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DEVELOPMENT OF MASS MEDIA

Structure

This unit introduces to you a detailed analysis of origin and growth of print, film, television, internet, mobile communications and various components of new media including SMS, MMS, and second, third and fourth-generation of cellular technology and videoconferencing.

1_ INTRODUCTION :

The word, 'print' refers to the text appearing in a book, newspaper, or other printed publication, especially with reference to its size, form, or style. Printing is a process for reproducing text and images. Since its inception as wooden block, it has traversed a long journey. Advent of typesetting and phototypesetting revolutionised the printing technology. Desktop Publishing (DTP) system further brought in substantial changes in printing industry. In between, it witnessed a great transformation from letter press to offset printing. Print media comprises books, newspapers, magazines (journal and periodicals), posters, etc. Print has immensely impacted the society and the people .

Cinema/film/movie has also traversed a great journey and positioned today as a popular mass media of entertainment. While the early decades were dominated by silent movies, technological development on sound devices brought in the film in the form of audio-visual language. New trends in cinema began to influence film-making in all over the world. It led to the production of feature, documentary and tele films which highlighted the socio-political and cultural issues of the people. Both commercial and art films have brought to the fore an understanding of creativity through cinematography. However, the marked change in mass media was realised after the launch of cellular phones and Internet. New media created a new way of instantly dissemination the information across the world. This was also bolstered up the emergence of short message service (SMS), multimedia messaging service (MMS), 2G, 3G, 4G and videoconferencing.

2_ ORIGIN AND GROWTH OF PRESS

Print can be defined as a medium that disseminates writing or textual matter. Printing is defined as a process that involves the use of ink, paper and a printing press for reproducing text and image. The technology of printing using a printing press allows a large-scale production of the same matter. Printing is a technique that is an integral part of publishing .

2.1. **Early Days of Printing**

Printing has covered a long journey starting from wooden block printing that was in practice in China and Korea much before Johannes Gutenberg designed movable types made out of molten metal alloy and a printing press in mid-fifteenth century. Lots of efforts were made by him to cast right type of letters, developing right type of ink that he made from lamp black mixed in an oil-based varnish and combining together all these important components for the use of printing. It is said that it took him almost 20 years to bring this system into practice. His system is considered as the first revolution in printing technology.

The second revolution in printing technology came at the end of the nineteenth century. Two methods of mechanical typesetting were invented that speeded up the process of setting the type in metal. They were monotype system and line casting. The third revolution was phototypesetting. Finally, Desktop Publishing (DTP) is considered the fourth revolution in printing. The DTP system has brought dramatic changes in the printing industry. Till date, it is the widely accepted system in printing.

Printing originated with letterpress. It is also known as relief printing. In this system, the image to be printed is raised in relief above the surface that carries it and the non-printing area is depressed. When ink is applied on the image area only the raised surface gets the ink. This is pressed against the paper to get the impression. The depressed area leaves no impression on the paper. Platen, flatbed cylinder and rotary are the types of processes engaged in letterpress printing.

Platen press involves two plain surfaces. Paper is placed on one of the surfaces, known as platen. The other surface on which the arranged images are set firmly is known as an image carrier. Ink rollers pass the ink across the images, paper is fed by inserting it between two flat

surfaces and printing is done by bringing these surfaces together. It is a slow system but is best suited to print letterheads, cards, flyers, forms and leaflets. Embossing, die-cutting, creasing, perforating and hot-foil stamping can be done by platen press.

Flatbed cylinder press is a further developed process having two features. First, the steam power was used to operate the press and second, one of the printing surfaces was cylindrical. As there was a revolving impression cylinder and the machine was power driven, the printing speed was quite high. It could print for longer hours and on large sized papers.

A further improvement in letterpress printing was observed by making both the surfaces cylindrical. This was rotary press system. It is faster than flatbed press because of the continuous action of cylindrical image-carrier. Once the rotary letterpress was used in the newspaper industry, but now it has been replaced by offset presses.

Offset printing is actually a modification of the lithography process where the image to be printed is drawn back-to-front with greasy ink on a flat surface of a stone slab. In the early nineteenth century lithography press was used for commercial purposes. It could not be used much for the purpose of mass production as the stones are in short supply, expensive, difficult to store and easily breakable. The lithography process was improved in 1889 by replacing lime stones with grained metal plates of zinc. Then the offset printing came where in place of two, three surfaces are used. An offset press is also rotary having a dampening unit as an additional operation system besides feeding, inking, printing and delivery systems. There are three cylinders. They are a plate carrier, a rubber blanket and an impression cylinder. Dampening unit is used in coating the plate with water. The offset system occupies less space and the speed of printing is faster.

The most recent and the most revolutionary invention, in the field of printing technology, is that of desktop publishing, which is a new way to create a print document in less time and cost. Supported by the Internet technology of data transfer, it has given a new lease of life to newspapers in this age of advanced technology like television and online journalism. The details of this technology will be discussed later in this unit while describing the advances of information technology

2.2. **Genre of Print Medium**

The emergence of print medium has been a big achievement for man as it has not only allowed to store and disseminate knowledge, it has also allowed us to communicate in numerous ways in print. Books were the very first forms that were printed and distributed, followed by periodicals, which soon gave place to newspapers. People used print for pamphlets and handbills for advertising and political propaganda. Magazines in weekly, fortnightly, monthly and bimonthly periodicity were developed at a later stage.

In the following passages, we will take a short look at various genres of print so as to understand its power and reach. These are

I. Books :

Everyone would agree that books are an invaluable source of knowledge. As we have seen earlier, books were present even before printing was invented, but they used to be in the form of manuscript. Books helped people to think individually and make discourses that would have been difficult in speech. In this way, we can say that books not only stored knowledge but also paved the way for the development of knowledge.

There are many types of books and each one can be viewed with a different approach. Books can be classified according to their content. They are broadly either fiction or non-fiction. (By no means are books limited to this classification)

(a) Fiction :

Most books published today are fictitious stories. They are in-part or completely untrue or fantasy. Historically, paper production was considered too expensive to be used for entertainment. An increase in global literacy and print technology led to the increased publication of books for the purpose of entertainment, and on many social issues that are allegorically called social commentary.

The most common form of fictional book is called the novel that contains stories that typically feature a plot, themes and characters. Stories and narrative are not restricted to any topic. In a way we can say that modern literature would not have benefited with this and other genre without the presence of the technology of printing. Comic books are a genres of books in which the story is not told, but illustrated.

(b) Non-fiction

There are reference books that provide information as opposed to telling a story, essay, commentary, or otherwise supporting a point of view. An encyclopaedia is a book or set of books designed to have more in-depth articles on many topics. A more specific reference book with tables or lists of data and information about a certain topic, often intended for professional use, is often called a handbook.

There are books with technical information on how to do something or how to use some equipment. There are textbooks that help the students in their studies in various disciplines.

There are several other types of books which deal with various subjects in various formats and have different objectives. There are books on photography having a major part of the content inform of photographs. The *Life and Time* publications series of books on various topics like forests, marine life, automobile, architecture, etc., have many visuals along with the text and provides an entirely different experience of reading books.

II. Periodicals

A periodical is a published text that appears at regular intervals. It can be weekly, monthly, bimonthly, quarterly or an annual. In early years, almost all newspapers were like periodicals. Even now, some small newspapers publishing from various small towns and remote areas can technically be considered as periodicals as they are not published daily, though they are called newspapers. Some examples of periodicals are newsletters, magazines, journals and annual reports. There are some exceptions as far as their naming is considered, for instance, *The Wall Street Journal* is actually a newspaper and not a journal.

The first issue of periodical *Review* was established in London in 1704. This periodical of four pages was like a weekly newspaper, yet it was different from early newspapers as it focussed on articles on domestic and national policies. Daniel Foe, the founder of *Review* edited the first issue from New Gate prison where he was kept for his critical views on certain policies of the Church of England.

The first magazine was published in late eighteenth century in London for the affluent class of the society. It was called *The Gentleman's Magazine*. It was edited by Edward Cave who for the first time used the term '*magazine*' for his periodical. The term magazine has its roots in the Arabic word '*makhazin*' meaning a place to store things or a storehouse. In Russian, shops, where things are kept or stored for selling, are known as magazines.

Magazines are a medium that present opinion and analysis of issues in depth which is practically not possible in case of newspapers. As they are not published daily, magazines get enough time to work upon the issues to present researchbased articles and stories in detail. Magazines help masses in building opinions on specific social, political and cultural issues concerning them and their society.

Usually magazines cover a variety of subjects like art, cinema, politics, religion, literature, etc. They cater to the needs of everyone. There are some other magazines that are concerned about specific subjects like politics, cinema, tribals, literature and so on. Such magazines are targeted to a specific audience. Magazines for children, women, students, business community, etc., also fall under the same category. With the growth of industry and various market trends, the tastes and needs of the masses have changed in recent years. Publishers understand their market. Hence, today we see a variety of magazines on automobiles, home decoration, real estates, mobiles, computers, etc.

Magazines are also available online. They share some features with blogs and online newspapers. Online magazines are also called webzines. The suffix 'web' here refers to their distribution carried out electronically where 'zine' is an abbreviation of the word magazine.

Though magazines are also kept and preserved in libraries along with other books, there was a time when people collected and preserved the issues of their favourite magazines in their homes. The knowledge and information in them never exhausts with changes in time.

III. **Newspapers**

A newspaper is also a periodical. It is published at regular intervals. Reports, articles, editorials, features, notices, advertisements, cartoons and photos are some of its contents. It is printed on a low grade paper that is not expensive and is known as newsprint.

A newspaper covers a variety of topics. There are some newspapers that concentrate on a specific topic for instance, a business newspaper covers all information regarding business and economy and issues that affect the business or essentials of business. A newspaper of general interest caters to the needs of everyone by covering stories on national, international regional, political as well as social events. It also informs us on business, crime, sports, literature, fashion, films and other entertainments like puzzles, comic strips and features on food, places, personalities and fine arts. Weather reports, forecasts and horoscopes are other attractive features of a newspaper.

A newspaper is known by its editorial writing. In fact, the editorial page reflects the policies and ideology of a newspaper. The editorial page contains editorials written by the editor or by the editorial team on current issues, articles by guest writers expressing their opinions on certain issues and letters to the editor.

Newspapers can be categorized on the basis of their periodicity. A daily newspaper is issued every day and a weekly newspaper appears once a week. Weekly newspapers are usually small newspapers appearing from districts or small towns. They depend on main stream major papers for their contents on international and national issues.

On the basis of size, newspapers can broadly be classified in two categories, namely, broadsheets and tabloids. The size of a broadsheet is 23.5×15 inches. Most of the dailies are of this size. A tabloid is 11.75×15 inches, i.e., half the size of a broadsheet.

In the last few decades due to the growing markets, newspapers have become more colourful with a bundle of advertisements and celebrity news. Most of the newspapers are coming with various types of supplements to cater to the needs of various sections of the society and also to keep up with the recent trend of value addition.

IV. Posters, pamphlets, flyers and brochures

A piece of printed paper that is clipped to community boards, pasted on walls or simply hung on the doors and trees is known as a poster. A poster includes textual as well as graphic information. Some varieties of posters are completely graphical or textual representations.

Generally, posters are designed to attract the attention of the masses. Hence, they are attractive, colourful and eye-catchy. They are used in propaganda, protests, advertising or simply inform people about any event

(a) Posters :

Since decades, people have been using posters in various forms like placards and poster bills. We see agitators holding placards in rallies; even at airports one can see people holding placards with the name of the person they are looking for written on them. Often in markets or in our colonies we see some information regarding sale or tuitions printed on a piece of paper and pasted on the walls. Thisis also a form of poster that is used for the purpose of advertisement.

Earlier, posters were either drawn or painted manually. The technique of lithography was invented in 1796 followed by chromolithography that allowed for mass production of posters. These techniques were found to be excellent for printing and producing colourful posters. By 1890s the art of poster making and designing spread all over Europe and toward the end of the nineteenth century this era came to be known as '*Belle Époque*' because of the newly emerged poster art. The rise of pop art culture on one hand and protests throughout the West in 1960s on the other led to the use of posters. During the Paris Students Riots in 1968 posters of revolutionary leader Che Guevara became a symbol of rebellion. This poster was designed by Jim Fitzpatrick..

Advertising posters are used for films, books or event promotions and also for inviting audiences for music and dance recitals and pop shows. Till recently, Bollywood film posters

were in high demand by the producers. Posters are also used for academic purposes in promoting and explaining the theme of seminars and conferences. Posters are being widely used in protecting environment, saving wild life, and maintaining peace and harmony in the world.

(b) Pamphlets :

UNESCO's Institute of Statistics defines a pamphlet as a non-periodic printed publication of at least fifty-nine pages exclusive of the cover pages. A pamphlet is an unbound booklet. It does not have a hardcover. It may consist of a single sheet of paper, printed on both sides and folded usually in half. According to the volume of the matter and size of the paper, it may be folded in thirds or in fourths. It contains information about a product or service.

When we buy an electric appliance, medicines, computers or mobiles, we get a folded sheet of paper mentioning on it 'how to use' instructions. This is a pamphlet. Actually pamphlets play a very important role in marketing business. They are usually inexpensive and can be distributed easily to customers. They can be used in political campaigning. They are also referred as leaflets.

(c) Flyers :

Flyers or handbills are a single page unfolded leaflets usually meant for advertising services or products. They can be used by individuals in promoting their businesses, products, services or any special cause. Flyers can be handed to people in shopping complexes. They are cost-effective and are considered as a very reliable form of direct marketing or advertising. We get a variety of flyers in between the folds of newspapers, they may be simple, colourful, printed on coarse, dull or glossy paper, small or large.

2.3. **Print as a Medium :**

print has made a lasting impact on the society. The print media has been established more than three centuries ago and emerged as the sole media of mass communication. It has seen many revolutions has been, and still is the biggest reservoir of knowledge accumulated over many centuries in the form of books.

In fact, many scholars believe that written and print media are responsible for ushering in the revolution of science and technology. We learnt many different ways of expressing with the help of print medium. Pamphlets, posters, newspapers, magazines and reference books can all be attributed to print media.

The contribution of print to democracy is enormous as everyone today would acknowledge that newspapers and magazines are the lifelines of modern democratic societies. They help people to become informed citizens and empower them to debate and discuss various issues concerning the society.

3. Cinema/Film/Movie :

Apart from listening to audio messages, human beings have been using visual messages for communicating. Images have a greater impact than simple voice messages. A combination of both has the greatest impact.

3.1. **Early Days of Cinema**

The word cinema is derived from Greek word '*kineto*' which means 'movement'. Thus, the word 'movie' came into existence. The technique of films is related to the discovery and development of photography. It was in the early nineteenth century when scientists were working on optics, they invented many devices like thaumatrope (by Filton in 1826), Phenakistoscope (by Belgian scientist Joseph Plateau), stroboscope (by Viennese scientist Simon Stampfer), to name a few. The working principle of all such devices was same, i.e. a disc with painted pictures of different movements of an object on it, when rotated gave an impression as if the object is moving. Later, using this principle E.J. Marey of Paris devised a photographic gun in 1882 for taking the pictures of moving objects like birds and animals. Seven years later he modified his camera where in place of a roll of light sensitive paper, he used celluloid film. He named his camera as 'chronophotographe'. An Englishman Edward Muybridge used a battery of cameras in a row to record the movements of racing horses in 1877. Thomas Alva Edison experimented with moving pictures under the direction of W.K.L.Dixon in 1888. Dixon made a remarkable effort by using celluloid films designed by George Eastman. These celluloid films later became the best medium for photography as it was possible to roll them. The camera that Edison had designed was heavy thus not portable.

French brothers, Louis Lumiere and Auguste Lumiere, succeeded in inventing a portable, suitcase sized cinematograph or camera that contained a film processing unit and a projector. The technology of Lumiere's cine-camera was based on his contemporary Edison's bulky camera. Their first film depicted the arrival of a train. The first public show of films by Lumiere brothers was organised in France in 1895.

I. Silent movies

By the end of nineteenth century, movie cameras were on high demand. Motion pictures became a profitable business at restaurants and fairs. Most of the early films were short, usually of 15 to 60 seconds duration, taken on 35 mm wide celluloid strips with 16 frames per second. The themes included workers in a factory, trains at station, parade, picnics, sailing and so on.

The first 30 years of cinema was dominated by silent movies. It is said that for sound effects sometimes musicians were hired to perform live during the film. Interestingly, in those days films were shown in special venues like fairs and theatres as a part of the show or in restaurants and inns. The first proper cinema theatre was *The Nickelodeon*. It was opened in Pittsburgh in 1905. By this time, the duration of the films was increased and some filmic effects were also used. This was the beginning of editing in films. Edison first used the stop motion technique in his film *The Execution of Mary*, where the camera was stopped at one action and restarted at other. The two pieces of film were cut and pasted so that the action appeared continuous. George Melles, a magician by profession, used superimposition, G.A. Smith used reverse motion and Robert Paul used different speeds of the camera for special effects. Some of the silent films are *Birth of a Nation* (1915) by D.W.Griffith, *The Last Laugh* (1924) by F.W. Hurnan, *Potemkin* (1925) by Sergei Eisenstein, *The Gold Rush* (1925) by

Charlie Chaplin, *Metropolis* (1926) by Fritzlang and *The Blue Angel* (1929) by Josefvon Stemberg. Another silent film Nanook of the North (1922) by Robert Flaherty is considered to be the first non-fiction film or first documentary. The silent era ended in 1929 after a method of recording sound with the image was discovered.

II. Talkies

Warner Brothers introduced a new sound-on-disc system in 1926 by recording music and sound effects on a wax record and then synchronizing it with projector. They released their first motion picture *Don Juan* which proved to be success. *The Jazz Singer* in 1927 brought a revolution in the history of talking pictures. *The Jazz Singer* was the first film where spoken dialogues were used with other sound effects. In fact, Dickson and Edison started working on sound devices much early in 1895. They had developed a kinetoscope, a visual component to their cylinder phonograph. They combined these two devices to make a kinetophone. That was an experimental stage when many enthusiasts and scientists were working on various types of sound systems.

Warner Brother's technology named vitaphone which used a separate phonographic disc for synchronizing the pictures. This technique allowed the dialogues and music to go along with the pictures. Introduction of talkies brought many changes. Various studios jumped into this profitable business. Some of them were 20th Century Fox, Paramount Pictures, Columbia Pictures, and Warner Brothers and so on. They started hiring actors and directors on long term contracts. Some of the noted directors of mid-twentieth century are Frank Capra, Vivtor Fleming, Alfred Hitchcock and Orson Welles.

3.2. **Trends in Film Making**

The society, its political, social and cultural conditions, its people and their behaviour have influenced film makers from the very beginning. In very early pictures, called musicals, a narrative style was adopted as the theme of the film. In the period between 1910s and 1930s, modernity and criticism were the main themes portrayed in films. Charlie Chaplin's *The Great Dictator* is an example that expresses social conflicts with modernity. Valentine, also known as German Chaplin, did something similar in his comedies. That was the age of enlightenment in cinema that displayed semantic logic.

Musicals, a distinct style of portraying the classics, were influenced by the books, novels of the times. This period was a period of cross-cultural pollination. Directors were more inclined towards the world's literature. Excellent examples are *Les Miserables* of Victor Hugo, written in 1862 and screened in 1907 and Tolstoy's *Anna Karenina* and also *Crime and Punishment*. Even vampire fiction was readily accepted by the directors. Bela Lugosi's *Dracula* in 1931 was a super hit movie. Post-World War II movies depicted the lives of common people, their sufferings and agonies. *The Bicycle Thief* and *Umberto D* by the Italian director Vittorio De Sica are remarkable examples of Italian neo-realism that existed in the post-World War II era. Almost all post-World War II movies depicted social commitment in various ways. Rossellini was another Italian director who depicted through his visual expressions Italian political life, affection for humans, an urge to rebuild the nation that got destroyed by war. Fellini and Andrei Wajda were also inspired by the neo-realism of the Europe.

French cinema of the post-World War II era produced many fine movies like Marcel Carne's *The Children of Paradise* in 1945, Rene Clement's *Forbidden Games* in 1952 and Jacques Becker's *Golden Helmet* in 1952 with a distinct literary presentation.

In fact, the period between 1950 and 1960 was a period when a new wave emerged in the world of cinema. New wave cinema is also referred to as art cinema. The French directors got inspiration from Alexandre Astruc's writings where he says that film should be regarded as a form of audio-visual language. He introduced the concept of 'camera-pen'. Francois Truffaut, Jean-luc-Godard and Jacques Rivette are some of the famous directors of new wave cinema. Truffaut's *The 400 Blows*, Godard's *Breathless* and Alain Resnais's *Hiroshima Mon Amour* carried a distinctive style and ideology of the director and were quick and costeffective as far as their making was concerned.

In the Great Britain post-World War II movies were literary in their taste and texture. British cinema of this period was elitist and culturally conservative to some extent. Many classics were adapted by the directors for films and *Hamlet*, *Great Expectations* (1946) and *Oliver Twist* (1948) are some examples.

Soviet Union film industry produced some great prize winning movies during 1950-60 for instance, Mikhail Kalatozov's The Cranes are Flying in 1957 and Grigory Chukhrai's 'Ballad of a soldier' in 1959. Literary adaptations like Grigory Kozintsev's *Hamlet* in 1964 and Sergei Bondarchuk's *War and Peace* in 1967 were extremely impressive in their stylistics. Directors like Sergei Paradzhanov and Andrei Tarkovsky came with their legendary works. *Shadows of Forgotten Ancestors* (1964) by Paradzhanov and *Ivan's Childhood* (1962) by Tarkovsky had a remarkable impact on world cinema. *Solaris*, *Nostalgia*, *The Sacrifice* and *Mirror* are some other unforgettable works of Tarkovsky.

3.3. **Genres of Films**

Documentary, feature film and telefilms are amongst some forms of films. According to a Scottish documentary maker, a documentary is a 'creative treatment of actuality'. In 1926, he defined a non-fiction film as a documentary.

An American film maker Pare Lozentz defines a documentary as 'a factual film', which has to be dramatic in nature. A documentary can be classified into several genres. A very popular form of documentary in early twentieth century was called 'travelogue film'. It was also known as 'scenics'. Frank Hurley, an Australian photographer and adventurer, made a documentary named as *South* in 1919 on Trans-Antarctic expedition. He had participated in several Antarctic expeditions. He also served as an official photographer with Australian forces during World War II. This documentary had depicted the failure of the expedition. *Nanook of the North* produced by Robert J. Flaherty in 1922 is said to be a romanticized documentary.

Documentary can also serve as propaganda film. Frank Capra's *Why We Fight* in 1944 was commissioned by the US government to convince the US public that it was time to go to war. During 1940s, British documentary makers blended propaganda, information and education in their propaganda documentaries. Their approach was more poetic in nature.

Before each election, politicians convey their achievements to public through propaganda

documentaries. Making a documentary on wild life is an interesting task that requires lots of patience where as a documentary on a biography demands well researched facts.

With time and growth of technology the trends in documentaries are changing. Instead of portable camera and sound equipment, handicams are used for making documentaries which reduce the cost of production. Usually documentaries are of short duration of 5–30 minutes. They are cost effective and require less efforts and time.

I .Feature films

A feature film is a film of full length. American Film Institute and the British Film Institute define feature film as a film with duration of 40 minutes or longer. The Chamber's Dictionary defines feature film as a long cinematograph film forming the basis of a programme. Feature films are also called movies.

Story types or genres develop the category of films. Action films include stunts, chases, battles and fights and usually demand high budget. Adventure films are exciting stories of hunts, searches for the unknown and unseen. They are full of new experiences. Comedies are meant for provoking laughter and amusement. The light-hearted plots of comedies attract wide audiences. Other genres include horror films, crime and detective films. Dramas are serious presentations whereas musicals are song and dance based films. Historical films are big budget films portraying historical, mythical and legendary characters. Science fictions are visionary and imaginative and war movies are sensitive. Sometimes, a new genre develops on public demand or on the demand of current political and social atmosphere like films on terrorism, diseases, marriages, family relations, etc.

A film is created by recording photographic images using cameras. Originally the term film was used for a photographic film. A film can be called as an extension of photography. A cinemascope film, in comparison with a regular film, has a wide length and a short height. Films can be educative, for instance, a film based on the works of a leader or on a classic novel. They can be made for propaganda or can be artistic in nature.

II. Telefilms :

Telefilms are films produced for television broadcasting. Usually they are short films with a low budget. Doordarshan has produced certain quality telefilms in the past. It has introduced the works of famous writers like Premchand's *Nirmala*, Bhishma Sahani's *Tamas*, etc. in the form of telefilm. Such films are either funded by the ministry, NFDC or commissioned by Doordarshan. The regional centres of Doordarshan have also produced many telefilms of 1 hour duration. FTII produces telefilms that are telecast on Doordarshan.

Famous directors like Shyam Benegal and M.S. Sathyu have also directed several class telefilms. Telefilms on Doordarshan have also served as laboratories for young upcoming directors and actors as they had experimented with the subject, form, content and innovation.

3.4. Cinema as a Medium

Most of the cinema is meant for entertainment. It is a product that is made for consumption. Such films may be enjoyed by those who simply want to relax and wander in a

world of fantasies. This dreamy effect makes the audience to forget about the real world. Sometimes the impact of the films is not realised at once. It lives with us in our subconscious mind and appears gradually.

Cinema always tried to cope with the changing reality. It picks up issues from the society. If cinema focuses on serious and grave issues, it can make us more responsible towards our society by creating sensitivity and feelings for our own people. On the other hand, depicting and justifying violence, crime, vulgarity, lust and unreal lavish life styles can corrupt the people's minds. Thus it can also produce lame and uncultured class of people.

Most of the commercial cinema has a drastic negative effect on the youth. They blindly follow the filmy ideals in fashion, glamour and glitz. They strive to behave like actors and try to look like them. This hampers their mental and psychological growth that is required in the building of a nation.

Cinema has introduced various forms of music, from classical to folk and from devotional to pop. Films made on the literary works have not only introduced to us great writers and their thoughts but also helped in developing a better understanding of the society and its people.

Cinema as an extension of theatre is an art. A Russian theorist of films, V.I. Pudovkin wrote in 1933 in this context: It is a synthesis of each and every element—the oral, the visual, the philosophical; it is our opportunity to translate the world in all its lines and shadows into a new art form that has succeeded and will supersede all the older arts, for it is the supreme medium in which we can express today and tomorrow.

Interestingly, the famous film director Jean-Luc-Godard speaking on cinema as an art has a different viewpoint. He said: The cinema is not an art which films life, the cinema is something between art and life. Unlike painting and literature, the cinema both gives to life and takes from it, and I try to render this concept in my films. Literature and painting both exist as art from the very start, the cinema doesn't. Not only this, he further adds by saying that 'Cinema is the most beautiful fraud in the world.

4. Television :

Television is a brilliant invention of the twentieth century. It has not only made it possible to view the events and happenings of the world instantly, it has brought the cinema in the form of soap operas and telefilms and even in its usual form to the drawing rooms of the people. It has become a very powerful and the most accessed medium. Many politicians have been able to capture and maintain their political power with the help of television.

4.1.**Early Days of Television :**

In 1884, a German scientist Paul Nipkow experimented with a rotating disk containing small holes and found that this device of his can work as a scanner. The disk, known as Nipkow disc, produced patterns of electric impulses required to transmit pictures. This device became an integral part of the technology of transmitting images. Even today, this scanning concept is a standard component of television (now popularly known as TV).

Rosing in Russia used Braun's cathode ray oscilloscope as a display tube for producing

very feeble TV signals in 1907. In England, Campbell-Swinton worked out an electronic system for TV in 1908. A high school boy from Rigby, Philo T. Farnsworth of United States in 1922 drew an electronic circuit for transmitting and receiving moving images. His study was based on Nipkow disk. Next year Charles Jenkins sent still TV images by wireless from Washington to Philadelphia.

During the same period a Russian Scholar Vladimir Zworykin, who was a communication specialist and had already worked on TV circuit, came to US to begin his research on more sophisticated and practical electronic systems required for actual TV transmission and reception. This was the time when inventors were working on the TV system in various countries. John Baird a Scottish Engineer too used Nipkow disk to successfully produce faint pictures in black and white. He demonstrated the very first telecast in 1926. His TV system was later adopted by the BBC.

In Berlin, a TV service was started in 1935. The pictures were produced on a film and then scanned using Nipkow's model. BBC began its telecast in 1936 from Alexandra Palace, London. A full-fledged TV Station with studio was built in New York City's Empire State Building in 1932 and the telecast was started in 1936. Initially, the telecast had only two programmes per week and that too came to a sudden halt during World War II. Just after the war there emerged a number of TV stations in some major cities. By 1946 new licences for TV transmitters were issued and then there was a rush to bring home a new medium of communication. As TV sets were very expensive at the initial stage, only a few could afford them.

Those owned TV sets, used to have big gatherings of TV viewers at their homes. It was a luxury item and status symbol in those days. Federal Communications Commission (FCC) had issued approximately 100 licenses by the beginning of 1948. Most of the cities had their own stations. There appeared a problem of signal interference or clash in various stations. Reception was either not clear or it was not there at all. FCC ordered a freeze on the issuance of new licenses and manufacturing. Hence, America had to wait till the freeze was lifted. In the meantime, FCC worked out the technicalities of TV broadcasting in order to allocate frequencies to FM Radio and TV. When this chaotic situation of signal interference and overlapping was solved, the freeze was lifted in 1952.

The earliest design of colour TV system was perhaps made in Germany around 1904. In 1925, Zworykin also claimed to have designed an all-electronic colour TV system. These two systems failed but they were the first attempts towards the development of colour TV system. A successful system began broadcasting in America much later in 1953 after many researches and lots of efforts. Some people say that John Baird, the inventor of the world's first working TV system in England in 1923, experimented with a colour TV using cathode ray tube and a disc with colour filters. In 1944, he demonstrated world's first electronic colour TV. However, the colour technology was then in its raw state, it took several years to refine itself.

During 1952–1960 TV industry saw rapid growth and spread in the West. 1960–1980 was the period when there were many TV networks and they were in competition with each other. BBC during this period focused its attention on educative programmes meant for building the

character and enhancing cultural values, correcting pronunciations and shaping the middle class intelligentsia. BBC is still known for its research-based documentaries.

News from the very beginning had a dramatic effect on society. In 1933, people watched President Roosevelt's address to the nation on TV. A very popular programme *World News Round Up* was aired on CBS in 1938. A telecast of Soviet Premier Khrushchev representing his nation at United Nations was shared by millions of people. Cameras recorded him expressing his dissatisfaction by pounding one of his shoes on his desk, which he took off while the session was in progress. President John Kennedy's assassination and Lyndon Johnson's succession receive massive 4 days coverage in 1963 and the moon landing in 1969 was viewed in 94 per cent homes.

The TV industry grew further with the growth of cable TV and with the adoption of video cassette recorders. Cable TV system was needed in those areas that were not getting the proper signals because of geographical conditions or manmade conditions as well. Tall buildings, densely populated areas, valleys or hills blocked TV signals. As a result, TV receiver could not receive them. Initially cable system started on a low-scale but when picture quality improved, the cable TV started spreading rapidly.

The beginning of 70s was the period when video cassette recorders (VCRs) appeared all over the world for recording the programmes of one's choice from the TV network. It was also a very useful device for editing. VCR was invented in America by Ampex Corporation. Charles Ginsberg designed this machine to record TV programmes on a magnetic tape. Japan improved the technology by standardizing the systems and became the number one manufacturer and exporter of VCRs. VCRs became more popular for movie viewing. Movies were recorded on VCRs and cassettes were sold in the markets or at book stalls. The tape technology of VCRs gave rise to digital storage technology where any programme can be squeezed on a compact disk.

The Russians launched Sputnik, the world's first satellite on 4 October 1957. A few months later, the US launched Explorer I on 1 January 1958. In 1976, history was created by Home Box Office (HBO) by starting satellite delivery of programming to cable networks with the telecast of *The Thriller from Manila*, a heavyweight boxing match. The match was played between Joe Frazier and Mohammed Ali. With the growth of satellite broadcasting, people looked to the multi-channel facilities at low price, very attractive.

Growth of TV after the commencement of the satellite system

Satellite system provides clear pictures and stereo sound on various channels. Conceptually, satellite system is a wireless system that delivers TV programming directly to viewers. Satellite TV systems transmit and receive radio signals using satellite dishes. These dishes act like antennas. Earlier the size of the uplink dishes was quite huge as much as 9–12 metres in diameter. Geostationary Satellites are placed in geosynchronous orbits. They stay in one place in the sky relative to the earth. Each one is approximately 22,200 miles or 35,700 kms above the earth. The first ever satellite TV signal was sent from Europe to the Telstar Satellite in 1962. The first geosynchronous communication satellite Syncom 2 was launched in 1963 and Intelsat I, the first commercial communication satellite was launched in 1965. Intelsat I is

also called *Early Bird*. Soviet Union was the first to start national network of satellite TV which was named 'Orbita' and was developed in 1967.

All over the world, satellite TV has grown rapidly in recent years. TV is migrating from analog to digital where audio and video are transmitted by discrete signals. The latest advanced broadband technology allows consumers to combine video, phone and data services with an access to the Internet. The most significant advantage of such a system is that digital channels are accommodated in less bandwidth. This allows more channels to flow in the same space. Digital system provides high definition TV service with better picture, better sound and multimedia service with feedback and talkback facility. Digital signals react differently to interference and obstacles. The common problems faced in analog TV were ghosting of images, noise, poor clarity or wavy picture. But using digital technology, audio and video are synchronized digitally hence providing a crystal clear reception. It is a system of storing, processing and transmitting information through the use of distinct electronic pulses that represent the binary digits 0 and 1. In analog system, the sound of the broadcast is modulated separately from the video. Analog is a transmission standard that uses electrical impulses to emulate the audio waveform of sound.

4.2. Television as a Medium

TV is an audio-visual medium. It provides visuals along with sounds. Because of this distinctive feature TV dominates over other media of mass communication. In its presentations, TV carries some of the characteristics of film, stage and radio. If the language of radio consists of sounds and spoken words, then the language of TV contains various types of visuals, i.e., stills to moving pictures and various types of natural and artificial sounds.

TV visuals can show something that cannot be described in words. For instance, in radio, the description of mountains covered with snow requires a language, speech and style that creates an image of snow-covered mountains in the minds of listeners whereas in TV the visual of snow-covered mountains alone is enough to send the message across to the viewers without using a single word. In TV close-ups even the smallest detail becomes prominent that is capable of leaving an impact on the viewer. TV is also a medium of glamour and instant recognition. The shine and shimmer of the screen adds to the glamour.

Watching people, events, happenings, etc., in moving visuals gives a feeling of reality. TV not only strengthens one's belief about the events being telecast on it, but also attracts masses much more than print or radio. One can sit and continue watching for hours together without getting bored.

The negative sides of TVs are they are producing millions of couch potatoe all over the world, where people spend lots of time watching TVs, ignoring other important things. A book, a newspaper or even radio makes one think and imagine whereas TV makes the person just watch it just does allow a person to develop skills imagination and thinking. It takes away one's valuable time without letting him know about it.

The integration of TV with Internet and telecommunication technology has made TV interactive. With its chat shows and phone-in programmes people from various corners of the

country can exchange ideas, thoughts and express themselves on a particular subject and at the same time.

TV is a democratic medium that conveys the same message at the same time to everyone from masses surviving in hutments to those living in huge mansions. It has the power of conveying the views and opinions of important persons to common people and it also conveys the problems and grievances of common person to the concerned authorities. In a multilingual and multicultural society TV establishes harmony and uniformity in the society.

5.INTERNET AND NEW MEDIA

The last two decades of the 20th century was a remarkable period from the point of view of media and communication technology. It was also a period of the emergence of Internet, globalization and expansion of markets.

The advances of information technologies not only realised the dream of Marshal McLuhan who invented the technology of Internet, they also changed the technologies of print, radio and television.

The unceasing innovations in the telecommunication technologies not only helped the growth and expansion of the Internet, it also paved the way for a new media nowadays popularly called mobiles. Mobile technology in convergence with information technology has enormous potential in the days ahead.

5.1. **History of Computers and Internet**

The innovation of the first computer called Mark-I is as recent as 1940, though the origin of computers is traced to 3000 years back when the first computing machine known as Abacus was developed in China. Later, Charles Babbage was credited with the hypothesis which allowed the invention of computer.

The development of computers in the initial 15 years was very slow as the vacuum tubes were used in them. The ENIAC (Electronic Numerical Integrator and Computer) machine developed in 1942 was very huge as it used around 18000 tubes. It was only after the emergence of silicon transistor in 1954 and the invention of integrated circuits around 1964 that the research and development of computers gained pace. These two major inventions allowed the manufacturing of small size computers.

Computers were not very popular in the initial days as one had to learn a number of commands to operate them. They were mainly used by scientists and researchers in general and the computer scientists in particular. It was only in 1984 when the Apple machine innovated by Steve Jobs and Steve Wozniak was launched in the market that the fancy for this wonderful machine caught on. Apple was the first GUI (Graphic User Interface) machines which even a child was able to use for making drawings or play games.

5.2. Multimedia Technology, World Wide Web and Broadband

The next phase in the development of computers was of the multimedia computers. These machines had the capability of digitising visuals like photographs, audio like speech and music with the help of software. The technology of the Internet also developed very rapidly

during the same period. The Internet or World Wide Web (www) is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies.

All these developments necessitated researches on computer architecture to increase the speed of processing and on telecommunication technologies for increasing the speed of data transfer across telephone lines.

The multimedia messages require more space to store them. This led to a rapid growth in storage media where one moved away from 1.44 MB floppies to 650 MB CD-ROM and later to DVDs. Capacity of hard disks increase from 10 MB to 10 GB and 1 TB (terabyte). The computer architecture improved from the primary 8086 processors with 8-bit architecture to 286, 386, 486, Pentium and PI7 with 16-bit to 64-bit architecture. The processor speed increased from the initial 5 MHz to 3.2 GHz. Similarly, the modems used for transmission of data became redundant as the Internet improved from the text only form to multimedia web. The data transmission moved copper wires highly efficient optical fibres capable of broadband transmission.

The World Wide Web (www) too has changed the generation to web which is increasingly used not only for audio and video uploading and downloading but also for social networking. It has become a more popular media than radio and television. www also has a literacy component as the portals are being used to read news and other information. With online courses and books, the Internet has also become an educational tool.

The present being only the beginning, in future the Internet is expected to penetrated every nook and corner of the society

5.3. Growth of Cellular/Mobile Communication

The advances in telephony surprised everyone. From being manual operator driven exchanges, it moved to automatic digital exchanges which made it possible to get connected with people anywhere in the world instantly. Then, the telecommunication technology got revolutionised by wireless radio communication and later incorporated satellites in its operations.

The cumbersome telephones have been replaced by handy mobiles of ever diminishing sizes. The digital technology provided by the developments in information technology allowed mobiles to become a convergent media that can today be used to take snaps, listen to radio, view television programmes, write messages and even articles along with its basic function of connecting people with the help of voice communication. In this sense, it is the new media for future with lots of promises.

Interestingly, the mobile technology has seen a rapid and huge penetration even in developing countries. In India alone it has grown considerably faster than the commuters and the Internet. Today it is estimated that in India there are 700 million cell phones in operation

5.4. Emergence of SMS, MMS, 2G, 3G, 4G and Videoconferencing

Short message service (SMS) is a text messaging service component of most telephone, internet, and mobile-device systems. It uses standardized communication protocols to enable mobile devices to exchange short text messages. An intermediary service can facilitate a text-to-voice conversion to be sent to landlines. On the other hand, multimedia messaging service (MMS) is a standard way to send messages that include multimedia content to and from a mobile phone over a cellular network. Users and providers may refer to such a message as a PXT, a picture message, or a multimedia message.

2G is a digital mobile communications standard allowing for voice calls and limited data transmission. 3G is a mobile communications standard that allows mobile phones, computers, and other portable electronic devices to access the Internet wirelessly while 4G is a mobile communications standard intended to replace 3G, allowing wireless Internet access at a much higher speed.

Videoconferencing

Video conferencing is a technology that allows users in different locations to hold face-to-face meetings without having to move to a single location together. This technology is particularly convenient for business users in different cities or even different countries because it saves time, expense, and hassle associated with business travel.

KEY WORD :

Offset printing: This is now a commonly used printing technique in which the inked image is transferred from a plate to a rubber blanket, then to the printing surface.

A feature film: This is a film with a running time long enough to be considered the principal or sole film to fill a program. The term feature film originally referred to the main, full-length film in a cinema program that also included a short film and often a newsreel.