Chapter – II
Print Media – Indian Scenario

Introduction:

_The flood of print has turned reading into a process of gulping rather than savoring._ ~Warren Chappell

In a developing democratic country like India where the majority of the people are illiterate and economically backward, the print media - newspaper, magazines and books as means of mass communication have an important role in building up public opinion among the masses. In the present day world, the human society has been emerging a complex one with speedy changes and plenty of varieties. For this reason the common man cannot go deep into the origin of any incident of information. The experts who have studied about the issues in print media published their findings and recommendations. The expert's arena books, newspapers, magazines and so on. The experts in these subjects studied this issue in detail and went into depth and publish their findings and recommendations about the issue in print media. The educated masses read these and know the details of the subject, its origin, role and place in the society. In this way the print media plays a vital role in disseminating information and influencing the masses.

How often do you read a paper and think: ‘this is not what I want to read’ or switch channels because the news being telecast is not really news? There can be several reasons, but the most important one is that Indian media and journalism is in a state of flux and is slowly evolving to include a variety of media for dissemination of news.

The Indian media like most other sectors is experiencing a boom. Foreign companies are looking to enter the market and existing media companies are constantly evolving. So where is journalism headed?
There was a time when journalism was a hallowed profession and the journalist was considered as a change agent. However, now, due to emergence of the internet, the newspaper is not the only source of information and news. So with an increase in the number of media for distribution, the competition is tough and everyone is in the race for getting an exclusive. As a result, at times they forget the need to just present news. This in turn has led to the evolution of ‘citizen journalism’ – a term used frequently these days. This allows viewers/readers to report news. It may be amateurish and lack the finesse of the professional, but at least it is authentic. Citizen journalists can be paid or unpaid. In fact this model is very popular among websites as is the case with portals such as www.ohmynews.com and www.merinews.com.

Another method that is becoming increasingly popular is blogging. What began as means to keeping an online diary is now also being used to give out credible and current information.

The flipside though is that the information thus provided can veer one way. Besides, there is no way to guarantee the veracity of the information. The Indian blogging sphere is still in its nascent stage, but it holds immense promise as an alternate thread of news dissemination.

The reason why such alternate channels flourish is because there has been a decisive shift in the way news is delivered today. It has been condensed into little “byte” sized portions which can be easily chewed and digested. Newspapers also do not stress on large features or investigative pieces. News here too is carried in snippets usually accompanied with large pictures.

Channels and newspapers are slowly but surely moving towards “packaging information” – some bits that inform while others that entertain the reader. There is no “news” anymore or rather just about anything is news these days. Take the
instance of the famous Bollywood actress Aishwarya Rai’s marriage. The flurry of activity that followed the speculation on whether or not Ms. Rai will change her name after marriage was unbelievable. To some it may not be news, however television channels carried 30 minute slots on this very subject.

A real event, stories about everyday heroes and news that affects the common man is often relegated to the lower ranks. Is this truly because we the viewers actually don’t want this information or is it dictated by what the advertisers and networks want? However, one way or another, sensationalism is here to stay.

As a result of this, investigative journalism has also taken on the ominous tone of sting operations. So much so, that the judicial machinery and ministries have had to come out with a set of regulations for this kind of investigative reporting. News broadcasts will now be given a rating which also points to the kind of news that is being shown.

And, in this age of sensationalism very little grassroots work it to our front pages. Frontline and, to an extent, Tehelka seem to be the only mainstream publications that carry such information.

Today there are over 30 news channels – local and national put together and there is not that much happening to fill these channels round-the-clock for 24 hours. Hence each channel tries to do something different, something radical so that it does not lose eyeballs of the viewers.

Journalists tend to get overly familiar with the people they are interviewing. At times this makes it difficult to maintain objectivity. In a recent interview of Richard Branson, Shireen Bhan was dumped in the pool. While some look at this as frivolity, it takes away any credibility of the interview.
Media, like other knowledge-driven industries, is also seeing an influx of foreign capital. But this is also the industry that is called conscience keeper of society. So, these investments need to be done with care. There can be several instances where conflicts arise. Indian journalists will have to move towards a more quality driven approach.

Another sign of the changing times is the fact that a good journalist will be one no matter what the medium is. The days of popular print journalists or a popular face on television are not gone but we are seeing a new definition emerge. Platforms and technologies will merge and good journalists will be able to deliver, irrespective of the medium.

2.1 A brief history

During the period of early human civilization, man's urge to communicate motivated him for consolidated efforts for search for appropriate media (tool) to express ideas. In many countries man tried to express his idea through signs of movement of body (hands and legs). In some countries dry wooden sticks were used as means of communications whereas in some other countries coloured cotton threads with knots were used for this purpose. Green coloured threads meant cultivation, the read coloured threads – war, the white colour thread-peace and black coloured threads death, and also coloured knots in these threads indicated higher degree of importance of the message. But finally throughout the world in all communities spoken words were accepted as the most convenient media tool.

To keep the spoken message in the permanent form man firstly used to engrave or draw the message in cave walls. These drawings became script when the picture began to stand for a combination of sounds and not just an idea. Thus, each typical human society developed its own written form of a language. To give the language a
more convenient and reusable form in some countries letters were carved on stone, then, on dried clay blocks, terracotta blocks, etc. Afterwards, the letters were written by hand on various materials. For example, in India books were written on dried leaves and barks of trees. Paper was first invented in China. In Korea even bronze metal was used for making printable letters. With the progress of human civilization mankind invented newer and more convenient techniques of communication to meet his necessity to find out appropriate media to communicate to a larger audience. Invention of printing technology with moveable types was the first effective step in this direction.

After the evolution of civilization like Indus valley, Babylon, Mesopotamian etc which was resulted due to surplus production of the food grains, man engaged himself in other than agriculture activities like pottery making, sculpturing, carving on the stones, architecture etc. After this man realized that these skills should be passed to their younger generation so they started writing the words of wisdom on the means which was available at that time. This could probably be the evolution of print media in India.

Thus, in its infancy print media was used for documentation and dissemination of the information. After this we have seen many changes in the nature and appearance of the print media in India.

History of print media and written communication follows the progress of civilization which, in turn, moves in response to changing cultural technologies. The transfer of complex information, ideas and concepts from one individual to another, or to a group, underwent extreme evolution since prehistoric times. It has been 30,000 years later since the first recorded evidence of written communication and it is still dramatically changing. Nowadays perhaps it has become faster than ever before due
to amazing advances in technology in recent years. Technical breakthroughs alter the way we perceive the universe and manner in which we communicate with one another.

1. “As long ago as 25,000-30,000 years B.C. first human painted descriptive pictures on cave walls. The narrative compositions left on the walls of Lascaux represented their own way of communicating with the spiritual world and another. The well-preserved drawing depicted their deep religious beliefs, fears, and everyday life. The pictorial type found in caves of Southern France and Spain is the beginning of written communication for the mankind.” (http://www.culture.gouv.fr/culture/archat/chauvet/en/index.html).

2. The advent of a writing system coincided with the transition from hunter-gatherer societies to more permanent agrarian encampments when it became necessary to count one's property. “One of the earliest examples of pictorial writing was found in the excavation of Uruk in Mesopotamia, dating from 3500 B.C. The Sumerians developed cuneiform (pictographs) writing on wet clay tablets. Later (2900 B.C.), the Egyptians developed hieroglyphic writing. Special scribes were employed to keep records for the priest class who exacted taxation from the population. Their records on papyrus and pigment were less permanent than the frieze carvings in temples, which were meant to last for eternity.” (http://www.worldhistorysite.com/culttech.html).

In 1900 B.C. the Chinese independently developed their own style of writing. The earliest record of Chinese writing was found preserved on various bones. Their
achievement was the building stone for Japanese and Korean to create their own models in 400 B.C.

The first alphabetic script appeared in Palestine at about 160 B.C., which influenced early Phoenician (113 B.C.) and Hebrew script (110 B.C.). Greek alphabet derived from Phoenician script in 110 B.C. and was the source for Latin alphabet (7 B.C.), which consequently fathered Frankish Carolingian Latin script (800 B.C.).

At first we used stone and clay tablets to express our thoughts. With passage of time we developed other means of writing surfaces. The first portable and light writing surface was papyrus rolls and early parchments papers made of dried reeds in China (500-170 B.C.). Later, in 105 B.C., Tsai Lun of China invented paper as we know it today.


Before Johann Gutenberg’s invention of printing press, books were produced by scribes based usually monasteries. The process of writing was very laborites. This remained true until the invention of movable type, which is attributed to Johann Gutenberg of Mainz, Germany, (although the Chinese had a crude version of printing press). Gutenberg was a man of vision and developed movable printing press, which made the process much quicker and cheaper than wood-block printing. However, his investors (Fust and Schoeffer) repossessed his business before the first mass produced book was successfully printed.
Gutenberg’s invention was revolutionary. It was the first mass medium, and allowed for free spread of ideas in a completely unprecedented fashion. “The Protestant Reformation might not have occurred without the ability to quickly create thousands of copies of Luther’s Theses for public distribution.”

1. “Gutenberg’s brilliant idea aided the creation of the first newspaper printed in Germany in 1609. Less than 92 years later, in 1702, England had the first newspaper published daily; it was called the “Daily Courant.” The year 1714 brought another important discovery. Englishman Henry Mill received the first patent for a typewriter. Few years later (1737) Pierre Simon Fournier invented point system in type, which was eventually modified and standardized by Ambroise Didot. In the earlier days of printing, different sizes of type had been called by different names. The system was different in each country and created lots of unnecessary confusion. Fournier and Didot worked out the system where approximately 72 points created one inch. This innovation is still in use in modern day computers. In 1839 woodcuts and lithograph from daguerreotypes decorated pages of magazines. Few decades later, in 1881, development of halftone press made possible to reproduce photographs in books and newspapers”.

In early 19th century the industrial revolution brought major innovations in printing technology. In 1810, Friedrich Koenig applied steam power to printing press. Rotary steam presses replaced hand operated machines, doing the same job in a small fraction of the time. Typesetting was transformed by the introduction of line-casting machines; first Ottmar Mergenthaler’s Linotype (1889), and then the Monotype
machine. Line casting allowed type be chosen, used, and then circulated back into the
machine automatically.

The age of industrial revolution made transfer and interchange of written information
between cities as well as continents readily available. In 1831 Joseph Henry invented
the first electric telegraph, four years later in 1835 Samuel Morse formulated Morse
code, and then in 1843 he also produced the first long distance electric telegraph line.
At the same time, Alexander Bain patented the first fax machine. In 1867 Thomas
Edison patented his mimeograph, which was the first office-copying machine, which
might have inspired Chester Carlson, almost a century later, to invent the photocopier
machine.

1. Business life was irreversibly changed with in the introduction to the
market of Remington typewriter (1874). Journalism also became more
accessible when in “1914 Howard Krum introduced Teletype. Knowledge
of Morse Code was no longer needed to distribute information”.

(http://www.acs.ucalgary.ca/~edtech/688/hist.htm)

In 1935 the first electric typewriter entered the market. However it gained its
popularity after World War II. Electronic typewriters allowed for faster typing
because the keystrokes were electrically assisted. The golf ball typewriter and Daisy
Wheel typewriters allowed for greater range of fonts and styles as these could be
changed by changing the golf ball or daisywheel cartridge. Many of the electric
typewriters allowed for variable line and character spacing.

“In 1965 IBM introduced the first word processor. Few years later, in 1979, VisiCalc
develops the first spreadsheet program and WordStar released their first word
processing package, which revolutionized our work environment and business world.
Word processors were single purpose machines, which allowed for on screen editing
and electronic storage. The initial advertising materials for these machines advised managers that they could do the work of five typists. In 1963 we noticed the arrival of the first light pen by MIT. This innovation might have been the beginning of modern computer graphics." (http://home.earthlink.net/~atomic_rom/moments.htm)

Photocomposition, typesetting mode enter the market in 1944, but didn’t catch on until the early 1950s. Typeface masters for photocomposition are on film; the characters are projected onto photosensitive paper. Lenses are used to adjust the size of the image, scaling the type to desired size. This innovating technology allowed for overlapping characters.

The digital era in typesetting started in early 1970s. The earliest computer-based typesetters were a hybrid between the photocomposition machines and later pure digital output. They each had their own command language for communicating with output devices.

In the late 1980s PostScript gradually emerged as the standard for digital typesetting. This was due to a variety of reasons, including its inclusion in the Apple LaserWriter printer and its powerful graphics handling. When combined with the Macintosh, the first widely used computer, and PageMaker, the first desktop publishing program, gave us the roots of current computer based technology.

Technological advances in printing made possible for books to be more accessible to wider audience. Initially books were privileged items belonging to wealthy level of society. With time books found a way to every knowledge-seeking household in the modern world. “In 1786 the first embossed book was published for blind people. The 1904 is a special year for comic book lovers. The first regular comic book entered the market that year. Children were pleased to see their first interactive book in 1940.
Dorothy Kunhardt’s “Pat the Bunny,” taught children to think out of the box by employing multimedia and interactivity.”

(\url{http://www.futureprint.kent.edu/articles/henke01.htm})

Nowadays, the print industry goes through a dry spell. Printing becomes increasingly more expensive. To combat with this problem the industry increased use of digital printers that can efficiently produce high quality paper books on demand. CAP Ventures predicted that within five years, 80% of all print will be ordered via www. This created new model of publishing—called e-publishing (on demand). The printed book is currently under attack by e-book. Present e-books are handheld devices in which books can be downloaded in a file form and read on a backlit screen using buttons to maneuver through text. There have been also experiments with on-line book distribution by Stephan King, David Saperstein, Mary Higgins and others authors.

Bob Sein, founder of Night Kitchen is currently developing software known as TK-3, enabling authors to write Multimedia Books. Books could be then imbedded with video and audio, searchable sticky notes, Internet links and annobeam for annotations. Children books and reference books, books that need constant updating will benefit from this technology. Children will want to read a book and interact with the characters.

1. E-books and the Internet will never be able to replace the print version of the book or even to compete with the book. We feel nostalgic about books, we want to flip though pages and collect them. The” traditional interaction with a printed book is timeless.” (\url{http://www.kurzweiltech.com/ktihome.html})

3. “In 1975 Kurzweil Technologies started to work on first Omni-font optical character recognition, first flatbed scanner and first text-to-speech syntheses.

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The final products entered the market much later but the idea was conceived then. In 1999 Ray Kurzweil received the National Medal of Technology for his developments.” (http://futureprint.kent.edu/articles/saito01.htm)

Voice recognition systems are commercially available. Medical businesses are currently embracing this technology as well as handicapped people (example: radiologists could input data without getting exposed to x-rays, visually impaired people could use the word processor, etc.).

The 1990s created handwriting recognition system. The Apple Newton is the precursor to widespread handwriting recognition programs, allowing users to directly input their own information and more easily enter data while on the go.

Currently we are working on improving the display of printed media. Our digital technology is trying to compete with ordinary paper as a display medium for printed matter. Dai Nippon Printing (DNP) Company’s Central Research Institute has been developing a digital, paper-like medium for information display that can be electronically erased and thermally rewritten many times.

Company called E-Ink is creating electrophoretic ink. This ink has high contrast display that can be read easily from any angle just like real print. The secret is in the ink made up of switchable capsules-dark blue in one side and white on the other. The E-ink stays set in one pattern of text until an electric charge switches them into another pattern. The idea is that the liquid electronic ink will typeset itself depending on whatever text it’s programmed to display.

1. “Lucent Technologies and E-Ink came to agreement and are developing paper-like electronic display. The working prototype is a step toward creating electronic newspapers. This paper is called “Radio Paper.” Radio paper acts like digital paper, but would wirelessly receive information that
creates the display. The E-Ink’s president Jim Iuliano anticipates a working prototype in three to five years”.

(http://futureprint.kent.edu/articles/west01.htm)

The Liquid Crystal Institute successfully produced sophisticated weightless, flexible display that operates for many hours using lightweight batteries and exhibiting high resolution and contrast. (Bulliet, Richard W. 1987, Pg 427-438)

The future of traditional paper, ink and means of communication is still being written today. Digital technology has already made a great impact on the way we receive information, read, and communicate with others. It is believed that traditionally printed materials will never totally disappear from lives but they might be greatly limited by technological advances. The only problem we see is diminishing number of quality books read by our population as well as lack of manual writing. We seemed to embraced new technology and forget our heritage.

2.2 Printing

Printing is a process for reproducing text and image, typically with ink on paper using a printing press. It is often carried out as a large-scale industrial process, and is an essential part of publishing and transaction printing.

Woodblock printing

Woodblock printing is a technique for printing text, images or patterns that was used widely throughout East Asia. It originated in China in antiquity as a method of printing on textiles and later on paper. As a method of printing on cloth, the earliest surviving examples from China date to before 220, and from Egypt to the 4th century.
In East Asia

By AD 593, the first printing press was invented in China, and the first printed newspaper, Kaiyuan Za Bao, was available in Beijing in AD 713. It was a woodblock printing. And the Tianemmen scrolls, the earliest known complete woodblock printed book with illustrations, was printed in China in AD 868; it did not supersede the use of block printing.

In Middle East

Woodblock printing on cloth appeared in Egypt by the 4th century, though it is not clear if the Egyptian printing of cloth was learned from China or developed separately. Block printing, called tarsh in Arabic was developed in Arabic Egypt during the 9th-10th centuries, mostly for prayers and amulets. There is some evidence to suggest that the print blocks were made from a variety of different materials besides wood, including metals such as tin lead and cast iron, as well as stone glass and clay. However, the techniques employed are uncertain and they appear to have had very little influence outside of the Muslim world. Though Europe adopted woodblock printing from the Muslim world, initially for fabric, “the technique of metal block printing remained unknown in Europe. Block printing later went out of use in Islamic Central Asia after movable type printing was introduced from China.”

(Geoffrey Roper)

In Europe

Block printing first came to Christian Europe as a method for printing on cloth, where it was common by 1300. Images printed on cloth for religious purposes could be quite large and elaborate, and when paper became relatively easily available, around 1400, the medium transferred very quickly to small woodcut religious images and playing
cards printed on paper. These prints were produced in very large numbers from about 1425 onwards.

Around the mid-century, block-books, woodcut books with both text and images, usually carved in the same block, emerged as a cheaper alternative to manuscripts and books printed with movable types. “These were all short heavily illustrated works, the bestsellers of the day, repeated in many different block-book versions: the Ars Moriendi and the Biblia Pauperum were the most common. There is still some controversy among scholars as to whether their introduction preceded or, the majority view, followed the introduction of movable types with the range of estimated dates being between about 1440 and 1460.” (Master, E.S., Alan Shestack, 1967).

**Movable type printing**

**Movable type** is the system of **printing** and typography using movable pieces of metal type, made by casting from matrices struck by letter punches. Movable types allowed for much more flexible processes than hand copying or block printing.

“Around 1040, the first known movable type system was created in China by Bi Sheng out of porcelain.” *(Encyclopaedia Britannica, 2006)* Sheng used clay type, which broke easily, but Wang Zhen later carved a more durable type from wood by 1298 AD, and developed a complex system of revolving tables and number-association with written Chinese characters that made typesetting and printing more efficient. However, the main method in use there remained woodblock printing.

“Around 1450, Johannes Gutenberg introduced what is regarded as an independent invention of movable type in Europe (see printing press), along with innovations in casting the type based on a matrix and hand mould. Gutenberg was the first to create his type pieces from an alloy of lead, tin and antimony – the same components still used today.” *(Meggs, Philip B. A, 1989, Pg 58-69)*
Johannes Gutenberg's work on the printing press began in approximately 1436 when he partnered with Andreas Dritzehen—a man he had previously instructed in gem-cutting—and Andreas Heilmann, “owner of a paper mill.” (*Time-Life magazine, 1977*). It was not until “a 1439 lawsuit against Gutenberg that official record exists; witnesses testimony discussed type, an inventory of metals (including lead) and his type mold.” (*Scaglia, Patrick, 2007*)

Compared to woodblock printing, movable type page setting was quicker and more durable. The metal type pieces were more durable and the lettering was more uniform, leading to typography and fonts.” The high quality and relatively low price of the Gutenberg Bible (1455) established the superiority of movable type, and printing presses rapidly spread across Europe, leading up to the Renaissance, and later all around the world. Today, practically all movable type printing ultimately derives from Gutenberg's movable type printing, which is often regarded as the most important invention of the second millennium.” (*Briggs, Asa and Burke, 2002, Pg 15-23, 61-73*)

**Rotary printing press**

The *rotary printing press* was invented by Richard March Hoe in 1847. It uses impressions curved around a cylinder to print on long continuous rolls of paper or other substrates. Rotary drum printing was later significantly improved by William Bullock.

**Modern printing technology**

Across the world,” over 45 trillion pages (2005 figure) are printed annually. In 2006 there were approximately 30,700 printing companies in the United States, accounting for $112 billion, according to the 2006 U.S. Industry & Market Outlook by *Barnes Reports*. Print jobs that move through the Internet made up 12.5% of the total U.S.
printing market last year, according to research firm InfoTrend/CAP Ventures”.

(Rothstein, Edward, 2009)

**Offset press**

Offset printing is a widely used **printing** technique where the inked image is transferred (or "offset") from a plate to a rubber blanket, then to the printing surface. When used in combination with the lithographic process, which is based on the repulsion of oil and water, the offset technique employs a flat (planographic) image carrier on which the image to be printed obtains ink from ink rollers, while the non-printing area attracts a film of water, keeping the non-printing areas ink-free.

Currently, most books and newspapers are printed using the technique of offset lithography. Other common techniques include:

- flexography used for packaging, labels, newspapers.
- hot wax dye transfer
- inkjet used typically to print a small number of books or packaging, and also to print a variety of materials from high quality papers simulate offset printing, to floor tiles; Inkjet is also used to apply mailing addresses to direct mail pieces.
- laser printing mainly used in offices and for transactional printing (bills, bank documents). Laser printing is commonly used by direct mail companies to create variable data letters or coupons, for example.
- pad printing popular for its unique ability to print on complex 3-dimensional surfaces.
- relief print, (mainly used for catalogues).
- rotogravure mainly used for magazines and packaging.
- screen-printing from T-shirts to floor tiles.
Gravure

Gravure printing is an intaglio printing technique, where the image to be printed is made up of small depressions in the surface of the printing plate. The cells are filled with ink and the excess is scraped off the surface with a doctor blade, then a rubber-covered roller presses paper onto the surface of the plate and into contact with the ink in the cells. The printing plates are usually made from copper and may be produced by digital engraving or laser etching.

Gravure printing is used for long, high-quality print runs such as magazines, mail-order catalogues, packaging, and printing onto fabric and wallpaper. It is also used for printing postage stamps and decorative plastic laminates, such as kitchen worktops.

2.3 Impact of the invention of printing

Samuel Hartlib, who was exiled in Britain and enthusiastic about social and cultural reforms, wrote in 1641 that "the art of printing will so spread knowledge that the common people, knowing their own rights and liberties, will not be governed by way of oppression". (Meyrowitz) For both churchmen and governments, it was concerning that print allowed readers, eventually including those from all classes of society, to study religious texts and politically sensitive issues by themselves, instead of thinking mediated by the religious and political authorities.

It took a long long time for print to penetrate Russia and the Orthodox Christian world, a region (including modern Serbia, Romania and Bulgaria) where reading ability was largely restricted to the clergy. In 1564, a White Russian brought a press to Moscow, and soon after that his workshop was destroyed by a mob.

In the Muslim world, printing, especially in Arabic or Turkish was strongly opposed throughout the early modern period (printing in Hebrew was sometimes permitted).
Indeed, the Muslim countries have been regarded as a barrier to the passage of printing from China to the West. According to an imperial ambassador to Istanbul in the middle of the sixteenth century, it was a sin for the Turks to print religious books. In 1515, Sultan Selim I issued a decree under which the practice of printing would be punishable by death. At the end of the century, Sultan Murad III permitted the sale of non-religious printed books in Arabic characters, yet the majority was imported from Italy.

Jews were banned from German printing guilds; as a result “Hebrew printing sprang up in Italy, beginning in 1470 in Rome, and then spreading to other towns. Local rulers had the authority to grant or revoke licenses to publish Hebrew books.” (Meyrowitz). It was thought that the introduction of the printing medium 'would strengthen religion and enhance the power of monarchs.' (Meyrowitz) The majority of books were of religious nature with the church and crown regulating the content. The consequences of printing wrong material were extreme. Meyrowitz (Briggs, Asa and Burke, Peter, 2002, Pg 15-23, 61-73) used the example of William Carter who, in 1584, printed a pro-Catholic pamphlet in Protestant-dominated England. The consequence of his action was hanging.

The widespread distribution of the Bible 'had a revolutionary impact, because it decreased the power of the Catholic Church as the prime possessor and interpreter of God's word.' (Briggs, Asa and Burke, Peter, 2002, Pg 15-23, 61-73)

2.4 Social impact

Print gave a broader range of readers' access to knowledge and enabled later generations to build on the intellectual achievements of earlier ones. Print, according to Acton in his lecture On the Study of History (1895), gave assurance that the work of the Renaissance would last, that what was written would be accessible to all, that
such an occultation of knowledge and ideas as had depressed the Middle Ages would never recur, that not an idea would be lost.

Print was instrumental in changing the nature of reading within society.

Elizabeth Eisenstein identifies two long term effects of the invention of printing. She claims that print created a sustained and uniform reference for knowledge as well as allowing for comparison between incompatible views. (Eisenstein in Briggs and Burke, 2002: p21)

Asa Briggs and Peter Burke identify five kinds of reading that developed in relation to the introduction of print:

- Critical reading: due to the fact that texts finally became accessible to the general population, critical reading emerged because people were given the option to form their own opinions on texts.

- Dangerous Reading: reading was seen as a dangerous pursuit because it was considered rebellious and unsociable. This was especially in the case of women because reading could stir up dangerous emotions like love. There was also the concern that if women could read, they could read love notes.

- Creative reading: Printing allowed people to read texts and interpret them creatively, often in very different ways than the author intended.

- Extensive Reading: Print allowed for a wide range of texts to become available, thus, previous methods of intensive reading of texts from start to finish, began to change. With texts being readily available, people began reading on particular topics or chapters, allowing for much more extensive reading on a wider range of topics.

- Private reading: This is linked to the rise of individualism. Before print, reading was often a group event, where one person would read to a group of
people. With print, literacy rose as did availability of texts, thus reading became a solitary pursuit.

"While the invention of printing has been discussed conventionally in terms of its value for spreading ideas, it’s even greater contribution is its furthering of the long-developing shift in the relationship between space and discourse" (Briggs, Asa and Burke, Peter, 2002).

The proliferation of media is discussing in relation to the introduction of the printing press, to the death of an oral culture and that this new culture had more of an emphasis on the visual rather than in an auditory medium. As such the printing press gave birth to a more accessible and widely available source of knowledge in the sense that it broke down the boundaries between the possessors of knowledge and the masses. The narrative or discourse now existed in what would become indirectly through time, the global village.

The invention of printing also changed the occupational structure of European cities. Printers emerged as a new group of artisans for whom literacy was essential, although the much more labour-intensive occupation of the scribe naturally declined. Proof-correcting arose as a new occupation, while a rise in the amount of booksellers and librarians naturally followed the explosion in the numbers of books.

2.5 Digital printing

Digital printing accounts for approximately 9% of the 45 trillion pages printed annually (2005 figure) around the world.

Printing at home or in an office or engineering environment is subdivided into:

- small format (up to ledger size paper sheets), as used in business offices and libraries

• wide format (up to 3’ or 914mm wide rolls of paper), as used in drafting and design establishments.

Some of the more common printing technologies are:

• blueprint—and related chemical technologies.

• daisy wheel—where pre-formed characters are applied individually.

• dot-matrix—which produces arbitrary patterns of dots with an array of printing studs.

• inkjet—including bubble-jet—where ink is sprayed onto the paper to create the desired image.

• laser—where toner consisting primarily of polymer with pigment of the desired colours is melted and applied directly to the paper to create the desired image.

• line printing—where pre-formed characters are applied to the paper by lines.

• solid ink printer—where cubes of ink are melted onto paper.

• heat transfer—like early fax machines or modern receipt printers that apply heat to special paper, which turns black to form the printed image.

Vendors typically stress the total cost to operate the equipment, involving complex calculations that include all cost factors involved in the operation as well as the capital equipment costs, amortization, etc. For the most part, toner systems beat inkjet in the long run, whereas inkjets are less expensive in the initial purchase price.

Professional digital printing (using toner) primarily uses an electrical charge to transfer toner or liquid ink to the substrate it is printed on. Digital print quality has steadily improved from early color and black & white copiers to sophisticated colour digital presses like the Xerox iGen3, the Kodak Nexpress, the HP Indigo Digital Press series and the InfoPrint 5000. The iGen3 and Nexpress use toner particles and the
Indigo uses liquid ink. The Info Print 5000 is a full-color, continuous forms inkjet drop-on-demand printing system. All handle variable data and rival offset in quality. Digital offset presses are also called direct imaging presses, although these presses can receive computer files and automatically turn them into print-ready plates, they cannot insert variable data.

Small press and fanzines generally use digital printing or more rarely xerography. Prior to the introduction of cheap photocopying the use of machines such as the spirit duplicator, hectograph, and mimeograph was common.

2.6 Print media in India

Indian print media is one of the largest print media in the world. The history of it started in 1780, with the publication of the Bengal Gazette from Calcutta. James Augustus Hickey is considered as the "fighter of Indian press" as he started "the first Indian newspaper from Calcutta, the Calcutta General Advertiser or the Bengal Gazette in January, 1780. In 1789, the first newspaper from Bombay, the Bombay Herald appeared, followed by the Bombay Courier next year (this newspaper was later amalgamated with the Times of India in 1861). The Calcutta Gazette was published in 1784 A.D. under the patronage of the government and in 1785 A.D. it came as a Bengal Journal and as monthly, the Oriental Magazine of Calcutta Amusement, was brought out along with the Calcutta chronicle in 1786 A.D.

The first newspaper in an Indian language was the Samachar Darpan in Bengali. The first issue of this daily was published from the Serampore Mission Press on May 23, 1818. In the same year, Ganga Kishore Bhattacharya started publishing another newspaper in Bengali, the Bengal Gazetti. On July 1, 1822 the first Gujarati newspaper the Bombay Samachar was published from Bombay, which is still extant.
The first Hindi newspaper, the Samachar Sudha Varshan began in 1854. Since then, the prominent Indian languages in which papers have grown over the years are Hindi, Marathi, Malayalam, Tamil, Telugu, Urdu and Bengali.” (Raghwan GNS. 1981) The first newspaper in Madras, the Madras Courier, came into existence in 1785 A.D. as an officially recognized newspaper founded by Richard Johnson, the Government Printer. Bombay’s first newspaper, The Bombay Herald, came into being in 1789 A.D. The Courier which was published a year later carried advertisements in Gujarati.

The first two decades of the 19th century saw the imposition of rigid control on the press by the Marquess of Wellesely and relaxation by the Marquess of Hasting. Many of the newspapers being owned by the company personnel did not care for pre-censorship with any regularity. Military information was published and books and pamphlets were printed, sometimes containing forbidden information. Nineteenth century saw the rapid growth of the Indian press. There was a movement for religious and social reforms and there was a growing political consciousness among the people. In the later part of the 19th century Indian National Congress came into being. The influence of the Indian press on the minds of the people particularly the intelligentsia was considerable. With the emergence of the nationalist press a new dimension was added to Indian journalism. The nationalist press and the Anglo Indian Press had different, almost conflicting objectives.

Like English education (1830’s), Railways and the telegraph (1850’s), Indian councils (1861) and cricket the press originated in India during British rule. It was an Englishman who brought out the first newspaper, a weekly journal, on Indian soil in 1780. but it could hardly be described as an Indian newspaper. Printing presses were first brought to India in the 16th century by Christian missionaries for publishing.” A press was installed in Bombay in 1674, in Madras in
1772, and at Calcutta in 1779. But the company’s officials did not encourage the publication of newspaper. The appointment of Warren Hastings in 1774 as a Governor-General at Calcutta with a supervisory role in relation to the Governors of Madras and Bombay, marked the emergence of East India Company as a territorial power.” (Raghwan GNS, 1981)

Though a British Hicky started first newspaper in India but contribution of missionaries here cannot be ignored. Many paper published from Srerampur were started to propagate Christianity in India then the first Bengali monthly magazine came out in 1818(Digdarshan). It was soon followed by Samachar Darpan, a weekly in Bengali and Friends of India, a monthly in English.

Raja Ram Mohan Roy can be considered as a Father of Indian press. He started three journals “ Sambad Kaumudi, Mirat-ul Akhbaar and Brahmanical Magazine in English. Raja Ram Mohan Roy’s publications marked true beginning of Indian journalism. They were addressed to Indians, but also appealed to the better sense of Englishman living in India.”

The first daily paper ever published in India appeared on “29th April 1819. The interests and resources of several Calcutta journals have from time to time merged in the Harkaru, and it received an important accession on 1st October 1834. At Mumbai Fardoonji Murzban, a Parsi entrepreneur, began by establishing a printing press in 1812 and brought out the Samachar as an annual panchang. It began to be published as a weekly newspaper from 1st July 1822, and became a daily in 1832. at that time the circulation of newspaper was small.” (Raghwan GNS, 1981)

The impulse of national awakening generated by Raja Ram Mohan Roy in Bengal soon spread to other parts of India. It resulted, by the mid 19th century, in the formation of British Indian associations by educated Indians in the presidency cities
of Calcutta, Bombay and Madras as well as citizens forum in some large towns like
Midnapur in Bengal, Puna in Maharastra. Alongside the formation of political
associations, Indian owned newspapers sprang up in various parts of the country.
Many of them advocated political and social reforms. The result was 1857 revolt,
Jagdish Prasad Chaturvedi writes:
“it was in the 1857 itself that Payam-e-Aazadi started publication in Hindi and Urdu,
calling upon the people to fight against the British. The paper was soon confiscated.
Again the first Hindi daily, Samacha Sudhavarshan and two newspaper in Urdu and
Persian, Doorbeen and Sultan-ul-Akbaar faced trial in 1857 for having published a
farman by Bahadur Shah Jafer urging the people to drive the British out of India”.
The 1857 up rise and its suppression made little difference to the process of national
awakening that was initiated by Raja Ram Mohan Roy. It continued to spread all over
India and resulted in the formation of citizens association comprising Lawyers,
teachers and other sections of the English educated intelligentsia and the emergence
of nationalist newspaper. Illustrative of the link between and the mutually reinforcing
effect of citizens association and the emerging nationalist press is the fact that the
Madras Mahajan Sabha was founded in 1884 in the premises of The Hindu, which
had been established in 1878 as a weekly newspaper.
Thereafter many changes have been seen in Indian print media scenario. Contribution
of great freedom fighters like Ane Basent, Bal Gandhar Tilak, Sardar Vallabh Bhai
Patel and Gandhi ji himself started many news papers which have played great role in
national awakening, village construction and making the people aware with their
rights.
This stage witnesses the Sedition trials of Tilak (1897 and 1907), the return of Gandhi to India (1915) and the struggle against the Rowlett Act and against uncivilized colonial repression. Tilak and Gandhi, themselves considerable journalists, wield a major influence on the field. The Jallianwala Bagh massacre closes this stage, with the press dividing sharply into the section which condemns the crime and outrage, and the opposite camp which defends, or provides apologies for this brutal response to the intensification of the freedom struggle. The Government of India was haunted by the specter of sedition and it enacted in 1907 the laws to control public meetings followed by the newspapers (Incitement to offences) Act 1908. This act empowered a magistrate to seize a press on being satisfied that a newspaper had printed matters containing any incitement to murder or to any other act of violence or to an offence under the explosive substances Act.

The Indian press Act was directed against the offences involving violence as well as sedition. The rigorous of the act of 1910 were further enhanced by the Criminal Law Amendment Act 1913 and by the Defense of Indian Regulations 1914 which was promulgated on the outbreak of the First World War.

- III Phase-(1919-1937) sees the differentiation of the Indian press into moderate and radical tendencies in relation to the strategy and tactics of the freedom movement. The next important law on the subject is the Official Secrets Act 1923. It is a general act but has an important impact on the press. It is aimed at maintaining the security of the state against leakage of secret information, sabotage and the like.
Gandhi's advent into politics took place in 1920. Drawing essentially upon his experiences in South Africa he launched his first Non-cooperation Movement in 1920 which aroused political consciousness among the masses. In the 1920 newspapers played an important role by propagating the views of different schools of thought and by molding public opinion.

The struggle between the nationalist and pro-British press continues. The Sedition trial of Gandhi in 1922 witnesses a heroic response. In British the labour Government is formed a new attitude to the India, questions are shaped and expressed. In India nationalist newspapers such as Hindustan Times and Indian Express are established while those already established make impressive progress in their reach and influence. The struggle for the freedom of press, and for wider civil liberty acquired full voice. After the repeal of the acts of 1908 and 1910 in 1922, no repressive press laws and newspapers flourished. But the launching of the civil disobedience movement by Gandhiji in 1931 prompted the Government to promulgate an ordinance to 'control the press' which was later enacted as the Indian press (Emergency Powers) act 1931. While the draft constitution was under consideration in the Constituent Assembly, the government appointed a Press Laws Inquiry Committee to 'review the press laws of Indian with a view to examine if they are in accordance with the Fundamental Assembly of India'. The act of 1931 was accordingly repealed and replaced by the press (Objectionable Matter) Act 1951.

- IV-Phase (1937-1947) sees the maturing of assertive tendencies in the press and significant professional developments such as news services, the pooling of arrangements and expanded coverage of foreign news.
founds the National Herald (1938) and adopts a forward looking stand on the question of the press. As the Congress prepares to assume office upon the transfer of power, new tendencies surface in the nationalist press, suggesting a more assertive and confidant role. The strength, conflicts and dilemmas of the press are increasingly expressed during this stage and the Indian Press as a whole gropes towards an understanding of a new role in independent India.

In post independence era Indian Print Journalism was in a fix. It was getting converted from a mission to profession. First press commission was set up just after independence to study the condition of Indian Journalism. Govt. tried its best to promote small medium newspaper and to fix the working hours and salary of journalist. It was observed that some highly circulated newspapers were under the ownership of a few hands. Govt. started giving incentives to small and medium newspapers so as to provide voice to common man. “After freedom prominent newspaper were The Indian Express, The Hindu, The Hindustan Times, The Times of India, The Tribune, The Deccan Herald etc. in English. Dharmayug, Dinman, Illustrated Weekly of India, were some popular Magazines” (Parthasarthy. Rangaswamy Journalism in India). A drastic change occurred in Indian Journalism during emergency imposed by the then P.M. Mrs. Indira Gandhi in 1975. The provisions of emergency strangled the freedom of expression hence censorship was imposed on print media. Some newspapers like Indian Express and The Statements could stand against the provisions of emergency, though they were highly oppressed by the state at that time while other newspapers yielded before the govt. for their survival. During emergency and after it the number of news magazines like India Today, Frontline, The Week etc. came into existence. After emergency with the advent of Janata Party Government the
freedom of expression was reestablished hence newspapers also started enjoying freedom.

Due to the fast progress in technology – arrival of computer, Offset Printing and Satellite transmission newspapers and magazines were drastically changed in 1980's. Colour printing, clean designing became common feature of Indian print media. When a number of T.V Channels started coming into Indian scene of mass communication in 1990's it was feared that newspaper's circulation would come down but against the apprehensions surprisingly there was a boost in the circulation of newspapers and magazines which may be partly attributed to rising literacy and partly to regionalization of newspapers. Now it became possible, due to new technology, to collect and disseminate the information fast by the help of technology so even district edition of regional newspapers started getting published.

While magazines had an upper hand in the publication of advertising, now because of developed technology newspapers turned colour and they also started getting ample advertising revenue. Ads of consumer durables, FMCG, Automobiles started getting published in newspapers also.

Globalizations, privatization and liberalization brought a sea change in Indian Journalism. 21st century journalism associates business and corporate news and it is making an effort to be more visually attractive. Certainly in this era of visual journalism advertising is still being published in modern newspapers of India.

The Indian language papers have taken over the English press as per the latest NRS survey of newspapers. The main reasons is the marketing strategy followed by the regional papers, beginning with Eenadu, a Telugu daily started by Ramoji Rao. The second reason is the growing literacy rate. Increase in the literacy rate has direct positive effect on the rise of circulation of the regional papers.
The people are first educated in their mother tongue as per their state in which they live for e.g. students in Maharashtra are compulsory taught Marathi language and hence they are educated in their state language and the first thing a literate person does is read papers and gain knowledge and hence higher the literacy rate in a state the sales of the dominating regional paper in that state rises.

The next reason is localization of news. Indian regional papers have several editions for a particular State for complete localization of news for the reader to connect with the paper. Malayala Manorama has about 10 editions in Kerala itself and six others outside Kerala. Thus regional papers aim at providing localized news for their readers. Even Advertisers saw the huge potential of the regional paper market, partly due to their own research and more due to the efforts of the regional papers to make the advertisers aware of the huge market.

2.7 Current Scenario

The Indian Newspaper industry is one of the largest in the world. It publishes the largest number of paid-for titles. “In 1997, the total number of newspapers and periodicals published was 41705, which include 4720 dailies and 14743 weeklies. The highest numbers of newspapers were published in Hindi, 16864.”

Newspapers in India are measured on two parameters, circulation and readership. Circulation is certified by the Audit Bureau of Circulations which is an industry body. It audits the paid-for circulation of the member newspaper companies. Readership is estimated by two different surveys, The Indian Readership Survey (IRS) and the National Readership Survey (NRS). Print Media, as anyone can understand is one of the most important factors coming through in the way a nation works. Newspapers, magazines, books etc. are ready by a
lot of people and are certainly one of the most trusted mediums of National and International News.

India has a vast array of Print Media with Thousands of Magazines and Newspapers in circulation. Top Notch Journalism, great reporting, press unity and a very strong network is what makes Print Media so much of a success even today in the age of Television and the Internet. It is also said that Print Media also helped literacy and undoubtedly the General Knowledge of the average person in India. At present there is no repressive center law directed against the press. The press act 1951 was enacted to provide against the printing and publication of incitement to crime and other objectionable matters.

The good thing about Indian Print media is that any Bias of any sort is quickly subsided; therefore impartial reporting is a major feature of the Indian Print Media. The news you get through these outlets cannot be any truer.

The newspaper with the largest Circulation in India is Dainik Jagran, having near about Two million readers. Next comes Times of India, an English newspaper, followed by Dainik Bhaskar, another Hindi Newspaper.

India has a lot of regional newspapers and magazines as well in a lot of languages. Therefore there is something out there for everyone to read! This section is dedicated to the Indian Print media with articles on Newspapers, Magazines, Controversies and opinions related to them etc. We hope you have a good time browsing through. Please let us know of any suggestions you may have through our contact page.

India offers a promising market for the print media industry. The expected CAGR of 12 per cent up to 2010 is a result of the increasing rate of literacy and thus the increase in the number of people reading newspapers and magazines. Also, the demand for the latest events in the country and the world is driving the newspaper
industry growth. In 2010, the print media is expected to reach Rs 19,500 crore from its present value of Rs 10,900 crore.

- **Current size:** Rs 10,900 crore
- **Projected size by 2010:** Rs 19,500 crore

The bright future and the immense scope of the Indian print media have also aroused the interest of foreign investors and recently the government has opened up the sector to foreign investment. Foreign media has also shown interest in investing in Indian publications. The revenues for India's newspaper market are generated from advertising and circulation. India's growth rate in this segment is poised to be higher than the average rate of growth in the Asia-Pacific region over the next four years. Digital printing, new ways of promotion and distribution are the latest trends and content being the focus of the print media industry. A few leaders in India in this segment are: Times of India Group, Dainik Jagran, Lok satta, The Hindustan Times and The Hindu.