.
3. Maximum number of users is from top 10 cities (37%). So, the internet usage in urban areas is very less.

Most of the users are male (85%) : That’s the reason why we don’t have much female participation in this forum.\textsuperscript{60}

The financial capital of India, it seems, is hooked to the internet Mumbai – with 3.24 million ever users and 2.6 million active users’ leads the pack of top eight internet using cities. Delhi is second with 2.66 million and 1.80 million of ever and active users respectively according to the internet in India study.\textsuperscript{61}

Following are few statistics from India Info line 2008 a report about internet released by Juxt consult an online research firm.Few statistics have also been taken from the IAMAI & IMRB 2007 report on internet users in India.

Number of internet users in India:

- It claims that there are 49 million internet users in India.
- Out of 49 million, 40 million internet users are in urban cities.
- Of these, 35 million are regular internet users who log on at least once a month.
- Around 25 million internet users are online daily.

Demographics 7 choice of language of Indian internet users.

- 77 percent of the internet users are in the age group of 19-35 years
- 51 percent are salaried employees in corporate houses and 30 percent live in metros.
- Surprisingly, only 28 percent of the respondents said they prefer to read in English when online.

India’s internet user base is mainly composed of youth segment with majority user being “young men”

Most Popular internet activities of Indian internet user:

According to report most popular activities online are

1. Emailing (91%)
2. Job search (72%)
3. Instant messaging (70%)

Other popular activities are checking news and sports, downloading music and movies and checking cricket scores.62

India; Internet usage stats and telecommunications market report

India appears to have embraced the internet with a degree of ambivalence. There is tremendous enthusiasm amongst the dial-up users and an estimated 60% of users regularly access the internet via the country’s more than 10,000 cybercafé. But when it comes to high-speed broadband access, there is reluctance, especially within the corporate sector, and the take up rate has been slow. By early 2005 there were about 700,000 broadband subscribers a
penetration of less 0.1 \%. This report looks at the stage the development of broadband internet has reached in India. Some information is also provided on data services available in the country.

Internet usage and population statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Users</th>
<th>Populations</th>
<th>% percentage</th>
<th>Usage source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1,400,000</td>
<td>1,094,870,677</td>
<td>0.1 %</td>
<td>ITU</td>
</tr>
<tr>
<td>1999</td>
<td>2,800,000</td>
<td>1,094,870,677</td>
<td>0.3 %</td>
<td>ITU</td>
</tr>
<tr>
<td>2000</td>
<td>5,500,000</td>
<td>1,094,870,677</td>
<td>0.5 %</td>
<td>ITU</td>
</tr>
<tr>
<td>2001</td>
<td>7,000,000</td>
<td>1,094,870,677</td>
<td>0.7 %</td>
<td>ITU</td>
</tr>
<tr>
<td>2002</td>
<td>16,500,000</td>
<td>1,094,870,677</td>
<td>1.6 %</td>
<td>ITU</td>
</tr>
<tr>
<td>2003</td>
<td>22,500,000</td>
<td>1,094,870,677</td>
<td>2.1 %</td>
<td>ITU</td>
</tr>
<tr>
<td>2004</td>
<td>39,200,000</td>
<td>1,094,870,677</td>
<td>3.6 %</td>
<td>C.I.ALMANAC</td>
</tr>
<tr>
<td>2005</td>
<td>50,600,000</td>
<td>1,112,225,812</td>
<td>4.5 %</td>
<td>C.I.ALMANAC</td>
</tr>
<tr>
<td>2006</td>
<td>40,000,000</td>
<td>1,112,225,812</td>
<td>3.6 %</td>
<td>IAMAI</td>
</tr>
<tr>
<td>2007</td>
<td>42,000,000</td>
<td>1,129,667,528</td>
<td>3.7 %</td>
<td>IWS</td>
</tr>
</tbody>
</table>

**INDIA BROADBAND AND DATA SERVICE REPORT**

February 17, 2006 – internet adoption continues to grow in India. According to the Internet & mobile association of India (IAMAI) the low cost of broadband has helped increase internet usage. E-commerce and high demand for in domain registrations are also factors for the increase in online users. The “in” domain registrations surpassed 150,000.
Broadband policy and other initiatives by the IT and Telecom ministry encourage increased adoption. A monthly broadband subscription costs as little as 199 rupees (US $ 4.50). A second factor is the IT Telecom Ministry initiative to make computer available for purchase under 10,000 rupees (US$226). In addition to working with hardware manufactures to remove the financial barrier for household in India, the organization continues to push development of language fonts to remove language and localization of content issues.

INDIA INTERNET USAGE SURGES

According to IAMAI, as trade association representing the online content and advertising, e-commerce and mobile content and advertising industry, Indians go online for a number of activities including e-mail and IM (98 %); job search (51 %); Banking (32 %); bill payment (18%); stock Trading ( 15 %); and matrimonial search (15 %) 63

A wide ranging look at the way American women and men use the internet shows that men continue to pursue many internet activities more intensively than women, and that men are still first out of the blocks in trying the latest technologies.

At the same time, there are trend showing that women are catching up in overall use and are framing their online experience with a grater emphasis on deepening connections with people.

Some highlights from a new report show how men’s and women’s use of the internet has changed over time.

- The percentage of women using the internet still lags slightly behind the percentage of men, women under 30 and black women outpace their male peers. However, older women trail dramatically behind older men.
Men are slightly more intense internet users than women. Men log on more often, spend more time online and are more likely to be broadband users.

In most categories of internet activity, more men than women are participants, but women are catching up.

More than men, women are enthusiastic online communications, and they use email in a more robust way. Women are more likely than men to use email to write to friends and family about a variety of topics; sharing news and worries, planning events, forwarding jokes and funny stories. Women are more likely to feel satisfied with the role email plays in their lives, especially when it comes to nurturing their relationships. Women to communicate with various kinds of organizations.

More online men than women perform online transactions, men and women are equally likely to use the internet to buy products and take part in online banking, but men are more likely to use the internet to pay bills, participate in auctions, trade stocks and bonds, and pay for digital content.

Men are more avid consumers than women of online information. Men look for information on a wider variety of topics and issues than women do.

Men are more likely than women to use the internet as a destination for recreation. Men are more likely to gather material for their hobbies, read online for pleasure, take online classes, participate in sports fantasy leagues, download music and videos, and remix files to radio.

Men are more interested in technology and they are also more tech savvy.

Still, our data show that men and women are more similar than different in their online lives, starting with their common appreciation of the internet’s strongest suit; efficiency. Both men and women approach with gusto online transactions that simplify their lives by saving time on such mundane tasks as buying tickets or paying bills.
Men and women also value the internet for a second strength as a gateway to limitless vaults of information. Men reach further and wider for topics, from getting financial information to political news. Along the way, they work search engines more aggressively, using engines more often and with more confidence than.

Women are more likely to see the vast array of online information as a “glut” and to penetrate deeper into areas where they have the greatest interest, including health and religion. Women tend to treat information gathering online as a more textured and interactive process one that includes gathering and exchanging information through support groups and personal email exchanges.

It was unveiled that the internet services are normally used for research. Also it is observed that the Google and yahoo search engines are more widely used compared to other search engines.

Information searching habits of internet users is multi faced and the literature available is extremely broad ranging. An attempt has been made to cover number of works that go beyond discussions of the information seeking behaviour itself and its direct applications to closely related topics such as internet resources, engines, the internet resources, evolution of information quality, electronic media, and web information retrieval.64

The Growing use of internet in India provides a developing prospect for online shopping. If marketers know the factors affecting online idea behaviour, and the relationships between these factors and the type of online buyers, then they can further develop their marketing strategies to convert potential customers into active ones, while retaining existent online customers.
ONLINE SHOPPING IN INDIA

Internet usage in India continues to grow at a slow but steady pace, both in “spread” and ‘depth’, if there are no visible of any sweeping on far reaching growth on the horizon.

Yet there are no indications of any slowdown either. The overall internet using population in urban India has grown by a healthy 28% between April 2006 and April 2007 to reach 30.32 million.

Growth in internet users in urban India

2006- 2007 growth

<table>
<thead>
<tr>
<th>Category</th>
<th>2006 (mn)</th>
<th>2007 (mn)</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total internet using urban individuals</td>
<td>30.32 mn</td>
<td>23.60 mn</td>
<td>28%</td>
</tr>
<tr>
<td>Regular internet users (at least once a month)</td>
<td>25.17 mn</td>
<td>21.95 mn</td>
<td>15%</td>
</tr>
<tr>
<td>Occasional internet users (less than once a month)</td>
<td>5.15 mn</td>
<td>1.65 mn</td>
<td>212%</td>
</tr>
</tbody>
</table>

Of the total 30.32 million urban internet users 25.17mn (83%) are the regular users who log on at least once a month and the balance 5.15 million (17%) are the occasional users who use the internet among the urban Indians stands at 9% now

Growth got fuelled more by home based usage this year.

If last year’s growth was fuelled by the spread and increased usage from the cyber cafes than this year growth has got driven by the increased usage of internet from homes. The usage of internet from homes has gone up + 19% to reach 59%.

However place of work (office, school, colleges, etc) still continues to be the single largest place for accessing internet at 78% (up+ 16% over the last year’s figure of 63%). The most disappointing phenomenon during this year has been the near stagnation of the cyber cafes as a place of accessing internet. Its usage has gone up only +1% to reach 47% this year. An even bigger worry about the usage
of internet from cyber café is the fact that only 1.4% of the regular internet using populating is accessing the net ‘exclusively from a cyber café. This indicates that the relevance’s of cyber cafes is only ‘Secondly’ in nature as of now. This could really throw the spanner in the wheel of rapid growth of internet usage in India, as in a country like India.

The large scale accessibility and affordability of computer at self ownership level may still be a long way away.

Broadband is reaching more and more online urban Indians

At least 3 out of 4 regular internet users -77% who access the net from home now do so using some form of a broadband or superior connection. At least 74% of office based usage is also on broadband or superior connections.

But despite the widespread usage of broadband the biggest problem faced on the net by at least 2 out of 3 net users is the slowness in opening of websites’. Almost 1 in 3 net users (35%) also complains about the difficulty in connecting to the net in the first place. Therefore, it appears that a large part of the available broadband connectivity is not really true high speed broadband connectivity in practice yet.

Net users are heavier users of internet from home than of the other mediums

Internet users who access the net from home tend to be relatively ‘heavier’ user of the online medium as compared to the offline mediums (TV, newspaper and radio)

<table>
<thead>
<tr>
<th>USER</th>
<th>INTERNET</th>
<th>TV</th>
<th>NEWSPAPER</th>
<th>RADIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light user (less than 1 hr.a day)</td>
<td>43%</td>
<td>44%</td>
<td>46%</td>
<td>72%</td>
</tr>
<tr>
<td>Medium user (1-2 hrs. a day)</td>
<td>35%</td>
<td>43%</td>
<td>41%</td>
<td>19%</td>
</tr>
<tr>
<td>Heavy Users (more than 2hrs.a day)</td>
<td>22%</td>
<td>13%</td>
<td>14%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Duration of usage of internet and offline mediums from home

Networking and entertainment activities are the biggest gainers in popularity.

Communication, networking and entertainment activities stand out as the more popular online activities. In the list of the 10 most popular online activities among the regular Internet users, 5 fall in the domain of communication and networking activities (emailing, instant messaging, chatting, e greetings and dating/friendship) and 4 of the balance 5 fall in the domain of entertainment activities (news, sport, music and games)

<table>
<thead>
<tr>
<th>Popularity of online Activities (top 10)</th>
<th>Rank online Activity %</th>
<th>Undertaking in 2007 %</th>
<th>Undertaking in 2006 increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emailing</td>
<td>95%</td>
<td>94%</td>
<td>1%</td>
</tr>
<tr>
<td>2. Job Search</td>
<td>73%</td>
<td>53%</td>
<td>20%</td>
</tr>
<tr>
<td>3. Instant messaging</td>
<td>62%</td>
<td>53%</td>
<td>25%</td>
</tr>
<tr>
<td>4. Check news</td>
<td>61%</td>
<td>53%</td>
<td>8%</td>
</tr>
<tr>
<td>5. Online Music</td>
<td>60%</td>
<td>48%</td>
<td>12%</td>
</tr>
<tr>
<td>6. Chatting</td>
<td>59%</td>
<td>49%</td>
<td>10%</td>
</tr>
<tr>
<td>7. E-greeting</td>
<td>58%</td>
<td>57%</td>
<td>1%</td>
</tr>
<tr>
<td>8. Check Sports</td>
<td>57%</td>
<td>35%</td>
<td>22%</td>
</tr>
<tr>
<td>9. Online Games</td>
<td>54%</td>
<td>35%</td>
<td>20%</td>
</tr>
<tr>
<td>10. Dating/friendship</td>
<td>51%</td>
<td>27%</td>
<td>25%</td>
</tr>
</tbody>
</table>
The 'rise of (social) networking and the 'hype' around blogging

If we combine social and professional networking together, then 56% of all internet users undertake either or both of these networking activities. However, social networking forms the larger part of this pie with 29% of net users undertaking only social networking exclusively.

Blogging still remain only a ‘tertiary’ internet phenomenon, with only about 31% of all internet users involved in blogging.

However, at the overall level it is neither Yahoo nor Google but orkut which shows the best recall to usage conversion ratio of 1.76

<table>
<thead>
<tr>
<th>Overall popularity of websites (top 10)</th>
<th>Rank website Top of Mind Recall</th>
<th>Website usage Usage / Recall</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yahoo</td>
<td>29.80%</td>
<td>26.60%</td>
</tr>
<tr>
<td>2</td>
<td>Google</td>
<td>27.20%</td>
<td>29.30%</td>
</tr>
<tr>
<td>3</td>
<td>Rediff</td>
<td>11.50%</td>
<td>10.90%</td>
</tr>
<tr>
<td>4</td>
<td>Orkut</td>
<td>4.50%</td>
<td>7.905</td>
</tr>
<tr>
<td>5</td>
<td>Gmail</td>
<td>2.90%</td>
<td>3.90%</td>
</tr>
<tr>
<td>6</td>
<td>Hotmail</td>
<td>1.60%</td>
<td>1.50%</td>
</tr>
<tr>
<td>7</td>
<td>India times</td>
<td>1.00%</td>
<td>0.90%</td>
</tr>
<tr>
<td>8</td>
<td>Naukri</td>
<td>0.50%</td>
<td>0.50%</td>
</tr>
<tr>
<td>9</td>
<td>Sify</td>
<td>0.50%</td>
<td>0.50%</td>
</tr>
<tr>
<td>10</td>
<td>MSN</td>
<td>0.50%</td>
<td>0.40%</td>
</tr>
</tbody>
</table>
While 27% of all online Indians read or check blogs, 15% of them comment on blogs and only 7% of them have a blog of their own. That is, in effect 89% of all net users who are involved with blogging only read blogs.

Yahoo is the most recalled online brand but Google is the most used Yahoo once again emerge as the most top of mind recalled online brand of all with 30% of all online Indians recalling it as the first online brand coming to their minds. However, when it comes to actual usage it is Google which emerges the frontrunner with 29% of all internet users preferring to use Google the most among all the websites.

In terms of specific online activities, both yahoo and Google emerge as the most popularly used websites for 14 of the 23 popular online activities.

To sum up, while the usage of internet has shown a tremendous growth in the last year Online buying, especially of travel products has shown a tremendous growth.

Further, internet continues to be the melting point of big Indian middle mass of urban consumers. However, the size of the pot itself is currently becoming the biggest limiting factor in the future growth of internet usage in India. Accordingly, the call for breaking the barriers of both software limitations (content, especially language content) as well as hardware limitations wider, speedier and affordable connectivity and access to the net continues.65

The communications industry has undergone revolutionary changes over the last 50 years. The advent of television brought about the concepts of mass communication, enabling organizations to reach a large audience quickly, cheaply and effectively. Now, with the internet entering household almost as rapidly as television once did (Tap Scott 1998), its use as a marketing communication tool is becoming increasingly popular. Many organizations, having recognized the
potential of this media, are now promoting their products and services through internet web pages or advertising banners.

The number of regular internet users in Australia has been estimated at 1.45 million people as at the end of September 1997 (Connors 1998) of these approximately 500,000 were classified as consumers or small office internet users, 350,000 were general business users and 600,000 were classed a academic users (Connors 1998) However, this profile is rapidly changing particularly with the rise of the cannot labelled the net generation. It is potentially the largest group of consumers since the baby Boomers, Representing approximately 30% of the population in the Use (Tap Scott 1998). Given that the cohort is growing up surrounded by digital media, the opportunity to reach this audience via the internet or email is far greater than with previous generations. As such, the challenge presented to marketers is how to harness this new technology.

The net generation: The net generation is more than just a demographic group. One of the cohorts’s distinguishing characteristics is that they readily assimilate new technology into their normal, everyday environment (tap Scott 1998) a significant proportion of school age children and university students now use the internet on a regular basis. In the USA alone, approximately 90% of college or university students have access to the internet compared to less than 10% of the population at large (Chidley 1996). As such, the digital revolution is producing a generation of technologically sophisticated people (Morrison 1997). Unlike generation X, who have been described as being slackers, drifters, cynical, bitter and materialistic (Morrison 1997; Ritchine 1995; Hornblower 1997), The Net generation have a strong sense of independence and autonomy are assertive, self reliant emotionally and intellectually expressive, innovative and curious (tap scott 1998). With tools that enable them to question and challenge ideas, they are becoming a generation of critical thinker. Furthermore as the cohort ages, they will
become more active of critical thinkers and powerful as consumer (tanscott 1998). They will want a greater array of products with the ability to customize and sample them to ensure they meet specific needs and perform as promised. This is largely a result of their fluency in the use of interactive media, giving them ready access to information that was previously unavailable. The internet and other forms of digital media, will be there for play a critical role in the marketing of products and services to the cohort.66

Majority of respondents use internet for research work because the university library has provided access to a large number of databases and online journals. Fifty percents of respondents search information through the search engines, whereas thirty five percent prefer to go through the specific website/ URL. Google and Altavista is more widely used search engine compared to other due to their wide coverage and user-friendly interface. About seventy percent of respondents prefer to take print out before making use of internet material as compared to those who prefer online or CD. Thirty five percent of respondents believe that internet is most useful because they find good information all the time. It has also been observed that slow speed, high internet charges, lack of training and lack of organized information are some of the factors that affect the use of internet. Present recommendations to improve the use of internet, including a well planned internet literacy program and preparation of subject gateways.

For hundreds of years printed information sources have been used either by user purchasing them, or by using them through libraries. The situation began to alter about four decades ago with the introduction of computers in information handling, and there has been a dramatic change over the past few years. Recent developments in Information and communication technologies, especially the internet and the web have brought significant changes in the ways we generate, store, access and make use of information. The Internet a collection of interlinked
computer networks or a network of networks, play a key role in the access of information resources to support learning and teaching in academic atmosphere. Use of internet to support learning and teaching is growing exponentially, as more as educational organizations are recognizing the potential that it offer. Over the years sources of information and other opportunities available via the .Internet are increasing exponentially and various programs have been developed to help users find their way out. This is because of the steady increase in internet use for education and research. Also, with the development of more sophisticated searching tools, it has become easier to obtain information from internet.

In addition to providing access to readily available information, the internet also enables individual users to reach other people and institutions all over the world, and exchange or obtain information. Anyone who has access to the internet can make use of this network to search for information or to communicate via electronic mail, mailing list server, news groups, chat boxes, wide area information server (WAIS), and the World Wide Web (WWW). 67

The internet is not only one of the most rapidly disseminating technologies in history, it is also to a degree different from other mass communication technologies rapidly evolving as it disseminates. Today’s new adopters of the internet face a range of options undreamed of by their predecessors of just a few years ago. With higher connection speeds, a greater variety of access devices, and a broader range of content, today’s internet is different from the internet of five years ago or even two years ago. Today’s internet user is also different from the typical web surfer of a few years ago. The early user of the internet was likely to be a well educated reasonably well off white male. However, as the pew internet project reported in may 2000, women now make up half of all internet users, with older women in particular coming online at a slightly higher rate than other user
groups. I Hispanics are now about as likely to be online as whites, and African Americans are coming online at accelerating rates.

In general, people like the internet and the number of years they have online is strongly associated with the amount of time they spend online on a given day. Length often online is also positively associated with the frequency with which they engage in internet activities such as email, news gathering, and game playing or online purchasing. However, not all internet users are the same. Some people march up the internet learning curve with astonishing speed and quickly fold it into their daily lives, other fined the technology less compelling and even though they may remain online is fairly.

HABITS OF TEENAGER USER

Email and information gathering currently dominate most people’s online time, but new research suggests online habits are set for dramatic change in coming years.

A Gartner survey of 4770 internet users across the world found web users spend most of their online time on email, followed by information gathering, internet banking, sharing photos and videos (in effect, social networking), maps and transport information and online shopping. But when you look at the online habits of 13 to 18 year olds, a different picture emerges. Perhaps unsurprisingly, teens are much less keen on functional things like email, research and internet banking instead, the teen list is dominated by entertainment function downloading, online video games, blogging and social networking.

Gartner research director Elroy Joplin says rather than simply seeing this tread as a product of their youth the divergent teen online habits should be seen as a sign of things to come.
“The internet has become a utility for most consumers, who use it for communicating, gathering information and performing financial transactions,” Jopling says. However, a new ‘trickle down’ phenomenon, where teenagers lead the evolution of consumer internet applications, heralds a new era where internet applications will mimic life. Communicating entertaining social sing, information, transactional, either in a fixed location or on the more.

It should come as no surprise to those in the age group that of the one third of the 195.3 million internet users in the US he 55+ age group represents the largest constituency (Jupiter research). This demographic is generally cashed up and ready to spend online, yet the focus of online retailers continues to be a younger and cash – poorer age group.

HERE ARE SOME SOBERING STATISTICS

- The most popular online activity of this age group is email, followed by web browsing, research and shopping (JWT Boom and Third Age)
- Over two-thirds of Americans in the 50-64 years age group use the internet (senior net)
- Adults over 50 years of age spend an average of, wait for it ,$7 billion online annually.
- When making a major purchase such as cars and appliances , the internet is the most important source of information for baby boomers (Zoom rage)
- Those aged 50-plus account for 80% of all luxury travel spending, and 42% of all travel purchases are made online (pew Internet and American life Project)
- Over 72 percent of baby boomers have broadband internet in their homes.
- 82 percent of adults aged over 50 used the internet to research health and wellness information.69
1.2 AN INFORMATION GATHERING HABITS OF INTERNET USERS AHMEDABAD

Today the information plays a viral role in the development of the research, education, science and technology etc, throughout the world in all spheres of life. The information rich countries dominate the information poor countries. The advent of latest technology in the field of communication has opened new opportunities in a bigger way in information communication area. Beside this, the desktop / laptop computers are available at affordable price also make great impact on access to information at home, office and during the travelling.

Computers and their multifarious roles and the enormous changes that are taking place in the information and communication technology, have stretched too far that they reached every information centre are no exception. Information acquiring, creation, duplication, storage, access, distribution and presentation has become more easy and possible due to the new information technology in accurate manner.

The universe of knowledge has been growing extremely fast due to the new technology and internet. The role of librarian has also changed from custodian of the materials to knowledge manager, knowledge disseminator, he / she is more depending upon new equipments and technologies i.e. Internet, E-resources like E-books, E-journals / E-Magazines, E-Database etc. The expectation from the librarian towards managing and disseminates the print and non-print material has been increased from the society.

The role of librarian has become more important and crucial in terms of five laws of library science started by Dr. S.R.Ranganathan. To access and to provide the right information to the right person at the right time is most important for the information professionals. Today, we have entered into the information age where
easy availability and easy accessibility of information is the prime concerned due to the rapid development of the technology and electronic publishing in getting a tremendous impetus.\textsuperscript{70}

The information is a dynamic and unending resource that affects all disciplines. It also supports education, research and development.

Traditional search process requires many sources to be traced for any information search. If the subject of search is very easy but if the term is vague then the search involves use of a number of sources that requires a lot of time and searching becomes a difficult task.\textsuperscript{71}

Information is truly regarded as a resource equal in value to capital because it costs money to acquire process, store, disseminate and project. Therefore, information has become the most important resource of every stage of development.\textsuperscript{72}

Information in the context of librarians means recorded knowledge which is preserved for use. Now a day’s information has been recognized more and more as valuable national resource and economic resource. In the present world, information is considered as a power particularly in science. Today’s society is in fact an information society and thus we have entered into the information age. Information has become the lifeblood of complex industrial societies and is growing in importance day by day.\textsuperscript{73}

HISTORY OF AHMEDABAD

Karandev of the Solanki rules, had waged a war against the Bhil king of Ashapall or Ashaval. After his victory Karandev established a city called “Karnavati” This Hindu kingdom of Karnavati retained its importance till early 15\textsuperscript{th} century when Gujarat freed to the Muslim Sultanate.
The city was built in open and spacious place to the east of Sabarmati river. It comprised of small fort known as Bhadra-Fort. The city fort wall was enclosed containing 12 gates. The city of Ahmedabad went on expanding in every direction by the addition of new areas on both the sides of the river. And with the well laid out beautiful buildings, lakes and mosques.

In 1753 combined armies of Raghunath Rao and Damaji Gaekwad took the fort, which resulted into end of Mughal rule in Ahmedabad. In 64 years during the rule of Gaekwad and peshwa, city became worse. In 1818 British took over the administration of Ahmedabad. During this period Ahmedabad developed, municipality committee was founded, railways links were established.

In 1915 Mahatma Gandhi came from south Africa and established ashram on the banks of river Sabarmati.

INTERNET USERS OF AHMEDABAD

The INFLIBNET centre has 15 internet enabled PCs dedicated for the use of students and researchers for accessing electronic resources subscribed under the UGC-Info net Digital Library Consortium. All the e-resources signed under license agreements with the publishers of UGC-Info net Digital library consortium provide access to walk in users. Students from Gujarat university & its affiliated college, students from the nearby universities and colleges walk in to the centre for the e-resources services. Annually around 1000 users take benefit of this services.

Though Bharat Sanchar Nigam Ltd (BSNL) holds a major share of Ahmedabad’s cellular market, the company lags behinds other private players in the cable internet segment.
In Ahmedabad, BSNL has more than 15,000 dial-up customers, 110 internet cable connections and 22 leased line connections.

Major private players in this segment are Ice Net, E-comm. and Aquaria Broadband - a subsidiary of British Gas.

Under the dial-up schemes, BSNL offers one hour of internet usage at Rs 6 which is lesser than that of private players,

“In the internet industry where service is important BSNL lost the war to private players in the service front. Otherwise, it offer better rates and infrastructure ‘ said a corporate customer.

“We are doing well in the dial up segment while I must admit that in the cable segment, we are yet to pick up. We are still trying to come out with more lucrative offers, especially to those in the corporate sector,’ said a BSNL Officials.

Chief General Manager of BSNL Pradeep Kumar was not available for comments.

According to Chirag Mehta, chief executive officer of Ice net, the first internet services provider in Gujarat.” Internet use is growing very fast here hence customers and subscribers is growing fast as their dependence on Internet is increasing. A Mass migration of dial-up customers to cable internet is taking place. People who surf the net daily for more than two-three hours prefer to use a cable connection.

In Ahmedabad, BSNL has only 110 cable connection customers whereas private players boast of having more than 5,000 customers.

Private players such as Satyam feel that BSNL is trying to capture the market by offering free connections to those who have BSNL landine connections.
However, they say the company won’t be able to increase its market share because the service of private players will always remain better.

For Internet users quality of service is important and not price, they said.

According to Ruzan Khambhatta, Director of E-Comm, another private ISP based in Ahmedabad, “Internet is only a by-product of telecom companies. BSNL’s focus is not on internet.

Though it has deeper pockets and better infrastructure, it will be difficult for the company to survive as its service is not up to the mark.

Another factor that has hampered the growth of BSNL in Gujarat is the lack of broadband service.75.

Bharat Sanchar Nigam, Ltd (BSNL) and SOMA Networks Inc recently announced the commercial launch of BSNL wireless Broadband services in the state of Gujarat. Broadband connectivity means high speed, always on, internet access in home and offices. What is special about these wireless services is that it can reach even those places where there is no wired infrastructure. India has low internet penetration of around 4.9% (compared with 68% in the US), while broadband penetration is even lower, at less than half a percent. This service will aim to significantly improve India’s broadband tele density.76

AHMEDABAD

The Gujarat Internet Users Group has been set up in Ahmedabad to provide a common platform for all internet users. The British Library has allowed the group to use its facilities..

A delegation of the Japanese government went on a two day visit to the Dangs area of Surat to study the feasibility of electronic development work like
internet in the forests, and to inspect the functioning of the Dangs Forest co-operative workers Union. The Japanese government has agreed to give a loan of Rs. 608 crores to Gujarat for realizing its “Development with forests” objective.

INTERNET USAGE

In our country the number of internet using peoples is increased to 17%

This number is 36 millions in 2007, now in 2008 the number becomes 45 millions.

The number of people who are using internet monthly once is also increased from 48 millions to 58 millions.

Due to more computer awareness program in India, now peoples are getting and knowing the use and importance of computer and internet in the daily life. So this may be the reason for increase in the peoples in internet use. In future it will grow up more quickly and will touch highest mark of internet users.

Well today’s times are changing. Internet is not only a place for extensive knowledge now but also a place for your entertainment. Most Indians prefer surfing You- Tube more than anything else. Internet has also expanded its dimensions all over India with many rural villages now getting internet connections. And with today’s exam preparations are more or less on the internet. It can be attributed to all the figures above. The reason for ISC’s success is that students are now turning for internet in the search for exam preparation and more knowledge and not only books.

Internet is spreading viral fever of browsing, chatting and other activities not only amongst the Indian, but also amongst whole world. Now everybody who used internet once, understood that this is the only place where one can learn, communicate and share experience at the same time. There are lacks of websites giving different services free of cost. Some websites however, charges nominal
amount to the users. Now one can buy or sell products online, send mail within a second. One can spend time with friends and relatives through social networking sites. Thus obviously, the usage is increasing. But it has not yet got that much of achievement in India as predicted earlier 1980s. The reasons to be analyzed by the IT professionals and improvements must have to be done.

Usage of internet in India is drastically increasing. Internet has brought a transformation in many aspects of life. It is one of the best means of communication around the world and has grown tremendously since it was introduced.

Internet is flexible and that is the reason it has fled everyone’s concentration. Now a days one can access internet easily. Most of the people have computers in their homes but even the ones who does not have can always go to cyber cafes where this services is provided.

The internet has developed to give many benefits to mankind. The access to information being one of the most important aspect is fulfilled with internet by providing an option to find any information in the tips of fingers.

Internet created a platform of convenience and reliability. It is one great technology and is powerful tool for news, work, remote, social exchange and learning. Spending some time on internet will educates you with total knowledge about anything and has provided an option for tickets, transact online and find schedules. It has become tough for us to imaging life without internet.

A majority of the internet users browse through search engines to find their respective queries. In fact the figure shows that almost 1 billion internet users perform 13 billions searches per month using major search engines and directories. So for this an ethical SEO company can boost your website ranking, using natural SEO concepts. By just having a website available on the internet is not
The company has to make the website reach out to targeted people that it services. And for that it has to get good ranking in various search engines. The latest study of internet usage patterns in India indicates that Mumbai is at top of the heap in internet usage amongst all metros in India.

Mumbai with 3.24 million ever users and 2.6 million users the peck of top 8 internet using metros. Delhi is second with 2.66 and 1.80 million of even and active users respectively.

The study jointly undertaken by the internet and mobile association of India (IAMA) and market research company IMRB international, was conducted across 26 Indian cities and 10,000 respondents were asked about their internet usage. The age group of the respondents was between 8 and 60 with the classification being on the basis of education and occupation of the chief wage earner.

In the top eight metros the core profile covered belonged to the services and business classes. There were respondents from the levels of supervisor, traders and high end shopkeepers as well.

There was also a small section (about 10 %) of unskilled laborers who were interviewed for the study and it was more on an experimental basis to gauge the internet usage among this group.

The study covered men and women equally but men, especially younger men continue to be a major proportion of internet users. Email was the most important reason for people to go online. There has however been a major spurt in search and information research too. Fewer people as a proportion seem to be chatting now than earlier.

The study also found that the difference between ever user and active users was the lowest in Pune with a 90% conversion rate, and highest in Delhi with a poor
67% conversion rate. Interestingly, Kolkata with 1.34 million ever and 1.05 million active users in ahead of tech centres such as Bangalore (1.31 and 0.97 Million) and Hyderabad (1.29 and 0.95 Million). Ahmedabad has the lowest number of users among top 8 metros.

In terms of access points, proportion of users accessing from home is the highest in Hyderabad and lowest in Pune. The proportion of user accessing from offices is highest in Mumbai and lowest in Hyderabad. Cyber cafés continue to be the most important access point in Pune and Bangalore.

The trend in internet application usage in India is very interesting and demonstrates the evolution of internet as a media. Traditional favorites email & chat continue to be dominant across top and metros, especially in Chennai. Delhi and Hyderabad except in Mumbai, where information search dominates proportion of users accessing internet mainly for jobs and matrimony and e-commerce’s is highest in Kolkata, followed by Ahmedabad and Pune. Proportion of internet users accessing internet mainly for financial or business information is significant in Mumbai and Pune. This may be associated with Mumbai being the nerve centre of the commercial and business activities in India. This justifies the higher proportion of offices access from Mumbai.

The proportion of internet users accessing internet for information search is significant in non metros. As observed earlier, almost 40% of the internet users are school/college going students. Lack of availability and accessibility of reliable sources for information is driving users from non metros toward internet, mainly for education. The low figures for communication in non metros can be explained with the fact that not many people are comfortable communicating in English in this town. The regional languages mainly come in use at time of commenting. But with portals and volts increasingly providing a regional language interface, the scenario is bound to change. Language flexibility would mark the future of
information and communication technology especially in a multi lingual country like India.  

According to the study, while top cities continue their dominance, there is a clear cut tread of small metros, non-metros and small towns catching up fast. Among the ‘ever user’ category, the share of top eight cities has declined from 58 % in 2001 to 41 % in 2006. The corresponding decline in the ‘active users” is from 90% in 2001 to 77 % in 2008.

The study says that traditional favourites e-mail and chat continue to be dominant across top eight cities, especially in Chennai, Delhi and Hyderabad except in Mumbai, where information search dominates proportion of users accessing internet mainly for jobs and matrimony and e-commerce is highest in Kolkata followed by Ahmedabad and Pune.

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Online Banking ---: An estimated 4.68 million Indian internet users are banking online today.

The number is expected to grow to 16+ million by 2007-08 including both internet and mobile banking.
Online Bill payment-- : According to research by IAMAI the number of Indians paying bills online is expected to increase from the current 0.3. million 2005-06 to 1.8 million by 2007-08 Male online users increased in absolute numbers but dipped from 72% (2005-06)

Online ticket Buying :- 47% of railway ticket purchasers are in the 26-35 age groups. 51% of railway ticket purchasers are in the group of married with kids. 47% of purchases of Airline tickets are by the Married with kids group

Sales of railway tickets are highest in Mumbai (25%) & Delhi (21%) followed by Chennai (8%), Bangalore (7%) Ahmedabad (2%), Kanpur (2%). The other cities and towns (31%) completers the category. With greater internet penetration coupled with the railways impetus to increasing ‘e’ infrastructure the numbers for other will increase in the near future.81

In our Country the number of internet using peoples are increased to 17 %.This number is 36millions in 2007, now in 2008 the number becomes 45 millions. The number of people who are using internet monthly once is also increased from 48 millions to 58 millions.

This is great resolution in technology. Which is giving knowledge to society and making the world small due to this world is shrinking day by day.

This is a welcome sign. This shows that we are progressing .It also shows that people are accepting new resolution in technology and are trying to learn new technology. Reduction in costs of computer system, laptops and internet facilities have made it possible. In future, internet usage will increase further.

That figure will be rising day by day with millions of Indians becoming familiar to this technology. Every thing is available at the click of your fingertips.
However still a lot of work has to be done to make internet reachable to all the parts of the country.

It was estimated that 90% of internet users come from top 10 cities. Imaging that none of the 63% internet users are from Mumbai, Bangalore, Delhi, Calcutta, Chenai, Pune, Hyderabad, Ahmedabad, Surat and Nagpur. It is said because, if in the traffic analysis for blog, more than 97% of the readers come from these top 10 cities. This is based on approx 27,000 visits received from India since last month.

It is one of the best means of communication around the world and has grown tremendously since it was introduced. Internet is flexible and that’s the reason it has fled everyone’s concentration. The access to information being one of the most important is fulfilled with internet by providing an option to find any information in the tips of finger. Internet created a platform of convenience and reliability, it went beyond great technology and is powerful tool for news, work, remote, social exchange. Spending some time on internet will educate you with total knowledge about anything and has provided an option to book tickets, transact online and find schedules regards.

There are many advantages of using the internet such as: Email is an online correspondence system. With e-mail you can send and receive instant electronic messages, which works like writing letters. Your messages are delivered instantly to people anywhere in the world, unlike traditional mail that takes a lot of time. Email is now an essential communication tools in business. It is also excellent for keeping in touch with family and friends. The advantages to email is that it is free no charge per use when compared to telephone, fax and postal services.

INFORMATION

The internet is a virtual treasure trove of information. Any kind of information on any topic under the sun is available on the internet. The search engines on the
internet can help you to find data of any subject that you need. There is a huge amount of information available on the internet for just about every subject known to man, ranging from government law and services, trade fairs and conferences, market information, new ideas and technical supports.

ADVANTAGES

There are advantages and disadvantages using internet.

Services:

Many services are now provided on the internet such as online banking, job seeking and application, and hotel reservations. Often these services are not available off line or cost more.

Buy

The internet is a very effective way to buy and sell products all over the world along with getting information on the internet. You can also shop online. There are many online stores and sites that can be used to look for products as well as buy them using your credit card. You do not need to leave your house and can do all your shopping from the convenience of your home.

Communities

Communities of all types have sprung up on the internet. It is a great way to meet up with people of similar interest and discuss common issues.

Online

There are many chat rooms on the web that can be accessed to meet new people, make new friends, as well as to stay in touch with old friends.
Downloading

This is one of the most happening and fun things to do via the internet. You can download innumerable games, music, video, movies, and a host of other entertainment software from the internet most of which are free.

DISADVANTAGES

There are certain cons and dangers relating to the use of internet that can be summarized as personal information. If you use the internet, your personal information such as your name, addressed can be accessed by other people. If you use a card to shop online, then your credit card information can also be stolen which could be giving someone a blank check.

Pornography

This is a very serious issue concerning the internet especially when it comes to young children. There are thousand of pornographic sites on the internet that can be easily found and can be a detriment to letting children use the internet.

Spamming

This refers to sending unsolicited e-mails in bulk, which serve no purpose and unnecessarily clog up the entire systems.

Such illegal activities are frustrating for all internet users, and so instead of just ignoring it, we should make an effort to try and stop these activities so that using the internet can become that much safe and millions of people each day benefit from using the internet for work and for pleasure.

Mumbai: internet usage is no longer a four metro phenomenon. According to an IRs and internet Online association survey, the internet user base in India has
exploded in smaller metros like Ahmedabad, Bhopal, Chandigarh, Coimbatore, Indore, Lucknow, Nagpur, Pune and Vadodara.

Even as metros led by Delhi, Mumbai and Chennai dominate the SEC AB internet user category. Places like Pune, Hyderabad, Lucknow, Ahmedabad, Patna and Jaipur are fast catching up.

Internet users in the SEA- A1 category for the last fiscal (need March 2004) was 21,53,000 users, while the SEC- A2 category reported 22,26,000 users.

During the past fiscal, Indoor’s EC- AB internet user base stood at 89,000 and Kanpurs was at 82,000 while internet users in Coimbatore and Thiruvananthapuram stood at 80,000 and 69,000 respectively.

Emerging cities, including Vadodara, Chandigarh, Bhopal, Kochi, Vishakapatnam and Nagpur have tremendous spending power and are expected to see a surge in usage going forward as they grow from a negligible base, analysts say.

The non-metro markets have been expanding at a fast pace, to a tries in education research and levels of internet connectivity.

A rise in telecommunication providers and ISP’s point of presence has aided the user growth in B and C class towns and cities.

Of the current internet base of 22mn users and 6mn subscribers, close to 3.7mn users constitute the home user category accessing the web from their homes.

Among all SEC- AB internet users, the once falling in the age group of 20-29 years were the highest, at 30,59,000 followed by the 15-19 age group, with 14,66,000 users and the 30-39 category with a user base of 14,25,000.
According to the internet online association, 60% of the Indians with internet connectivity are between 20 to 40 years of age and have maximum spending power.

Of the total number of internet users, male user dominance was high at 5,573,000 users, compared with the female user base of 1812,000.\textsuperscript{82}

BSNL is going to start offering wireless internet services in India with the launch of EVDO Data Cards. BSNL has the lowest downtime when compared to any other broadband service providers hence it is recommended to cancel your other wireless broadband services and get a network interface card NIC or EVDO card which offers speeds up to 2.4 mbps.

The Data card is available at a cost of 2800 Rs from BSNL or costs you 150rs/month when you rent it and the minimum rental period is 3 charged with the normal pulse rate basis.

If you compare other wireless internet service providers like Tata indicom, Plug2 surf, Wimax, Reliance, Netconnest, they charge their customers around 1500Rs for unlimited internet plan and BSNL charges 400 Rs for the same services and no other company offer you data cards on rental basis other than BSNL. BSNL is also known for the highest telecom networks because of their highest number of towers, this is the reason you can stay connected even if you are travelling in the most remote places.\textsuperscript{83}

**INTERNET INFORMATION**

In developed nations, for many sections of society, the World Wide Web is becoming an essential part of everyday life. Whether being used for commerce, research, education or leisure, one of the key features of the web is the ease with which individuals can publish, access and use on line information. Even
in a short space of time, sophisticated and exciting results can be achieved with relative simplicity. In European countries internet use is used as an indicator to now the progress of the society. Like per-capital income is used to measure the economic progress of a country. However in country like India, internet is not properly used and even not understood by the people. This makes the gap between developed and undeveloping countries widen. The educational institutions and research organizations have a major role to play in making the citizens as netizens.

The internet is the single greatest source for information in human history. It is responsible for a revolution in how people inform themselves. While there are sources relevant to virtually any user’s query, the morass of web resources presents a formidable hurdle to effectively accessing the information. The identification and retrieval of web information is determined by the efficiency of the searchers. To the common user of web, the searching is confined to the search engine by employing a typical key word search. The current searches result in retrieving a large number of sites and pages, where more than 95% of the retrieval is irrelevant and the most relevant pages remain invisible to the search mechanism. The searching become an art as well as science.

There are some inevitable facts:

- Internet access is not expensive; rather it is affordable.
- Majority of Internet users do not know the absolute potential of it.
- Searching in the web is not confined to just search engines.
- Web is highly volatile, unstructured and unprocessed environment
- The users are not good at expressing their information need.
- Interfaces are not good at representing the need.
• The indexes and spiders are poor at translating the document concepts into representational.

• The internet is a fast changing environment; resources and information that are available today may not be available tomorrow.

• Internet contains ephemeral, transitional and enduring information. Exploiting enduring information is an art.\(^\text{84}\)

Internet is a technological development of people. It became a part of our day today life. The internet is a virtual treasure trove of information. Any kind of information on any topic under the sun is available on the internet. The search engines on the internet can help to find data on any subject that you need. There is a huge amount of information available on the internet for just about every subject known to man, ranging from government law and services, trade fairs and conferences, market information, new ideas and technical support.

In 2009 usage of internet in India is drastically increasing, internet has brought a transformation in many aspects of life. It is on the best means of communication around the world and has grown tremendously since, it was introduced. Internet is flexible and that’s the reason it has fled everyone’s concentration. Now a days one can access internet easily. Most of the people have computers in their homes but even the ones who do not have can always go to cyber cafes where this service is provided. The internet has developed to give many benefits to mankind; the access to information being one of the most important is fulfilled with internet by providing an option to find information in the tips of finger.

Most of the job seekers have to use internet and applications can be sent online. So it is a matter of time saving also. There are many ways to use internet in day today life.
The internet is a very effective way to buy and sell products all over the world. Along with getting information on the internet, you can also shop online. There are many stores and sites that can be used to look for products as well as buy them using your credit card. You do not need to leave your house and can do all your shopping from the convenience of your home.

Some websites however, charge nominal amount to the users. Now one can buy or sell products online, send mail within a second. One can spend time with friends and relatives through social networking sites. Thus obviously, the usage is increasing. But it has not yet got that much of achievement in India as predicted earlier 1980s. The reason to be analysed by the professionals and improvements must have to be done.

Nowadays internet using is increasing day by day. Because of the necessity of internet is high everyday for everybody. Not only for business people, also for students, employs and even wives. If anybody is staying far away from their relatives and friends, internet is the best way to meet them. Even phone contact is the best way but we can talk to them seeing at the same time with low cost.

We can express our ideas, knowledge and responses on any kind of things happening in the world to reach the people and to know how are thinking on such kind of things.

It is helpful to consume our precious time to search for anything. If we want to search for an educational institute, internet is the best way for it. For example, take our ISC website, most of the colleges and educational trusts or institutes are posted by the members across the country. If anybody wants to ask about particular institute, you can search in ISC websites or you can ask a question with our members by posting question in our ISC.
Every body knows, the entire world is running through the internet. If it is struck for even 1 hr everybody will struggle to finish their work. We say, students/youth are the pillars of tomorrow. I think that applies here too. Exposes more students to internet today more the usage tomorrow.  

According to the latest internet in India (I Cube) report 2007, published jointly by the internet and mobile association of India (IAMA) and IMRB international, the number of internet users in India in the ever user category has touched 46 million in September 2007, from 32.2 million in September 2006. During the same period, the number of active internet users has reached 32 million.

Commenting on this growth of internet users, Dr Subha Ray, president IAMAI, noted “Although a growth of 40 percent year makes us happy, especially since for the last couple of years the rate of growth was between 30-35 percent relative to what can be achieved and what needs to be achieved the growth rate is not very satisfactory.

“Broadband, which would drive more applications, functions and business and therefore more users, now really needs to take off in India in order to make the growth sustainable. If broadband targets are not met in the coming years there is a possibility of missing out on creating a virtuous cycle of better connectivity, better contact and more users’ ray elaborated.
Mohan Krishnan, Senior VP of IMRB, and country manager of BIRD was of the opinion that the demand for internet still continued to be primarily from the urban areas. “Therefore, while the government was justifiably of drawing up plans to reach internet to the rural areas, it was also necessary that the urban digital divide should also be bridge with appropriate policy measures,” he said.

According to the report, the growth of internet users is primarily driven by the fact that the numbers of people who know how to use a computer unaided have grown to 65 million up from 15.8 million in 20000, 70% of pc literates have used the internet sometimes or other in their lives.

1.3 NEED SCOPE AND SIGNIFICANCE OF THE STUDY

The present study focuses on the usage of internet by the students Research scholars, Business man of Ahmedabad. Attempts have been made to know the information gathering habits of internet users of Ahmedabad the main focus of this study is to identify the information gathering habits of internet users the study is confined to internet users of Ahmedabad. The study shall be to motivate and increase the internet user.
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