



SYLLABUS

Class – B.A. (HONS.) MASS COMMUNICATION

V Semester

Subject – Introduction to Audio-Visual Media

Unit-I	Audio-Radio: Radio as a medium of Mass Communication Characteristics of Radio Historical Perspective with special reference to India, Types of ownership, Listeners.
Unit-II	Commercial Radio, Educational Radio AM. FM & Satellite Radio, Community Radio Emerging trends and Franchising.
Unit-III	Television: As a medium of Mass Communication Characteristics, Ownership, Organizational structure of Doordarshan, Satellite Television channels, Cable Television, Educational television, Commercial television, Recent trends in television broadcasting.
Unit-IV	Writing for Radio, Finer aspects of radio language, Production methods, finer aspects of television script writing, Narration, Production techniques, impact of new technology, interviews on media languages, news, features, talks, commercials.
Unit-V	Writing for television, news, interviews, documentaries, short talks.



UNIT – I

RADIO – AS A MEDIUM OF MASS COMMUNICATION

You probably know the story of Sanjay in the Mahabharata who described the war to Dritharashtra who could not see. Sanjay could 'see' the war with his divyadrishti or his divine eye. Probably you can call Sanjay as the first 'radiobroadcaster'.

Suppose you are in a far flung area near the Himalayas on 26th January. You have a radio with you and you tune into the running commentary of the Republic Day Parade. You would know exactly what is happening in Rajpath in Delhi. The commentator (like Sanjay in the Mahabharata) will describe the details of the parade and as you listen, your imagination takes you to the Republic Day Parade. So that is radio for you. Wherever you are, you can listen to the news by radio station. You can listen to music, news and other programmes. Now that you have commercial radio stations, you can listen to round the clock chatting and music. And if you tune into All India Radio, almost every hour, you can listen to news and other programmes.

TERMS USED IN BROADCASTING

- Audience: The group of people whom radio or media reaches for a particular programme.
- Listener/s: A person or a group of people who form the target audience of radio programmes.
- Broadcaster: a person who presents or announces programmes over radio for the public.
- Broadcasting: any communication or transmission of any message or signal to the public through electronic apparatus.
- Tuning into radio: You have to switch on your radio and tune into the station you want to listen to.
- Live broadcast: It means a programme being broadcast directly without any pre-recording or the sounds made at the moment of broadcast.
- Pre-recorded programme: The programme recorded on magnetic tape, phonographic discs or compact disc for broadcasting it later.
- Script: The written copy of the words to be spoken during a radio programme.

OBJECTIVES OF RADIO

In the first module, you have learnt about the role of mass media. There, we were referring to different forms of mass media like the print media (newspapers, magazines etc.) and electronic media (radio, television etc.) These media have functions which are common.

Have you heard an advertisement on a popular brand of soap or shampoo? What does it communicate? Through that you have come to know about the brand name of the soap or shampoo. You are informed or told that such and such a product is available in the market. That advertisement would also tell you what benefits the brand offers.

Let us take another example. The water supply department makes an announcement on radio that there will be no water supply in your village or town the next day morning. So you get ready to face that situation.

Or a message on radio tells you that the following Sunday is 'polio immunisation' day. If you have a small child in your home, with that information received through radio, you decide that the child should be taken to be given polio drops.

You might have heard rural programmes on agriculture on radio. Experts who take part in that programme may explain what precautions are to be taken for crop during a particular season. You learn to do a particular agricultural practice using that information.

Now think of the three examples given above. In the first case, you come to know about the availability of a particular brand of soap or shampoo. It is for you to decide what you want to do with that information. It just informed you. In the second and third example of the announcements about water supply and polio immunization also, you are given information. You would agree that this information is of great use.

When it comes to the fourth example of a particular agricultural practice, the information can educate a farmer who has no formal education or training in agriculture. Let us take the example of 'Gyanvani'. This is a radio station through which educational programmes are broadcast for the benefit of learners.



So that we can say-

- Radio – Informs
- Radio – Educates
- Radio Entertains us.

CHARACTERISTICS OF RADIO AS A COMMUNICATION MEDIA

(i) Radio makes pictures: Remember the example of the running commentary on radio of the Republic Day Parade in Delhi? As you heard the commentary, you could visualize or 'see' in your mind what was being described. You could actively 'see' pictures in your mind of the parade even as you listened to the sounds of bands playing patriotic tunes or the sounds of marching and commands. You use your power of imagination as you follow the running commentary.

(ii) The speed of radio : Radio is the fastest medium. It is instant. As things happen in a studio or outside, messages can be sent or broadcast. These messages can be picked up by anyone who has a radio set or receiver which is tuned into a radio station. If you have a television set and cable or satellite connection you may be using a remote to get your favourite channel. These days if you have a satellite connection, you can also receive radio signals of various AIR stations. Otherwise your normal radio set gives the meter or frequency on which various radio stations operate. You are tuned into that station and listen to news that happened a few minutes earlier. On the other hand, a newspaper gives you the previous days' news. Of course television can also cover events instantly. But television is a more complex medium where you need light and cameras for any coverage.

(iii) Simplicity of radio: Compared to all other media, radio is simple to use. As mentioned in the previous sections, radio needs very simple technology and equipment.

(iv) Radio is inexpensive: As it is simple, it is also a cheaper medium. The cost of production is low and a small radio can be bought for as low a price as say fifty rupees.

(v) Radio does not need electric power supply: You can listen to radio using dry battery cells even if you do not have electric power supply or a generator. So in a country like ours, where electricity has not reached everywhere, radio is a great blessing.

(vi) A radio receiver is portable: Don't you move your radio set at home from the living room to the kitchen or as you go out some where? You can't do that very easily with television. This facility of moving an object which is called 'portability' gives radio an advantage. These days if you have a car and a radio in it, you can listen to it as you drive or travel. Can you think of watching television, when you drive ?

(vii) One does not have to be literate to listen to radio : Unless you are literate, you can't read a newspaper or read captions or text on television. But for listening to radio, you need not be literate at all. You can listen to programmes or news in any language on the radio.

(viii) For a majority of Indians in the rural areas, radio is the only source of news and entertainment . Radio news can be heard anywhere using an inexpensive receiver. Even the most economically backward sections can afford to use the medium of radio.

- Radio is the best medium of entertainment. It provides healthy entertainment to the listeners.
- There is plenty of music of different types available to people.
- The popular types of music are classical, light classical, light, devotional, folk and film music.

ORIGIN AND GROWTH OF RADIO

Samuel Morse's invention of telegraph in 1842 prompted scientists to find out ways to transmit messages over air. In 1895, Italian inventor **Guglielmo Marconi** succeeded in the effort. For further development of the mechanism, he started the Marconi Company in England and started commercial production of radio transmitters for military purpose. Marconi's device was sophisticated by **Reginald Fessenden** and started transmission of sound over radio transmitters, instead of textual signals.

It was US inventor **Lee De Forest** who made radio transmission much clearer with his **Audion** vacuum tube. He also envisaged stations sending continuous music, news and other programmes over radio waves. The idea came to be known as **Broadcasting**. The first radio stations were set up in Pittsburgh, New



York and Chicago in the 1920s. Following the USA, European countries also started radio stations for broadcasting news and entertainment content. The colonial powers like Britain and France set radio stations in Asian and African countries in the early years of 20th century.

RADIO BROADCASTING

Radio is everywhere as the signals reach every nook and cranny. It is wonderful to hear that there are 6.6 radio receivers on average in American homes. Indian officer radio broadcaster All India Radio reaches 98.25 percent of the population of India. Remember that India is the second largest populated country in the world. According to an estimate, there are 111 million radio sets in Indian households.

John Vivian, describing the ubiquity of radio, says: "People wake up with clock radios, jog with headset radios, party with boom boxes and commute with car radios. People listen to sports events on the radio even if they are in the stadium." According to Arbitron, a company that surveys radio listenership, more people receive their morning news from radio than from any other medium.

RADIO IN INDIA

Radio Broadcasting was pioneered in India by the Madras Presidency Club Radio in 1924. The Club worked a broadcasting service for three years, but owing to financial difficulties gave it up in 1927. In the same year (1927) some enterprising businessmen in Bombay started the Indian Broadcasting Company with stations at Bombay and Calcutta. This company failed in 1930, in 1932 the Government of India took over broadcasting. A separate department known as Indian Broadcasting Service was opened. The Service was later designated 'All India Radio' (AIR) and was placed under a separate Ministry—the Ministry of Information and Broadcasting. The AIR is controlled by a Director General, who is assisted by several Deputy Directors and a Chief Engineer.

Broadcasting, in its significance, reach and impact, constitutes the most powerful medium of mass communication in India. Its importance, as a medium of information and education is particularly great in a vast and developing country like India where the reach of the printed word is not very wide or deep. While the total circulation of all the newspapers in India, including both English and Indian language papers, is around 8 million, there are, according to a recent estimate, nearly 400 million (out of a total population of 625 million) potential listeners to All India Radio.

Broadcasting in India is a national service, developed and operated by the Government of India. All India Radio (also known as Akashvani) operates this service, over a network of broadcasting stations located all over the country.

As a national service, catering to the complex needs of a vast country. All India Radio seeks to represent in its national and regional programmes, the attitudes, aspirations and attainments of all Indian people and attempts to reflect, as fully and faithfully as possible, the richness of the Indian scene and the reach of the Indian mind.

AIR Network

Starting with 6 broadcasting stations in 1947, the AIR today has a network of 82 broadcasting stations. The 82 radio stations, grouped into five zones, are the following: North Zone: Ajmer, Allahabad, Aligarh, Bikaner, Delhi, Gorakhpur, Jaipur, Jodhpur, Jullundur, Lucknow, Mathura, Rampur, Simla, Udaipur and Varanasi; East Zone: Agartala, Aizawl, Bhagalpur, Calcutta, Cuttack, Dibrugarh, Gauhati, Imphal, Jeypore, Kohima, Kurseong, Ranchi, Pasighat, Patna, Sambalpur, Shillong, Silchar, Siliguri, Tawang and Tezu; West Zone: Ahmedabad, Bhopal, Bhuj, Bombay, Gwalior, Indore, Jabalpur, Nagpur, Panaji, Parbani, Pune, Raipur, Rajkot and Sangli; South Zone: Alleppey, Bangalore, Bhadravati, Calicut, Coimbatore, Cuddapah, Dharwar, Gulbarga, Hyderabad, Madras, Mysore, Pondicherry, Port Blair, Tiruchirappalli, Tirunelveli, Trichur, Trivandrum, Vijayawada and Vishakhapatnam; and Kashmir Zone: Jammu, Leh and Srinagar.



In addition, there are three auxiliary studio centers at Vado- dara, Darbhanga and Shantiniketan and two VividhBharati/commercial centers, one at Chandigarh and the other at Kanpur. These cover all the important cultural and linguistic regions of the country.

The expansion of the broadcasting facility remained limited till independence. In 1947 there were only six radio stations in the country. Today there are as many as 82 AIR stations. With two more stations that will start working soon, India's broadcasting network would cover 89 per cent of the population.

Till the end of 1976 radio licenses had reached a colossal figure of nearly 1.74 crores, which fetched revenue of Rs. 23.51 crores. Today the radio network has spread to the remote corners of India. It is now possible to bring sense of unity not only political but also cultural among the diverse traditions that enrich our land.

AIR's programme pattern combines three main elements: a national channel providing programmes of countrywide interest and significance, a zonal service from each of the four metropolitan centers (Delhi, Bombay, Calcutta and Madras); and regional services from individual stations each catering to the needs and interests of its respective area.

The principal ingredients of AIR's programme output are Music, Spoken Word, Dramas, Features. News and Current Affairs, Commentaries and Discussion, VividhBharati and its Commercial Service, Farm and Home Broadcasts, Programmes for Special Audiences (like Youth, Women, Children, Industrial Workers and Tribal Population), and Programmes for Overseas Listeners broadcast in the External Services.

To enable AIR to reach all sections of the Indian people, its programmes in the Home Service are broadcast in 20 principal languages. In addition, the External Services of AIR beam their programmes to listeners all over the world in 24 languages.

NEW SERVICES

The News Services Division of AIR through its central and regional news bulletins and its current affairs, commentaries and discussions, provides accurate, objective, speedy and comprehensive coverage of news to listeners at home and abroad.

AIR now broadcasts a total of 239 news bulletins a day, with duration of 32 hours 17 minutes. Of these, 67 are Central bulletins broadcast from Delhi in 19 languages, with a daily duration of 10 hours 3 minutes; 57 external bulletins (from Delhi) broadcast in 24 languages for a duration of 7 hours 14 minutes and 15 regional bulletins from 34 regional centers (including the Prade- shik desk in Delhi) broadcast in 22 languages and 34 tribal dialects with a total duration of 15 hours every day.

The major sources of news for AIR are its correspondents at home and abroad, the news agencies and the monitoring services, AIR has a total of 206 correspondents. Of these, 111 are part-time.

External Services: AIR made its first broadcast to listeners outside India on October 1, 1939. Today the External Services of AIR broadcast in 25 languages for about 50 hours daily round-the-clock, reaching listeners in widely scattered areas of the world.

VividhBharati: A self-contained service of popular entertainment, known as VividhBharati was started in October 1957 to meet the growing demand for popular music and light features. Commercial advertising was introduced on AIR in November, 1967, from the Bombay-Nagpur channel of Vividh-Bharati on an experimental basis. It was gradually extended to Calcutta (1968); Delhi and Madras-Tiruchirapalli (1969); Chandigarh-Jullundur- Bangalore, Dharwar, Ahmedabad-Rajkot, Kanpur-Lucknow-Allahabad (1970), Hyderabad-Vijayawada (1971) and Bhopal, Indore, Cuttack, Jaipur, Jodhpur, Patna, Ranchi and Trivandrum (1975). Advertisements are accepted in any language as tape-recorded 'spots' of 15 seconds or 30 seconds duration. VividhBharati, an alternative national service of All India Radio, now forms a part



of the Central Sales Unit of the Commercial Broadcasting Service. It has also started originating programmes. The total duration of broadcasts of the VividhBharati service is now 12 hours 45 minutes, on week days and 13 hours 20 minutes on Sundays and holidays. The network covers 29 full-fledged centers and seven partial centers. VividhBharati is also radiated through two powerful short-wave transmitters from Delhi, Bombay and Madras. There has been a steady rise in the gross revenue earned by the commercial services. It went up from Rs. 2.96 crores in 1970-71 to Rs. 6.25 crores in 1975-76 and Rs. 6.50 crores approximately in 1976-77. Since inception and till March 1977 AIR had earned total gross revenue of about Rs. 38.21 crores from its commercial services.

National Programme: Started in July 1952, the weekly National Programme of Music provides an opportunity to listeners to hear well-known exponents of Hindustani and Karnataka music. It has helped in a better understanding of the two systems prevalent in the North and the South. At suitable intervals, programmes based on recordings of old masters are also featured in this programme.

The medium of the drama is utilised for popularising the Economic Programme. A special series of short plays on various themes including the Economic Programme, Family Planning, Dowry and anti-Casteism are regularly broadcast.

Nearly 4,000 plays are broadcast from the different stations of AIR annually on an average. The most significant achievement of AIR in the field of Radio drama is its National Programme of Plays. Once a month an outstanding play from one of the main Indian languages is selected and translated into all the other regional languages of the country and broadcast simultaneously by all stations in their respective regional languages. In the interest of improvement of radio programmes, All India Radio instituted in 1975 the annual Akashvani Awards for plays, features, music, youth programmes etc. This competition was held during the year and prizes were awarded.

The National Programme of Features attempts to mirror the progress made in different spheres of development in the country and to project various aspects of its social and cultural life. The original broadcast of this feature might be in Hindi or English, but these are invariably translated into all regional languages and presented from the regional stations.

The Special Programmes include programmes for women (once a week) for children (two or three times a week), for the armed forces (daily), for Industrial Workers (4 days in a week), for hill tribes in their own dialects which number around 135 for rural audiences and consist of plays, skits, agriculture and other matters (twice a week) and programmes on Family Planning in all the National languages and in important dialects, as often as possible.

Programmes for the youth in YuvaVani are broadcast from Indore, Calcutta, Delhi, Hyderabad, Jammu, Patna and Srinagar stations. This service provides a forum to the youth between the ages of 15 and 25 years, who present their viewpoint by participating in a wide range of programmes-talks, discussions interviews, plays, features and music. A youth news bulletin is also broadcast by the youth themselves.

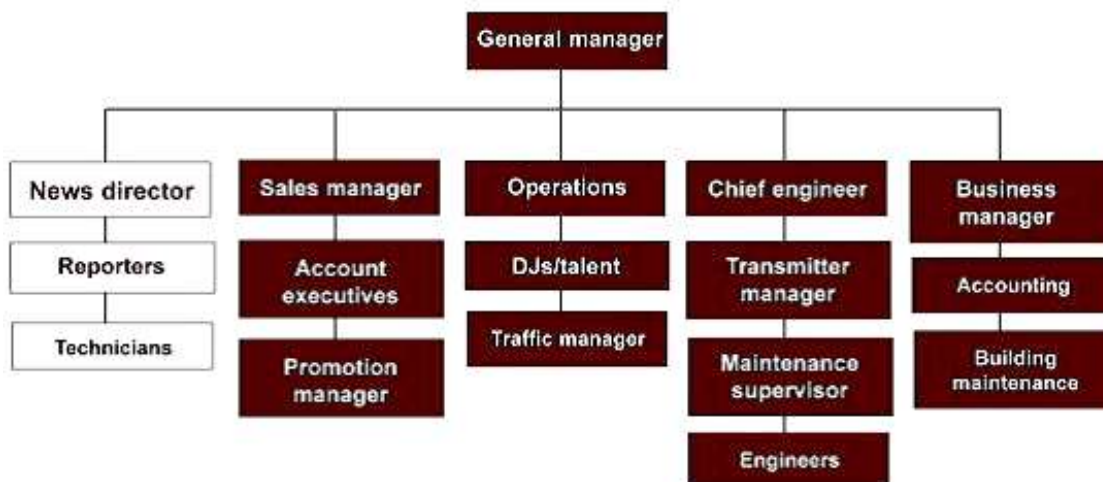
CHARACTERISTICS OF RADIO AS A MASS MEDIUM

The radio is a powerful mass medium. Unlike other mass media, radio has a lot of advantages, both technical and message wise, to reach maximum number of people.

- Radio is a cost effective medium.
- Radio is a Public Medium
- Radio is accessible for the Illiterates
- Radio is a mobile medium
- Radio is a background medium
- Radio is an Audio Medium
- Radio needs less energy
- Radio is a speedy Medium



STRUCTURE OF A RADIO STATION



A REVIEW ON RADIO OWNERSHIPS

The involvement of policy makers in the control and management of community radiostations which can be regarded as a positive contribution to the medium makes writing on the governance, management and the sustainability of community radio a complex task to embark upon. In order to embark on this, there is need to firmly establish the issue of community radio ownership. This is because there are two types of ownership – government and community - involved in community radio (three types of ownership if we are talking about electronic media as a whole). In view of this, the factors responsible for the effective running of the stations cannot be the same. In the case of community ownership of the radio there must be community representative or Board of Directors to set overall policies. Some major factors that often affect the operation of community radio stations are financial sustainability and ways of generating income; this is because the funding, employment and salary of staff of the station are determined by the owner. In a nutshell, the governance and management factors responsible for the sustainability of government radio and community/people owned radio stations are not the same. Based on the definition of community radio provided in the African Charter on Broadcasting which states:

“broadcasting which is for, by and about the community, whose ownership and management is representative of the community, which pursues a social development agenda, and which is non-profit”, management and sustainability of a community radio rest with the people of the community. However, in Africa this is not always the case. To tabulate the governance, management and the sustainability of community radio is complex in the sense that most government owned media stations are not positioned to be profit oriented, rather they are established in order to fulfill needs that are crucial to the development and education of the people, and the propagation of government policies. Based on these cases, its management and sustainability rests mainly on the government’s disposition. When a government whose intent is geared towards mass mobilization and education of the community in order to achieve a developmental project is in place, certainly there will be adequate funding and management of the media. However, if the reverse is the case, community radio will not thrive under such policy makers. In order for a government owned community radio to remain operative it will have to broadcast programme that are dictated, vetted and controlled by a representative of the serving government. A public owned community radio has a specific responsibility to broadcast material in the public interest. In a Nigerian Broadcasting Policy Stakeholders Forum held in 2006, three broadcasting media ownership categories were identified:

- Public (represented by a public corporation)
- Commercial (represented by a limited liability company or a public limited company)
- Community (represented by a not-for-profit organization).



UNIT – II

TYPES OF RADIO STATIONS

COMMERCIAL RADIO STATIONS: Stations under this category support themselves financially by selling time on their airwaves to advertisers. In America, vast majority of stations come under this category whereas in India, most of the stations are government funded ones under the umbrella of Akashvani.

EDUCATIONAL RADIO : These type of radio stations emphasis only on educational programs and funded by the government. In educational radios, the staff is limited and size of broadcast studio is comparatively smaller than other. A part from this, educational radios has no right to take sponsorships like commercial channels. The main projects that describe the growth of educational radio are:

1. School Broadcast Project - This project was commissioned in 1937 and the target group was School students. This programme started from Delhi, Calcutta, Madras and Bombay. In the beginning the school programme were not strictly governed by the curriculum. With the passages of time and acquisitions of more experience, the AIR tried to make its radio broadcasts more curriculum oriented, but in absence of common syllabi and time tables in schools, even within the same state, it could not succeed in its aim.

2. Adult education and community development project (Radio Forum) - Commenced in 1956, the Villagers of 144 villages in the vicinity of Poona (in Maharashtra state), were the main beneficiaries of this project. This was agriculture-based project, which was originally designed and tried out in Canada. With the help of UNESCO, it was tried in 144 villages of Poona and was named as 'Radio forums Project' (defined as a listening cum-discussion-cum-action group). The members of the forum could listen thirty-minute radio programme on some agricultural or community - development programme, then discuss and decide regarding its adoption in their own village. This project was a great success. Many action programmes were planned and put into practice.

3. Farm and Home Broadcast Project - This project was commenced in 1966 and again targeted at Farmers and villagers. These broadcasts were designed to provide information and advice on agricultural and allied topics. The aim was to educate the farmers and provide them assistance in adopting innovative practices in their fields as per the local relevance. The experts also conducted occasional farm radio schools, which proved to be very effective.

4. University broadcast project - This project for University students was initiated in 1965, with an aim to expand higher education as widely as possible among the different strata of society. The Programme consisted of two types- 'General' & 'enrichment'. The general programmes included topics of public interest and enrichment programmes supported correspondence education OFFERED by universities in their respective jurisdictions. School of Correspondence studies, University of Delhi and the Central Institute of English and Foreign Languages, Hyderabad is well known for preparation and broadcast of their programmes through AIR.

5. Language Learning Programme - The project, popularly known as 'Radio Pilot project' was started in 1979-80 jointly by AIR and Department of Education Government of Rajasthan, with an aim to teach Hindi to School going children as first language in 500 primary schools of Jaipur & Ajmer districts on experimental basis. The project was found useful in improving the vocabulary of children. With its success, similar project was repeated in Hoshangabad district of Madhya Pradesh with some modifications but had limited success.

6. IGNOU-AIR Broadcast - In collaboration with IGNOU, AIR stations of Mumbai, Hyderabad and Shillong started radio broadcasts of IGNOU Programmes from January 1992. Main target group of this project were students of Open / Conventional Universities. Although Shillong started this but discontinued later on. Therefore presently it is being broadcast from AIR Mumbai (Every Thursday and Saturday from 7:15AM-7:45AM) and AIR Hyderabad (Every Tuesday, Thursday & Saturday from 6:00 AM - 6:30 AM) only. This programme is still popular in the respective region.



7. IGNOU-AIR Interactive Radio Counselling (IRC) - Started in 1998 for students of Open / Conventional Universities, this project is also very successful. In order to bridge the gap between Institutions and learners by instantly responding to their queries and also to provide Academic Counselling in subject area, IGNOU in collaboration with AIR Bhopal started this project in May 1998 as an experimental programme for one year (Sharma, 2002a). With the success of the experiment, it was extended to 8 other AIR stations (Lucknow, Patna, Jaipur, SHIMLA, Rohtak, Jalandhra, Delhi and Jammu). Presently Interactive Radio counseling is being provided on every Sunday for one hour (4:00 PM - 5:00 PM) from 186 radio stations of All India Radio. This includes two Sundays on the National hook-up. Toll-free telephone facility is available from 80 cities (effective from February 2001) enabling the learners to interact with experts and seek clarification, without paying for their telephone calls. The first and third Sundays of the month, AIR stations of Delhi (Hindi) and Kolkata (in English) broadcast from national hook-up, which 186 radio stations relay either of them. The 2nd and 4th Sunday are slotted for programmes of various regional centers of IGNOU and State Open universities respectively. The slot of 5th Sunday (if any) has also been given to region-based programmes of IGNOU. This programme is gaining popularity day by day.

8. Gyan-Vani (Educational FM Radio Channel of India) - This project is recently launched (in year 2001) and again the target group is students of Open / Conventional Universities. GyanVani (Gyan = Knowledge, Vani = aerial broadcasting) is Educational FM Radio Channel of India, a unique decentralised concept of extending mass media for education and empowerment, suited to the educational needs of the local community (Sharma, 2002b). It is operating presently through Allahabad, Bangalore and, Coimbatore FM stations of India on test transmission mode. The network is slotted to expand to a total of 40 stations by June-2002. GyanVani stations will operate as media cooperatives, with day-to-day programmes contributed by different Educational Institutions, NGO's and national level institutions like IGNOU, NCERT, UGC, IIT, DEC etc. Each stations will have range of about 60-KM radius, covering the entire city /town plus the surrounding environs with extensive access. It serves as ideal medium addressing the local educational developmental and socio cultural needs .

GyanVani is not only for the conventional educational system but also a main tool in making available the dream of education for all come true. GyanVani's main intention is to take education to the doorsteps of the people. GyanVani, in addition to giving the hardcore education will also DEAL with awareness programmes including the ones for Panchayati Raj Functionaries, Women Empowerment, Consumer Rights, Human Rights, the Rights of the Child, Health Education, Science Education, Continuing Education, Extension Education, Vocational Education, Teacher Education, Non-formal Education, Adult Education, Education for the handicapped, Education for the down trodden, education for the tribals and so on. GyanVani is available through commercial FM radio set.

9. Radio-Vision (Multimedia through Digital Radio)-Pioneered by the BBC, the technique of radio-vision allows the subject matter to be presented through two channels, the audio and the visual. The visuals are presented in the form of still filmstrips, charts, slides, models, etc, while the explanation is given through recorded narration. Educational institutions use this as a substitute for educational television. Radio-vision has its own advantages:

- It is economical
- It can cater to different categories of learners
- It is easy to produce such programmes at the institutional level or at the learning centers
- It provides visual support to the concept that is taught.

A small experiment in the use of radio-vision technique was carried out by The National Council of Education Training and Research, India in 1975-76 using it as one of the components of the multi-media package for in service teacher training designed and operated during SITE. A series of charts and picture cards were presented to about 24,000 participating teachers 2400 centres along with verbal explanation provided through specially prepared radio broadcasts. The results were found to be encouraging. (IGNOU, 2000)



10. Radio-text - Radio has been used along with textual data transfer via computer networks simultaneously to create a 'radio-text' environment. The teaching end is normally a FM radio station having data broadcast facility through a computer network. The main points of the radio broadcast are sent through textual mode to the receiving end via a computer network. The learning end has radio listening facility as well as a computer screen to receive the textual data. Since both audio and text are broadcast simultaneously, the learner at the receiving end gets high quality and low cost teaching. An experiment on the use of radio-text at YashwantRaoChavan Maharashtra Open University, Nasik, India resulted in the satisfaction of more than 80 percent the learners. It also used for peer group discussion at the receiving end after the broadcast, which indicates radio-text could be used for varieties of objectives .

SATELLITE RADIO – broadcast by satellite signal rather than an antenna, allowing it to reach a wider area. The sound quality is also higher. You need a subscription to listen to satellite radio stations such as Sirius XM radio.

INTERNET RADIO –streams audio via the internet rather than through a traditional signal. Internet radio is more accurately referred to as webcasting. Pirate radio is now decreasing because many groups and individuals who want to create their own stations can do so legally on the internet.

COMMUNITY RADIO - Community Radio means radio broadcasting with the objective of serving the cause of the community in the service area by involving members of the community in the broadcast of their programmes. It affords a unique advantage of receiving transmission through low cost, battery operated portable receiving sets.

(For more details follow this URL-<http://www.communityradioindia.org/cr%20policy/35.html>)

NON-COMMERCIAL RADIO STATIONS: NON-Commercial Stations do not receive financial support from advertisers in the sense of airing commercials. They are normally funded by the governments. In some countries like America, donations from private foundations and organization are the major sources of income of non-commercial stations.

AM and FM Stations: This categorization is purely based on the type of waves used for transmitting radio messages. Both AM and FM radio stations transmit a carrier wave that is some changed or modulated to carry audio signal such as music or voice. With AM (Amplitude Modulation) radio, the amplitude or strength of the carrier wave's vibration fluctuates with the sound. With FM (Frequency Modulation) radio, the strength of the carrier wave remains constant, and instead it is the frequency or number of vibration within the wave that changes based on sound.

RECENT TRENDS IN RADIO BROADCASTING - 2014 REPORT

- 1. Gathering and organizing listener data becomes priority one.**
- 2. Local advertisers start to demand digital accountability.**
- 3. User-level ad targeting starts to redefine the value of streaming.**
- 4. Digital agencies finally notice radio.**
- 5. Radio starts to significantly embrace location-based mobile services.**

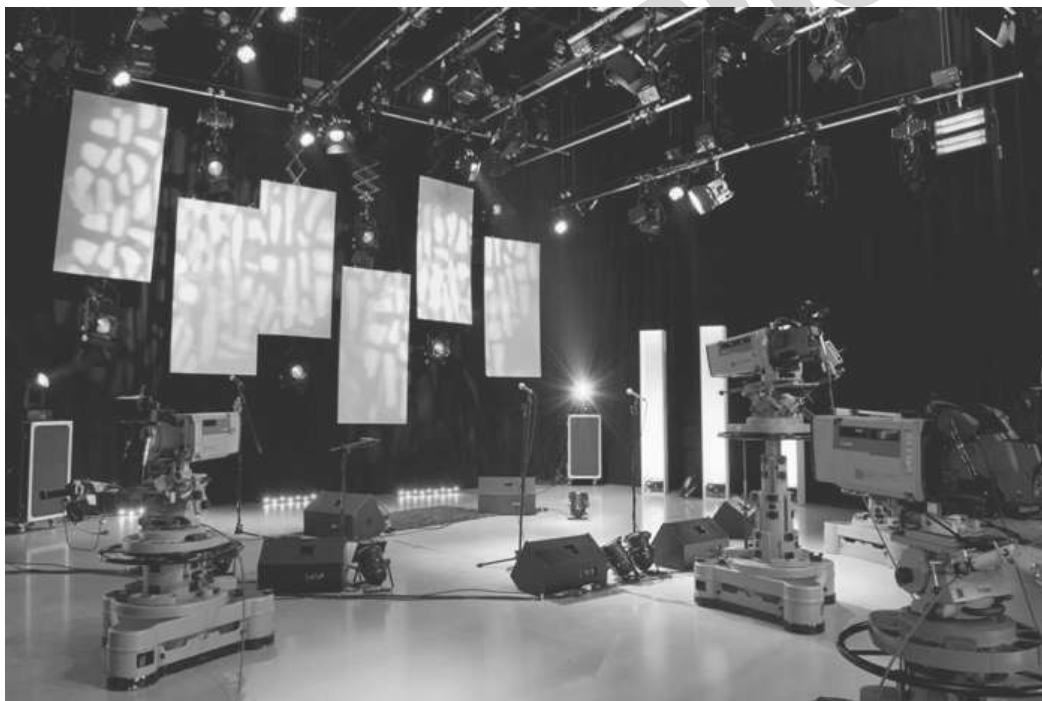
(To learn the update follow the URL - <http://www.broadcastandcablesat.co.in/indian-fm-radio-story-and-the-changing-future.html>)



UNIT-III

TELEVISION –AS A MEDIUM OF MASS COMMUNICATION

During the last 50 years television, one of the greatest inventions of the scientific world has contributed immensely to the development of mankind. It has brought people of different countries and regions closer to each other, enabling them to learn about the culture and traditions flourishing in different parts of the world. It is perhaps the most powerful means of mass communication for education and entertainment.



The history of television in India started around later fifties. In 1955 a Cabinet decision was taken disallowing any foreign investments in print media which has since been followed religiously for nearly 45 years. Under this circumstances, television in India was introduced on September 15, 1959 in Delhi

when UNESCO gave the Indian Government \$20,000 and 180 philips TV sets. The programs were broadcast twice a week for an hour a day on such topics as community health, citizens' duties and rights, and traffic and road sense. In 1961 the broadcasts were expanded to include a school educational television project. The first major expansion of television in India began in 1972, when a second television station was opened in Bombay. This was followed by stations in Srinagar and Amritsar (1973), and Calcutta, Madras and Lucknow in 1975. In 1975, the government carried out the first test of the possibilities of satellite based television through the SITE ((Satellite Instructional Television Experiment)) program. For the first 17 years, broadcasting of television spread haltingly and transmission was mainly in black & white. By 1976, the government found itself running a television network of eight television stations covering a population of 45 million spread over 75,000 square kilometers. Faced with the difficulty of administering such an extensive television system television as part of All India Radio, the government constituted Doordarshan, the national television network, as a separate Department under the Ministry of Information and Broadcasting.

There were initially two ignition points: the first, two events triggered the rapid growth of television in the eighties. INSAT-1A, the first of the country's domestic communications satellites became operational and made possible the networking of all of Doordarshan's regional stations. For the first time Doordarshan originated a nation-wide feed dubbed the "National Programme" which was fed from Delhi to the other stations. In November 1982, the country hosted the Asian Games and the government introduced color broadcasts for the coverage of the games. In this period no private enterprise was allowed to set up TV stations or to transmit TV signals.



The second spark came in the early nineties with the broadcast of satellite TV by foreign programmers like CNN followed by Star TV and a little later by domestic channels such as Zee TV and Sun TV into Indian homes. When the solitary few soaps like Hum Log (1984), and mythological dramas: Ramayan (1987-88) and Mahabharat (1988-89) were televised, millions of viewers stayed glued to their sets. Fifty years after it switched on, Doordarshan, India's public television broadcaster, continues to face the trinity of the three R's that haunt such broadcasters worldwide: **REVENUE, RELEVANCE and REACH.**

Nonetheless, mainstream media for most seemingly news-hungry Indians today is TV. TV news is India's vicarious new reality. When urban Indians learnt that it was possible to watch the Gulf War on television, they rushed out and bought dishes for their homes. Others turned entrepreneurs and started offering the signal to their neighbours by flinging cable over treetops and verandahs. According to an IRS survey, there are now 67 TV channels in 11 Indian languages devoted only to news-way above any country in the world. TV viewership for news has gone up from 333 million in 2000 to 437 million in 2007.

Advertising had discovered television in early nineties. In years to come, it would reorder the medium to serve its purpose. Beginning with equipment gifted from a foreign government, a makeshift studio and a clutch of 21 television sets installed in homes, TV now means 160 satellite channels broadcasting into India, earning revenues of more than Rs. 79 billion from advertising alone. Now, with over 66 million homes connected to Cable, India is the third largest cable-connected country in the world after China (110 million) and quickly closing in on the US (70 million)

CHARACTERISTICS OF TELEVISION AS A MEDIUM

AUDIO VISUAL MEDIUM -While radio has sound, television content includes both sound and visuals. This audio visual character of television makes it a magic medium which allows us to watch the world from our drawing rooms. This powerful visual nature helps television to create vivid impressions in our minds which in turn leads to emotional involvement. The audio visual quality also makes television images more memorable.

DOMESTIC MEDIUM -To watch television, we need not leave your drawing room. No need of going to the movie theater or buying tickets. We can watch television in the comfort of our home with our family. This is why television is generally regarded as a domestic medium. It provides entertainment and information right inside our homes and has become an integral part of our everyday lives. It can actually pattern our daily activities. Even our family makes it a point to watch their favorite serial at a particular time and adjust dinner timings accordingly. This domestic nature of television influences the content also. We have noticed that a newspaper report has an impersonal tone, whereas the television anchor addresses us directly. The domestic nature of television makes it an intimate medium. This makes the viewers experience a sense of closeness to the Television.

LIVE MEDIUM. - The important characteristic of television is that it is capable of being a live medium. This is because the live nature of television allows it to transmit visuals and information almost instantly. The visuals of an earthquake in Indonesia can reach our television set in almost no time. This capacity of the medium makes it ideal for transmitting live visuals of news and sports events. If we are watching a cricket match in a television channel, we can almost instantly see the wicket hit by our favourite player. On the Television allows you to witness events which happen thousands of miles away.

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A TRANSITORY MEDIUM. -Television programmes are not easy to be recorded by viewers. It may be practically impossible to record every programme which appears on your television. Therefore, television is generally identified as a transitory medium.



EXPENSIVE MEDIUM - There is need to large amount of machinery and expertise needed to run a television station. We can write articles and stories and draw our own pictures. All we need will be paper, pen, drawing instruments and time. However, a television programme can never be made this. However, a television programme can never be made this easily. It requires lots of money, machinery and experienced people. Broadcast media in general and television in particular involves complex technology and organization. We will need crores of rupees to start a television station.

TELEVISION CAN BE USED:

- To demonstrate processes or physical skills
- To show movement
- For those lacking reading skills
- To make distance learning more personalized
- To make teaching and learning more attractive, and dynamic.

DIFFERENT CATEGORIES OF TELEVISION CHANNELS

NEWS CHANNELS - What comes to your mind when you see the word news? If we were to answer this question 10-15 years back, we may have said that news bulletins are telecast at night. But today, the answer would be news channels showing news round the clock. Initially news on television meant a bulletin of half an hour or one hour usually telecast at the prime time comprising the top stories of the day. But today the meaning and definition of news has changed considerably. There are various programmes, various formats and a number of ways in which the news is being broadcast.

News may be defined as something that is new or information about recent events or latest happenings, especially as reported by newspapers, periodicals, radio, or television. But news has today come to mean much more. Just a little over a decade ago, only one television channel used to give us news and current affairs- that is, the sober old Doordarshan. At present, we have more than half a dozen news channels in Hindi. Some of them are AajTak, Star News, Zee News, NDTV India, Sahara Samay and ETV. There are English news channels which include NDTV 24x7, CNBC-TV18, Times Now and Headlines Today. In addition there are channels in all other major languages, including Tamil, Telugu, Malayalam, Kannada, Marathi, Gujarati, Bengali, Oriya and Urdu.

SPORTS CHANNELS - Have you ever seen a live cricket match on television? Or for that matter a football tournament? Apart from news channels, another important category of television channels are sports channels. Sports channels are television specialty channels that broadcast sporting events like twenty-20 world cup- usually live, and when not broadcasting live events, they offer sports news and other related programmes. There are some channels that focus on only one sport, in particular or one specific region of a country, showing only their local team's games.

CARTOON CHANNELS - Do you have any younger sister or brother at home? Ask them which is their favourite channel on television. Well, their answer would probably be Pogo or Cartoon Network. The most popular category of television channels among kids are the cartoon channels. Cartoon Network India is the most popular cartoon-dedicated television channel in India. It airs English, Tamil and Hindi-dubbed versions of a variety of cartoons, including traditional Cartoon Network programmes featuring Tom and Jerry, Scooby-Doo and Popeye the Sailor. Programmes also include the superhero series including Superman: The Animated Series, Batman: The Animated Series and Justice League Unlimited, Pokémon, Beyblade, Xiaolin Showdown, Digimon, Duel Masters, Transformers: The Unicron Trilogy and the Teenage Mutant Ninja Turtles.

ENTERTAINMENT AND LIFESTYLE CHANNELS - Have you ever seen the coloured supplement that comes along with your newspaper? It has stories related to films, actors, home decors and other entertainment related items. In television also there are channels dedicated to subjects such as home, garden, kitchen and family. These are called lifestyle channels and they offer a variety of programmes catering to various



lifestyle conditions and patterns. Stylised anchors, well decorated and lit up sets, mesmerising locations and a cool attitude is how these channels can be best described. To know what your favourite celebrity likes or dislikes, you may watch the lifestyle channel. Zoom and Discovery's Travel and Living are some of the lifestyle channels.

SCIENCE AND DISCOVERY RELATED CHANNELS - Just like sports channels offer a variety of programmes related to sports, science channels feature only science-related television shows. Each day has specialized blocks that cover certain topics such as weather, technology and space. If you want to learn about dinosaurs, snakes, tigers, waterfalls, nature, scientific inventions and discoveries, science channels like National Geographic and Discovery are a must for you.

CABLE TELEVISION

As per the TAM Annual Universe Update - 2010, India now has over 134 million households (out of 223 million) with television sets, of which over 103 million have access to Cable TV or Satellite TV, including 20 million households which are DTH subscribers. In Urban India, 85% of all households have a TV and over 70% of all households have access to Satellite, Cable or DTH services. TV owning households have been growing at between 8-10%, while growth in Satellite/Cable homes exceeded 15% and DTH subscribers grew 28% over 2009. (However, some analysts place the number of households with television access at closer to 180 million since roughly a third of all rural families may watch television at a neighbouring relative's home, and argue that Cable TV households are probably closer to 120 million owing to a certain percentage of informal/unregistered Cable Networks that aren't counted by mainstream surveys). It is also estimated that India now has over 823 TV channels covering all the main languages spoken in the nation.

In 1991, the Indian government led by P. V. Narasimha Rao started a series of economic reforms including the liberalisation of the broadcasting industry, opening it up to cable television. This led to an explosion in the Indian cable TV industry and saw the entry of many foreign players like Rupert Murdoch's Star TV Network, MTV and others.

Star TV Network introduced five major television channels into the Indian broadcasting space that had so far been monopolised by the Indian government-owned Doordarshan: MTV, STAR Plus, Star Movies, BBC, Prime Sports and STAR Chinese Channel. Soon after, India saw the launch of Zee TV, the first privately owned Indian channel to broadcast over cable followed by Asia Television Network (ATN). A few years later CNN, Discovery Channel and National Geographic Channel made their foray into India. Later, Star TV Network expanded its bouquet with the introduction of STAR World India, STAR Sports, ESPN, Channel V and STAR Gold.

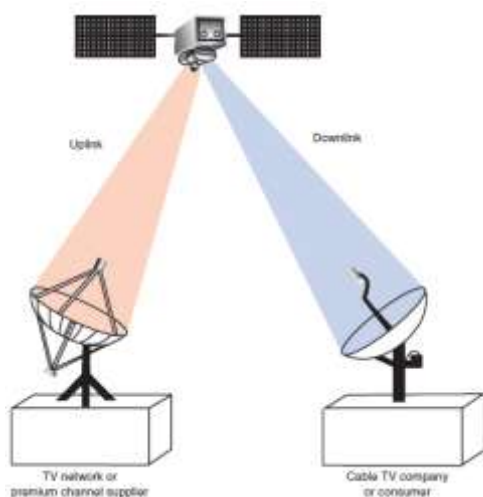
With the launch of the Tamil Sun TV (India) in 1992, South India saw the birth of its first private television channel. With a network comprising more than 20 channels in various South Indian languages, Sun TV network recently launched a DTH service and its channels are now available in several countries outside India. Following Sun TV, several television channels sprung up in the south. Among these are the Tamil channel Raj Television and the Malayalam channel Asianet, both launched in 1993. These three networks and their channels today take up most of the broadcasting space in South India. In 1994, industrialist N. P. V. Ramasamy Udayar launched a Tamil channel called GEC (Golden Eagle Communication), which was later acquired by Vijay Mallya and renamed as Vijay TV. In Telugu, Telugu daily newspaper Eenadu started with its own channel called ETV in 1995 later diversified into other Indian languages. The same year, another Telugu channel called Gemini TV was launched which was later acquired by the Sun Group in 1998.

Throughout the 90's, along with a multitude of Hindi-language channels, several regional and English language channels flourished all over India. By 2001, international channels HBO and History Channel started providing service. In 1999–2003, other international channels such as Nickelodeon, Cartoon Network, VH1, Disney and Toon Disney entered the market. Starting in 2003, there has been an explosion of news channels in various languages; the most notable among them are NDTV, CNN IBN and AajTak. The most recent channels/networks in the Indian broadcasting industry include UTV



Movies, UTV Bindass, Zoom, Colours, 9X and 9XM. There are several more new channels in the pipeline, including Leader TV.

SATELLITE TELEVISION



Satellite television is television programming delivered by the means of communications satellite and received by an outdoor antenna, usually a parabolic reflector generally referred to as a satellite dish, and as far as household usage is concerned, a satellite receiver either in the form of an external set-top box or a satellite tuner module built into a TV set. Satellite TV tuners are also available as a card or a USB peripheral to be attached to a personal computer. In many areas of the world satellite television provides a wide range of channels and services, often to areas that are not serviced by terrestrial or cable providers.

Direct-broadcast satellite television comes to the general public in two distinct flavors—analogue and digital. This necessitates either having an analogue satellite receiver or a digital satellite receiver. Analogue satellite television is being replaced by digital satellite television and the latter is becoming available in a better quality known as high-definition television. The first satellite television signal was relayed from Europe to the Telstar satellite over North America in 1962. The first geosynchronous communication satellite, Syncom 2, was launched in 1963. The world's first commercial communication satellite, called Intelsat I (nicknamed Early Bird), was launched into synchronous orbit on April 6, 1965. The first national network of satellite television, called Orbita, was created in Soviet Union in 1967, and was based on the principle of using the highly elliptical Molniya satellite for re-broadcasting and delivering of TV signal to ground downlink stations. The first commercial North American satellite to carry television was Canada's geostationary Anik 1, which was launched in 1972. ATS-6, the world's first experimental educational and Direct Broadcast Satellite, was launched in 1974. The first Soviet geostationary satellite to carry Direct-To-Home television, called Ekran, was launched in 1976.

SIGNAL BANDWIDTH

The complete signal bandwidth of a TV signal is shown in Fig. 23-1. The entire TV signal occupies a channel in the spectrum with a bandwidth of 6 MHz. There are two carriers, one each for the picture and the sound.

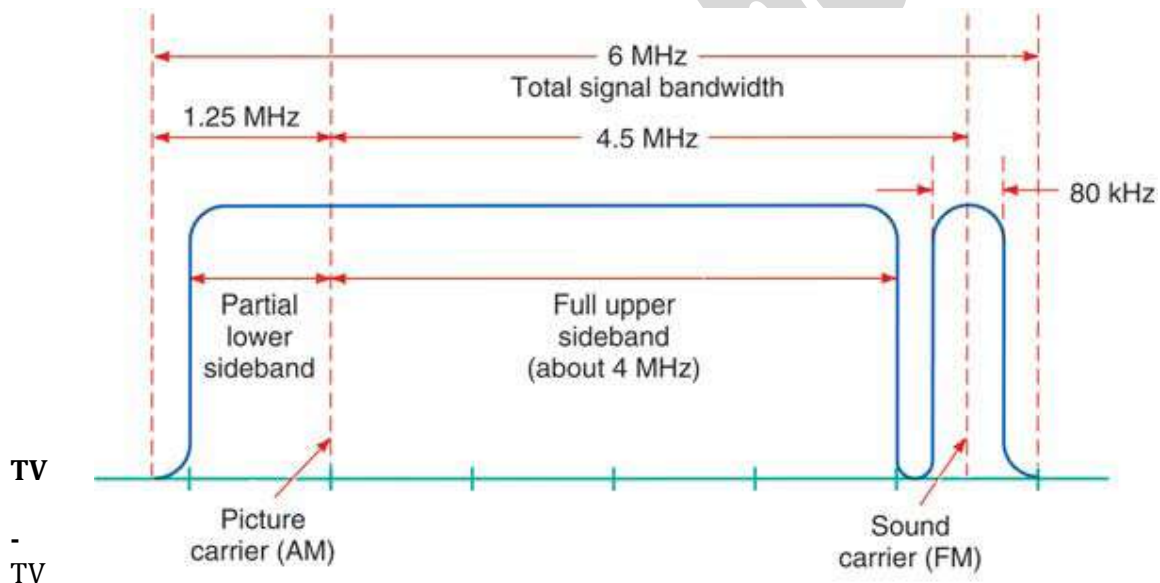
Audio Signal. The sound carrier is at the upper end of the spectrum. Frequency modulation is used to impress the sound signal on the carrier. The audio bandwidth of the signal is 50 Hz to 15 kHz. The maximum permitted frequency deviation is 25 kHz, considerably less than the deviation permitted by conventional FM broadcasting. As a result, a TV sound signal occupies somewhat less bandwidth in the spectrum than a standard FM broadcast station. Stereo sound is also available in TV, and the multiplexing method used to transmit two channels of sound information is virtually identical to that used in stereo transmission for FM broadcasting.

Video Signal. The picture information is transmitted on a separate carrier located 4.5 MHz lower in frequency than the sound carrier (refer again to Fig. 23-1). The video signal derived from a camera is used to amplitude-modulate the picture carrier. Different methods of modulation are used for both sound and picture information so that there is less interference between the picture and sound signals. Further, amplitude modulation of the carrier takes up less bandwidth in the spectrum, and this is important when a high-frequency, content-modulating signal such as video is to be transmitted.



Note in Figure below, that vestigial sideband AM is used. The full upper sidebands of the picture information are transmitted, but a major portion of the lower sidebands is suppressed to conserve spectrum space. Only a vestige of the lower sideband is transmitted.

The color information in a picture is transmitted by way of frequency-division multiplexing techniques. Two color signals derived from the camera are used to modulate a 3.85-MHz subcarrier which, in turn, modulates the picture carrier along with the main video information. The color subcarriers use double-sideband suppressed carrier AM.

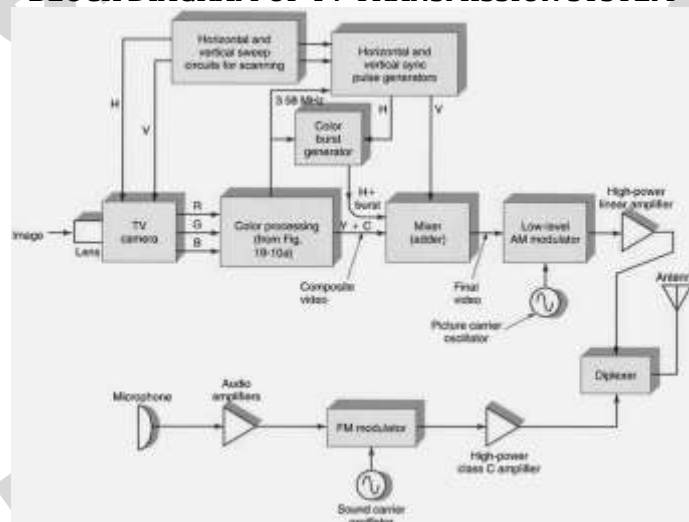


Spectrum Allocation
Because a signal

occupies so much bandwidth, it must be transmitted in a very high-frequency portion of the spectrum. TV signals are assigned to frequencies in the VHF and UHF range. In the United States, TV stations use the frequency range between 54 and 806 MHz. This portion of the spectrum is divided into sixty-eight 6-MHz channels which are assigned frequencies (Fig. 23-2). Channels 2 through 7 occupy the frequency range from 54 to 88 MHz. The standard FM radio broadcast band occupies the 88- to 108-MHz range. Aircraft, amateur radio, and marine and mobile radio communication services occupy the frequency spectrum from approximately 118 to 173 MHz.

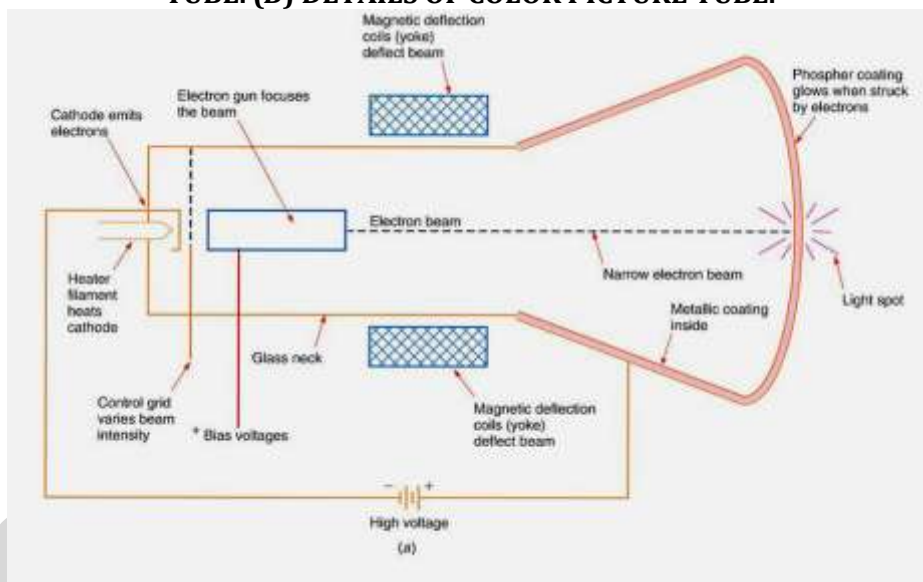
Additional TV channels occupy the space between 470 and 806 MHz.

BLOCK DIAGRAM OF TV TRANSMISSION SYSTEM





BASIC CONSTRUCTION AND OPERATION OF A BLACK-AND-WHITE (MONOCHROME) CATHODE-RAY TUBE. (B) DETAILS OF COLOR PICTURE TUBE.



DOORDARSHAN – Indian tv broadcaster

Doordarshan is an Indian public service broadcaster, a division of PrasarBharati. It is one of the largest broadcasting organisations in India in terms of the studio and transmitter infrastructure. Recently, it has also started broadcasting on Digital Terrestrial Transmitters. On September 15, 2009, Doordarshan celebrated its 50th anniversary. The DD provides television, radio, online and mobile services throughout metropolitan and regional India, as well as overseas through the Indian Network and Radio India. For the London Olympics, live telecasts of the opening and closing ceremonies of the games were broadcast on its national channel. DD sports channel has provided round the clock coverage of sport events.

Doordarshan had a modest beginning with an experimental telecast starting in Delhi on 15 September 1959, with a small transmitter and a makeshift studio. The regular daily transmission started in 1965 as a part of All India Radio. Doordarshan began a five-minute news bulletin in the same year in 1965. Pratima Puri was the first newsreader. Salma Sultan joined Doordarshan in 1967 and later became a news anchor. The television service was extended to Bombay (now Mumbai) and Amritsar in 1972. Up until 1975, only seven Indian cities had a television service and Doordarshan remained the sole provider of television in India. Television services were separated from radio on April 1, 1976. Each office of All India Radio and Doordarshan were placed under the management of two separate Director Generals in New Delhi. Finally, in 1982, Doordarshan as a National Broadcaster came into existence. Krishi Darshan was the first program telecast on Doordarshan. It commenced on January 26, 1967 and is one of the longest running programs on Indian television.

National telecasts were introduced in 1982. In the same year, colour TV was introduced in the Indian market with the live telecast of the Independence Day speech by then prime minister Indira Gandhi on 15 August 1982, followed by the 1982 Asian Games which were held in Delhi. Now more than 90 percent of the Indian population can receive Doordarshan (DD National) programmes through a network of nearly 1,400 terrestrial transmitters. There are about 46 Doordarshan studios producing TV programmes today.

Early national programming

The 1980s were noted for *Hum Log* (1984), *Buniyaad* (1986–87) and comedy shows like *Yeh Jo Hai Zindagi* (1984).



- Hum Log, Buniyaad, and Nukkad along with spiritual show such as Ramayan (1987–88) and Mahabharat (1989–90), Shaktimaan (1998-2005), India's First Superhero, glued millions to Doordarshan as did shows such as Bharat EkKhoj, The Sword of Tipu Sultan and The Great Maratha.
- Hindi film songs based programmes like Chitrahaar, Rangoli, Ek Se Badkar Ek and Superhit Muqabla.
- Crime thrillers like Barrister Vinod (starring Parikshit Sahni), Karamchand (starring Pankaj Kapoor), Aparadhi Kaun, PC 1008 (starring Kanwaljit), Police File Se, Byomkesh Bakshi (starring Rajit Kapoor), Reporter (Shekhar Suman), Tehkikaat and Janki Jasoos, Suraag (starring Sudesh Berry).
- Shows targeted at children include Faerie Tale Theatre, Dada Dadiki Kahaniyan, Vikram Aur Betaal, Space City Sigma, Stone Boy, Malgudi Days, Tenali Rama, Potli Baba Ki (puppet show), He-Man, Superhuman Samurai Cyber Squad, Knight Rider, Teletubbies, Street Hawk and a horror serial Kileka Rahasya (1989).
- Other popular shows include Oshin a Japanese drama series, Rajni dealing with social issues, Trishna, Mr. Yogi, Neemka Ped, Circus, Fauji (launching Shahrukh Khan), Rani Laxmibai, Dastan-E-Hatim Tai, Alif Laila, Gul Gulshan Gulfaam, Udaan, Rajani, Talaash, Phir Wohi Talash, Katha Saagar, Nupur, Mirza Ghalib, Wagle Ki Duniya, Phulvanti, Sangharsh, Lifeline^[disambiguation needed], Kashish (launching Malvika Tiwari), Srimaan Srimati, TuTu Mein Mein, Junoon, Ajnabi (starring Danny Denzongpa), Zabaan Sambhal Ke, Dekh Bhai Dekh, Sansaar, Swabhimaan, Yug Chanakya, Shanti (launching Mandira Bedi), Sea Hawks^[disambiguation needed] (starring R. Madhavan), Surabhi, Tana Bana, Mujrim Hazir (launching Navni Parihar), Jaspal Bhatti's Flop Show, Meri Awaaz Suno, Captain Vyom, Chandrakanta and Tootne Ke Baad (TV Serial by Paigham Afaqui)
- Doordarshan used to have serials before sponsored programmes came into existence. Serials like Dadi Maa Jagi, Bibi Natiyon wali, Aur Bhi Ghum Hai Zamane Mein, and Laddoo Singh Taxi Wala (starring Paintal) were also popular.
- Sarab Sanji Gurbani was the first sponsored programme on Doordarshan, sponsored by Texla TV.
- Doordarshan also telecast English cartoons at 12.00 noon during summer vacations in a programme named "Fun Time" which showed cartoons like Spider-Man, Giant Robo, Gayab Aaya, Guchhae, He-Man and the Masters of the Universe, Jungle Book Shonen Mowgli (a dubbed Hindi version of a Japanese anime with original music composed by Vishal Bharadwaj), Talespin & Duck Tales, also the comic plays of Charlie Chaplin, Laurel & Hardy and Didi's Comedy Show.
- Among the earliest documentary films produced by Doordarshan in Delhi are *The Peacock Calls* [Mor Machay Shor] (1968), *TRS-FRS* (1968), *The Floods May Come and Go* (1969), and *University Girls* (1971).^[4]
- Some of the Transtel-Cologne shows that were popularly played on Doordarshan include, Telematch, The Old Fox, Derrick, and Scene of Crime. Doordarshan also played NBC's Knight Rider starring David Hasselhoff and ABC's Street Hawk as part of its Sunday afternoon broadcast during the mid- and late 1980s.
- Doordarshan brought to the Indian viewers geographical documentaries made by the great marine explorer Jacques Cousteau (Secrets of the Sea) and the British naturalist David Attenborough (The Living Planet)
- Ekta Kapoor's Kayamat, Ithihaas and many other shows from Balaji Telefilms were broadcast on this channel.

Doordarshan operates 21 channels – two All India channels - **DD National** and **DD News**, 11 Regional language Satellite Channels (RLSC), four State Networks (SN), an International channel, a Sports Channel **DD Sports** and two channels **Rajya Sabha TV** & **Lok Sabha TV** for live broadcast of parliamentary proceedings. On **DD National aka (DD-1)**, Regional programs and Local Programs are carried on time-sharing basis. **DD News** channel, launched on 3 November 2003, which replaced the **DD Metro formally known as (DD-2)** Entertainment channel, provides 24-Hour news service.

The Regional Languages Satellite channels have two components – The Regional service for the particular state relayed by all terrestrial transmitters in the state and additional programs in the Regional Language



in prime time and non-prime time available only through cable operators. DD-Sports Channel is exclusively devoted to the broadcasting of sporting events of national and international importance. This is the only Sports Channels which telecasts rural sports like Kho-Kho, Kabbadi etc. something which private broadcasters will not attempt to telecast as it will not attract any revenues.

It is an Interactive Service of Tata Sky to show TV Channels of Doordarshan which are not available on Tata sky as normal channels. Active Doordarshan channels are DD Kashmir, **DD Podhigai**, DD Punjabi, DD Sahyadri, DD Chandana and **DD Gujarati**. DD has its own DTH service called **DD Direct Plus**. It is free of charge.

DD India is broadcast internationally via satellite. It is available in 146 countries worldwide; however, information on receiving this channel in other countries is not easily available. In the UK, DD-India was available through the Eurobird Satellite on the Sky system on Channel 833 (the logo is shown as Rayat TV). The timing and programming of DD-India international is different from that of India. Transmissions via Sky Digital (UK & Ireland) ceased in June 2008 and those via DirecTV in the United States in July 2008.

NEW TRENDS IN TELEVISION

The conversion from analog-to-digital television broadcasting is well underway, creating new business opportunities for broadcast equipment manufacturers, as well as television broadcasters and broadband service providers. In addition, new ways to distribute content, such as Internet protocol television (IPTV) and mobile TV, are rapidly evolving and deploying, creating further opportunities for innovation and growth. The availability of digital high-definition (HD) content is rapidly increasing. The number of HD channels available to the consumer is proliferating and HD-capable TV sets are setting new sales records. Underlying all of this is the ongoing quest for improved audio/video quality and lower bit rates to enable increased demand and lower costs of distribution, respectively.

Major industry trends in digital broadcasting include:

- HD Content Creation
- Content Scaling
- Compression Quality and Bit Rate Reduction Improvements
- IPTV Build Out
- Mobile TV

HD Content Creation - HD content creation is gaining ground worldwide. Europe, Asia, and many other geographies have embraced HD and are actively driving its adoption and promoting the benefits. Local broadcast stations and movie studios are increasingly upgrading their facilities to enable HD recording and broadcast. The Society of Motion Picture Television Engineers (SMPTE) passed several standards in 2006 that enabled cost-effective recording and production of full HD content in the 1080p format. As 1080p can further fuel the demand for HD content, broadcast stations and studios are scrambling to upgrade their facilities to take advantage of the higher quality video experience that is now possible.

Content Scaling - Previously recorded content in a variety of formats currently exists and is a prime candidate for content scaling. This includes content originally recorded for PAL or NTSC broadcast and content recorded in standard-definition (SD) and HD formats. Content scaling enables upconversion to HD, cross conversion between formats, and efficient down scaling for applications such as mobile TV. As an example, real-time scaling enables the efficient simultaneous distribution of content in SD and HD formats through a variety of distribution types. Equipment sets that enable cost-effective, high-quality scaling will dominate in this solution space.

Compression Quality and Bit Rate Reduction Improvements -Before the availability of advanced digital compression, it was impossible to cost-effectively provide high-quality digital video to consumers. The Moving Picture Experts Group (MPEG) changed that by developing standards for coded representation of digital audio and video. MPEG compression engines enable cost-effective transport of digital multimedia content to consumers. The group has specified several MPEG standards including MPEG-2 and H.264/MPEG-4 AVC (H.264). The newest compression standards provide the greatest inherent compression capability, yet the current technology used to implement the standard is fairly



immature. As such, you can expect continued improvements in video quality and reduced bit rates over the next several years.

IPTV Build Out -IPTV is enabling telecom companies to include video in their product offering. IPTV has quickly evolved from concept to field trials to actual deployments. IPTV also offers cable companies considerable benefits including gradual cost reductions. The switched broadcasting technique enables efficient bandwidth utilization. In some localities and some countries, IPTV represents the missing link in the quest for distributing low-cost, triple, and quadruple plays to customers. IPTV can leverage some video equipment that already exists for traditional head-ends, but also requires specialized compression equipment and additional equipment at the network edge. Major efforts are underway to develop the equipment sets and infrastructure to support mass deployment of IPTV. Real-time, high-quality video delivery over IP requires unique capabilities such as minimizing packet loss, robust retry and fill, ameliorating effects of network delay and jitter, maintaining rock-solid audio/video (A/V) synchronization, and reducing video artifacts and macroblocking. IPTV is also broadening the horizon by making features like accelerated channel change, highly targeted ad insertion, and interactive multi-stream applications feasible.

Mobile TV - Mobility, convenience, and personalization are the drivers behind the mobile TV trend. Deployment is just beginning, yet uptake has been very promising in Korea and many other areas throughout the world. As the “winning business model” is yet to be proclaimed, there is great opportunity for innovation and differentiation for equipment manufacturers in this market.

DIFFERENT FORMATS OF TELEVISION PROGRAMMES

- **Fiction Programmes** -Almost all the fiction programmes that depend on imagination and dramatization are meant for entertaining the audiences. Drama/ soap operas like Humlog, Ghargharkheli, utaran, pratigya, on different tv channels.
- **Non Fiction Programmes** - Apart from different serials and other entertaining works of fiction, you must have watched programmes on television that provide a lot of information regarding various events that take place in our surroundings and also impart education on contemporary issues. Let us now discuss the various non-fiction programmes available on television.
- **News Bulletins** - News bulletins essentially present a summary of news stories in their order of importance and interest. National and international happenings get the pride of place, while regional and local news are read out if time permits. Human interest stories and sports news generally round off the major bulletins. News bulletins in English, Hindi and various regional languages are presented on Doordarshan.
- **Game/Quiz Show** - You may have seen Derek O'Brien presenting the most popular quiz programme, called Bournvita Quiz Contest (BQC) telecast every Sunday afternoon. Beginning with the Bournvita jingles, the programme gets off the ground quickly and moves at a hectic pace, taking the audience along with it. It's the sense of participation and involvement in the quiz questions that makes the quiz programme an enjoyable family fare.
- **Talks and Discussion Programmes** - There are many issues which are of importance and concern to us happening in our society. Reporting them through news alone is not enough. Several factors and viewpoints of experts help us to gain an insight into these issues. Talks and discussion programmes about topical issues are thus a very important format of television programming.



UNIT-V

WRITING FOR TELEVISION -NEWS

"If you read a lot of books, you're considered well read. But if you watch a lot of TV, you're not considered well viewed."

1. Write for the Ear - Read your script out loud. Is it easy to understand just by hearing it one time only? Unlike in print, a TV news audience has one shot to get the story. That's why words that sound alike but have different meanings create stumbling blocks for the ear. Words such as "cite", "site" and "sight" should be avoided if possible. Short, punchy sentences are easier for the ear to digest than long, complicated sentences that are full of dependant clauses.

2. Avoid Passive Voice - Passive voice writing jumbles up the usual sequence of subject, verb, object in active voice writing. This sounds like a lesson from English class, but it really makes a critical difference in broadcast news writing. An active voice sentence is, "The robber fired the gun." You see the subject, verb and object. A passive sentence is, "The gun was fired by the robber." The object and verb came before the subject. Viewers have to wait until the end of the line to know who did what. Then their brain has to process that information while trying to keep up with what the newscaster is saying. Beware of the "by" in a sentence. That's usually a giveaway the sentence has been written in passive voice.

3. Use Present Tense Where Appropriate - TV news is designed to sound like "now." That's another big difference between broadcast and print news writing. A 6:00 p.m. newscast needs to sound fresh, as if the news is just now unfolding. But the mayor's news conference you covered happened at 2 o'clock. The natural tendency is to write, "The mayor held a news conference earlier today." By shifting the focus of the sentence to the subject of the news conference, you can put the sentence in present tense and give it extra punch. "The mayor says he wants to slash taxes by 20 percent. He made the announcement at a news conference..."

4. Write Stories about People - This seems obvious, but it's easy to allow a script to veer away from focusing on the people who are watching your newscast. If viewers sense your stories don't directly affect them, they will turn away. So when the state department of transportation announces a huge infrastructure improvement project that involves replacing bridges around your city, you may be presented with institutional information. But transform it into something personal and meaningful to the people at home.

5. Action Verbs Add Verve - In news writing, you can't do much to the subject or object of your sentences, but you can spice up your verbs. They are the part of speech that can bring life to your stories. Look at a story to see whether you can switch a sentence that says "Residents are requesting information..." to "Residents demand answers." That easy change adds urgency and action.

6. Be Careful with Numbers - Numbers are hard on the viewers' ears, especially when there are a lot of them. Make your point with a number or two, then move on.

7. Skip Cliches and Journales - Even experienced news writers fall into a trap of writing the same tired words and phrases. Powerful storms always "wreak havoc", political candidates "throw their hat into the ring" and the moments after a crime has happened "details are sketchy." Those empty terms make your news writing seem shallow. Replace them with words that normal people would actually use in conversation.

8. Write to Video - Many TV news stories are read as the audience watches video playing. Connect the words to the video as if you were leading a tour group. That requires you to know what is going to be on screen as the viewers hear the script. Once you have that information, the rest is easy.



9. Sell the Story - Print journalists may groan at this basic aspect of TV news writing. In most cities, there's one newspaper but several TV stations providing news. That means in television, a news writer also has to sell the product as something different and superior to the competition.

10 Move the Story Forward - A TV news story doesn't have a "the end" at the bottom of the script. The end of your script should usually tell the audience what will happen next to the people involved.

WRITING FOR TELEVISION –TV SHOW

Choose a topic. If you have the opportunity to choose the topic for the script prepare to give it a hard time. Get a piece of paper or open a new document on your computer's word processor. Write down any show ideas you have in your head. Once you have finished this list, you will have a good amount of topics to choose from.

Get documented. Before you start writing your own story you must take a look at other people's work. This will help you get good new ideas and break with old ones. Remember, you don't want to show your producer something s/he's already seen.

Sketch the basic plot or rules for the show. This is probably the most important part of your work, as it where the guidelines for the rest of the project should be set. Most of the steps on this section will be developed at the same time, you must try to keep ideas sorted all the time to ensure coherence and prevent mistakes. There are no rules about how to do this, but you should look for a method that works for you. Some people will draw on a sketch book, others will write everything on cards, mind mapping, software assisted, etc., you should try what works better for you.

- Brainstorm. Once again, write a list of ideas for your story. This is where you should think of the overall storyline of the show.
- Choose a genre. Consider the plot of your show and try to decide on a genre that best fits. Is it a mystery, soap opera or Comedy? The possibilities are endless and it's possible for your show to fit into multiple categories. Glee, for example, would be a musical comedy drama.
- Write A Pilot. You'll need a pilot if your show ever gets filmed. The pilot is what gets people interested in your show. It has to be filled with detail but at the same time, you have to leave your audience craving for information so that it gets viewed the next episode.
- Develop a Setting. Describe some of the main settings in the show so that later on you can reference to it if your show ever gets filmed. Time line, epoch, weather, locations, dresses, languages and idioms,
- Develop characters. Every show needs interesting characters to entertain an audience and to contribute to the show itself. It's important to consider both the plot and the genre when developing characters.

Develop a Character Relationship List. With this step, you need to make three lists. A Conflict or Disagreement list- this will be a list of two or more characters that just simply cannot stand each other. You may want to include on the list why they fight and what they fight about. A Friendship List- Write down groups of characters that are friends. Also write how strong their friendship is and if it will last the whole show. A Love List- write down two characters that are dating, married or like each other and will eventually get together during the show.

Develop the details. Now, if you hadn't done it already, you should take care of picking all the details for your project. Be sure to double check your finer details for consistency:

- Plot
- Setting
- Characters
- Special items or tools



Get all your work together and start writing your script. Use a standard script template. You should find some on the Internet, or even use specialized software. If your writing for a contest, they should give you the proper regulations to follow in order to present your script, or your producer or director should tell you the specifics of your delivery. Anyway the form of the basic script template should be the same for all of them.

Proofread. There is nothing more valuable for getting better than experience, and the person who started writing the script is definitely different than the one who finished it. Read it again and correct what should be corrected.

WRITING FOR TELEVISION – DOCUMENTARIES FOR TV

The script is also, often, the most underrated aspect of the documentary process. A school of thought suggests that the documentary-making process should be fluid and organic, whereby the filmmaker experiences the film as he makes it. Many filmmakers write a 'paper-edit' after shooting in place of a script. This process has and does work with many types of films. Especially when the filmmaker is recording events beyond his control like political rallies, events, natural disasters, riots and demonstrations etc. However, in most films, the filmmaker will find himself asking the question, "What should I shoot?" Here, it is imperative to start out with a well-written script, whether or not things change during the shooting process. Often preparing a script beforehand can make the difference between a bad film and a good film. Or, at best, a good film and a great film.

There are two stages of documentary scriptwriting:

1) The Pre-shoot or Shooting Script –

- A pre-shoot or shooting script is like carrying a map when you set out on a road trip.
- A shooting script is a conceptual map for your shooting journey. It consolidates research and outlines the film's story, providing a visual guideline for the shoot.
- It uses the same format and elements as a post-shoot script and can be as comprehensive or generic depending on the information available to the scriptwriter at that stage.
- A shooting script should not be confused with a shot list. *A shot list is a production tool which contains shot numbers, descriptions and transitions along with production details.*
- Even though some director-scriptwriters often combine the shooting script and shot list, the two are separate entities.
- It rarely delves into detailed aspects of production unless integral to the story.
- . It is more conceptual in nature; descriptive, but leaving room for interpretation.

2) The Post-shoot Script –

- It is the final version of the shooting script.
- The post-shoot script combines conceptual elements along with audiovisual information gathered at the production stage.
- It also includes any new knowledge gathered along the way.
- It then weaves it all together into a cinematic story, which is used by the filmmaker to edit the documentary. – The postshoot script often includes descriptions of shots and actions and is quite comprehensive.
- The post-shoot script should not be confused with a paper-edit, which contains detailed shot and production information.
- The script is conceptual and descriptive of action but should leave some room for creative interpretation at the editing stage.

DIFFERENCE BETWEEN A FILM AND A DOCUMENTARY

Film is visual. The words that a screenwriter writes will never be read by anyone. They will only be seen and heard as images on a screen. The most important skill of a screenwriter is that he must be able to write visually. Theorizing or explaining a concept in a script is pointless; if the audience can't 'look' at the



theory, it's not worth writing. A screenwriter must think, 'Is what I'm about to write visual in nature? If not, then how can I make it visual?'

Film shows motion. Most of the images you see on screen have action. It's what separates moving images from photographs. Stories for film must be translated by a screenwriter into active images.

Film reveals what the eye often can't see. A tiny cell in our bodies, a country we've never been to, details that we would normally miss. The screenwriter must bring things to life for the audience who may have never before experienced what they see on screen.

Film transcends time and space. A film doesn't adhere to our dimensions of time and space. Once made, it continues to exist in a little bubble of its own, transcending the limits of our present lives. A screenwriter must understand that writing for a film means creating a being that should have a life of its own long after the writer has moved on from it.

Film is Subjective. By simply pointing the camera in a specific direction, a subjective choice has been made. The very nature of film, like our eyes, is to focus on what is considered to be the object of interest and eliminate what lies beyond the lens, thereby losing all sense of objectivity.

Film chooses audience. The screenwriter must always keep in mind that each film chooses its own audience depending on how he chooses to tell the story. By varying a script, he may be showing the film to very different people in the end.

Film repeats accurately. Film footage doesn't discriminate between objects, doesn't hide, cheat or lie. It consistently reproduces what the camera sees in full detail. It is the filmmaker who must shoot objects in a particular way to include or eliminate details.

Film may have colour and audio elements. It's not only about moving images. Most films, unless the filmmaker chooses not to use them, have the elements of sound and colour. These elements are always, if present, incorporated into the script.

Film emphasizes and emotionalizes. Films can evoke different kinds of reactions in the audience, from grief to anger. They can make the audience think and send powerful messages across to them.

DOCUMENTARIES

Documentary deals with fact, not fiction. Most importantly, documentaries delve into a non-fictional world with real events, real issues, real conflict, real people and real emotions. Everything seen and heard on screen is grounded in accuracy and has no element of fiction.

Documentary is flexible. Unlike fictional films, documentaries have no fixed visual and conceptual guidelines per se. It's impossible to concretize events or decide one way or the other about how the film will turn out eventually. There are fewer 'rules' to be followed, which reflects the fact that there are few rules in the real world as well. This makes it more challenging but infinitely more exciting.

Documentary inspires movement and action. At the very heart of documentary, there is an issue and a message at hand. The passing on of this message to the audience is usually the reason that the film was made in the first place. Documentaries have long been used as an instrument to inspire change in their audience, be it social change or inner change.

Documentary involves less control. Unlike fiction films, documentaries must be shot in the real world and show real events happening. Often, the filmmaker is unable to control the event he is shooting as well as the circumstances surrounding the event. It's difficult to think about lighting when in the middle of a sniper shootout! There is less control over the subject in documentary; however this unmodified, improvised element is often the very charm of non-fiction films.

Documentary subject is paramount. Documentaries are inherently bound to their subject matter. Since their purpose is so issue-specific and their circumstances are non-fictional, the subject is the most important aspect of documentary films and is given precedence over other aspects, for example: entertainment value. In fact, until recently filmmakers scoffed at the idea of a documentary being entertaining.

This attitude has, of course, changed now but subject still remains the dominant element.

Credibility is key in Documentary. The emergence of the documentary as a recognised cinematic genre in the 1920's inherited the trust of the audience in the veracity of the image as an authentic representation of the real.



Form is more important than formula. There are no recipes in documentary films. Every subject and issue is specific and is showcased on film in its own appropriate manner. Form and the layout in which a subject is showcased in a film are important as they add value to the film, but there is no one tried and tested way to do this.

DOCUMENTARY STYLES

Classical Cinema - This is the most structured and traditional form of documentary. It gives great importance to clarity of narrative and images. Characters drive the plots, and continuity editing ensures the seamless progression of events. These kinds of documentaries often made extensive use of didactic narration, as was seen in the most famous documentary in this style.

Direct Cinema - This style of documentary originated in the late 1950's and reached new heights of popularity in the 1960's. It was, much like the generation that pioneered it, a rebel with a cause. This style was spurred on with the advancement of film technology, including portable cameras with mobile sound.

Documentary Drama - This style mixes the techniques of drama and the factual elements of documentary. Real events are acted out by professional actors in controlled settings in an obviously constructed style.

WHEN YOU WRITE –DOCUMENTARY : BEFORE SHOOT

RESEARCH! Once you've settled on your documentary idea, time to start digging. Leave no rock left unturned.

Create a List. Based on your research, start creating a list of potential characters/interviews, basic storylines, areas of potential conflict and emotion. Ask yourself, "what's at the heart of this story and how do I "show" that visually?"

Get Style. Decide the look, feel and style of your documentary. Search web videos or watch TV for ideas. Netflix is a great resource for documentaries.

Write a "shooting script" (pre-script/outline) - Often with documentaries, the script can't really be written until after the footage has been shot and you start piecing the story together based on what you "discovered" with your camera. However, writing an outline at the beginning can be an invaluable guide to point you in the right direction, especially to be able to look back as a reference when the chaos of shooting can get you off track. There WILL come that moment in the process when you say, "What was I thinking!?"

Get Creative. Think about some unique and creative ways you can spice up your movie and give it that "Wow" factor. "How to write a script" creatively involves adding special elements such as stop motion, time-lapse, animation/cartoons, recreations, etc. For example, in the 2008 documentary *Young At Heart*, the filmmakers used MTV style music videos to segue between scenes of their elderly singers. Perfect!

WHEN YOU WRITE –DOCUMENTARY : AFTER SHOOT

Log your tapes - This may seem like a tedious and boring task at first, but TRUST ME, you will thank yourself in the end. This is where you begin to "log" and categorize the various "pieces" of your puzzle.

Review the BIG picture. What are the main elements (characters and plots) that have surfaced through shooting process that create the tapestry of your overall story. What are the key "moments"?

Create Scenes. Take these "moments" and divide your documentary into mini-stories (scenes) that, together, create the documentary.

Build a Roller Coaster. Take these scenes and begin creating a "Roller Coaster" ride for your audience. What kind of "ride" are you taking them on? Think about the powerful moments in your story and how to write a script to build up those moments. A fantastic book that describes this process is *Writing Great Screenplays for Film and TV* by Dona Cooper.

Villain and Hero. Another important part of scriptwriting is determining the villain(s) and hero(s) in your story. A hero/villain can be a person, thing or event. (A tornado can be the villain).

BEGINNING, MIDDLE and an END. Of course, every story has a beginning, middle and end. If you can outline your story in these three general categories, then you can begin to fill in the details.



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The Ending. If you have a lot of footage and information to work with, a simple way to clarify how to start building your script is to think about how you're going to END your documentary. Everything else leads up to that.

Start Strong. I cannot express enough the importance of how you START your documentary. This is when you "hook" the audience and set the tone for the entire program. The beginning of your film should:

- **Establish the "core message"** of the documentary (this often includes a specific "incident" that is controversial or offsets the balance of forces in some way).

- **Create curiosity** -- set up the "problem" or "issue" in the most compelling way possible to tantalize or grab your audience's interest. Create a situation that makes the audience ask, "Why is this happening?"

What's in the Middle? It's easy for scriptwriters to get "lost" in the middle (body) section of the script. Just keep asking yourself, "Does this scene/story or information move the story forward and lead to the ending conclusion?" Don't get attached to any particular footage or information. If it doesn't fit, leave it OUT. You can always put it in the "Bonus" or "Deleted Scenes" section of your DVD. :-)

Script Template. Finally, once you have a general outline of your story, begin building your script using a 2-column script template: one column for audio, one column for video.
