CHAPTER 1- INTRODUCTION

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1.1.0 Introduction

Globalization of economies in recent years has changed the work culture and also the leisure life of the people. This has altered the information needs of the people as well. Traditional newspapers which had editions coming out only once in 24 hours do not suffice the needs of the present day consumers of news. The concept of news cycle has vanished especially in the post-Gulf War - I period, when numerous television channels came up disseminating news across the globe and for 24 hours a day.

News dissemination through various media has changed in style drastically in recent times to meet the changing needs of the information consumer. But information dissemination was redefined with the advent of the Internet. Information on Internet is disseminated at an unprecedented speed which can be consumed at unprecedented delays. The interactive options that the Internet offers has changed the very definition of journalism and the role of the traditional journalist. If print, radio and television changed the communication model of one-to-one to one-to-many; Internet has brought in a new communication model of many – to - many.

Computer, “The World Brain” as described by Aldous Huxley in 1930s which has changed the course of communication in many ways, is responsible for this new information revolution of which Internet forms an integral part.
The Internet is an instance of a global communication system. This system is displacing a national system of communications which came into existence at the end of the nineteenth century as a result of the railroad and telegraph. This was "perfected" in subsequent innovations like radio and television in the network era, and Internet in the digital era.

Internet with its immense capacity in terms of speed, reach and "visual rhetoric" has come to the rescue of Marshal McLuhan (1964) who said, "the medium is the message". Though this dictum of McLuhan met with widespread criticism among his contemporaries, it is now being accepted and understood. According to him "the personal and social consequences of any medium – that is, any extension of ourselves, result from the new scale that is introduced into our affairs by each extension of ourselves or by any new technology". All that he meant was, that medium determines what is communicated through, or in a nutshell the way the message is presented.

Francis Bacon is reported to have said, "three things that made my world different from that of ancient Greeks and Romans were the printing press, the compass and the gun powder." But as Berghel (1997) says, "we are in the midst of a technological revolution that will dramatically set our century apart from Bacons’ – the digital networks and cyberspace ". 
Across the broad sweep of time, as speech was furthered by writing, followed by the printing press, telegraph, radio, television and now, new computer technologies, practitioners and scholars have struggled to make sense of challenges attendant with each media system. Often those who struggled to explicate the new technologies failed to grasp their future implications (Mindich, 1998). But implications are imminent. Internet has changed the way information is processed, presented and perceived.

In this information age, anybody who is information hungry cannot survive without clinging on to the net called, the World Wide Web (www). It has created its own community of surfers called the virtual community to which new members are flocking continuously.

Wandering about Net (Internet) is a solitary pursuit; one is unaware of the presence of many fellow explorers. The Internet came into its own a few years ago, when the www arrived with its dazzling array of photography, animation graphics, sound and video that ranged in subject matter from high art to the potentially lewd. Internet is a close-knit community that shares common values and experiences (Natarajan, 1999a).

The unlimited reach of Internet has lead to globalization of news and information. This in turn has resulted in homogenization of news flow, news content, and news style and presentation. Added to this, the very characteristics of this medium are having a direct impact on media scenario.
The Internet empowers people. People are offered abundant information. But Herbert (2001a) opines, "The problem with Internet is distinguishing truth, rumour and disinformation".

The story of Matt Drudge breaking the story of the Clinton-Lewinsky affair focused the world attention not only on Drudge but also on the journalism disseminated via the Internet. Online journalists are not only quick to publish, but willing to disseminate a story rejected by traditional media as not newsworthy. The online media will reflect the values of those producing it (Boyd, 1999).

Another argument says, the Internet and the new advancements highlight its enduring democratic value. It also means, that the maxim 'information is power' has also come of age. Whereas the Stone Age utilized rock as its key means of production, the Information age depends on data or more fashionably on knowledge management. Berger (2000a) presents a different view from those who state Internet trivializes journalism and says, "such gloomy pessimism is not founded".

Cyberspace holds a host of problems and possibilities that journalists have not seen before (Lynch, 1999). The speed of dissemination, the potential global audience, the possibilities of interactivity, competition from non-media companies and increasing demand for profitability are changing the media scenario. Hence there is a need to study Internet in totality, its origins, characteristics and impact.
1.1.1 The Internet

The popularity of Internet is growing among all age groups. Nevertheless using the Internet is far from being as cheap, easy and reliable as watching TV. Therefore it becomes important to know what Internet is.

Internet may be defined as a collection of computer networks from all over the world that provide access to a number of information sources and services. It is both a collection of software and hardware technologies and a collection of services. At its most basic, the Internet can be characterized as an interactive (two-way) communication network linking users with one another with distant computers (servers). It is a global network tied together by a common language, Internet Protocol (IP).

1.2.0 Origins of the Internet

After the end of the Second World War, which left the world divided between two powerful entities, The United States and the Soviet Union, the tensions of war became a regular feature. Both sides wanted to equip themselves with the best of armoury.

To ensure the safety of its communication network in any eventuality, the Advanced Research Projects Agency (ARPA) of the US Defense Department funded a project to connect the University computer scientists and engineers together via their computers and telephone lines. Using Honeywell computers at
Stanford University UCLA, the University of Santa Barbara, and the University of Utah, the switching network, called the ARPANET was started in 1969. This laid the foundation for the development of the Internet. Interestingly, J.C.R.Licklider, one of the prophets of the information revolution, headed ARPA during this period.

With this, scientists started sharing their computer facilities with each other and also started using electronic mail, which became very popular. The next logical step from person-to-person e-mail was to find a way to transmit the messages to multiple users.

The users who had similar interests and wanted to receive mails about their particular field of interest formed mailing lists. The first large mailing list was of the science fiction aficionados, called the SF - Lovers. With the combination of electronic mail, file transfer and mailing lists, the network of networks, the Internet was beginning to take shape.

It was in 1975, that Vinton Cerf of Stanford University developed a communication protocol called the Transmission Control Protocol (TCP), and an addressing protocol called the Internet Protocol (IP). This TCP divides messages into streams of packets that are sent and reassembled at their destinations. IP addresses and routes each of these packets across different networks while reaching their destinations.
With TCP/IP there was a phenomenal growth in the computer network connectivity. This allowed Internet to grow from the original four host computers in 1969 to almost 600 hosts by the end of 1983. At this time, the ARPANET was separated from the ‘Defence Department’ and became known as MILNET. The ‘Defence Department’ discontinued funding ARPANET in 1989.

Meanwhile during the period of ARPANET, the computer technology had advanced from enormous mainframe computers to desktop microcomputers. To add to these changes, the modems and communication software were introduced into the market, making it possible for the enthusiastic computer users to communicate with each other.

Internet at this time was developed for Unix-based computers, which only the users in universities and research departments could utilize. In 1970s and early 1980s the personal computer users created a communication system that could run on DOS based Apple microcomputers. This enabled a person with a computer, a modem and some relatively inexpensive software to set up a file system where other users could dial in and post messages, play games and exchange files. People soon began to connect on boards.

Electronic Bulletin Boards had become popular among the computer users, by mid 1980s. Even today there are thousands of Bulletin Boards in existence in the US. Bulletin Boards are more intimate and personal than the Internet and provide an easy way for people with similar interests to congregate and interact.
As Bulletin Boards were growing in popularity, commercial organizations were attracted by the business opportunities that it provided. They reasoned that, if people found value in Bulletin Boards systems, surely there was a way to make online communication appealing enough that people would like to pay for the services rendered.

Two of the first commercial online information services were *The Source* and *CompuServe*. These provided subscribers with a number of services for a fee based on connect time. They provided wide range of services with easier access with hundreds of phone lines, and for 24 hours a day.

Although quite a few online services are in existence today, *CompuServe* (which purchased *The Source*), *America Online (AOL)* and *Prodigy* are considered the top three commercial online information services. They offer up-to-date news, weather, sports, information, electronic mail, computing support, entertainment and games, financial and professional information, travel information and reservations and references to education resources, forums for special interest groups, cartoons, access to the Internet and many other services.

The Internet continued expanding in 1980s and by the end of 1990 there were over 300,000 hosts connected to the Internet, a growth rate of 2,000 per cent in 10 years. But it had little to offer to a layman who was not brave enough to enter the entangled web of *UNIX* text-based commands (*Internet Complete*).
1.2.1 The World Wide Web

In 1992, Tim Berners-Lee, a Swiss software engineer introduced a graphical, hypertext navigation tool called the World Wide Web, which changed the course of human history. The World Wide Web provided the potential for the Internet to become as graphically interesting and easy to use, as the commercial online services.

Berners-Lee developed the web as a convenient and efficient way to access documents stored on a number of different computer systems at CERN, the European particle physics laboratory in Geneva, where he worked. He was unaware of the impact that his brain-child was going to have on the communication infrastructure of the world. Within a few years www became synonymous with the Internet.

Many services now available on the Internet have been made possible by www, though some of them have their roots in ARPANET. All types of software and hardware companies are jockeying for the competitive advantage that can be obtained by developing new products; that interface with the web and the multimedia capacity of today’s computers. With each passing day, new service or innovation makes its debut on www, enriching its capacity as a powerful medium.
1.2.2 Services of the World Wide Web

Services of the World Wide Web are as wide ranging as the web itself. There cannot be any other information source better than the web. It is possible to find information about everything from up-to-the-minute news to the dietary habits to be cultivated by the diabetes patients. One can watch a movie review, read a book, glance a cartoon, enjoy the latest music, get to know about research taking place in one's field of interest, chat with friends or unknown persons, look for a job, book a ticket, send a mail, go on a virtual tour of the White House, play games and do many more things.

To help users with all these things many portals have come up in the last decade. Portals are like electronic malls, which provide user-friendly entry to the Net from which consumers can easily shop, chat or access content.

A portal site is a web page, which offers all kinds of related services to the user in such a way that it becomes the standard starting point for the user when going online, i.e. surfing the Net.

1.2.3 Common Internet Services

Three of the most used Internet services that exist in both text based and graphical forms include, e-mail, mailing lists and Usenet newsgroups.
**E-mails:** Electronic mail or E-mail as it is fondly called is the best known of all the Internet services. This enables the user to send written document from one part of the world to another in virtually no time. This sending of messages at the click of the “electronic rodent”, the mouse, almost instantly, has made people call the traditional mail as “snail mail”. But there are people who complain that it does not carry the emotions that accompany traditional mail, and question the authenticity of the document thus sent, as it does not carry the signature of the writer. But for all practical purposes its speed and accuracy have sidelined its shortcomings.

**Mailing lists:** Mailing lists are a form of group e-mails. A group of people interested in specific topics can exchange information with all the members of the group. If one of the members in the group wants to inform the group about something, he can write a message which is broadcast to all in the group. Anybody who receives this can respond to this message, which is again broadcast to all the members in the same way. But the only problem with mailing lists is finding relevant information from the moulds of mails that are dumped in your account. Therefore, one has to be very careful while choosing a mailing list. Even then, there are tens of thousands of mailing lists in existence today on every conceivable topic.

**Usenet Newsgroups:** Usenet Newsgroups are a more public form of mailing lists. These are text based discussion groups on particular topics. Newsgroups are
technically not a part of the Internet, because they use the *UNIX to UNIX* copy protocol (*UUCP*) rather than *TCP/IP* of the Internet. However, newsgroups have become such a popular service that most of the Internet Service Providers include access to newsgroups.

In addition to the mail related tools, there are text-based tools used to exchange files and communicate with other computers on the Internet. Users of the web can access these services from various web sites. These include:

*File Transfer Protocol (FTP)*: A system that lets user, transfer files from one computer to another. Software programs, Multimedia files or documents can all be sent using File Transfer Protocol.

*Gopher*: A search tool that allows users to search through computers on the Internet through the use of menu. It is largely replaced by *WWW*.

*Internet Relay Chat (IRC)*: It allows users to type messages and receive immediate live responses from other users.

*Telnet*: A system that allows users to access other computers, then run applications or access files that are housed there. Library card catalogue databases are often setup using Telnet.

*Wide Area Information Services (WAIS)*: It provides a full text indexing system for documents searched in specific database.
Archie: A reasonable facsimile, however, is created every month at a number of locations by a service and search programme called Archie. Over a period of a month, the Archie service scans most internet sites and generates a list of FTP files and directory names, forming a database. Most of the identified sites offer anonymous register. Simply put, the information is public, and anyone can gain it freely and anonymously.

Veronica: (Very Easy Rodent – Oriented Net – Wide Index to Computerized Archives) Builds a researchable index of Gopher menus in much the same way that Archie builds an index of FTP files. Archie tells users where the files are; then they must get to the files using FTP.

1.3.0 Journalism and the New medium

Journalism is being redefined in the online environment. The basics of journalism remain same with “the man bites dog” syndrome continuing to determine what is news, and the inverted pyramid structure in presenting the news. But it deviates from the original in the kind of language used, the style with which it is presented and at its most basic, the need which it meets of the consumer. As rightly identified by many media pundits, Internet is meant to break news and it would be wrong to expect depth from it.
The critics of this new medium go to an extent of blaming it of trivializing journalism. It is because of the instances where the Net has come out with the news that has been discarded by print or rather traditional media as not worthy of publishing. It is very sensational in nature they allege. It is also criticized that what we read on Net is a mere 'reportage' and not journalism in the real sense. In spite of all these criticisms; it is going strong and will continue to be a part, in fact a dominant medium in the emerging new media scenario.

At the end of the twentieth century, two powerful forces emerged to change the mass communication process. The first is the use of computers as a means of processing, analyzing and disseminating information. The second is the constant accelerating capacity of that technology to enhance communication. So it is almost unbounded by time and space. As older communication technology required a huge investment of capital, a one-to-many model dominated; with those owning the broadcasting equipments or newspaper presses disseminating information to the masses. Current technology, specifically the digital transmission of text, audio and video, has altered the traditional one-to-many communication model; instead, the mass media users at one time are now becoming producers as well as consumers of information, and a new many-to-many communication model has emerged.

Today anyone with a modem, a personal computer, and a telephone line can become a publisher. But it is a mistake to eliminate totally the old model in
favour of the new. By juxtaposing the best of the new model – computerized access, delivery and packaging information – with the best of the old model - insightful reporting in a well written story – a better hybrid model that combines the best of both is created (Lapham, 1995).

The Internet is changing the profession of journalism in at least three ways; it has the potential to make the journalist as an intermediary force in a democracy superfluous; array of resources and sheer endless technological possibilities to work with; it has created its own type of journalism on the Net; so called digital or rather; online journalism (Deuze, 1999a).

Computer assisted journalism brings an end to ‘he-said’ or ‘she-said’ journalism which only makes each story exactly as truthful as the person, expert or official, the reporter quotes (Koch, 1990a). The reader is offered direct links to the person who provides information, whether it is an official or an expert. Internet has enabled the reporter to provide links to the full text of an interview, he or she had with an eminent personality, or a speech given by the person. Though this has altered a reporter’s job, it has aided the credibility factor.

WWW has the advantage of being interactive, multimedia, of providing internal and external networks and offering selection functions, the possibility of regular updates, access to archives, rapid access to a large number of newspapers and being paperless, thus creating no problem of waste disposal (Nueberger, et al, 1998a).
1.4.0 Characteristics of the New medium

The manifold dimensions and potentials of Internet like the visual rhetoric, hypertext, multimedia, enable it to overcome the limitations of all other media and emerge as an all-powerful new medium. The advantages of this medium can be better understood under different heads as follows.

1.4.1 Interactivity

Interactivity is the extension of the medium to involve the audience in information sharing. The reader or a receiver of information in the broad sense is not a mute addressee of the information he is bombarded with. Reader can himself become a content provider. He is actively involved in analyzing the news based on free information. He is equally free to share his ideas with his fellow readers. Therefore interactivity is a communication phenomenon which opens the gates for audience to share the information he has, or his ideas with the broadcaster of the news or the fellow audience.

By interactivity we mean, the extent to which communication reflects back on itself, feeds on and responds to the past. Communication on the Net serves to highlight the role of interactivity. It can be consciously programmed in or kept out. Interactivity is behind the issues of moderated or immoderated computer mediated communication groups. Good choices and crafty implementation of interactivity are
often the difference between successful and failing web sites (Newhagen and Rafaeli, 1996).

In the context of online journalism, the Internet is supposed to offer the technical capability for interactivity which is often considered the most distinctive contribution of online journalism (Newhagen and Levy, 1998a).

This interactivity is largely questioning the role of a journalist. The gate-keeping theory is widely being questioned. The role a journalist; played of a gate-keeper for information, has changed. The potential of interactivity if used properly may change the definition of journalism.

Interactivity can be understood as a formal element of (unmediated or mediated) conversations. While it is often perceived as a characteristic of dialogue, interactivity is limited neither to two people nor to face-to-face communication. It can be seen as a variable of responsiveness in interpersonal and societal communication. Browsing the World Wide Web, clicking a mouse and selecting from different hyper-links is not in itself interactivity (Schultz, 1999a). As D.P. Noth (1996) says, the meaning of interactivity is elevated 'beyond a click'.

Interactivity was always considered a tool to arouse interest among the audience and encourage them to participate. But letters to the editor column was the only interactive option offered in the print medium. This was followed by dial-in
programmes on radio and television which were to some extent successful in increasing the interaction between the source of information and the audience.

Interactivity can be encouraged through many ways: through direct or indirect e-mail exchange between the journalist or staff and the user, through a bulletin board system available on the news site, through a 'send your comments' option box underneath each news story or more recently through web chat possibilities, even introducing the people who are featured in the story to the users together with the journalist responsible for the piece in an ultimate interactive environment. Although essentially this potential is similar to the 'old' letters to the editor-sections in the print media, the combination of these various options and the speed with which they can be used makes for a new feature (Deuze, 1999b).

Internet is a medium where feedback is instant. The interests in online audience may be especially acute because of the nature of these newer media forms; by definition, interactive media blur the lines between the receivers and senders of a mediated message (Singer 1998a).

The key to successful publishing on the web is to realize that the web is not just a medium for making information available. It is also a technology for facilitating community building and interaction. Successful web sites begin with clear awareness of their intended audiences.
1.4.2 Immediacy

News, as it happens is what we expect nowadays. Gone are the days of up-to-date information. It is now the up-to-the-minute information made possible by frequent updates. The speed with which the news is disseminated has surpassed all other forms of media, because it is almost instant.

All communication is temporally sensitive. How fresh is communication when it is ‘served’? How quickly does it go stale? Are we becoming an impatient species? Do we have preferences for the old, tried and true? Naturally communication is synchronous, but how likely are we to want to communicate asynchronously? The Net stretches the edges of the synchronicity continuum. Communication on the Net travels at an unprecedented speed. It can also be consumed at unprecedented delays. A whole generation now knows what GMT stands for (Natarajan, 1999b).

The journalism of today concentrates more on “who’s first” rather than on “who’s the best”. With the concept of news cycle going astray the breaking of news has become more important than the quality of information offered. Media organizations are competing with each other in breaking the news. This has reduced the time a journalist had to verify facts, which puts the basic values of journalism into trouble.
Frequent updates of web pages are technically possible although the degree of their realization varies, depending on whether or not online news service has enough personnel, to take care of the updates. The capability of updates makes the news web page subject to change over time, creating both impressions of continuity and transience. Similar to a network broadcast delivering a breaking / developing news story, news web sites can do the same job by frequent updates of their front web page. As a result, an online news service might carry responsibility to be always timely when the consumers expect the news to be up-to-the-minute (Gubman and Greer, 1997).

A very significant feature of the Internet is that, distance does not matter, for time or for cost. Everything is transmitted at an unprecedented speed and reaches all instantly. That is the reason why, Internet access providers offer Net access based on a flat pricing model. Once one goes on Net he is free to go any where it pleases him.

1.4.3 Convergence

Convergence as the word itself speaks is the union of various types of information in one medium. Text, voice, pictures, animation, video and virtual reality motion codes are all made available in one medium, with the advent of Internet. Printed news runs news holes, while televised news runs airtime. But with Internet, the news hole has simply expanded into an unprecedented sensory vastness. The Net's capacity for addressing senses and the impact it makes on an
individual receiver, far surpasses that of any other medium. It also provides ample scope for creativity in the narration of a story with aids of voice, pictures, animation and video. One story can be told in several ways. Various combinations of the above forms can be used to enhance the impact of any story.

Convergence is not so much an audience feature but more a journalistic feature. Convergence in the context of online journalism verses traditional journalism is the melting of these traditional media forms – (moving) image, text, and sound – in one story told online. Imagine a story with pictures offering links to a video shoot of the event described, excerpts of the interviews that were held and links to other stories and background material of related topic. This is a point where one could argue that the online journalist is directly competing and compatible with the television journalist. There is a difference though: the context of the web offers the option to choose between the respective elements of the story and offers the journalist to ‘play around’ with the elements: every single story can have a different angle, a different way of telling the story. The technology for full convergence is not generally available at the time but will be in a matter of years. The fact that there is a choice – both for users as well as journalist – is the discerning element here (Deuze, 1999c).

1.4.4 Hypermedia

The technological advantage of hypermedia is one more of the unique characteristic of online communication. A traditional publishing effort is a solitary
pursuit. It can refer to other publications, perhaps through footnotes or references, but it cannot build on them. Internet provides an opportunity to the reporter to refer to other sources and also make the reader aware of those sources. In a hypertext document, one can include hyperlinks to other people's writings. As a number of people contribute their knowledge and resources in a specific area to the web, the value and depth of this knowledge goes on improving. The result of this is an information community consisting of as many as thousands of people worldwide who share varying levels of commitment to improving the collaborative information pool.

Hypermedia is the online tool that allows journalists to create electronic links between their stories and other online content, such as other stories, audios, still or full motion videos (Pavlik, 2000). This is possible because there is no space or time constraint on Net, as in newspaper or television presentation.

The hypertext creates a delivery system for separate units — a system which allows only embedded links pointing outward. What one has to realize that, texts interconnected through links — hyperlinks — can refer internally (to other texts within the text's domain) or externally (to texts located elsewhere on the Internet). These are quite different types of hypertextuality, as one opens up new content; the other in fact leads to a spiraling down of content (Nath, 2002a).
Internet is an ocean of information. Something that starts with a headline or teaser can end up browsing through reports, archives, statements, official documents and full texts of interviews dating back years. Hypermedia enables the reporter to guide the reader to the source of the information. This enables the extensive and intensive coverage of any topic on Internet. It gives Internet communication the much needed depth which the conservatives say, it lacks.

But Fredin and David (1998a) opine, while hypermedia news story cannot force a person to act with volition, intentional action can be encouraged and made worthwhile through organizing structures of choices in the presentation of the hypermedia news story.

1.4.5 Personalization and individualization

This characteristic of online communication emerges out of its interactive nature. The audience is no longer a reticent receiver but a demanding one. With millions of pages on the Web, it becomes harder for users to find information relevant to them, even with the help of the most sophisticated search engines. Therefore, many Web producers are turning from trying to "pull" visitors to their sites and are "pushing" content to interested people based on their interests and choices. New browsers, such as Microsoft's Internet Explorer 4.0 and Netscape's Communicator (aka 4.0), are integrating push technologies such as Point Cast, thereby blurring the line between push and pull.
As Internet has information virtually on every possible topic, the new generation news rooms offer news based on the readers’ choice. This means asking the individual user to list out his preferences and then delivering this individualized content automatically at given or even pre-arranged time right on a computer screen where the user wants it. This individualization is an important element of online journalism.

In addition, some Web producers are delivering web pages directly to readers via e-mail. *The New York Times, The Wall Street Journal* and *USA Today* are among those using Netscape’s In-Box-Direct to “push” content to readers. This type of “webcasting” looks like one of the most active areas for web producers in the coming year (*Gupta and Jasra, 2002a*).

### 1.4.6 Globalization

Newspapers and television channels can be divided as local, regional or national or international, but the question does not arise in case of Internet. Anything that goes on in Internet instantaneously pervades the whole world. The geographical boundaries are not the barriers in the flow of information on Internet. Interestingly this globalization is obtained at zero distribution costs. Once a document is placed on the web, it costs absolutely nothing to distribute it among the international audience.
1.4.7 Information democracy

An individual in India may invest a few thousand rupees for maintaining a web site, whereas, a big publishing house may have a staff of about 100 people and may invest in millions to project its website. But both are equally accessible in technical terms. The big publishing house may have more resources to spend on publicizing its site, but the technology does not enable it in any way different from the individual's site. This feature makes the web an inherently democratic medium.

Advertising does not help to popularize a website in any way if the site is clueless web-wise. The website should offer valuable and credible information and has to be designed in such a way that it attracts the attention of the user. It should appeal to the web users' sense of web aesthetics and etiquettes.

1.4.8 High latency

The term latency refers to the amount of time a message sticks around in a communication medium. The web offers exceptionally high latency – the document remains available 24 hours a day, until one deliberately removes it. The longer it remains, the more chance there is that somebody else will create a link to the document. The more people link to the document, the more hits one will get.

The web's high latency makes it ideal for creating organizational and corporate memory structures, inventories of information that grow over time and eventually constitute an indispensable resource.
1.5.0 New medium Vs Traditional media

All the advantages camouflaged in the very characteristics of the new medium give it an edge over other media and pose a potential threat to their existence and expansion. But research in this field, shows that there are limitations as well. Both the advantages and the shortcoming of this new medium can be better understood when studied in comparison with other media.

'Old habits die hard' so does the habit of reading newspapers. Newspapers have an important advantage in that individuals can process information contained in them when it is most convenient for the reader and at a pace that is best suited to the reader (Wanta, 1997). Newspapers, over years have, participated in building the societies, democratic, socialistic or communist, so much so that, they are called the watchdogs of the polity and in broader sense, the society. They deal with the broader spectrum of information and form an indispensable part of the society. They appeal to the masses whereas; the web caters to the classy, educated, elitist urbanites. Newspapers provide both information and entertainment, without having to switch on, log on, down load and scroll. It also has an edge over television. Though research suggests that visual information is more easily processed than verbal information, (Son, et.al. 1987) the rapid pace of television makes it difficult for viewers to do extensive processing of the incoming information.
The superficial processing of televised information leads to stronger recognition but poorer recall, whereas reading, which is able to take full advantage of cognitive potentials with newspapers, is a superior medium for recall (Singer, 1980b).

Newspapers have at their disposal traditional means of indicating emphasis and significance. These significance cues include whether a news story is long or short, whether it has accompanying picture or not, whether it has a large headline or a small headline, whether it is on the front page or on a back page, and whether it is run above the fold or below the field. Thus the print medium gives readers a strong, lasting and visual indication of significance. (McClure and Patterson 1976)

When it comes to television news, the significance cues are hidden in the time order. But there is a difficulty in differentiating the significance cues beyond the lead story. As the time for each bulletin aired is limited, many stories are covered though not in-depth. It happens that, an event or an issue that satisfies visual dimensions is gauged as important to suit the medium. This visual dimension can sometimes override other dimensions. The broadcast organizations though are adept in handling the demand for "fresh stuff"; newspapers boast their "richness" through in-depth analysis.

One should remember that Internet has the advantage of both the qualities above. There is neither space constraint nor time constraint. But it too faces criticism. Several media critics argued that embedding hypertext links into a web-
published story gives readers a false sense of interactive control over content \((Pogash, 1996)\).

Reading a newspaper online is difficult, cumbersome and time consuming. There is none of the feel of scanning a story, turning pages for more, skipping easily back to the beginning, the impact of seeing a picture, headline, caption and some text in one sweep is completely lost. With news glimpses only in fragments and short scrolls, the sense of what the newspaper thinks is important, disappears \((Katz, 1994a)\).

Many criticize Net for trivializing journalism. Largely, non-consequential stories on celebrity weddings or separations, etc dominate the news sites on Internet. They say what appears on Net is a mere reportage and not journalism. The breaking of news is overemphasized in the online environment. Though it provides a lot of scope for depth, there is no seriousness to utilize this potential. Same is the case with the interactive options it opens up. Hardly any newspaper organization shows commendable interest in interactivity.

In the online environment serious issues and editorial analysis are getting lesser importance while consumer oriented trivia hogs much of the emphasis. The commercial attitude of the media has reduced newspapers to trivia and lowered their informational quality \((Raghavan, 2001)\).
However, newspapers that have been fast enough in adapting to the new technological revolution have started Net editions. Most of the newspapers big, or small, national, international or regional, English or regional languages have gone on Net. As there is no need for them to spend money on content generation or advertisement, they are much better placed in the online market while the purely online newspapers are fighting for their survival.

Newspapers continue to take full advantage of the potentials opened up by electronic media and websites, to raise revenues and build competitive advantage, turning a possible threat into a resource for new activities and new income (Murali, 2001a). Print medium still continues to rule the information business, because of its inherent advantages.

Print is portable. It can be used anywhere, anytime and has pass-along value. Print is personable. It speaks to distinct individuals with personalized ink jet messages and custom collated pages. Print is convenient. It satisfies people of their fast food mentality for information, drive through, take home, and take out. All service, no fuss and of course no tips (Gokhale 2001a).

1.5.1 Convergence of media

Convergence is the union of data, audio and video communications into a single source, received on a single device, delivered by a single connection. Convergence is made up of three subsidiary convergences: content (audio, video
and data); platforms (PC, TV, Internet appliances, and game machine); and
distribution (how the content gets to your platform).

With the help of the multimedia computer technology, all the three media
are now available on one single device, namely, the PC. The single source is the
Internet and the single connection is the telephone line. A Net user thus becomes
a reader, a listener and a viewer all at the same time.

Digitalization of any data in any form: words, sounds or pictures, has made
this convergence possible. Once the technology is refined, it will be possible to
enjoy movies, listen to music, read newspapers, receive mail on TV, PC, mobile
phone or even a wrist watch.

But low bandwidth is the biggest hurdle in the way of convergence.
Bandwidth is the information carrying capacity of the access between a home user
and the Internet. At present it is the telephone line with an average capacity of
28.8 kbps. This capacity is not sufficient to carry audio-visual data at the required
speed (Barve, 2001).

Internet access through television cable is widely being discussed. Once
this turns into a reality, Internet access becomes easier and less expensive. But in
this case televisions have to become digital one which needs more investment.
Digital television is evolving along three paths; enhanced resolution, multiplication
of channels and interactive features.
However, digital information necessitates costly replacement or enhancement of nearly every piece of equipment in the distribution chain – from production to broadcast to the television set.

1.6.0 Online Journalism – An Indian perspective

With Bangalore and Hyderabad contributing exceptionally to the Information Technology and the Indian government waking up on time to the call given by information revolution, things have been moving fast in India as well. The computer savvy businessmen have been fast enough to catch up with the pace of developments and in finding prospects of business in the Internet.

It was in 1993 that www came to pervade this world and within a decade it has brought a sea change in the way communication and business is done all over the world. India, which nurtures thousands of software engineers every year, is playing a prominent role in the national as well as international economy.

India has always been a very big market. Even a fraction of the population, if adapts the new technologies, it can constitute an impressive percentage of the world’s IT business. But there are many problems as well. India being a developing country, where majority of the people are illiterates and a majority of the literates are computer illiterates, the awareness about Internet as a medium of communication is very low. The socio-economic conditions of the people, low tele-density, and PC penetration all hinder the growth of Internet in India. Hence there
is a need to study the prospects and problems of online journalism in India, in
detail.

1.6.1 Prospects

India has been identified as a source of IT professionals with 68,000 IT
professionals churned out every year. This man power is the biggest asset to the
country. According to Satyam Computers chief Ramalinga Raju, India has a
chance to grab 5 per cent of the world wide opportunities offered by IT, and its
GDP could go up to $ 1.5 trillion to $ 2 trillion in the next 20 years. (The Times of
India, 2000a)

Leading investment bankers Goldman Sachs also projected India to corner
5 per cent of global IT services market at $ 30 billion by 2004, but warned that
poor technology, infrastructure and high degree of civil bureaucracy could hamper
full growth of this sector (The Times of India, 2000b).

Internet and e-commerce industry in India in 2000 employed over 82,000
people and by March 2003 this number was expected to increase to over 500,000.
About Rs. 2,500 crore were invested in different dotcom projects in India in the
year 2000.

According to NASSCOM (National Association of Software and Service
Companies) Internet penetration in India crossed one million mark and it is all set
to surpass 11 million users by the end of 2003. A survey conducted in 68 cities and towns in June-July 2000 showed that Internet penetration in the country reached 1.4 million by June 2000 from a mere base of 1,70,000 subscribers in November 1998. The statistics available with NASSCOM showed that the total number of PCs is going to increase from 4.8 million in year 2000 to 20 million by 2008 and Internet subscribers from 0.8 million in 2000 to 35 million by 2008. (The Times of India, 2000c). An increase of over eight lakh subscribers in 20 months could be attributed to the private ISP policy announced by the Centre.

All these optimistic figures escalated the aspirations of businessmen and lead to Internet business boom in India. In the International scenario, Wired Magazine was the first to come with a journalistic writing on the web, with its Net edition starting in January 1993. And within a decade a number of newspapers organizations and portals made their debut on the Net. India was quick in responding to these international developments.

All the leading newspapers in India realized the potentiality and likely reach of Internet and to keep pace with technology came with their Internet versions. In India, the online phenomenon showed its face in 1994 when India’s first electronic newspaper, India Newsnet was started, in October, 1994. It was launched via Business India’s Online Service aXcess that provided Business India, Computer Mart (yellow pages) and Airline timetables (domestic airlines) free of charge to its e-mail subscribers.
The Hindu was the first Indian newspaper to go on Net in 1995; soon the Net had The Times of India, The New Indian Express and the Deccan Herald by early 1996. Kannada eveninger, Sanjevani has the credit of going on Net much before other newspapers, the Nai Duniya was the first in Hindi and Kesari was the first Marathi newspaper on Net. Initially some language publications (weeklies such as Kumudam and Vikatan) hoisted their contents as images rather than in the text form since the browsers did not then support non-English fonts. Now, non-English publications make the fonts available as free downloads at their sites to view the pages in the respective languages. There are about 150 newspapers, magazines and online-only publications from India that have entered the cyber world. Besides, many television channels, Doordarshan and All India Radio have also launched their sites and are offering text and audio-visual contents on the Net. Press Trust of India (PTI) was the first news agency in India to launch a web site. As of now there are more than 75 Indian newspaper publications online and the number is continuously growing (Thakur, 2001).

The News Today.com India's first e-newspaper was launched on January 3, 2001, revolutionizing news dissemination through personalized interactive and up-to-the-second news. Now there are many purely online newspapers (those who do not have a co-print edition or television channel). Tehelka.com was the first such popular online newspapers which became popular because of its scoops. www.samachar.com, www.webduniya.com and many
more have come within a few months, along with the newspaper sites and portal sites.

Many portals have also come up. The estimated number of India based portals range from 9,000 to 90,000. There are 30 known portals on cricket, 15 on women, a dozen on youth and at least 16 broad portals on India (*India Today, July 2000a*).

There are five specific areas that the World Bank report highlights as benefits of the new networking for the developing world: increased economic efficiency and competitiveness, more efficient and effective education, healthcare and public administration, opportunities to exploit low factor costs in international markets, opportunities to increase social capital and opportunities to bypass failing domestic institutions. In Indian context how it works, is yet to be seen.

1.6.2 Problems

Increasing reach of Internet and access being made easy by the government policies, all encouraged the media men to assume that online journalism would flourish in India soon. But reality turned its back to their hopes. All the above estimations that emerged out of surveys and studies went to boost the business till recently, when reality shot back harsh and hard on the Internet business.
Much to the chagrin, year 2000 came as an avalanche on dotcom companies. All kinds of businesses, all over the world were beset with the dreaded problem of recession. NASDAQ collapsed cutting short the euphoria and enthusiasm of those optimistic beginners.

Internet was a new frontier back in the mid-nineties, and prompted a huge gold rush. This was fuelled by explosive growth (it took just five years for penetration to reach levels that took TV 50 years) and huge market valuations. Moreover, it was believed that advertisers would flock to the Net because it offered several advantages such as: reach (no longer constrained by geography), interactivity (ability to involve the user and learn about him/her), and targeting (ability to display ads to specific and well defined targets), measurability (ability to measure the viewership exactly) (Jethmalani, 2001a). According to him the causes for the collapse were: Too many sites competed for limited revenue and advertising rates plummeted. Most entrants thought that getting the site up was all that was required and ended up under-estimating running costs. Easy money from venture capitalists and stock markets fuelled silly spending and Net companies blew up money. Entrepreneurs expected instant riches and did not attempt to build up real business.

The situation was similar everywhere. The Net business failed drastically in the US as well. According to a survey by webmergers.com at least 210 internet companies worldwide went out of business. The San Francisco company,
estimated that as many as 15,000 lost their jobs as a result of the closures. That did not include all dotcom lay offs, however, because many companies still in business had reduced staff. The rate of companies failing accelerated in the fourth quarter of 2000, with 60 per cent of closures - 121- happening towards the end of the year. The closure rate of the last three months of the year was more than one company a day. Shut downs accelerated in fourth quarter as dotcoms began to run out of funding that began drying up after the stock market shake up that began in March 2000 (Tribune, 2001).

According to a Price Waterhouse Coopers, estimate 75 per cent of the dotcom startups would not get second round of funding from venture capitalists. There was a 50 per cent reduction in the number of new Internet business proposals since April 2000. The average failure rate of Net business in the US was 95 per cent. This had a direct impact of the Net business in India. (India Today, 2000b)

Many portals that came up in India in the boom period were funded by venture capitalists who diverted their money as soon as they realized that Net business was not going to work in India. There was only one solution for the mushrooming of dotcom companies and that was a major shake out. But Pradeep Kar the Chairman of Microland said this churning out was necessary and would stabilize the dotcom business. This is what the economist Joseph Schumpeter
meant by creative destruction. The shakeout has clearly shown who is more likely
to inherit the online world.

In the year 2000, none of the portals in India were making profits. *rediff.com*
the country's only Internet Company to be listed on the US based *NASDAQ*
exchange piled up losses of $ 8.6 million. In 1999, of the total advertising
expenditure of Rs 4000 crore, only Rs 8 crore i.e 0.2 per cent was spent on
online advertising. On the other hand, web companies were spending up to 60 per
cent or more of their total expenditure on advertising. (*India Today, 2000c*).

Advertisers were very quick in responding to this jerk. In August 2000 online
advertising declined to 7.6 per cent from the previous month, according to the
research firm *AdZone Interactive*. *Merril Lynch* and analysts *Henry Blodget* wrote
in a report cutting estimates of advertising growth in 2001 by half and said market
was likely to decelerate as dramatically as it accelerated.

A few top sites were able to grab the advertising market, where as the
others were left lamenting. According to *Forrester Research*, nine top sites
accounted for 65 per cent of all ad revenues. The measurability of Net advertising,
which was supposed to boost the business turned out to be a nightmare for the
netpreneurs.

In a bid to survive, publishers were looking to diversify their revenue
streams. They were trying to tap various sources like: syndication of content to
other web sites and publications, subscription based model and e-commerce revenues or eventually tie-ups with other companies.

But according to Forrester Research, advertising will continue to be the major source of revenue for Net companies. Despite the dotcom collapse, which has hit revenues in 2001, Forrester expects a four fold increase in ad revenues by 2005. They believe, though syndication market will grow, syndication works best for premium content owners like Reuters that can resell their stories several times.

Other content providers will struggle – even sites that work through hyper-syndication like screaming media make only a few thousand dollars per year. Online syndication revenue is expected to grow to $3.6 billion or 10 per cent of total content revenues, by 2005. Subscriptions face consumer skepticism. Pay-for-content models are expected to gross $10 billion in 2005, but the number of consumers willing to pay will grow slowly. Even here, only certain kinds of sites – mostly music and games – will attract most of this money. In turn, these sites will have to share most of their income in licensing to copyright owners. Hence, the net income accruing to content sites could be as little as $2 billion or 5 per cent of total revenues for content sites by 2005. Though online retail sales will continue to grow to an estimated $269 billion in annual direct sales by 2005, content sites will only get a fraction of this as retailers will win most of the sales. At a maximum, 25 per cent of online sales will be closed on content sites via affiliate marketing and click-through transaction (Jethmalani, 2001b).
The main reason for the failure of Net business in India was that the business potentials of the Internet were grossly over estimated. Today companies may be going bust, the Internet is not. Potentials of the Internet remain unchallenged. No one doubts the power of Net to transform business and life. Everybody is waiting to see how that power unleashes.

According to a report by McConnell International, India has one of the lowest tele-densities in the world, at approximately 1.5 lines per 100 persons. PC penetration is miserably lower at approximately 0.2 per cent (Times of India, 2000d).

Less than one in a thousand people in India have Internet access compared to four of every ten in the US. Only four out of every thousand Indians have PCs as against the global average of 64. Bangalore, India’s Silicon city boasts of the best software developers and software parks and contributes to 14.8 per cent of the PC penetration, the highest in the country. However 85.2 per cent are either computer illiterates or simply cannot afford a PC. It means, of the 5.5 million plus populace of Karnataka, not even three lakh people own a computer (Times of India, 2000e).

Only a small percentage of the people, around 9 per cent of the household who own a computer have Internet connection, according to International Data Corporation.
For online journalism the picture becomes still gloomy as the newspapers are available at Re 1 to Rs 2 which are accessible easily. The economic compulsions of our people do not encourage them to become Net savvy which to them means spending Rs 15 to 30 per hour in a browsing centre. Though these problems hamper the development of new media, the study of online journalism in India becomes important as India has potential for the growth of Internet business.

Just as the euphoria of 1999 was unreal, so is the current pessimism. 2001 as expected was a terrible year with many dotcom companies going bust, but those few that survived may change the course of Internet business in India. The lack of proper revenue streaming which was the main reason for "dotcom deaths", if attended to could solve the problem and give a new lease of life to the dotcom business.

Though, the "magic wand" and "halo" effects surrounding the Internet have vanished, it is dangerous to draw conclusions about the future of an industry from the goings on at the stock market. The challenge is more one of creativity, technology and changing traditional newspaper management mindset to suit the new media, than factors like the stock market (Nadkarni, 2001b).
1.7.0 Scope of the study

As discussed earlier, online journalism has both advantages and disadvantages. The tapping of the right resources at the right time may mean full realization of the potentials of the online medium. As in any other country, it may change the practice of journalism in India as well. But poor infrastructure, bandwidth problem and low tele-density and PC penetration pose serious problems in the development of online journalism in India. But just as inevitable was liberalization in the last decade of the last century, so is the condition with the Internet. India cannot afford to be left behind in this technological advancement. But problems in the way of its expansion are many. Therefore it becomes important to study online journalism, its scope and its problems in the current socio-political and economic condition.

Interestingly, in spite of the failure of portals, lack of revenue streaming for Net publishing, and low reach of Internet in India, most of the newspapers, in fact all the leading newspapers in India have come out with online editions which are actually a burden on the parent newspaper. This needs to be studied whether the Net publishing is going to be a permanent phenomenon or a short lived one. The main objective of the study is to study the growth of online newspapers and its implications on print media.
1.7.1 Objectives of the Study

1. To trace the origin and development of online journalism.
2. To examine the current status of online journalism in India.
3. To critically analyze the impact of online journalism on print media.
4. To probe into the working conditions of online journalists.
5. To analyze the prospects of online journalism in India.

1.7.2 Profile of the study area

A three-tier study was conducted to meet the above objectives. A survey of the newspaper editors to know the impact of online journalism on the print media, a survey of journalists to know the working conditions of online journalists and to study the impact of Internet on journalists and finally a survey of the users of Internet to know the reach and access of online news and its impact.

In case of user survey, the study was limited to Bangalore, the IT capital of India. Bangalore is known for its contribution to the IT business and known as the Silicon Valley of India. Bangalore has one of the best PC penetrations in India and awareness about Internet among the Bangaloreans is quite high. Bangalore has hundreds of Internet cafes in every nook and corner, most of them doing a steady business.
Editors' survey was also limited to newspapers both English and Kannada having editions from Bangalore city. All the leading newspaper which have their head offices in Bangalore or have full fledged office with an edition coming from Bangalore were taken up for the study.

In case of online journalists, the area was extended to include journalists form Bombay, as the online journalists willing to share information in Bangalore were very few.

1.7.3 Operational definitions

In the place of access, home meant a user owning a PC and Internet connection at home and browsing the Internet at home. Workplace meant the office or factory for working persons and college and school for students.

Cyber cafes are public commercial places where one can access Internet for a fee based on connect time. In case of users who browsed Net on one or more places of access, all have been taken into account.

In the context of quantum of use, the heavy meant the average time spent on browsing the Net is five to seven days a week, the moderate meant three to four days a week and low meant one to two days a week.
Online newspaper is defined as any newspaper that has a www presence. It includes both the Internet editions of print newspapers and purely online newspapers, which do not have a print counterpart.

The chi-square values depending on their significance are marked as S and NS where, S means significant and NS means not significant.

1.7.4 Limitations of the study

In case of Internet users, the study was limited to Bangalore city. Bangalore is known as the IT capital of India and true to its name has large number of Net users, spending good amount of time on Net. Therefore the results cannot be generalized to the whole of India as the situation in any other place in India may differ from that of the IT capital.

As the study was conducted during the period, when all the industries were hit by recession, the ideas expressed by editors and journalists may change with an improvement in the economic situation and may not be extended beyond a certain period of time. Both optimism and pessimism, which may have been expressed in the study may turn out be temporary in nature.

Net is changing fast. Everyday something new is added to the Net, making it more interesting and economically viable. Within a few days from the time of the study, the PC penetration may improve with prices coming down at regular
intervals. Therefore the conclusions drawn from this study of impact of online newspapers on print media is limited to the present situation.

1.7.5 Chapterization

The first chapter deals with the concept of Internet, history of Internet, services of the World Wide Web, journalism and the Internet, characteristics of online journalism, Online journalism and the Indian perspective, scope of the study, objectives, variables, limitations of the study and chapterization. The second chapter deals with a review of studies conducted in online journalism and their findings and hypotheses. The third chapter describes the methodology followed for the study and the statistical tools used to express the findings. Fourth chapter presents data and the analysis of the data collected, followed by findings, conclusions, discussion with suggestions for further study in the fifth chapter. This is entailed with sixth chapter containing bibliography of the materials used and appendix including questionnaires used for data collection.