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MASS COMMUNICATION (PAPER II: ELECTRONIC MEDIA)

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Radio is everywhere as its signals reach every nook and cranny. It is wonder to hear that there are 6.6 radio receivers on average in American homes. Indian official 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.

**Origin and growth of radio**

Samuel Morse’s invention of telegraph in 1842 prompted scientists to find out ways to transmit messages over air. Italian inventor Guglielmo Marconi succeeded in it in 1895. 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 Pittsburg, 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 up radio stations in Asian and African countries in the early years of 20th century.

**Characteristics of radio as a mass medium**

1. **Radio is a cost effective medium**

Radio sets are not at all a luxury now, unlike olden days, when radio sets were not affordable for common people. Advancement of technology made radio production and transmission less expensive. Unlike other media, production format is sound which can be produced at a minimum rate.

2. **Radio is a public medium**

Radio can be accessed by any number of people simultaneously without much technical paraphernalia. Anybody can listen to radio as a background medium and does his job.
3. **Radio is accessible for illiterates**

Literacy is not a prerequisite for listening radio. In developing and less economically developed countries, it becomes a popular medium because of these characteristics. Majority of the population in these countries are illiterate. They show a special affinity towards radio as they can overcome the deficiency of illiteracy through radio programmes.

4. **Radio is a mobile medium**

We can listen to radio while we are moving. As Vivian explained earlier, we can listen to radio while driving car, jogging, walking or doing any job.

5. **Radio is a background medium**

Specialty of a background medium is that it can be used while doing other jobs. Housewives listen to radio while preparing food in the kitchen. Given this feature, radio has now been available with home appliances like refrigerator, washing machine etc. as an inbuilt gadget.

6. **Radio is an audio medium**

Being an audio medium, radio is accessible for visually challenged.

7. **Radio needs less energy**

Radio consumes very less energy. In that sense, it is an environment friendly medium. Since radio sets can also be operated with batteries, it became popular in remote villages where electricity is inaccessible.

8. **Radio is a speedy medium**

Radio is the fastest medium as it requires less time for preparation and transmission. Instant live broadcasting with a few equipments is possible in radio section. These characteristics extend the scope of radio as a mass medium.

**Types of radio stations**

1. **Commercial Stations**: Stations under this category support themselves financially by selling time 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.

2. **Non-Commercial Stations**: Non-Commercial Stations do not receive financial support from advertisers for airing commercials. They are normally funded by the government. In some countries like America, donations from private foundations and organizations support them.

3. **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. AM - Amplitude Modulation
varies the amplitude (intensity) of the carrier, while the frequency remains the same. FM – Frequency Modulation encodes the sound information by changing the frequency, while the amplitude remains constant.

Each system has its advantages and disadvantages. AM is the older among the two transmission systems. FM, the newer system, is now the dominant band. It accounts for more than 75% of radio listeners world over.

AM's advantage is that it travels great distances, particularly at night via skywave. Its disadvantage is that it has limited frequency response. AM radio is restricted to 10 kilohertz. This limitation gives it less than the full-range of frequencies needed for ideal fidelity. AM stations are restricted from producing sound above 5,000 cycles per second. This results in a loss of the overtones that provide the richness and warmth that give fullness to sound. This further disadvantages AM stations by reducing their dynamic range, the difference in volume from soft to loud sound.

Because AM transmission varies the amplitude of the wave, it is more susceptible to interference. AM stations broadcast using medium frequency (MF) waves. Music has almost disappeared from AM radio. Successful formats include: news, talk and sports.

One of FM's other major advantages is a built-in resistance to interference. Unlike AM, FM transmission varies the frequency of the signal keeping the amplitude constant. Static interacts with the amplitude of radio waves.

**Organizational structure of a radio station**

A radio station has four distinct divisions under a general manager. The sections are:

- **Management Department**: It takes care of the overall administration of the station. It has internal and external administration responsibilities. The department is further divided under Business Manager, Accounting Manager, Human Resource Manager, Public Relations Manager and Promotion Manager, etc.

- **Programming Department**: This is an important component that specially deals with the media related responsibilities of the station.

  Programme Director is the in charge of all works related to programme; planning, research, production and permitting for transmission. There are two types of staff under Programme Director: The first category include On air talent - DJs, Reporters who are normally not on the regular payroll of the station. They are invited for specific purpose. Some radio stations which focus on news programmes appoint reporters on permanent basis.

  The other category includes Production Director, Music Director, Sports Director, Programme Executives who are directly responsibility for the production and supervision of the segment allotted to them.

- **Engineering Department**: The technical aspects of the station are handled by this department under the supervision of Chief Engineer and Assistant Engineers.
- **Sales Department:** It is another important section which monitors and ensures financial flow to the station. The Sales Department is organized on the basis of the business model followed by the station. Normally, commercial broadcasting stations may have Account Executive, Advertisement Managers, Retail Sales Reps in their Sales Department.

![Organizational chart of a medium-sized radio station](image)

*Organizational chart of a medium-sized radio station*
MODULE II
RADIO PRACTICES

Radio broadcasting is a teamwork which involves an array of processes that warrants a combination of creativity, technology and social mission. It is essential for the people at a station to work in tandem, understand each other, strictly follow instructions and make the radio programme production and transmission a reality. A clear understanding of the complex chain of radio production process is a prerequisite to become a perfect production professional.

To grasp this intricate process, let’s divide the radio broadcasting into five distinct stages:

1) Pre-production
2) Production
3) Post Production
4) Transmission
5) Feedback

Pre production

Ideation on the programmes and research to gather background information materials are the two subdivisions at this stage. Idea may be generated through observation, experiment or innovation. Some programmes are produced on the basis of recent events like a festival or a tragedy while some others are on the basis of an audience demand. The research for collecting background information is called Formative Research since it helps form the idea and format of the programme. It is during this stage that we identify the people participating in the programme, sound/voice to be used, and the properties and logistics required. Also, we arrange everything in a systematic way so that we can start producing programmes without much difficulty.

What we prepare at this stage are an outline script which details the programme to be produced and a rundown sheet which gives a day by day and hour by hour definition of when, where and what we will be recording. What makes the pre-production stage perfect is to prepare a timeframe and manage the entire team to follow it.

Production

Production in radio programming is basically recording the sound. It may take indoor or outdoor. They are called studio production and field production respectively. While recording sound the producer shall ensure the quality of sound, perfection of recording and reduction of noise or interruptions. On a production site, the arrangements are made to ensure high quality recording using good devices. Microphones, recorder unit, headphone socket, standard batteries, recording media, power supply, headphones etc. are some of the devices we use in field recording. In studio, all these devices would be readily available.
Post Production

Once the production process is over, we will be in possession of a completed set of audio recording and source materials including archival materials and sound effects and a field log sheet. Field log sheet details the audio recorded on each cassette/memory card/disk used for recording. Field sheet is important to get a primary idea of the recording done. It helps us retrieve sound bites required for final output. Finally, at this stage, we prepare a note on how to rewrite the script because we worked on outline script only. The final script will be based on outlines script and our observations and assessment of which part of the recorded sound best suitable to the final programme production.

The first stage in post production is to carefully listen to the recorded sound and select the portions which the producer would like to include in the final programme. It is recommended to record as much material as possible to choose from, to make the final selection easier and programme more creative. The process of selecting and listing materials required for final programme is called logging. It is on the basis of the log that we cut and separate the sound bites for final editing. Editing is the process of arranging the selected portion of the recorded sound in a logical and creative manner to form the final programme. During the editing phase, we include sound effects to the final product. Editing is performed on the basis of the final script prepared using the outline script and observation notes.

Transmission

Transmission, which is otherwise called broadcast is nothing but putting the programme ‘on air’. It is to send the final programmes’ sounds after combining with radio waves through an antenna that allows the signal to reach the radio sets with the audience. It is said that the transmission is nearly instantaneous, since the listeners can hear the programme almost exactly at the same time as it plays out over the transmitter. It also involves a precise technological process of controlling and refining the radio signal that is broadcast. These processes help the listeners select their stations.

Feedback

Feedback is to learn the response of the audience towards the programme aired. There are various ways to get feedback from the listeners. Audience survey is one way of getting response from members of the audience. For that some radio stations send their representatives to the society with questionnaires to collect the response. This is normally done by the Audience Research Wing of the stations. Unlike this, most often, keen listeners send their opinions back to the stations through letters or emails. Many stations put interactive options like email address, phone numbers, rating system, polls and the like on their websites to collect feedback. Feedback helps the stations to refine the programmes to make them more attractive and reaching.

RADIO PROGRAMMES

For the better understanding of the practical aspects of radio production one should know about the programme types, their characteristics, qualities of programme producer, and those who work behind the production process.

Types of programmes

Radio programmes can be categorized into two: News and Non-News (Entertainment) Programmes.
Policy of the country or the individual organizations determines the nature of their programme mix. In the United States of America, radio is more an entertainment medium than a news channel. In India, it has a perfect mix since the mission of the AIR requires such a policy given the socio-cultural settings in India.

**News**

News is important because it keeps us informed as to what is happening in our own community and what is happening in other communities which may impinge upon us. It satisfies our curiosity and concern and it provides us with basic facts which enable us to form an idea and join the general discussion which leads to community action.

**News bulletin**

News bulletins have assumed increasing importance in radio broadcasting in recent years. In the early days of radio there was seldom more than one bulletin a day and it was broadcast after the evening newspapers reached the streets and had been sold. As radio stations built up their own news staffs the number of bulletins increased. Many stations today have several long bulletins interspersed with hourly or even half-hourly news summaries.

**Newsreel**

It is more usual to separate comment from the news by including it in news talks and newsreels. The daily newsreel of fifteen or more minutes duration is a popular form of news broadcasting. It contains eye-witness accounts, extracts of speeches and reports of other events, commentaries, short talks and interviews in much the same way as a newspaper includes pictures and feature articles.

**Documentaries**

The documentary programme is a story of something. It is generally between 15 and 60 minutes in length. The actual length is usually related to the size of the subject and the way in which it is treated. An industrial or agricultural development may warrant up to 30 minutes, while a historical re-enactment or archive programme (that is one using previously recorded historical material) may require 45 or 60 minutes.

**Magazine Programme**

The regular radio magazine programme, derived from the newsreel, is a useful outlet for a great deal of informational and soft news material which cannot be programmed elsewhere. Magazine programmes vary in length; usually either 15 or 30 minutes. They consist of short talks, interviews, on-the-spot reports and eye-witness accounts of events, commentaries, music and sometimes poetry and short stories.

**Talk Programmes**

Talks were the earliest form of spoken word broadcasting. They are the simplest form and can still be the most effective. A good radio talk, well constructed and well delivered, can sparkle like a gem against the back ground of other programmes which make up the broadcast day. It can have all the authority of the printed word coupled with the warmth which comes from person to person contact.
Talk

The radio talk is neither a lecture nor a public address. The audience does not have to stay and listen nor can it see the speaker and be attracted by the way he uses his hands and his eyes. Everything in a radio talk has to be carried in the words: the familiar words we all use.

The best of radio talks is a friendly chat built around one subject. It is a spoken composition and like any composition it needs a unified structure: it has a clearly defined beginning, middle and an end. The words it uses are the action-words of everyday speech. It introduces the subject in an ear-catching way, explains it simply, develops its argument and then summarizes what it has said.

Interview

The radio interview is a lively variation of the talk. It considerably expands the potential pool of talks' contributors by bringing to the microphone people who have something to say but who cannot write talks or are too busy to do so. It is a popular form of talks broadcasting as most of us like to hear or overhear other people talking, and it is a very useful form particularly in countries where there are many language. There are several kinds of radio interview but essentially they can all be classified under two headings:

1. The personality interview which seeks to bring out the personality of the interviewee and tells us something about his life and ideas.

2. The information interview which seeks out facts.

Discussion

The discussion programme provides a platform for the exchange of ideas. The ideas may be important ones which concern us as individuals, as members of a community or as citizens of a country; or they may be ideas intended simply to entertain us. The discussion may be serious or light-hearted, but its purpose is always makes us to thinking.

Entertainments

Light entertainment is a rather loose term used by many stations to cover a wide field of programming: book and short story readings; serialized drama, particularly light and humorous drama; variety programmes featuring light musical entertainment, comics, community singing, some types of listeners’ letter programmes, quizzes and panel games.

Music

Music fills by far the greater part of the broadcast day. It is the letterpress of radio between the news bulletins and featured productions. The general tone and character of a station's music does more to establish the image of a station than any of its other activities.

It is in the nature of all of us to enjoy music. We enjoy it for its rhythms, its melodies and its harmonies. Some music is predominantly melodic - it has memorable tunes. While other music is dominated by its harmonic structure - the way in which notes and groups of notes make pleasant sounds when heard together. European music gives a great deal of emphasis to melody while Indian and Arabic music regards harmony as being more important.
Classification of music

Some authorities classify music under four headings:

Primitive music - music with no written score, no known composers and of ancient origin.

Folk music - also with no written score but sometimes with known composers; generally of more recent origin.

Popular music - sometimes with a written score, composers frequently known, marked melodies.

Art music - a written score, composers invariably known, a classical structure.

These classifications of music embrace everything from obscure tribal music to folk ballads.

Radio drama

There are three methods of presenting radio plays: (a) as completely self-contained plays of 30, 45 or 60 minutes in length; (b) as serial dramas of 15 or 30 minutes in length in which the action goes forward from one episode to another; (c) as series drama, each broadcast generally lasting for 30 minutes and completing one whole episode of a continued story; the principal characters reappear in new situations in each new drama in the series.

Radio advertising

A station which carries advertising obtains it either directly from an advertiser or indirectly through an agency representing an advertiser. Where an account is obtained through an agency the agency prepares the advertisements called copy or commercials and listens to the station to make sure they are properly broadcast and at the times contracted for. Where a station obtains an account direct from the advertiser the station generally writes the copy.

WRITING RADIO SCRIPTS

Radio writing differs from writing for publication in print because the medium is different. Broadcasting is a form of live publication. It is not static, but something which moves forward in present time. This calls for a different approach - a difference in style.

The reader of a newspaper or a magazine can select or reject paragraphs or whole stories as the fancy takes him. When he is not clear in his understanding of the author's meaning he can always re-read. This is not so of radio. The listener has to take everything as it comes or not listen at all. When he is unclear he has no means of referring back to clarify a point. A radio-script writer must therefore seek to hold the listener's rapt attention and go to considerable pains to ensure that the meaning is clear and understandable at every stage of a talk or story as it progresses. Another distinctive characteristic of radio writing is that things heard on the radio appear to be happening now to the listener. A broadcast is not a report of something past and gone, even the act of news reading is something taking place at the same time as it is heard. Above all, radio writing is writing for the spoken words and everyday speech should be the guide to the words we use and the manner in which we use them. In talking with one another, we use familiar words. We assemble what we have to say in short phrases and seldom put our ideas together in the kind of lengthy paragraphs which we may write. We put forward our ideas directly, not cluttered with small details nor involved in rambling parenthesis. From these characteristics of radio writing we may deduce a series of rules.
Tips to write good radio scripts

UNESCO document on radio production advocated the following suggestions to ensure the quality of radio scripts.

- Use words which are in everyday use and are readily understood by the majority of people. This does not mean to say that we should use only simple words to the exclusion of all others. Where it is necessary to use an unfamiliar word it should be explained or enlarged upon in a short explanatory sentence or a short parenthesis.

- Sentences should be kept short. But we must avoid a series of short staccato sentences which would make a speech sound jerky. Variety in sentence length makes a speech sound interesting. In general, however, the length should tend to be short rather than long. A sentence should never be longer than the number of words we can easily carry on a breath.

- Avoid dependent clauses and clumsy inversions. Dependent clauses and inverted clauses are quite common in written matter but we seldom use them in normal speech. For example, we may write: ‘Longing for a cold drink, as he had walked many miles that day under a hot sun, Festus walked into the first bar he came to in the village.’ In radio style the idea may be better expressed this way: ‘Festus was thirsty. He had walked many miles that day and the sun had been agonizingly hot. He entered the first bar he came to in the village.’

- Use descriptive words where possible but use them with care. The radio listener has only words to guide him and to sketch pictures which he would otherwise see with his eyes. The use of a descriptive word helps him to see the picture. In the example above ‘agonizingly hot’ says more than simply ‘Under a hot sun’. But descriptive words can be over-used if a script is filled with them. Descriptive words are better than figures where it is possible to use them—‘twenty minutes walk away’ says more to the listener than a mile away’.

- Speech has rhythm and speech rhythms should be kept in mind when writing radio script. A radio script should flow with the fluency of poetry. It helps to carry the listener along and it holds his attention. Some of the best of radio dramas and radio documentaries have been written by poets who have a flair for the rhythms of language.

- A radio script should display an element of immediacy. Whatever the broadcast, as far as the listener is concerned, it is happening now. It is an immediate and a personal experience. This should always be kept in mind when writing for radio. The choice of viewpoint from which a script is written, the choice of words, the author’s approach and the enthusiasm with which he writes all have a bearing on the sense of immediacy.

Producing radio programmes

As per the guidelines of the UNESCO document which details how to produce profession radio programmes, a radio producer should have: a good grasp of the language in which he works so that he can edit scripts and advise speakers on correct pronunciation, a manner which wins the co-operation of artists, a skill in instructing and directing other people at the microphone, a good general knowledge and an interest in community affairs, a sense of responsibility, the ability to take
the initiative and the enthusiasm to experiment, a creative turn of mind and a flair for showmanship, an ear for sound and the ability to conceive ideas in terms of sound, a thorough knowledge of the technical facilities and of the techniques of radio, a specialist interest. The outline makes no reference to educational qualifications although some are implied. On this matter it is worth noting a UNESCO recommendation regarding the recruitment of broadcasting personnel: ‘Present standards are suitable but possession of certificates should not be mandatory. The emphases should be on talent, creative ability and an aptitude for broadcasting.’

Writing and presenting radio news

There is no specific format for radio news writing. It varies by radio stations. Generally, scripts are prepared in all caps and lines are double spaced. The scripts should have descriptions on sound cuts, speaker, kind of the cut like wrap, voice, actuality, length etc. Nowadays, radio news writing style is akin to normal conversational method. It is better write the radio news as though telling the story to a friend. But, the vocabulary should be formal though the style is conversational. A good news writer use words economically. Using as few words as possible to convey message effectively will save time of the listener and make the text more attractive. However, economy of words should not compromise clarity, accuracy and objectivity.

Which tense is more suitable for radio news writing? Being a commentary on the world events, present tense is more appropriate to use. Brief sentences in present tense will help the news readers and presenters deliver the content easily. It is difficult for the audience to comprehend the long, run-on complex sentences.

Clarity and flow are the two main characteristics a radio news script should have. The flow in writing may not help the anchor in delivery. So, conversational flow shall be the objective. To ensure this, after preparation of the script, the writer should read the story loud many times. If found any kind of difficulty, then word or structure can be changed to ensure flow. Giving pronunciation guide by inserting marks of pronunciation and pause in the script itself will help the presenter deliver the news with nice flow. In radio script, we should use dashes for acronyms that are spelled out. BBC is to be written as B-B-C. However, in the case of acronyms which are used as such like UNICEF, AIDS, no need to use dash. A good news writer never banks on clichés and groans as they are void of meaning. Moreover, the listeners may be distracted from the news by using cliché.

Repetition is waste of time and will breed contempt among the audience. Do not repeat the facts already mentioned in the sound cuts used. However, hints given in lead shall serve as an introduction to what the listeners can expect in the entire news.

Using he/she may confusing since the listener has no option to refer back. That’s why, when referencing individuals, especially more than one, use the person by name or title.

There is no need to write lengthy, detail-inclusive stories for radio as we do for the newspapers. Radio news serves to provide only the most vital facts in a story.

Following the print media reporting pattern, many writers are inclined to include the ages of individuals involved in crimes and other similar stories when they write radio news. But unless there is something highly relevant and remarkable about the individual’s age (i.e. an 10-year-old mother), it should be omitted. One exception is in the case of the description of a suspect sought by police. In this instance, the person’s age is vital to a citizen’s ability to identify the individual.
It is better we give an estimate when it comes to numbers. For example, do not mention “147 people.” It is better to mention “nearly 150 people.” Listeners may feel difficult to comprehend exact numbers. In some crucial instances like death toll in an accident, it is nice to use the exact number since the listeners might be eager to know the exact numbers.

Entering number one through ten in letters is the practice since it ensures easy grasping for the presenter. In contrast to this, entering numbers over ten numerically will help the reader. In such instances, numbers shall be separated by commas accordingly.

Disseminating news is considered to be the main function of the radio stations. News reading is the most responsible duty at any station since the reader represents the world and the station at a time before the audience. Even a single mistake on the part of the reader may ruin the image of the station or invite legal problems.

The duty of the news reader is to read the script of a bulleting prepared by the news team, normally led by the news editor. Now, in most stations, news readers and news editors are same. The fundamental quality required for a news reader is to possess steady voice but not shrill or jarring. He should be fluent in reading with perfect diction, pronunciation, pace, pauses and pitch. Audience should enjoy the reader’s confidence, which comes with a good understanding of the news content included in the bulletin. For that, the reader should have adequate knowledge of the current affairs. Reader should basically be a journalist, a jack of all, and in any emergent situation, he should remain in control and be able to read even unrehearsed, handwritten news items flawlessly. Unlike other programmes, news is presented in a formal way, with focus on the matter of fact and with objective style where emotions have no place. A successful news reader inspires the listeners and keep them with the radio. His delivery should exude credibility and objectivity.

Radio Jockeying

Radio jockeying is to present popular songs and programmes like film songs on public demands. Radio jockeys (RJ) adopts various tricky, funny style of presentation to attract and keep the audience with the station. It is the duty of RJ to retrieve the disc from the archive or stations disc library or digital repository and play it with interesting introduction.

Normally, RJs are criticized for being more voluble and talking too much. But, a good RJ keeps a balance to entertain the audience. RJ makes enough preparations before presentation and keeps him/herself a radiogenic personality. Well modulated voice, proper pronunciation and delivery, awareness and general knowledge, alertness, microphone manners; and love for broadcasting are the attributes of a radiogenic personality, RJs present themselves as pleasant, friendly, cheerful, active, team players and confident. RJ shall be practical and rise to situation.

RJs deal with spoken word presentations. The spoken-word programme constitutes culturally and socially oriented programmes viz. talks, drama, feature, storytelling, travelogues and running commentaries etc. The restraints and obligations followed in the news-based programmes are not adhered to rigidly by them. These programmes demand creative, imaginative and innovative presentation. Similarly, music programmes - vocal, instrumental, classical, light, choral and orchestral have their own characteristics and demands. The presenter has to handle the presentation of such programmes differently.
Radio presentation can be classified into two distinct groups: Personalized presentation and Aggressive presentation. Presentation in a phone in programme is one of the best examples of personalized presentation where the involvement of the presenter with the listeners is almost complete. The interaction between the listener and presenter through instant replies to the requests, conveying messages of greetings etc. brings them closer. Compeering of special audience programmes, replies to the listener's letters, etc. if done with a personal touch also constitutes personalized presentation.

Aggressive presentation better suits to commercially oriented sponsored programmes. These generally make use of frills, jokes and humour. The presenter adds interesting news items, anecdotes and notes to make the programme credible as well as interesting. Such programmes may also include advertisements and incentives by offering free gifts and prizes to attract listeners.

Radio drama

In many ways, radio drama differs from theatre and television dramas. Radio dramas opens unlimited options for the listeners to imagine things mentioned in the drama since everything is presented in dialogue or sound effects. It means that there are no limits on the imaginative potential of the dramatist and there are no limits on how the radio dramatist can express that potential since the sound medium is free of all the physical and practical limitations of the stage and film set. A radio play can move through any dimension of time. It can move to any location. It can voice surrealistic and subconscious feelings and image very easily.

A good radio dramatist makes a creative interaction with the listener to create a unique world in the listener's imagination. Theatre, film and TV plays paint the colours for the audience, whereas the pictures in the mind of the radio listener are very personal to that person alone. This gives radio a special intimacy. Radio is very good at dramatizing what people are thinking. The contrast between what people says and what they think can be shown very effectively on radio. 'Interior thought' is a convention which is special to the radio medium. In radio the listener can be instantly transported inside the head of a character and can hear those secret, private thoughts that are often better left unsaid. Radio drama has been described as 'the theatre of the mind'. The key to writing successful plays for radio is to realise that the listener can only understand what is going on by what he or she hears. The physical environment and the appearance of the characters depend on what they say and the images created in the listener's imagination by words and sounds and/or music.

How to script radio drama?

First of all, the dramatist shall develop a good idea on which the entire story snowballs. In radio drama, first impression is the best. The beginning is everything. If the starting point can’t catch the audience they will turn to another station. The very first moment itself should be very dramatic that can parachute the audience into curiosity. Structuring the story is another major task. The radio drama is structured in fast pace to keep the audience with changing events and turning point. Characterization is also more important. The character should be believable and recognizable and serve the purpose within the plot.

They have to be intentional and it is better start with a stereotypical character to ensure rapid recognition, then twist the stereotype. Give each character a dominant physical or behavioural characteristic. Make the dominant characteristic purposeful and extreme in behavior and active.
People are hungry for entertainment. If they wanted boredom they would be filling out their tax returns instead of listening to your radio play. Make people afraid, but also excited. The main character must have the sympathy of the audience. Your audience has to identify with your main character. If this does not happen you have created a failure. Booo!

Drama = conflict = audience is dictum. There has to be an emotional, financial, human, moral, physical struggle so the listeners can laugh or cry.

The art of storytelling is exploring the extreme limits of our psychological or physical existence. A good dramatist always pitches one polarity against another to keep the audience with him.

As the beginning, the climax is also everything. In fact, climax is the beginning of keeping the entire drama in the minds of the audience for ever. It is also invitation to the next work of the same team.

It is through dialogue we engage dramatically with the world. Characters inform, argue, amuse, outrage, and argue through the ebb and flow of dialogue. When we do we talk and that is how great radio plays are made. It is mostly through dialogue that radio drama moves forward. So, writing dialogue is the most painful, creative step in drama scripting.

The ambience/atmosphere creation is also important creative stage since it sets the emotional spirit of the play. It determines whether your listeners believe in the world that you have created. Worlds are not created by dramatic dialogue alone. There is attitude and atmosphere. This is determined by detail and relevant detail. It could be in a sound effect. It could be in the writing. It could be in the music. It could be in everything that creates pictures in mind.

No drama without emotion. Love, hate… every type of emotion is crucial to move forward the story. Analysis of any good radio drama reveal that it is a perfect blend of tension, humour … . To stop the listener dropping off or switching off, maintain the tension always and throw in the humour. Tension, humour, tension, humour, tension humour...like the foxtrot...Make the emotional rhythm of the play dance on the listener's heart and mind. Charm and alarm, charm and alarm. But they have to be linked. Your character uses humour to react to the tension in the scene or play. Keep one character who uses humour to deal with difficult situations. Make sure the humour is verbal. Slapstick belongs to a different type of play or entertainment. Make sure you do not have characters taking it in turns to be funny. This is not stand up comedy or sitcom. Make sure that the character who uses humour has a consistent sense of humour.

Structure of a radio drama

As the structure of radio news script, drama script also varies according the writer and station. However, the script shall be one describing all the elements and effects including characters, dialogue, actions, sound variation, delivery points and other cues.

It is interesting to know that there are various dedicated scriptwriting software applications available including ‘Final Draft’, ‘Movie Magic Screenwriter,’ and ‘CeltX’. ‘Celtx’ is a free media pre-production software designed for creating and organising screenplays, films, stage plays and audio plays and more. ‘Page 2 Stage’ is screenwriting software designed for people writing screenplays, scripts, and plays. ‘Five Sprockets’ provides a range of free screenwriting software resources.
Appendix

Specimen Radio Drama Format from BBA archive

You can read the full script from the BBC radio drama archive.(www.bbc.com)

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TONY TEARDROP

SCENE 1. NIGHT – CITY SHOP DOORWAY

(FAINT SOUND OF A WOMAN SLEEPING – ROZ – WE HEAR FOOTSTEPS APPROACHING.

WHISPERING.LAUGHTER FROM TWO LADS AND STRIKE OF MATCH. THE SOUND OF MATERIAL CATCHING ALIGHT. THE LADS RUN OFF LAUGHING. )

LADS   Go on! Do it, do it!
You do it! [SFX murmurs and Lighter]

ROZ   Aah. Oh. God. Oh God. Me arm, I’m on fire. Me arm’s on fire. God help me.

(SHE PICKS UP CARDBOARD AND WHACKS HER ARM, THEN TAKES THE JACKET OFF).

Get it off, get your coat off, get it off..

(SHE WHACKS THE COAT ON THE GROUND. SHOUTS)
Jesus! You bastards, you rotten, filthy bastards

SCENE 2. EXT. DAY.COUNCIL TIP

(TONY IS ROOTING THROUGH THE RECYCLING-TIP, DISCARDING STUFF)

KEN   I’ll sort everything into piles.

TONY   (RUSTLING)

Look at this! A Johnny Cash poster. (SINGING TO HIMSELF) ‘I hurt myself today, to see if I still feel. I focus on the pain.’

KEN   I don’t understand why people can’t wait till the gate is opened. Chucking bags full of stuff over the railings is hardly in the spirit of recycling is it? It’s inconsiderate.

TONY   I’m not complaining, cocker. I get first pickings.

ROZ   Alright? What’s going on, lads?

TONY   Ah, we keep an eye on the place. Unofficially, like.

ROZ   I’m Roz, what do they call you?

-------------------------------------------------------------------------------------
Key Concepts in Radio Production

**Actives:** Listeners who call radio stations to make requests and comments or in response to contests and promotions.

**Actuality:** Actual recording of news event or person(s) involved.

**Ad lib:** Improvisation. Unrehearsed and spontaneous comments.

**Adjacencies:** Commercials strategically placed next to a feature.

**AM:** Amplitude Modulation; method of signal transmission using Standard Broadcast band with frequencies between 535 and 1705 kHz.

**Amplification:** Electronically increasing the power of a signal.

**Announcement:** Commercial (spot) or public service message of varying length.

**AOR:** Album-Oriented Rock radio format. Also called Classic Rock.

**Attribution:** Statement of the source of information in a news item.

**Audition tape:** Telescopied recording showcasing talents of air person; listen off-air.

**Automation:** Equipment system designed to play prepackaged programming.

**Back announce:** Recap of preceding music selections.

**Balance sheet:** A summary of a station's assets and liabilities.

**Bandwidth:** The difference between the limiting frequencies of a continuous frequency band. Typically measured in kilohertz. May be considered the amount in kilohertz required for a single communications channel.

**Bridge:** Sound used between program elements.

**BTA:** Best Time Available, also Run of Schedule (ROS); commercials logged at available times.

**Cassette:** Two reels of tape in a plastic housing.

**Chain broadcasting:** Forerunner of network broadcasting.

**Channel:** The frequency on which a radio transmission takes place or the input and output frequency pair used by a repeater station.

**Clock:** Wheel indicating sequence or order of programming ingredients aired during one hour.

**Combo:** Announcer operating own board, engineering show; also refers to co-owned AM/FM operation.

**Commercial:** Paid advertising announcement; spot.

**Compact disk (CD):** Digital recording using laser beam to decode surface.

**Condenser microphone:** Microphone with a capacitative electrical element.

**Console:** Audio mixer consisting of inputs, outputs, toggles, meters, sliders and/or pots; board.
Consultant: Station advisor or counselor; "format doctor."

Control point: The physical location from which a radio station’s functions (setting frequency, turning the station off and on, etc.) are controlled.

Control room: Center of broadcast operations from which programming originates; air studio.

Cool out: Gradual fade of bed music at conclusion of spot.

Copy: Advertising message; continuity, commercial script.

Copywriter: One who writes commercial or promotional copy.

Cost Per Point (CPP): Estimate of how much it costs an advertiser to reach one rating point worth of listeners.

Cost Per Thousand (CPM or Cost Per Mil): Estimate of how much it costs an advertiser to reach 1,000 listeners.

Cue: Signal for the start of action; prepare for airing.

Dayparts: Periods or segments of broadcast day: 6-10a.m., 10a.m. - 3p.m., 3- 7p.m.

Dead air: Silence where sound usually should be; absence of programming.

Dead zone: A region where a radio signal cannot be received due to propagation difficulties.

Decibel: The ratio between two power levels on a logarithmic scale. A 3 decibel increase is a doubling of power; a 20 decibel increase is a power increase of 100 times.

Deejay: Host of radio music program; announcer; "disk jockey."

Demographics: Audience statistical data pertaining to age, sex, race, income, etc.

Direct Broadcast Satellite (DBS): Powerful communications satellites that beam programming to receiving dishes at earth stations.

Drivetime: Radio's primetime: 6-10 a.m. and 3-7 p.m.

Dub: Copy of recording; duplicate (dupe).

EBS: Emergency Broadcast System.

Edit: To alter composition of recorded material; splice.

ENG: Electronic news gathering.

Fade: To slowly lower or raise volume level.


Format: Type of programming a station offers; arrangement of material, formula.

Frequency bands: Frequency bands where land mobile radio systems operate in the United States.

Frequency: Number of cycles-per-second of a sine wave.

GHz: Abbreviation for gigahertz a unit equal to 1000 megahertz or 1,000,000 kilohertz.
Headphones: Speakers worn directly over the ears; headsets, cans.

Hertz: One complete cycle of a radio wave per second.

Institutional: Message promoting general image.

Jingle: Music commercial or promo; signature, aural-logo.

Jock: see Deejay.

Key (keying): Turning a sound source on or off from the console.

Live copy: Material read over air; not prerecorded.

Master: Original recording from which dubs are made.

Multitracking: Recording sound-on-sound; overdubbing, stacking tracks.

Narrowcasting: Directed programming; targeting specific audience demographic.

NBC: National Broadcasting Company; the first radio network in the US.

Off-mike: Speech outside normal range of microphone.

Omnidirectional pickup pattern: Microphone pickup pattern that picks up sound equally well from all directions.

Passives: Listeners who do not call stations in response to contests or promotions or to make requests or comments; the silent majority.

Playback: Reproduction of recorded sound.

Playlist: Roster of music for airing.

PSA: Public Service Announcement; non-commercial message.

Psychographics: Research term dealing with listener personality, such as attitude, behaviour, values, opinions, and beliefs.

Rate card: Statement of advertising fees and terms.

Rating: Measurement of the total available audience.

Reach: Measurement of how many different members of an audience will be exposed to a message.

Satellite: Orbiting device for relaying audio from one earth station to another; DBS, Comsat, Satcom.

SFX: Abbreviation for sound effects.

Signal: Sound transmission; RF.

Simulcast: Simultaneous broadcast over two or more frequencies.

Sound bite: Audio portion of interview. See Actuality.

Spectrum: Range of frequencies available to broadcasters.
Sponsor: Advertiser; client, account, underwriter.

Spots: Commercials; paid announcements.

Station: Broadcast facility given specific frequency by FCC.

Stereo: Multichannel sound; two program channels.

Stinger: Music or sound effect finale preceded by last line of copy; button, punctuation.

Subliminal: Advertising or programming not consciously perceived; below normal range of awareness, background.

Syndication: Programs sent to a network of users.

Syndicator: Producer of purchasable program material.

Talent: Radio performer; announcer, deejay, newscaster.

Talk: Conversation and interview radio format.

Transmit: To broadcast; propagate signal, air.

Unidirectional mike: Microphone designed to pick up sound in one direction; cardioid, studio mike.

Very high frequencies: The frequency range from 30 to 300 MHz.


Voice-over: Talk over sound.

Windscreen: Microphone filter used to prevent popping and distortion.

Wire service: News gathering organization; for example: AP.

Wireless telegraphy: Early radio used to transmit Morse code.

Wow: Distortion of sound created by inappropriate speed.
MODULE III

TELEVISION BROADCASTING

Television is one of the most popular inventions of the last century. Every day we spend hours with television. It is a reality that we cannot imagine a day without television consumption. Our imagination of the world is formed with television.

According to the A.C. Nielsen Co., the average American watches more than 4 hours of TV each day (or 28 hours/week, or 2 months of nonstop TV-watching per year). In a 65-year life, that person will have spent 9 years glued to the tube. Percentage of households that possess at least one television: 99. Number of TV sets in the average U.S. household: 2.24. Percentage of U.S. homes with three or more TV sets: 66. Number of hours per day that TV is on in an average U.S. home: 6 hours and 47 minutes.

Percentage of Americans that regularly watch television while eating dinner: 66. Number of hours of TV watched annually by Americans: 250 billion. Value of that time assuming an average wage of $5/hour: $1.25 trillion. Percentage of Americans who pay for cable TV: 56. Number of videos rented daily in the U.S.: six million. Number of public library items checked out daily: three million. Percentage of Americans who say they watch too much TV: 49. This is the case of the United States of America. The situation in other countries is also no different.

By definition, television broadcasting is the transmission of visual images, generally with accompanying sound, in the form of electromagnetic waves that when received can be reconverted into visual images. On January 23, 1926, John Logie Baird of Scotland gave the world's first public demonstration of a mechanical television apparatus to the members of the Royal Institution at his laboratory. These were images of living human faces, not outlines with complete tonal gradations of light and shade. On April 7, 1927 Bell Telephone Labs and AT&T give a USA public mechanical television demonstration over both wire and radio circuits. Pictures and sound were sent by wire from Washington D.C., to New York City. However it took further eight year for the beginning of practically feasible television broadcasting.

Between 1935 and 1938, the Nazi government under Adolph Hitler in Germany operated the world’s first regular television service, sending propaganda broadcasts to specially equipped theatres. It was after the end of World War II in 1946 that commercial television came into being in the United States. In the same year, Peter Goldmark introduced colour television system. His system produced colour pictures by having a red-blue-green wheel spin in front of a cathode ray tube. In 1948, Cable television is introduced in Pennsylvania as a means of bringing television to rural areas. Cable television is the process of sending TV signals to subscribers through wires or fibre optic cables. In 1950s, television gained widespread acceptance in the United States and in some European countries.

The development of satellite television in the 1970s allowed for more channels and encouraged businessmen to target programming toward specific audiences. It also enabled the rise of subscription television channels, such as Home Box Office (HBO) and Showtime in the U.S., and Sky Television in the U.K.
Satellite transmission means sending television signal using satellites in the orbit. Satellite transmission paved the way for Conditional Access System, a digital mode of transmitting TV channels through a set-top box (STB). The transmission signals are encrypted and viewers need to buy a set-top box to receive and decrypt the signal. Direct To Home (DTH) service was also made possible with the help of satellite transmission technology.

As of 2010, over 500 TV Satellite television channels are broadcast in India. This includes channels from the state-owned Doordarshan, News Corporation owned STAR TV, Sony owned Sony Entertainment Television, Sun Network and Zee TV. Direct To Home service is provided by Airtel Digital TV, BIG TV owned by Reliance, DD Direct Plus, DishTV, Sun Direct DTH etc.

The latest incarnation in television technology is Internet Protocol Television (IPTV) in which audio and video are transmitted using internet file transmission protocols and viewers watch programmes on computer screens instead of television sets.

Television as a mass medium

Audio visual medium

Radio is audio medium while television is audio visual, means it carries moving pictures and sound.

Live medium

With these magical features of television, it enables us to view the events anywhere in the world live while sitting in our drawing rooms.

Domestic medium

Film is also an audio visual medium. It is not live. For watching films, we have to be in theatre. Most of us watch television in home environment because this medium is conceived to be so. So, it is called a domestic medium.

Popular medium

Literacy is not a barrier in watching television while newspaper reading requires literacy. Any illiterate can get information and entertainment from television. In that sense, it is really a popular medium that any type of people can use.

Transitory medium

You can read today’s newspaper in the evening or in the morning. But, television programmes are to be watched while they are telecast. Television has not archival facility. So, it is called as a transitory medium. Radio has also the same characteristics.

Expensive medium

In every term, television is expensive. Television set is costlier than a radio set or newspaper. Setting up a television station involves millions of rupees. Transmission facilities and programme production also require a lot of money.

Air wave delivery

Unlike newspapers which delivered door to door, television messages are transmitted through air waves. So, it does not have complicated distribution system.
Good for documentary information

Like any other medium, television can also be used for information dissemination. With its audio-visual capacity, television is more apt for providing documentary information as we can detail functions, process and other details in a ‘live’ mode.

Types of television transmission systems

Technological advancements define and redefine the mode of delivery of television messages. The prominent ways of television transmission are given below.

TV Broadcasting

It is over-the-air transmission of audio visual signals from towers owned by television stations on frequencies allotted to them by Ministry of Communication. People can receive the signals without charge by simply turning on a television on a set. Sometimes, we need an antenna for receiving signals.

Cable TV

By definition, Cable TV is the process of sending TV signals to subscribers through a wire. Transmission of messages via cable was invented in 1929 and commercially utilized in 1940s. Cable television system was popularized in 1970s in America. The earliest cable systems were, in effect, strategically placed antennas with very long cables connecting them to subscribers' home sets. Because the signal from the antenna became weaker as it had travelled through the length of cable, cable providers had to insert amplifiers at regular intervals to boost the strength of the signal and make it acceptable for viewing. With invention of optical fibres, it has been easy to transmit signal in a speedy way without losing picture quality.

Today, cable systems deliver hundreds of channels to millions of homes and also provide a growing number of people with high-speed internet access. Some cable systems even let you make telephone calls and receive new programming technologies!

Satellite Transmission

It is transmission of television signals through satellites put in the orbit for communication purpose. It enables the households to receive signals directly from the satellites using dish antennas. This is also called Direct to Home (DTH) Satellite Services. It is digital technology that delivers up to 150 channels to a plate-sized receiver on subscriber’s house. For this, we have to use a set box to convert digital signals received by the antennas into audio visual format.

Home Video

It is not related with television transmission process. It refers to the pre-recorded video either sold or hired for home use. Most of the content is of entertainment nature. Educational documentaries are also available as part of this method. Earlier VHS/Betamax video cassettes played in Video Cassette Recorders (VCR) were available. Now, these are now replaced with VCDs, DVDs (Digital Versatile Discs), USB Drives and Blue Ray Discs.
Structure of a television station

A television station has five major sections under the General Manager. News Section, Sales Section, Programming Section, Engineering Section and Business Section. Who comes under each section is detailed in the graph given below.

Organizational chart of a medium-sized television station

The General Manager: At a television station, the general manager oversees departments. The GM is in charge of guiding the people who run the individual departments. Those departments normally include: news, production, sales, promotions and engineering. All departments impact how a news product is presented on the air.
The news department gathers, writes and edits the stories for a daily newscast. News departments consist of several job titles, including news director, assignment editor, executive producer, producers, reporters, anchors and photographers. Each position is important to providing quality programming. (job titles may vary according to the size and policy of the station)

The sales department generates revenue for the station by getting companies to buy commercial spots.

The programme production department puts on air what the news department creates. Production departments often include a director, technical director, audio operator, master control operator and camera operators.

The engineering department takes care of the technical aspect of a newscast and the station itself. When something breaks, they are the people employees in other departments call on.

The Business department works with companies that buy commercials, creating a concept for the commercial and editing it to create an on-air product. Employees in the promotions department also create commercials to advertise the station.
MODULE IV
TELEVISION PRACTICES

There are three basic elements involved in the process of television production to be able to produce meaningful and effective programmes for television. The elements are

- The Production Process
- The Production Equipment
- The Production People

Production Process

Television programmes are produced in the studio using more than one camera or outdoor using normally one camera. Wherever be the location, the production process involves three stages such as:

1. Pre production
2. Production
3. Post production

Pre-Production includes every that we have to do before we start shooting the programme. This stage involves the following tasks:

a. Conceptualization: It is idea generation process. What is the programme about, what are the objectives of the programme etc. are the part of the conceptualization.

b. Research: After conceptualization, we start study more about various aspect of the idea or the subject matter. During this stage we collect data from various sources to find out feasibility of producing the programs as well as to know what are to be included in the production and where the programme is to be shot etc.

c. Scripting: After the research we have a concrete outline of what we are going to do and how. Then we begin to write the script. There are three types of treatment that we adopt in this stage

i. Short treatment: It is not a minute to minute detail of the programme, but a short outline of the programme in textual version. Just like a blueprint. No dialogs or commentaries included in it.

ii. Step outline: This is sequence by sequence description of the programme. It details the basic story line and its sub plots.

iii. Full treatment: In this treatment, we detail everything including the characters, their behaviour, actions, relationships, properties used and the so on. Dialogs are also included in this mode.
There are two types of scripts: Story Script (Screen Play) and Shooting Scripts. The former is the basic scripts which outlines the story in chronological order while the latter is the order on the basis of shooting schedule and location. If different scenes which are taking place in one location but in different times in the original story are shot at once for convenience, we redesign the original script according the real shoot plan.

d. **Storyboarding:** It is the pictorial representation of the scenes in the programme. This helps the director or producer to envisage the best available camera angle to get maximum for each shot. Storyboarding is done by artists under the supervision of the director/producer.

e. **Casting :** Casting is concerned with selecting suitable performers and actors for the programme. Performers speak directly to the camera or talk to another performer in the studio. They play themselves as announcers, teachers, and anchorpersons and do not play the roles of other characters.

f. **Crew selection:** Selection of the technical personnel such as camerapersons, lighting professional, sound recording staff, music composers and singers etc.

Location selection, booking accommodation, arranging transportation, rehearsal and training for the anchors are the other pre-production tasks.

**Production**

Actual production process begins with shooting. Now we are in the studio or in the location. Before shooting starts, lighting technicians adjust light for better visual quality. Shooting is done using single camera or many cameras. Production stage of film and television are almost same. More discussion on production stage is given in film production in the next module.

**Post Production**

After the shoot is over, the rushes (the raw visuals) are assembled and they are viewed to ensure visual clarity or missing. During this stage, animations are produced, music is composed or selected, titles and graphics are prepared to be included during the time of editing visuals. Now we are ready for editing the visuals which capture from different locations and time.

Editing is to organize the visuals according the original script along with digital manipulation techniques such as animation, visual effects, sound mixing etc. First we rough edit the visuals where we arrange the rushes in an order according to the original script. In the final edit, we make all the possible creative efforts to make the feel the audience that they are enjoying a meaningful visual treat. There are two types of editing - Linear and non-linear. Non-linear editing is possible, if we use digital equipment. Nowadays, we use computers with special software for editing. Adobe Premier Pro and Apple’s Final Cut Pro are such softwares.

**Previewing** is the next step. Previewing means to exhibit the programme for evaluation of the responsible persons to ensure that the content is according to the policy of the organization and that there is not technical or factual error in it.

Once the authentic person approves, the programme is telecast. This process is called transmission.
Production Equipment

There are four main categories of equipment used for production.

**Lights:** Camera can’t capture visual without light. Natural light is the best lighting method. Even then, we use different types of lights for the following main reasons:

- To provide the television camera with adequate illumination for technically acceptable pictures.
- To establish the general mood of the event.

**Camera:** Camera is the key equipment in television production. It is the quality of the camera that determines the picture quality, thereby programme quality to a certain extent.

**Microphones** are used to pick up sounds/voices. We use different types of microphones for different purposes.

**Sound recorders** are to select a specific microphone or other sound input; to amplify a weak signal from a microphone or other audio source for further processing; to control the volume and ensure the quality of sound and to mix or combine two or more incoming sound sources.

Editing Equipment

As discussed earlier, computers with specific software are used for editing.

**Key Personnel in Video Production**

Media scholar George Vinovich categorized TV production personnel as either above-the-line or below-the-line. Creative personnel such as producers, writers, directors, and actors are classified as above-the-line, while technical personnel who handle camera, audio and light are classified as below-the-line. Although it may appear as if this is a delineation between “creative” and “technical” jobs, it is actually done merely for accounting purposes on a TV show’s budget.

Below-the-line personnel are usually paid a fixed salary or set wage based on their union’s contract, while above-the-line personnel usually work on negotiable salaries that are much higher than their union’s minimum wage.

**Above-the-line personnel**

**Executive Producer** - The owner of the TV program and as such, the ultimate authority for the project. Sometimes the executive producer is merely the money or the “bank” behind the project and has very little creative input or interest in the project. The main interest is managerial concern for a financially profitable project.

Executive producers usually hire a team of qualified producers, directors, and writers to take care of the creative aspects of the TV program. If you were having a house built for you, you would be considered the executive producer since you would have the ultimate authority over whom you hire as your architect, general contractor and subcontractors, and you are also responsible for paying all of the wages for the workers as well as all the bills for all of the materials to build the house.
**Producer:** Producer is hired by the executive producer to be in charge of the creative quality of the TV show. The producer is similar in nature to the architect who designs your house, but who does none of the actual work of building the house.

The producer will hire a director to serve as the general contractor to be in charge of the daily responsibilities on the set, but the director normally must answer to the producer in regard to overall quality and progress of a particular episode of the TV series. Producers are hired because they know the best directors, writers, music directors and art directors to hire for a project, and they also know how to coordinate and “work with” these creative artists for optimum results.

In the end it is the producer who is responsible for the overall quality of the finished product, and it is the producer who must answer to the executive producer.

**Associate/Assistant Producer (AP)** - He assists the producer in any manner needed. Some producers have a lot of responsibility in coordinating the creative aspects of the show, while other AP’s are merely glorified secretaries that assist in coordinating schedules, telephones, and contracts in non-creative, clerical roles. Since this is usually a non-union job, an AP can make as little as minimum wage for working a 60-hour week, or, if the individual is well-liked and valued by the producer, command a very handsome salary.

Friends and relatives of the producer who start out as AP’s usually get good salaries, while unknowns usually get paid peanuts until they can prove their value on the job to the producer.

**Director:** He is hired by the producer or executive producer to be in charge of coordinating the daily responsibilities on the set for the shooting of the actual program episode. The director’s role is similar in nature to the general contractor who is in charge of directing at the construction site the masons, carpenters, plumbers, and electricians who will actually build your house.

In film production, the director is primarily responsible for coaching or “getting the performance out of the actors.” While in television, the director is more concerned with “calling the shots” in the control room during production, rather than actually working with the actors. In other words, a movie director typically sits in the canvass chair on the set directing the actors and action through a megaphone, but a TV director sits in the control room away from the set. He then calls for the technical director to take various camera shots through a private line headset to electronically edit the show in real time.

In film style production, the director just has one camera shot at a time to worry about, while in TV production, the director has at least four cameras shooting at once during a typical sitcom, newscast, or talk show.

**Lighting Director:** He is primarily responsible for lighting the set on TV show. Unlike a director of photography or cinematographer in film who is intimately involved in camera placement, framing, depth of field, camera movement and lighting of each shot, the TV lighting director is concerned mainly with lighting a particular set that is used repeatedly on a show or lighting the set for a particular production number or musical act on a show. TV lighting directors work predominately in a studio and rarely work outdoors on location.
Art Director: An art director gives the desired “look” for a show through set design, props, costuming and make-up. Most art directors specialize in certain types of shows such as sitcoms, soap operas, game shows, talk shows, or newscasts. Although an art director will hire other specialists (or subcontractors) to handle each aspect of costuming, make-up, set dressing, set construction and special effects, the art director is responsible for delivering the overall “look” of the show desired by the producers.

Casting Director: He chooses the right actor for the part. Instead of having the director and producers sit through long hours of “cattle calls”, producers hire casting directors for their expertise in presenting an appropriate selection of qualified actors who would be good for various parts in a series or particular episode. Casting directors usually know better than directors and producers which actors are qualified for certain parts, what the individual actor’s range is, and which actors are available to play certain parts.

By limiting the producers’ choices to a pre-screened “A List” of talent, the production saves much time and money in auditioning actors, and usually ends up with much better actors for the parts in the show.

Actors: They are described in the industry as “talent” and are primarily responsible for supplying the dialogue and visual action in front of the camera for the film. In fact, any one whose voice or body appears on camera is considered “talent” whether he or she has any or not. Actors traditionally take their orders from the director (except for some actors who are big enough in the business to tell the director what to do). TV actors are provided their dialogue from the script and are coached in their delivery by the director.

Writer: He is responsible for writing the script or teleplay which contains the show’s dialogue or spoken lines. Various episodes of a TV series are usually written by different writers. This includes the plot (story) and dialogue for the episode. Although unknowns can sell story ideas to the show, the final script and writing credit is almost always given to the staff writers on the show.

Music Director: He composes or arrange a TV show’s music. Although the show’s theme song is usually written by another composer, a show’s music director is primarily responsible for composing and arranging the show’s music scores and bumpers.

Production Assistant (PA): He assists just about anyone during a production. Again, a PA can serve a very important role in some productions or merely perform menial tasks such as running errands, photocopying scripts or making deliveries all over town. Depending on the production and the particular producer for whom the PA works, the job is sometimes an above-the-line position with a good salary.

Below-the-line personnel

Assistant Director (AD): He assists the director in the control room by readying camera shots, timing scripts, and coordinating cues or on the set by coordinating the extras in the scene. Becoming an AD is not a stepping stone to becoming a director. AD’s are specifically trained to work with extras and not actors. ADs usually assist a director on TV shows that are shot on location.

Technical Director (TD): He executes the director’s commands by selecting and mixing various cameras and video sources on the switcher to go out over-the-air or to the master video tape recorder. The TD performs the fades, dissolves, cuts, keys, and electronic special effects such as wipes and chroma keys that are used to electronically edit and combine the various video sources for a show.
**Camera Operator:** He is responsible for framing the shot, focusing the shot, zooming in or out and performing any camera moves on-the-air such as pan, tilt, dolly, truck, arc, pedestal or tongue. Camera operators usually have their particular shots written on the script for scripted shows such as sit-coms, soaps, and newscasts; or they have an assigned area or type of shot for unscripted programs such as talk shows and sports broadcasts.

**Audio Technician:** His job involves capturing, mixing, and sweetening the audio for a program. Unlike movies, most TV shows use the “live” audio recorded on the set. As such, mike arrangement is very important for the overall quality of a show.

On talk shows, the guests usually have wireless lapel mikes clipped to their shirts, while the host of the show uses a wireless hand-held mike to speak and gather responses from the studio audience. Singers typically use hand-held mikes, sportscasters use headset mikes, and newscasters use lapel mikes. In soap operas and sit-coms, the two boom mike operators on the set must get the best possible microphone placement for optimum sound pick-up without showing up in the shot or casting a shadow in the shot. Mixing refers to the balance between the dialogue and the music score in a drama, or the balance between the sportscaster’s voice and the crowd noise during a baseball game.

**Character Generator (CG):** He produces the electronic titles and graphics used in a show such as the roll credits at the end of a show, the key cards to identify people on a talk show, the score and statistics keyed over the picture during a sportscast and the graphics used in newscasts.

**Video Editor:** Video editor electronically edits a video tape program segments, news stories, promos, and movie teasers. On-line editors perform the technical operations of assembling a program according to the creative decisions of the directors, producers, or their assistants. Off-line editors are sometimes hired by the producers to make more of the creative decisions with regard to the artistic aspects of a program.

**Video Engineer:** He is responsible for maintenance and repair of all equipment used in production, controls operations and transmission via satellite, microwave and over-the-air broadcast.

**Floor Manager/Stage Director:** He coordinates action on the set or stage by relaying the director’s commands to the crew and talent via hand signals. Since the TV director is usually in a control room separated from the actors and crew on the set, the floor manager coordinates the work on stage. Although the director can speak to the floor manager via the PL line headset feed, the floor Manager must communicate to the stage personnel via hand signals since his or her voice would pick up on the live microphones during the taping.

**Grip:** His job involves moving and erecting scenery, flats and props on the set. Since union regulations are very strict with regard to these matters, only grips are allowed to touch these particular items. If anyone else handles or moves these items on the set, a union grievance or possible walkout could occur. As such, if a polite cameraman helps a grip move a heavy prop, it could cause big problems for both of them as well as the production.

**Gaffer** (Electrician): He handles lighting instruments, dimmers, cables, generators, and other electrical equipment. Just as a gaffer is not allowed to touch scenery or props, a grip is not allowed to touch any lighting equipment.
Unit Manager: He is responsible for coordinating the logistical aspects of the production such as transportation, food, lodging, location clearances, union contracts, etc. A unit manager or production manager is very similar in nature to a “travel agent” for the production. Although it is not one of the “glamour” positions in the industry, it is still a very important function for the success of the production. Good unit managers are usually in high demand and the pay is quite lucrative.

SCRIPTING TV NEWS

Broadcast writing means writing for the radio and television. In style and tone, writing for the both the media are similar to great extent. The major different is that television news story must complement with visuals attached.

According to communication scholar Laurie Latti more, broadcast copy is written to be read out loud by a news reader rather than to be read silently by a newspaper reader. So it demands a special set of skills and knowledge from the writer. The words and sentences must be accurate and clear and must complement the pictures, video and audio that accompany a story. Television and radio news stories are generally shorter than news stories for the print. Reading a story out loud is the best way of telling whether or not the story is good enough for broadcasting. The story should be easy to read, conversational and understandable. It should also meet the basic journalistic requirement of accuracy of fact and context.

Broadcast writing is more conversational than print because it is written to be heard rather than read, but the writing has to be just as disciplined and precise. Broadcast news stories emphasize the immediate and the most up-to-date information. Broadcast news stories have to fit into a certain time period and cannot vary more than a few seconds. The story structure used by most broadcast news writers consists of three parts: climax, cause and effect. Broadcast writers attempt to simplify whenever possible, but simplification should not produce inaccuracy.

Electronic News Gathering (ENG): It is the use of portable video cameras, lighting and sound equipment to record news events in the field quickly, conveniently and efficiently. As Leonard Shyles says since news events happen in different locations without prior warning, ENG production is often marked by rapid response to fluid situation and by tight deadlines. In the news business, it essential to be poised for mobility, to get the scoop and to the first with breaking story. As a result of severe time constraints, ENG production often has relatively rough production values, including handheld camera shots, imperfect lighting, simple, often unplanned blocking and less than optimal audio. These imperfections are overlooked when the story is dramatic enough. For instance, a war reporter describes bombs exploding outside his or her window, no one expects the audio to be flawless. On the other hand, difficult conditions are no excuse for sloppy work, and the quality expected in today’s news operations is generally very high.

TELEVISION PROGRAMME CATEGORIES

It is not easy to enumerate all the programme varieties in practice world over considering the fast paced changes taking place in television world. Newer and newer formats and genres are being experimented every day. Following is a list of programme categories listed by Canadian Radio-television and Telecommunications Commission.
Newscasts, newsbreaks, and headlines. Programs reporting on local, regional, national and international events. Such programs may include weather reports, sportscasts, community news, and other related features or segments contained within "News Programs."

Analysis and interpretation

Programs on various topics that include analysis or discussion, for example, talk or panel shows, consumer affairs or reviews, newsmagazines and documentaries). This category excludes programs presenting information primarily for entertainment value.

Long-form documentary

Original works of non-fiction, primarily designed to inform but may also educate and entertain, providing an in-depth critical analysis of a specific subject or point of view over the course of at least 22 minutes. These programs shall not be used as commercial vehicles.

Reporting and actualities

Programs focusing on the coverage of conferences, political conventions, opening/closing of events and political debates, as well as programs of a non-entertainment nature intended to raise funds.

Religion

Programmes dealing primarily with (i.e. more than 50%) religion and religious teachings, as well as discussions of the human spiritual condition.

Formal education and pre-school

Programmes presenting detailed information related to a wide variety of topics and used by the viewer primarily to acquire knowledge. The programmes can be related to established curricula. All programmes targeted at pre-schoolers (ages 2-5) except those that are primarily comprised of drama.

Informal education/recreation and leisure

Programs presenting information on recreation, hobby and skill development, recreational sports and outdoor activities, travel and leisure, employment opportunities, and talk shows of an informative ("how-to") nature.

Sports

Programs of live or live-to-tape sports events and competitions including coverage of professional and amateur tournaments. The category also includes programs reviewing and analysing professional or amateur competitive sports events/teams (i.e. pre and post-game shows, magazine shows, scripted sports, call-in and talk shows, etc.). This category includes the following sub-categories: professional sports and amateur sports

Drama and comedy

Entertainment productions of a fictional nature, including dramatisations of real events. They must be comprised primarily of (i.e. more than 50%) dramatic performances. It includes the following subcategories:
a) On-going dramatic series
b) On-going comedy series (sitcoms)
c) Specials, mini-series, and made-for-TV feature films
d) Theatrical feature films aired on television
e) Animated television programs and films (excludes computer graphic productions without story lines)
f) Programs of comedy sketches, improvisations, unscripted works, stand-up comedy
g) Other drama, including, but not limited to, readings, narratives, improvisations, tapes/films of live theatre not developed specifically for television, experimental shorts, video clips, continuous action animation (e.g. puppet shows).

Music and dance

Programs comprised primarily (i.e. more than 50%) of live or pre-recorded performances of music and/or dance, including opera, operetta, ballet and musicals. The performance portion excludes video clips, voice-overs or musical performances used as background.

Music video clips

Short film or videotape productions or concert excerpts (clips) not produced primarily for the particular programme in which they are presented, which normally contain one musical selection with visual material.

Music video programs

Programs consisting primarily (i.e. more than 50%) of music videos and in some cases including a host and other programming elements.

Variety

Programmes containing primarily (i.e. more than 50%) performances of mixed character (e.g. not exclusively music or comedy performances) consisting of a number of individual acts such as singing, dancing, acrobatic exhibitions, comedy sketches, monologues, magic, etc.

General entertainment and human interest programmes

Programmes primarily about the world of entertainment and its people. These programs include celebrity profiles that may use promotional footage, talk or interview shows, award shows, galas and tributes. They also include entertainment-oriented magazine shows, fund-raising shows which include entertainers.

Human interest programs consisting of live or live-to-tape footage without significant portions devoted to in-depth analysis or interpretation; and coverage of community events such as carnivals, festivals, parades and fashion shows.

Reality television

Programs that present unscripted dramatic or humorous situations, document actual events and typically feature ordinary people instead of professional actors. This type of programming involves passively following individuals as they go about their daily personal and professional activities. Though unscripted, this programming may be directed and may resemble a soap opera – hence the popular references to “docusoaps” and “docudramas.”
Public service announcements

Messages of less than 5 minutes duration intended to educate the audience about issues of public concern, encourage public support and awareness of a worthy cause, or promote the work of a non-profit group or organization dedicated to enhancing the quality of life in local communities or in society or the world at large. These include community billboards. These messages are not intended to sell or promote goods or commercial services. No payment is exchanged between broadcasters and producers for the broadcast of these messages.

Infomercials, promotional and corporate videos

Programmes exceeding 12 minutes in length that combines information and/or entertainment with the sale or promotion of goods or services into a virtually indistinguishable format. This category includes videos and films of any length produced by individuals, groups and businesses for public relations, recruitment, etc.

Filler programming

Programmes, in no case longer than 30 minutes in duration. The purpose of which is to fill in the time between the presentation of the major programs broadcast.

Features

Non-news programmes on a specific subject matter presented in such a way that attracts the audience.

Talks

Television programmes presented through a conversation of a prominent person/s.

Discussions

Television discussion on a particular topic in which the panellist participate live and are present personally or via online communication channels like phone, teleconferencing, etc.

Magazine programmes

Human interest television programme presented by a celebrity targeting a specific audience like women, children, etc. Cookery show, craft show or mixture of such items are considered as magazines programmes.

Special events

Coverage of special events in which audiences are interested in. Example special coverage of festivals, pilgrimages, important political conferences.

Sponsored programmes

Programmes produced by individuals or groups and presented through television after purchasing time slots.

Special audience programmes

Programmes produced for a particular segment of audience. Children’s programme, women’s programme, educational programme, etc.
Sports
Programmes featuring sports or sporting events.

Sitcom
An amusing TV series about fictional characters. Also known as a situation comedy.

Documentary
A TV programme that documents real life events.

Soap
Also known as a Soap Opera. A fictional drama about people's daily lives.

Cartoon
A programme that features animated characters.

Travel or holiday
A show that features holiday destinations.

Kids/children's
TV programmes produced for children.

Drama
A fictional TV story, featuring actors.

Makeover
A show that helps people change their image or lifestyle.

Cookery
A programme hosted by famous chefs, who teach people how to cook.

Reality TV
A "fly on the wall" show, featuring real people.

Talk show or chat show
Programmes hosted by a TV personality, (or host) featuring guests who talk about their lives.

Shopping
Phone-in TV shows (often on shopping channels), where people can either buy featured items or bid for them.

Gardening show
A programme about gardening, often fronted by a well-known television personality.

Lifestyle
A television show featuring topics such as fashion, diet, exercise, health and leisure pursuits. DIY TV programmes showing people how to do repairs to their houses. Also known as "Do It Yourself" programmes.
Charity

A "telethon" show which aims to raise funds for charity by persuading members of the public to phone in and donate money.

Animal or wildlife

A programme about wild animals or pets, often hosted by a well-known TV personality.

Key Concepts in Television Production

.avi: Short for Audio Video Interleave, the file format for Microsoft's Video for Windows.

.gif: Graphics Interchange Format - a bit-mapped graphics file format used by the World Wide Web. GIF supports colour and various resolutions. It also includes data compression, making it especially effective for scanned photos.


.mov: File extension used with Quicktime, a popular file format for video on a computer developed by Apple.

.rm: Most common file extension used with RealMedia files.

.wav: A sound format for storing sound in files developed jointly by Microsoft and IBM. Support for WAV files was built into Windows 95 making it the de facto standard for sound on PCs. WAV sound files end with a .wav extension.

Ad-lib: Unrehearsed, spontaneous act of speaking, performing, or otherwise improvising on camera activity without preparation.

Ambient sound: (ambience) Natural background audio representative of a given recording environment. On-camera dialog might be primary sound; traffic noise and refrigerator hum would be ambient.

Amplify: To magnify an audio signal for mixing, distribution and transuding purposes.

Analogue: An electrical signal is referred to as either analogue or digital. Analogue signals are those signals directly generated from a stimulus such as a light striking a camera picture tube. You can convert an analogue signal to a digital signal by using an analogue to digital converter.

Animation: Visual special effect whereby progressive still images displayed in rapid succession creates the illusion of movement.

Aperture/exposure: A setting that manipulates the amount of light falling onto the camera's CCD(s). This control adjusts the size of the camcorder's iris.

Artificial light: Human-made illumination not limited to "indoor" variety like fluorescent bulbs and a car's headlights. Typically, it has lower colour temperature than natural light, and thus more reddish qualities. (See colour temperature, natural light)

Aspect ratio: Proportional width and height of on-screen picture. Current standard for a conventional monitor is 4:3 (four-by-three); 16:9 for HDTV.
Assemble edit: Recording video and/or audio clips in sequence immediately following previous material; does not break control track. Consecutive edits form complete program. [See edit, insert edit]

Audio dub: Result of recording over pre-recorded videotape soundtrack, or a portion thereof without affecting pre-recorded images.

Audio mixer: The piece of equipment used to gather, mix and amplify sounds from multiple microphones and send the signal on to its destination.

Authoring: The process of putting all of the elements of a project together. For a DVD in particular, it means getting all of the footage together, preparing menus and adjusting menu behaviour as required.

Automatic exposure: Circuitry that monitors light levels and adjusts camcorder iris accordingly, compensating for changing light conditions.

Available light: Amount of illumination present in a particular environment: natural light, artificial light or a combination of the two.

Back light: Lamp providing illumination from behind. Creates sense of depth by separating foreground subject from background area.

Boom microphone: Any device for suspending a microphone above and in front of a performer.

Booming: Camera move above or below subject with aid of a balanced "boom arm," creating sense of floating into or out of a scene. Can combine effects of panning, tilting and padding in one fluid movement.

Cameo lighting: Foreground subjects illuminated by highly directional light, appearing before a completely black background.

Capture card: A piece of computer hardware that captures digital video and audio to a hard drive, typically through a FireWire port.

CCD: (Charge Coupled Device) Light-sensitive integrated circuit in video cameras that converts images into electrical signals. Sometimes referred to as a "chip."

Character generator: A device that electronically builds text which can be combined with a video signal. The text is created with a keyboard and program that has a selection of font and backgrounds.

Chroma: Characteristics of colour a videotape absorbs with recorded signal, divided into two categories: AM (amplitude modulation) indicates colour intensity; PM (phase modulation) indicates colour purity.

Chromakey: Method of electronically inserting an image from one video source into the image of another through areas designated as its "key color." It is frequently used on news programmes to display weather graphics behind talent.

Colour corrector: Electronic device that dissects the colours of a video signal, allowing them to be adjusted individually.
Composition: Visual make-up of a scene, including such variables as balance, framing, field of view and texture, which are all aesthetic considerations. Good composition techniques create an image which is pleasing to eyes.

Continuity: Logical succession of recorded or edited events, necessitating consistent placement of props, positioning of characters, and progression of time.

Contrast: Difference between a picture's brightest and darkest areas. When high, image contains sharp blacks and whites; when low, image limited to variations in gray tones.

Crawl: Text or graphics, usually special announcements that move across the screen horizontally, typically from right to left across the bottom of the screen.

Cross-fade: Simultaneous fade-in of one audio or video source as another fades out so that they overlap temporarily. Also called a dissolve.

Cue: Signal to begin, end, or otherwise influence on-camera activity while recording. Immediate and precise playback when required.

Cut: Instantaneous change from one shot to another.

Cutaway: Shot of something other than the principal action that is shown while the principal action continues. A cutaway is frequently used as transitional footage or to avoid a jump cut.

Depth of field: (DoF) Range in front of a camera’s lens in which objects appear in focus. The DoF varies with subject-to-camera distance, focal length of a camera lens and the aperture setting.

Diffused light: Indistinctly illuminates relatively large area. Produces soft light quality with soft shadows.

Digital audio: Sounds that have been converted to digital information.

Digital video effects: (DVE) Electronic analogue-to-digital picture modification yielding specialty image patterns and manoeuvres: tumbling, page turning, mosaic, etc.

Digitization: The process of converting a continuous analogue video or audio signal to digital data for computer storage and manipulation.

Digitizer: Device that imports and converts analogue video images into digital information for hard drive-based editing.

Directional light: Light that illuminates in a relatively small area with distinct light beam; usually created with spotlight, yields harsh, defined shadows.

Dissolve: Image transition effect of one picture gradually disappearing as another appears. Analogous to audio and lighting cross-fade. [See cross-fade.]

Dynamic mic: A rugged microphone whose transducer consists of a diaphragm connected to a moveable coil.

Edit: Process or result of selectively recording video and/or audio on finished videotape. Typically involves reviewing raw footage and transferring desired segments from master tape(s) onto new tape in a predetermined sequence.
**Edit decision list:** (EDL) Handwritten or computer-generated compilation of all edits (marked by their time code in points and out points) to be executed in a video production.

**Edited master:** Original recorded videotape footage; "edited master" implies original copy of tape in its edited form. Duplications constitute generational differences.

**EFP:** (Electronic field production) Film-style production approach using a single camera to record on location. Typically shot for post-production application, non-live feed.

**Encoder:** Device that translates a video signal into a different format -- RGB to composite, DV to MPEG, etc.

**ENG:** (Electronic News Gathering) Use of portable video cameras, lighting and sound equipment to record news events in the field quickly, conveniently, and efficiently.

**Essential area:** Boundaries within which contents of a television picture are sure to be seen, regardless of masking differences in receiver displays. Also called the “critical area” or “safe action area,” it encompasses the inner 80 percent of the screen.

**Establishing shot:** Opening image of a program or scene. Usually, it’s a wide and/or distant perspective that orients viewers to the overall setting and surroundings.

**F/X:** Special effects. Visual tricks and illusions - electronic or on camera - employed in film and video to define, distort or defy reality.

**Fade:** Gradual diminishing or heightening of visual and/or audio intensity. "Fade out" or "fade to black," "fade in" or "up from black" are common terms.

**Field of view:** Width of a shot that is visible with a lens set at a particular focal length.

**Fill light:** Supplementary illumination, usually from a soft light positioned to the side of the subject, which lightens shadows created by the key light.

**Filter:** Transparent or semi-transparent material, typically glass, mounted at the front of a camcorder’s lens to change light passing through. Manipulates colours and image patterns, often for special effect purposes.

**Filter effect:** Digital effect added to colorize or otherwise alter a clip in post-production.

**Fishpole:** A small, lightweight arm to which a microphone is attached, hand held by an audio assistant outside of the picture frame.

**Focal length:** Distance from a camcorder's lens to a focused image with the lens focused on infinity. Short focal lengths offer a broad field of view (wide angle); long focal lengths offer a narrow field of view (telephoto); Zoom lenses have a variable focal length.

**Format:** Videotape and video equipment design differences - physical and technical - dictating compatibility and quality. In most basic sense, refers to standardized tape widths, videocassette sizes.

**FPS:** (Frames per Second) Measures the rate or speed of video or film. Film is typically shot and played back at 24fps. Video is recorded and played back at 30fps.

**Framing:** Act of composing a shot in a camcorder's viewfinder for desired content, angle, exposure, depth of field and field of view. [See also: composition]
**Freeze frame:** Single frame paused and displayed for an extended period during video playback; suspended motion perceived as still snapshot.

**Gaffer:** Production crew technician responsible for placement and rigging of all lighting instruments.

**GB:** (Gigabyte) Giga- is a prefix that means one billion, so a Gigabyte is 1,000,000,000 bytes. Most commonly used to measure hard disk space.

**Generation:** Relationship between a master video recording and a given copy of that master. A copy of a copy of the original master constitutes a second-generation duplication.

**Handheld mic:** A microphone that a person holds to speak or sing into.

**Hard disk:** Common digital storage component in a computer.

**HDTV:** (High-Definition Television) "In the works" television system standard affording greater resolution for sharper pictures and wide-screen viewing via specially-designed TV equipment.

**Headroom:** Space between the top of a subject's head and a frame’s upper-screen edge. Too much headroom makes the subject appear to fall out of the frame. Too little may cut the top of the subject’s head out of the frame when the image is shown on TV sets.

**Hiss:** Primary background signal interference in audio recording, result of circuit noise from a playback recorder's amplifiers or from a tape's residual magnetism.

**Horizontal resolution:** Specification denoting amount of discernable detail across a screen's width. Measured in pixels, the higher the number, the better the picture quality.

**In-camera editing:** Assembling finished program "on the fly" as you videotape simply by activating and pausing camcorder's record function.

**Jump cut:** Unnatural, abrupt switch between shots identical in subject but slightly different in screen location, so the subject appears to jump from one screen location to another. It can be remedied with a cutaway or shot from a different angle.

**Key light:** Principal illumination source on a subject or scene. Normally positioned slightly off centre and angled to provide shadow detail. (See back light, fill light, three-point lighting)

**Lapel mic:** A small mic often clipped inside clothing or on a tie or lapel.

**LCD:** (Liquid Crystal Display) Commonly used in digital watches, camcorder view screens and laptop computer screens, LCD panels are light-weight and low-power display devices.

**Lip sync:** Proper synchronization of video with audio - lip movement with audible speech.

**Long shot:** (LS) Camera view of a subject or scene from a distance, showing a broad perspective.

**Media player:** A program that plays back audio or video. Examples include Microsoft Windows Media Player, Apple’s QuickTime Player, and RealPlayer.

**Medium shot:** (MS) Defines any camera perspective between long shot and close-up, viewing the subject from a medium distance. For people, a medium shot usually includes the head and shoulders.
Montage: A sequence of shots assembled in juxtaposition to each other to communicate a particular idea or mood. Often bridged with cross-fades and set to music.

Natural light: Planetary illumination - from the sun, the moon, stars -- whether indoors or out. Has higher colour temperature than artificial light and thus more bluish qualities. (See artificial light, colour temperature)

Noise: Unwanted sound or static in an audio signal or unwanted electronic disturbance of snow in the video signal.

Nonlinear editing: Digital random access editing that uses a hard drive instead of tape to store video. Random access allows easy arrangement of scenes in any order. It also eliminates the need for rewinding and allows for multiple dubs without generation loss.

Non-synchronous sound: Audio without precisely matching visuals. Usually recorded separately, includes wild sound, sound effects or music incorporated in post-production.

Omnidirectional: A microphone that picks up sound from all directions.

Over-the-shoulder shot: View of the primary subject with the back of another person's shoulder and head in the foreground. This shot is often used in interview situations.

Pan: Horizontal camera pivot from a stationary position. Panning left makes the subject appear to move from left to right across the screen. Panning right makes the subject appear to move from right to left across the screen.

Playback: Videotaped material viewed and heard as recorded, facilitated by camcorder or VCR.

Point-of-view: (POV) Shot taken from a subject's point of view enabling viewers to see what the subject sees.

Post production: Any video production activity following initial recording. Typically involves editing, addition of background music, voiceover, sound effects, titles, and/or various electronic visual effects. Results in completed production.

Props: Short for "properties," objects used either in decorating a set (set props) or by talent (hand props).

RAM: (Random Access Memory) The short-term memory of a computer which temporarily holds information while your computer is on. Distinct from storage, which is more permanent and is held on hard disks or some other media, such as CD-ROM.

Raw footage: Pre-edited footage, usually direct from the camcorder.

Reaction shot: A cutaway to someone showing a reaction to the primary action or subject.

RealPlayer: A program developed by RealNetworks to play live and on-demand RealAudio and RealVideo files.

Render: The processing a computer undertakes when creating an applied effect, transition or composite.

Resolution: Amount of picture detail reproduced by a video system, influenced by a camera's pickup, lens, internal optics, recording medium and playback monitor. The more detail, the sharper and better defined the picture.
**RGB:** (Red, Green, Blue) Video signal transmission system that differentiates and processes all colour information in separate red, green and blue components - the primary colour of light - for optimum image quality. Also defines type of colour monitor.

**Roll:** Text or graphics, usually credits, that move up or down the screen, typically from bottom to top.

**Rough cut:** Preliminary editing of footage in the approximate sequence, length and content of finished program.

**Rule of thirds:** Composition technique that places important subjects or objects on the lines, or at the cross points, in a tic-tac-toe pattern imagined over the viewfinder.

**Safe title area:** The recommended area that will produce legible titles on most TV screens; 80 percent of the visible area, measured from the centre.

**Scene:** In the language of moving images, a sequence of related shots usually constituting action in one particular location. [See also: shot]

**Script:** Text specifying content of a production or performance, used as a guide. May include character and setting profiles, production directives (audio, lighting, scenery, camera moves), as well as dialogue to be recited by talent. [See storyboard]

**Sepia:** Brassy antique colour effect characteristic of old photographs.

**Shot:** Intentional, isolated camera views, which collectively comprise a scene. [See scene]

**Sound bite:** Any short recorded audio segment for use in an edited program - usually a highlight taken from an interview.

**Sound effects:** Contrived audio, usually pre-recorded, incorporated with a video soundtrack to resemble a real occurrence. Blowing on a microphone, for example, might simulate wind to accompany hurricane images.

**Soundtrack:** The audio portion of a video recording, often multifaceted with natural sound, voiceovers, background music, sound effects, etc.

**Special effects:** F/X. Tricks and illusions - electronic or on camera - employed in film and video to define, distort, or defy reality.

**Special Effects Generator:** (SEG) Video signal processor with vast, but varying, image manipulation capabilities involving patterns and placement as well as colour and texture: mixing, multiplying, shrinking, wiping, dissolving, flipping, colorizing, etc.

**Spotlight:** Radiates a well-defined directional beam of light, casting hard, distinct shadows. Best used to focus illumination on individual subjects, whereas floodlights blanket broader areas.

**Stereo:** Sound emanating from two isolated sources, intended to simulate pattern of natural human hearing.

**Storyboard:** Series of cartoon-like sketches illustrating key visual stages (shots, scenes) of planned production, accompanied by corresponding audio information. [See script]

**Streaming:** Playing sound or video in real time as it is downloaded over the internet as opposed to storing it in a local file first. Avoids download delay.
Synchronous sound: Audio recorded with images. When the mouth moves, the words come out.

Talent: Generic term for the people assuming on-screen roles in a videotaping.

Telephoto: Camera lens with long focal length and narrow horizontal field of view. Opposite of wide-angle, captures magnified, close-up images from considerable distance.

TelePrompter: (Prompter) Mechanical device that projects and advances text on mirror directly in front of camera's lens, allowing talent to read their lines while appearing to maintain eye contact with viewers.

Three-point lighting: Basic lighting approach employing key, fill and back lights to illuminate subject with sense of depth and texture. Strategic placement imitates natural outdoor lighting environment, avoids flat lighting.

Tilt: Vertical camcorder pivot (“tilt up” or “tilt down”) on a single axis, as on a tripod. Tilting up makes the subject appear to move from the top to the bottom of the screen. Tilting down makes the subject appear to move from the bottom to the top of the screen.

Time code: Synchronization system, like a clock recorded on your videotape, assigning a corresponding hours, minutes, seconds, and frame-number designation to each frame.

Time-lapse recording: Periodically videotaping a minimal number of frames over long durations of actual time. Upon playback, slow processes such as a flower blooming may be viewed in rapid motion.

Timeline editing: A computer-based method of editing, in which bars proportional to the length of the clip represent video and audio clips are represented on a computer screen.

Titling: Process or result of incorporating on-screen text as credits, captions or any other alphanumeric communication to video viewers.

Tracking: Lateral camcorder movement that parallels a moving subject. In the classic tracking move the camcorder maintains its distance from the subject.

Tripod: Three-legged camera mount offering stability and camera placement/movement consistency. Most are lightweight, used for remote recording. [See monopod]

Two-shot: Camera view including two subjects, often used in interview situations.

Umbrella: Lighting accessory available in various sizes usually made of textured gold or silver fabric. Facilitates soft, shadowless illumination by reflecting light onto a scene.

VCR: (Videocassette Recorder) Multifunction machine intended primarily for recording and playback of videotape stored in cassettes.

VHS: (Video Home System) Predominant half-inch videotape format developed by Matsushita and licensed by JVC.

VOD: Abbreviation for Video on Demand. Usually only heard in the context of delivering full frame, full-motion video to a television; since most video on the Internet is provided on-demand.

Voiceover: (VO) Audio from an unseen narrator accompanying video, heard above background sound or music. Typically applied to edited visuals during post-production.
**White balance:** Electronic adjustment of camcorder to retain the truest colours of a recorded image by making white objects in the scene appear white in the camera.

**Wide-angle:** Camcorder lens with short focal length and broad horizontal field of view. Opposite of telephoto, supports viewer perspective and tends to reinforce perception of depth.

**Wipe:** Transition from one shot to another, where a moving line or pattern reveals the new shot. In its simplest form it simulates a window shade being drawn.

**Wireless mic:** A microphone with a self-contained, built-in miniature FM transmitter that can send the audio signal several hundred feet, eliminating the need for mic cables.

**Zoom:** Variance of focal length, bringing subject into and out of close-up range. Lens capability permits change from wide-angle to telephoto, or vice versa, in one continuous move. "Zoom in" and "zoom out" are common terms.
MODULE V

FILM CHARACTERISTICS AND TYPES

Types of Film

Feature, documentary, short film, animation are the basic categories of films. Types of films can also be identified on the basis of its treatment, storyline, narrative style, mood and environment, type of tension, clash, subject dealt with and so on. Film type is known as film genres.

Below is the genre and subgenre system used by screenwriters - a system that’s evolved from practice. (This list has been adapted from the Story by Robert McKee, pp. 80-86)

**Love story**: It is a major genre in which the story revolves around love and intimate relationship. Its subgenre, **buddy salvation**, substitutes friendship for romantic love.

**Horror film**: This genre divides into three subgenres: the **Uncanny**, in which the source of horror is astounding but subject to “rational” explanation, such as beings from outer space, science-made monsters or a maniac; the **Supernatural**, in which the source of horror is an “irrational” phenomenon from the spirit realm; and the **Super-Uncanny**, in which the audience is kept guessing between the other two possibilities.

**Modern epic**: The individual versus the state.

**War genre**: Although war is often the setting for another genre, such as the **Love Story**, the war genre is specifically about combat. **Pro-war** and **Anti war** are its primary subgenres. Contemporary films generally oppose war, but for decades the majority covertly glorified it, even in its most grisly form.

**Maturation plot**: The coming-of-age story.

**Redemption plot**: Here the film spins around a moral change within the protagonist from bad to good.

**Punitive plot**: In these the good guy turns bad and is punished.

**Testing plot**: Stories of willpower versus temptation to surrender.

**Education plot**: This genre deals with a change within the protagonist’s view of life, people, or self from the negative (naive, distrustful, fatalistic, self-hating) to the positive (wise, trusting, optimistic, self-possessed).

**Disillusionment plot**: A deep change of worldview from the positive to the negative.

**Comedy**: Subgenres range from **Parody** to **Satire** to **Sitcom** to **Romantic** to **Screwball** to **Farce** to **Black Comedy**. All differ by the focus of comic attack (bureaucratic folly, upper-class manners, teenage courtship, etc.) and the degree of ridicule (gentle, caustic, lethal).

**Crime**: Subgenres vary chiefly by the answer to this question - from whose point of view do we regard the crime?
**Social drama:** This genre identifies problems in society - poverty, the education system, communicable diseases, the disadvantaged, antisocial rebellion, and the like - then constructs a story demonstrating cure. It has a number of sharply focused subgenres: **Domestic Drama** (problems within the family), the **Woman’s Film** (dilemmas such as career versus family, lover versus children), **Political Drama** (corruption in politics), **Eco-Drama** (battles to save the environment), **Medical Drama** (struggles with physical illness), and **Psycho-Drama** (struggles with mental illness).

**Action/adventure:** Incorporates ideas such as destiny, hubris or spiritual.

**Historical drama:** It embraces every type of story imaginable and polishes the past into a mirror of the present.

**Biography:** It is the cousin of **Historical Drama** focuses on a person rather than an era. Biography, however, must never become a simple chronicle. The biographer must interpret facts, (in some cases as if they were fiction), find the meaning of the subject’s life, and then cast him as the protagonist.

**Docu-drama.** A second cousin to **Historical Drama**, docu-drama centres on recent rather than past events.

**Mockumentary:** This genre pretends to be rooted in actuality or memory, behaves like documentary or autobiography, but is utter fiction. It subverts fact-based filmmaking to satirize hypocritical institutions.

**Musical:** Descended from opera, this genre presents a “reality” in which characters sing and dance their stories.

**Sports genre:** Sports is a crucible for character change. This genre is a natural home for the **Disillusionment Plot**: The loneliness of the long distance runner.

**Fantasy:** Here the writer plays with time, space, and the physical, bending and mixing the laws of nature and the supernatural..

**Animation:** Here the law of universal metamorphosis rules: Anything can become something else. Like Fantasy and Science Fiction, animation leans toward the Action genres of cartoon Art film: The avant-garde notion of writing outside the genres is naive. No one writes in a vacuum. After thousands of years of storytelling no story is so different that it has no similarity to anything else ever written.
MODULE VI
BASIC PRODUCTION TECHNIQUES OF FILM

Why do you produce a film? To entertain, to educate, or to inform? Determining the objective of the production of the film is the basic step in the chain of processes involved in film production. It will not be possible to evaluate the success of the film if the producer does not have a clear idea about his objective. And, there shall be a clear agreement on the goals and purposes of the production. Whatever be the purpose, the film should create a desire in the audience to watch movie and get inspired.

Identify the target audience

Whom do you produce film for? Answering this question lies in identifying and analyzing the audience and their desires. There are various factors that contribute to the identification of an audience. Demographic variables such as age, sex, economic status, etc. are called demographic variables. You have to determine whether your movie is for the youth, or children or any other segment of the society?

Similarly, audience can be identified on the basis of language, culture, geographical variation such north, east, west and educational status such as college students, scientific community, etc. Identification of the target audience assumes significance since the treatment of the theme of the production shall be tuned to the desire of the audience. Research shows that, generally, the more educated the audience, the less they object to sexual themes

Checking out similar productions

Checking out the failure and success aspect of the similar productions will help you avoid past mistakes and find new ways to make yours unique and more attractive. Commercial success of the film depends on the unique attraction point that your movie possesses.

Determining basic values

Mostly films are produced using the fund from private parties and corporate firms. They might have their vested interests like filmy promotion, propaganda, advertisement, image building. A good filmmaker will not compromise with artistic values and production objectives. However, as a strategic filmmaker you have to balance the potential value of a production to an advertiser with the projected cost of producing and presenting the production.

Developing production proposal

Now the idea of the film is in your mind only. Put it down on paper, by summarizing what you propose to do. Then you can inform others of your idea and submit for approval/funding.

Writing script

After the program proposal or treatment is approved, the next step is to write and submit a full script. It will be at this point that any remaining research on the content will be commissioned. The first version of the script may warrant a lot of revisions and rewriting. For this, you can have number of story conferences or script conference with the talents as well as other creative partners like dialogue writer, music director, art director and so on.
Storyboarding

Depending on the production, you may want to develop a storyboard. Storyboard consists of drawings of key scenes with corresponding notes on elements such as dialogue, sound effects, and music. Today, high-budget film and video productions create sophisticated storyboards with software.

Storyboard prepared by Satyajit Ray for Pather Panchali. Source: Outlook

Preparing production schedule

Production schedule is the written timetable listing the time allotted for each production step. This should be done carefully taking into account the following factors: telecast or release deadline, climate, location availability, call sheet of the talents etc. Production schedules is developed considering the field manageability also.

Budgeting

Film budgeting is the process by which a line producer, unit production manager or filmmaker prepares a list of estimate cost for movie making. This document is used to secure financing for the film and lead to pre-production and production of the film. Multiple drafts of the budget may be required to whittle down costs.

A budget is typically divided into four sections: above the line (creative talent), below the line (direct production costs), post-production (editing, visual effects, etc.), and other (insurance, completion bond, etc.). Film financing can be acquired from a private investor, sponsor, product placement, a film studio or entertainment company, or out of pocket funds.
Crew selection

Film production is a teamwork in which every person, from light boy to the director, is important. It is a herculean task to bring on board all of them, especially the above-the-line production personnel. Below-the-line personnel, generally assigned later, include the technical staff.

Location identification

Location varies from films to films. Some are made fully in studios. Some will be exclusively outdoor production. And some others are mixed ones. In the case of films involving outdoor production, location identification is important. At times, you may have to revise the production schedule subject to the availability of location.

Casting, costume selection and set design

Casting is the process of selecting people for the various roles in the movie. The selection is done through auditions. In the case of proved stars, audition is not necessary. Once completed, you will negotiate and sign contracts with the talent to ensure their presence on the dates scheduled.

Once you decide on the talent, you can begin costume selection and design. These are suggested by the script, coordinated with the look of the sets and locations, and ultimately approved by the director.

Art direction

After a set designer is hired, he or she will review the script, possibly do research, and then discuss initial ideas with the director to start design the set. The set designed by the creative team is fundamental to create specific mood in each scene and in totality of the movie. There are two types of sets. Outdoor and indoor sets. Some gigantic studios may have permanent set for the scenes commonly recurring in most films, like court, police station, etc.

Miscellaneous tasks

Selecting remaining production personnel, mostly below the line personnel, arrangements for still photography, outsourcing videos to be inserted, appointing public relations officer, obtaining licence, permission from authorities concerned are other sub tasks to be performed during the pre production stage.

Basics of visual language

Motion picture film made up of a series of still photographic images. When projected in succession, these images provide the illusion of movement. Each individual photographic image is called frame - a discrete entity that, just as in painting, has shapes and forms arranged in a composition. A sequence of frames is called shot, which is commonly defined as the footage created from the moment the camera is turned on until it is turned off.

Set up is the basic component of a film’s production. Set up is arranging the camera to execute a shot. It is also called as camera position, placement or simply, angle.
Shot

A shot may show us a necessary piece of information or help create an atmosphere. It may serve as a simple delivery device for a line of dialogue, or produce associations that would not be elicited without its presence. All shots have purpose and must be thought out in terms of their relationship to the greater whole of the film. A shot has to do something because whatever its content or purpose, its presence will have impact.

Shots are various types based on the distance from the object and the angle through which the camera captures the visual. In determining the shot, the concept of distance or proximity is important. The study of distance among the objects in relation to its communication effect is called proxemics. The word is derived from 'proximity, refers to the distance between camera and object.

On this basis, there are three basic positions: long shot, medium shot and close-up.

However, there are many points in between and outside these three fundamental shots, such as medium close-up and extreme long shots. Generally, these alternative positions are treated as variations from the basic three.

Basic three shots and their use

Long shot, Medium Shot and Close-up shot are called basic three shots. They are very critical in defining meaning, emotion and mood.

Long shot

Any shot that includes full human body or more is called long shot (LS). A shot that includes just the person from head to toe is alternately called a full body shot or a full shot. A shot in which the subject is exceptionally far away from the camera called an extreme long shot (ELS).

Long shot can be defined as a camera view of an object or character from a considerable distance so that it appears relatively small in the frame. e.g. a person standing in a crowd of people or a horse in a vast landscape. Variations are the medium long-shot (or mid-shot) (MS) and the extreme long-shot (ELS or XLS); also called a wide shot; a long shot often serves as an establishing shot; contrast to close-up (CU); a full-shot is a type of long shot that includes a subject's entire body (head to feet).

The long shot is often called wide-angle shot. The lens is at its widest focal length and the angle of view is large. Wide-angle shots show an entire area whether it is indoors or outdoors. The wide shot is used to show the location where the action will take place. The location could be as small or as large as you wish. The size does not matter. This shot is also used to set the atmosphere of the scene. Is it a warm sunny day, a gloomy rainy day, a tense social situation, or a happy birthday party? A slow wide angle shot moving from left to right across a foggy dark cemetery definitely establishes an atmosphere and mood. Because of this use, the long shot is often referred to as an establish shot.

Another use for the wide shot is to cover a broad range of action and show the interrelationships among the subjects in the scene. Wide shots should be used occasionally during a production to re-establish the location of the scene in the viewer’s mind. Establish shots are not on the screen for a long time. Three or four seconds is a good time.
Medium shot

The shot that refers to a conventional camera shot filmed from a medium distance; although it is difficult to precisely define, it usually refers to a human figure from the waist (or knees) up; between a close shot and a long shot; abbreviated as M.S. Medium shots can also be called medium close-ups, waist shots, or bust shots.

This shot can provide ample coverage of a scene and hold more of the viewer’s interest than the wide shot. A medium shot should show a portion of the background, but the image size should be large enough to keep the focus of attention on the action taking place. Medium shots are great for showing two people standing and talking; for showing a person doing a table top demonstration; or for showing a person leaving a room through a doorway. In each these situations, the medium shot would provide a location and yet be close enough to reveal the details of the action.

Close Up

A shot taken from a close distance in which the scale of the object is magnified, appears relatively large and fills the entire frame to focus attention and emphasize its importance; i.e. a person's head from the shoulders or neck up is a commonly-filmed close-up; a tight shot makes the subject fill almost the entire frame; also extreme close-up (ECU or XCU) is a shot of a part of a character (e.g. face, head, hands) to emphasize detail; also known as detail shot or close on.
A close-up of Becky Driscoll's (Dana Wynter) face, in *Invasion of the Body Snatchers* (1956).

An extreme close-up or tight shot from Hitchcock's *Psycho* (1960)

The close-up is generally not known by any other name. Close-ups are used to amplify details. The interrelations of these shots can be particularly successful in creating suspense. The viewer is provided with smaller detailed bits of action that is taking place in the scene. Close-ups of a person delivering a speech would place emphasis on that part of the speech. A close-up of one person listening to another person will provide the listener’s reaction to the speaker. The close-up is an important tool to the videographer.

Television requires close-ups due to the lack of picture resolution. (Resolution is the ability to deliver detail. Higher the resolution, the greater the detail in the picture.) Details are often lost due to this technical drawback. The camera must move in close or the lens zoomed in to show the details of the image and create an emotional response. The emotional tears of a happy bride dancing with her father at the end of a wedding reception would be lost in a wide angle or medium shot. A close-up provides the details and creates the emotion.

The Close-ups is the shot that provides the greatest psychological identification with a character as well as simplifies details of actions. The close-up brings the emotions of the scene to the screen better than any other shot. Remember, TV is a close-up medium. It demands close-ups to deliver messages. Therefore this shot is used often.

**Camera movements**

Movie cameras are meant to move. A still and steady camera is boring and dull. Tricky movements of the camera produce various types of shots which can be used for effective visual communication.
Panning

When a camera is moved from side to side, this is known as panning. Here the lens scans the scene to provide the viewer with elements of a scene that cannot be included in a wide-angle shot. A pan can also reveal information as needed. It can follow a moving object. Panning should be smooth. It should not start with a jerk or end with a sudden stop. Adjusting the tension and drag on your tripod head will insure smooth pans and tilts.

Tilting

The movement of the camera head up or down is known as tilting. Tilting the camera up can show height. Tilting it down can show depth. It can also show relationships. For example, the tilt of the camera from a man standing on a rocky ledge with a coiled rope on his shoulder to a man standing alone at the base of the cliff presents the situation. Tilts can also generate emotional responses. Tilting upward can causes feelings of rising interest, expectation, hope, or anticipation. Tilting downward can lower interest and create feelings of disappointment or sadness.

Trucking

To truck a camera is to move the camera along with a moving subject or to move it parallel with the scene. If a camera were to move along with a person walking along a sidewalk this would be trucking. The person would seem stationary in the picture, but the background would appear to be moving. Trucking creates a feeling of observation or inspection.

Dollying

Moving a camera towards or away from the subject is dollying. The direction of the dolly draws different types of attention from the viewer. When the dolly moves toward the subject, the viewer’s interest is increased. A camera dollied toward a sleeping young lady on a dark stormy night in a horror movie indicates that something is about to happen. (Add the scary music and we know something is definitely about to happen). When the camera is dollied away interest in the subject is lowered and tensions are relaxed. Take the same sleeping girl in the horror movie and dolly the camera away from the bed and out of the bedroom, and we know that we can stop biting our nails.

Zooming

‘Zoomed in’ and ‘Zoomed out’ are other techniques which can be used for creating stunning visual effects. Zooming is basically not a camera movement, but getting the subjects viewed closer or further away using a zoom lens. It enables the videographer to be closer or further away from the subject without moving the camera. With the push of a button or the moving of a lever, the lens can be zoomed in and become a telephoto lens, or when zoomed out it will become a wide-angle lens.

The ability to zoom a lens in and out gives a tremendous amount of creativity to the videographer. Zooming is just changing the focal length of a lens also changes what is included in the frame. This means, as you zoom in, the lens changes from wide-angle to telephoto and this changes the angle of coverage of the lens. When the angle of coverage decreases, this eliminates elements in the frame.
Dollying does not change the focal length and therefore, the frame elements are not changed as much. This difference between dollying and zooming must be understood because it is an important creative tool. The speed at which zooms take place have a definite bearing on the viewer. Fast zooms bring emphasis and excitement. Slow zooms remove emphasis and are calming. A very slow zoom in or out can take a long boring static shot and make it seem short. For example, you are taping a speech with one camera. You cannot take the camera off the speaker. This is not too interesting. However, by using a very, slow zoom the shot is constantly altered to create a more interesting version.

**Camera angles**

Yet another factor that determines the identity of the visual is the position of the camera from the subject. Camera positions are also called angles. Height and orientation or level of the camera in relation to the subject produces different shots that exude different meaning and mood.

**Low Angle Shot**

Long Angle shot is a variety of shot in which the subject is filmed directly from below and the camera tilts up at the action or character, to make the subject appear larger than life, more formidable, taller and more menacing; contrast to a high-angle shot.

A low angle shot from *Citizen Kane*.

To make characters or environments look threatening, powerful or intimidating, generally low angle shots are used. The low angle shot can also give a distorted perspective, showing a world out of balance. This can produce a sense of both disorientation and foreboding.

**High angle shot**

In a high angle shot the subject or scene is filmed from above and the camera points down on the action, often to make the subject(s) small, weak and vulnerable; This type of shot is contrast to low-angle shot.
A high angle shot from *Citizen Kane*.

The camera is placed above the subject, pointing down. It tends to diminish a subject, making it look intimidated or threatened. This is the conventional way of making characters look insignificant.

**Eye level shot**

Eye level shots are those taken with the camera on or near the eye level of the character or subject being filmed. Eye level shots tend to be neutral. Much like the medium shot, an eye level shot puts the viewer on equal footing with subjects being filmed. It has none of the diminishing or exaggerating qualities of the high low angle shots.

An eye level shot from *Citizen Kane*.

**Bird’s eye view**

This is also called an overhead shot. It is actually a variation of the high angle shot, but is extreme that it has an effect all its own. This shot is from directly above and tends to have a godlike, omniscient point of view; people look ‘ant like’ and insignificant.
A bird’s eye view

**Dutch angle**

In this type of shot, the camera is tilted laterally on a tripod so it is no longer parallel with the horizon. The Dutch angle shot is also called oblique shot. It takes the straight line of the world and presents as diagonals. It is generally used to give an overwhelming sense of the world’s being unbalanced.

**Point of view shot**

This kind of shot represents the perception or view point of a specific character. It is not used as frequently as one might at first presume, primarily because camera and human vision are decidedly not the same. Many films, however use the point of view shot effectively. Horror films have come to use it quite extensively. For instance, replicating the point of view of the killer as he relentlessly stalks his prey.

**Lighting**

Effective lighting is the essence of cinematography. Often referred to as painting with light, the art requires technical knowledge of film stocks, lighting instruments, colour and diffusion filters, and an understanding of their underlying concepts: exposure, colour theory, and optics.
The cinematographer must make a two-dimensional image - the frame projected on a screen - appears three dimensional. Lighting is the primary tool used to perform this “magic.” To create a convincing three-dimensional image, the subjects and layers of the scene must be separated from each other. This is accomplished with light or colour, creating contrasts of light against dark or dark against light, and by strategic placement of lights and colour elements.

The cinematographer must consider how light falls on and around actors, how colour bounces off objects and reflects onto faces, and where the highlights and shadows are. Several factors influence lighting style: the director’s needs, the story, the budget, the experience and artistic vision of the cinematographer, lenses and lighting equipment, and the film’s sensitivity.

**Lighting Principles**

There are two basic lighting philosophies: Naturalism and Pictorialism

Naturalism follows the logical positioning of light sources in a scene and is often referred to as motivated lighting. For example, when two people are photographed facing each other in an exterior daylight scene, and one person is backlit, the other person should be in full sunlight.

Pictorialism allows the use of light angles that violate naturalism’s logic for artistic effect. Though not realistic, both people might be backlit simply because it looks better.

**Basic styles of lighting**

There are two basic styles of lighting: High key lighting and Low key lighting

High-key lighting is predominantly bright and allows few dark areas or shadows within the scene. This kind of lighting features strong illumination on the subject and often an equally exposed background.

Low-key lighting enhances depth by using contrasting tones of highlights and shadow. Only a few areas are lit at or above key, resulting in more shadow areas. This ratio creates the low-key effect.

**Properties of light**

Any source of light can be described in terms of four unique and independently respective properties:

**Intensity:** Light can range from intense (sunlight) to subdue (match light). We measure intensity in units called foot-candles, which define the amount of light generated by a candle flame at a distance of one foot..

**Colour:** Light has a colour balance, or bias, which is dependent on the source (daylight, tungsten, etc.).

**Quality:** Hardness (directness) or softness (diffuseness) of the light is referred to as quality.

**Angle:** The angle of the source, relative to the reflective object or subject, affects intensity and quality.
Three-point lighting

While we can describe a light in terms of its properties, we name it based on its function. The key light is often the main source of illumination in a scene. Its technical purpose is to produce a level of light that will permit proper exposure. The side of the subject nearer the light is the key side; the light that illuminates it is known as the key light. The side of the subject away from the light, the dark side, is known as the fill side; the light that illuminates it is known as the fill light.

The fill light is the source that illuminates the shadow areas. Its technical purpose is to reduce contrast. The side of the subject that is opposite the key is called the fill side. The back light is the source that lights the side of the subject opposite the lens. We use a back light to separate the subject from the background and to enhance the feeling of depth.

FILM EDITING

A creative post production process of filmmaking, editing now involves advanced digital devices unlike the past when the process was done with cutting and pasting films using some mechanical devices. Editor selects shots required for the final production from raw footage and combines them in a sequence to make the final movie. An editor’s job requires art and technical skills.

In many ways, film editing becomes an art. It can create sensually provocative montages; become a laboratory for experimental cinema; bring out the emotional truth in an actor's performance; create a point of view on otherwise complex events; guide the telling and pace of a story; create an illusion of danger where there is none; give emphasis to things that would not have otherwise been noted; and even create a vital subconscious emotional connection to the viewer, among many other possibilities.

With the advent of digital technology, digital nonlinear editing system becomes the norm. It is at the editing that the real magic of the film happens. This is where the film comes alive. Because editing is the process of selecting the parts of the shots that are good and serve the needs of the film, eventually discarding the rest.

In editing, there are three essential decision making areas: cutting picture, cutting sound and determining visual effects such as dissolve, fades, etc.

General principles of editing

Edward Dmitrik, in his book *On Film Editing* stipulates seven "rules of cutting" that a good editor should follow

- "Rule 1: *Never* make a cut without a positive reason."
- "Rule 2: When undecided about the exact frame to cut on, cut long rather than short.
- "Rule 3: Whenever possible cut 'in movement'.
- "Rule 4: The 'fresh' is preferable to the 'stale'.
- "Rule 5: All scenes should begin and end with continuing action.
- "Rule 6: Cut for proper values rather than proper 'matches'."
"Rule 7: Substance first, then form

Montage is considered to be the most influential technique that paved way for editing process. The French word montage means "putting together" or "assembly".

There are at least three senses of the term:

- In French film practice, "montage" has its literal French meaning (assembly, installation) and simply identifies editing.
- In Soviet filmmaking of the 1920s, "montage" was a method of juxtaposing shots to derive new meaning that did not exist in either shot alone.
- In classical Hollywood cinema, a "montage sequence" is a short segment in a film in which narrative information is presented in a condensed fashion.

**Editing process**

An article on www.learner.org/interactives describes the process as follows. “Editing often begins as soon as film has been shot. Early scenes are assembled for the producer and director to view. Occasionally, the actors will also view these early scenes. Many directors choose not to show actors these edited scenes for fear that they will affect the actors' performance.

The first cut of a film, called a "rough cut," takes up long time to complete. The final cut may take another month to finish. Sometimes the editor works alone, sometimes with the director. The sound designer and music composer join them for the final cut, adding sound effects and the musical score.

When the editing is complete and the director and producer have approved the final version of the film, this final cut is sent to a negative matcher. The negative matcher makes a negative of the film that exactly matches the final cut, and the negative is then sent to a film lab where prints are created. These prints eventually end up in theatres.

In the past, editors had worked with copies of negatives called "work prints" to plan a film's scenes and transitions. When an editor was satisfied with the final film, he or she would create an edit decision list, a list of each shot in the film and its length. The list would correspond to numbers, called "edge numbers," printed on the edge of the work prints. These numbers helped a negative matcher accurately copy the work print and cut the negatives.

Today most editors use computers or nonlinear digital editing systems to compile a film. This is more efficient, but for the most part, the process is the same. The work prints complete with edge numbers are stored in the computer. The editor arranges the work print, and then creates an edit decision list that will be passed on to the negative matcher.

**Key concepts in film making**

**Aerial shot**: A camera shot filmed from an airplane, helicopter, balloon, kite or high building (higher than a crane).

**Camera angle**: The position of the camera on a vertical continuum relative to the object being shot: eye-level, high-angle (looking down from above), low-angle (looking up from below), Dutch-angle (with the normal vertical axis tilted diagonally). The term can include the perspective given by the camera to the depth of focus, height and width of the particular object and action being photographed.
Close-up: A shot in which a smallish object (e.g. the human head) fits easily within the frame.

Composition: The complete arrangement of a scene by the director. The process includes camera angles, lighting, properties, characters, and the movement of the actors.

Continuity editing: The conventions through which the impression of an unbroken continuum of space and time is suggested, constructing a consistent storyline out of takes made at different times.

Crane shot: A shot in which the camera rises above the ground on a mobile support.

Cross-cutting: Swiftly cutting backwards and forwards between more than one scene.

Cutaway: A sudden shift to another scene of action or different viewing angle; or a shot inserted between scenes to effect a transition.

Depth (of field/focus): The range of a camera lens. Depth of field refers to the distance furthest away from a lens in which the objects being photographed will remain in focus approaching infinity. Depth of focus refers to the closest proximity to the lens in which the objects being photographed will remain in focus approaching the minute.

Dissolve: The slow fading of one shot into another.

Dolly: A trolley on which the camera is pulled along the ground.

Establishing shot: A long shot, often the first in a sequence, which establishes the positions of elements relative to each other and identifies the setting.

Extreme close-up: A shot in which a small object (e.g. a part of the body) fits easily within the frame.

Flashback: Narrative device in which the action is interrupted by scenes representing a character’s memory of events experienced before the time of the action.

Flash-forward: The opposite of flashback: future events (or events imagined by a character) are shown.

Frame: Each individual photographic image making up the film. Also refers to the area of the picture seen on the screen.

Framing: The size and position of objects relative to the edges of the screen; the arrangement of objects so that they fit within the actual boundaries of the film.

Graphic match: A visual rhyme between two successive shots.

Jump cut: A rapid, jerky transition from one frame to the next, either disrupting the flow of time or movement within a scene or making an abrupt transition from one scene to another.

Long shot: A shot in which a large object (e.g. a complete human figure) fits easily within the frame.

Long take: A shot that is allowed to continue for longer than usual without editing.

Match on action: A cut between two shots of the same action from different positions, giving an impression of seamless simultaneity.
Medium long shot: A shot in which a largish object (e.g. the human figure from lower leg up) fits easily within the frame.

Medium shot: A shot in which a medium-size object (e.g. the top half of a human figure) fits easily within the frame.

Mise-en-scene: Everything placed within the frame, including set decoration, costume, and styles of performance (implies an emphasis on psychological and visual unity in a film from one frame to the next).

Montage: Style of editing involving rapid cutting so that one image is juxtaposed with another or one scene quickly dissolves into the next. Angles, settings and framing are manipulated in a conspicuous way (violating coherent mise-en-scene) so as to convey a swift passage of time, to create some kind of visual or conceptual continuity, or to generate a distinctive rhythm. (See also dynamic cutting.)

Narration: The telling of a story and the information supplied to the audience by a voice coming from off screen who may or may not be a character in the story.

Off camera: Out of the boundaries of the camera’s field of vision (although a performer’s presence may be indicated by the context of the scene or their presence in dialogue).

Overhead shot: A shot looking down vertically on the action from above.

Pace: The tempo at which the storyline of a film unfolds, affected by various elements including action, the length of scenes, camera angles, colour levels, editing, lighting, composition and sound.

Pan: A movement in which the camera turns to right or left on a horizontal axis.

Parallel action: Aspects of a story happening simultaneously with the primary performer’s situation, edited so that the projected image goes back and forth between the primary and secondary scenes (often leading up to a convergence of the two actions).

Passing shot: A shot producing a projected image that travels quickly across the screen, either by moving the subject past a stationary camera or by panning the camera past a stationary subject.

Racking focus: A shift in focus between planes at different distances from the camera within the same shot.

Reaction shot: A close-up in which an actor or group is seen to respond to an event, often accomplished with a cutaway from the primary action to someone viewing the occurrence.

Reverse angle: Two successive shots from equal and opposite angles, typically of characters during conversation.

Sequence: A series of segments of a film narrative edited together and unified by a common setting, time, event or story-line.

Sequence shot: A relatively long and complete scene shot in one take without editing (similar to long take).

Set: A constructed environment to shoot a scene: often consists of flat backdrops or façades, but can be a three-dimensional construction.
Shock cut: The immediate juxtaposition of two incongruous shots (e.g. from a sex scene to a religious icon).

Subjective camera: A camera shot or film style that provides the audience with the specific vision or perspective of a character in the film (i.e. the technique of using POV).

Tilt: A movement by which the camera moves up or down while its support remains fixed.

Titles: Any words that appear on the screen to convey information to the audience, including credit titles (identifying personnel), main title (the name of the film), end titles (closing credits), insert titles (announcing scenes or identifying settings) and subtitles (translation of foreign-language dialogue). Insert titles and subtitles can also be referred to as captions.

Tracking shot: A shot in which the camera is pushed horizontally along the ground on a dolly.

Two-shot: A shot in which two actors appear within the frame.

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Books
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- Essential Radio Journalism: How To Produce And Present Radio News: Paul Chantler and Peter Stewart
- Introduction To Radio: Production and Programming: Michael H Adams, Kimberley K Massey
- Modern Radio Production: Production Programming & Performance (Wadsworth Series in Broadcast and Production) Carl Hausman et al.
- Fundamentals of Television Production: Ralph Donald and Thomas Spann
- Television Production Handbook: Herbert Zettle
- Beyond Prime Time: Television Programming in the Post-Network Era: Amanda Lotz
- Sound for Film and Television, Second Edition: Tomlinson Holman
- On Film-making: An Introduction to the Craft of the Director: Alexander Mackendrick, Paul Cronin and Martin Scorsese
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