

M.Sc. MASS COMMUNICATION

STUDY GUIDE

**Code No. 5627
& 5628**

ELECTRONIC MEDIA

Part -I & Part-II

**Department of Mass Communication
Allama Iqbal Open University
Islamabad**

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3rd Edition2009
Year of Publication 2014
Quantity 1500
PriceRs. 100/-
Printing Coordinator Muhammad Riaz Khan
Printer Premier Printers
PublisherAllama Iqbal Open University

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INTRODUCTION

Until 1844 the words "transportation and communication" were synonymous. Then in 1844 the first telegraph line and the Morse code came into being and the nature of our world was forever changed. Modern mass media exist in two basic forms. The more traditional form is written: books, magazines and newspapers. These traditional forms retain their importance today, although technology is changing the habits of human being, increasing the importance of a second form of mass media: broadcasting and film. To some extent, while world literacy is increasing, there is a parallel tendency for many people to substitute television and radio for the traditional written forms of mass media.

Television, the newest mass media, relies the most on modern advances such as satellite transmission. The reason for this lies in the physical characteristics of lengths, for example, television waves are not reflected back to earth by the ionosphere as are short wave radio signals. Probably the biggest change in international broadcasting in the 1980's and 1990's has been the increased use of communication satellites to carry TV signals across borders. Along with the increasing satellite volume, a good deal of global media traffic consists of video cassettes and films that are shipped from one country to another and broadcast on the native country's TV system or played back on VCRs or shown at local movie theaters. There is one important aspect of international media particularly relating to television is the problem of cross-border spillover. TV signals of course, know no national boundaries and the programmes of one nation can be easily received in another country.

The most widely used mass media is radio. It reaches people instantaneously. Because of its economy and capacity to reach large audience, radio has grown rapidly. Radio has been called the adapted medium, the one that can "tune itself" to the times. The history of radio attests to this skill. Today's radio programming is very different from the wide range offered to audiences in the 1930's and 1940's. Today's radio has been changed by four important issues, the rise of FM over AM, deregulation, ratings and formats.

Nothing can beat radio for quick news bulletins or the latest hits. Radio also delivers a targeted audience much better than television because the radio station you prefer defines you to an advertiser much better than the television station you watch.

A great number of countries engage in some form of international radio broadcasting. Most of these services are government run or at least government supervised and seem to have a political purpose. A good deal of the content on many services would be labeled propaganda. Over the last few years, however, private international broadcasting has grown in popularity.

The future radio depends on the ability to continue to appeal to special segments of the market. Whether its success is measured in rating, advertising revenues, or financial contributions. Only time will tell what the medium next big change will be.

This study guide has been produced for a full credit course on "Electronic Media" which is a compulsory part of the Master's Programme in Mass Communication. The study guide has been divided into two parts - Radio Broadcasting and Television Broadcasting.

Radio broadcasting covers historical perspective and development, impact and potential of radio, news reporting and current affairs, entertainment, general and educational programmes. Besides it also covers technical aspects and new trends and challenges of radio.

The second part of the study guide takes account of various important aspects of television broadcasting. Major areas of these are evolution of television; effects of T.V in the behavioral changes; television news and current affairs programmes; entertainment, general and educational programmes; techniques of television production and broadcasting, new trends and challenges and future of television.

Both the parts in this study guide consist of nine units each. These units have been written, reviewed and edited by the prominent media practitioners and reputed teachers of the subject belonging to all parts of the country. In the production of this study guide, I am greatly indebted to Syed Abdul Siraj, Head of Mass Communication Department, AIOU whose constant guidance made the study guide successfully materialised. I owe my special thanks to Mr. Abdul Nabi Brohi and Mr. Mohammed Naeem Ahmed for their helping hands in the office chores. Last but not the least, my thank goes to all those who involved in writing, reviewing, editing, composing and designing of this book.

I hope that the students would find the study guide relevant and effective for their studies. I shall be grateful for any kind of feedback to make this study guide more coherent, refine and bring it more closer to the academic needs of the students for better insight.

Wish you all the best !

SAQIB RIAZ

(Course Coordinator)

PART -I
UNIT NO. 1

INTRODUCTION AND DEVELOPMENT OF RADIO

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Reviewed by : Abid Khawaja

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1. Objectives

After studying this unit, you should be able to :-

- i. Elaborate the history of broadcasting and its introduction in our part of the world.
- ii. Explain the significance of the broadcasting medium keeping in view the challenge from the contemporary media like press and television.

2. SUMMARY OF THE MAJOR TOPICS.

2.1 The history of radio :

In order to trace the invention and history of radio there is a need to understand the sequence of events between 1896, the year when Marconi arrived in London and 1922, when BBC was founded.

The first broadcast of music and speech was made by an American R.Fessenden, in 1906. Later in 1916 the American Radio and Research Corporation was broadcasting concerts two or three times a week. A ban imposed on amateur radio in Britain on the outbreak of war in 1914 was not lifted until 1919.

Westinghouse had led the way in organizing regular broadcasts in the United States. The first well known American broadcasting station KDKA, Pittsburgh, went on the air with regular broadcasts in 1920. Same year regular concerts began to be broadcast in Europe from the Hague.

On 14 Feb. 1922 the first regular broadcasting service in Britain was started from Writtle; it was organized by the experimental section of the Design Department of the Marconi Company.

By the year 1924 there were 530 radio stations in the United States. The first commercial programme in the United States went on air in August 1922. The Voice of America first went on the air on Feb. 24, 1942 with a 15 minute broadcast in German language. Similar programme in the Italian, French and English came soon after.

BBC, the British Broadcasting Company started functioning in London in November 1922. However the first known regular scheduled international broadcasting came from Radio Netherlands in 1927. In this decade international radio services were set up by other countries including Britain, Germany, France and Japan. These services were often adjuncts to domestic radio stations created primarily to serve overseas citizens of the originating countries. But in late 1930's, as war loomed large in Europe and Asia, international broadcast services suddenly had a new dimension; to inform and influence the people and governments of other nations. These external broadcasts multiplied greatly in number and in transmission power during the second World War.

The word 'C' in BBC in 1922 stood not for 'Corporation', but for 'Company'. The people at the back of BBC were businessmen. However it was never an ordinary commercial enterprise. By post office rules its dividends were restricted. By the will of its chief John Reith, BBC's first General Manager, the organization had set out to act as 'public service'. In the first four years, though broadcasting was technically a business concern, it made no significant profits. It did not concern primarily with the interest of either radio manufacturers or the manufacturers of any thing else.

On 1st January, 1927 BBC directors didn't seek to interfere with the constitutional rearrangements which transformed BBC from a company to a corporation.

The news bulletins and outside broadcasts which later accounted for such a substantial amount of radio time, gained little importance between 1923 to 1926. In the early days of broadcasting development in Britain, Post office had the regulatory powers. At a meeting on Feb. 1 1924 BBC was allowed to broadcast news and microphone records of the occasions without further descriptions of comments, on the condition that they did not interfere with newspaper reports. It was not until Jan. 1927 that BBC was given freedom to arrange early news bulletins, running commentary and eye witness accounts.

2.2 Broadcasting in Pakistan

The origin of organized broadcasting in the Indo-Pakistan sub-continent goes back to 1927 when Bombay station of the Indian Broadcasting Service was inaugurated. Two years later it was the turn of Calcutta to have a broadcasting station. Delhi station began regular transmission in January 1936. The part of India which later constituted Pakistan, got the Peshawar broadcasting station inaugurated on March 6, 1935 by Governor of NWFP Sir Ralf Griffith. Mr. Mohammad Aslam Khattak now a senior politician of the country, became its first station director. On April 1, 1937, All India Radio took over the Peshawar station from the NWFP Government. The same year Lahore station was inaugurated. However a small station had worked in Lahore between 1928-36 under YMCA.

At the time of independence about a dozen radio stations were there in India, three of them in Pakistan at Peshawar, Lahore and Dacca, now called Dhaka the capital of Bangladesh.

Broadcasting was introduced in the country by the Pakistan Broadcasting Service. Later it became Radio Pakistan and subsequently the Pakistan Broadcasting Corporation (PBC) on 20th Dec 1972. In 1995 there were 22 radio stations in different parts of the country. Total duration of daily transmission is now 400 hours with almost hundred percent coverage.

By name it appears to be an independent organization. But for all practical purposes it had been working as a sub-ordinate department of the Ministry of Information and Broadcasting.

Administratively PBC is governed by a board of directors. By virtue of his post the Secretary Information and Broadcasting, Ministry of Information and Broadcasting is the Chairman of the board. The executive Head of PBC is called the Director General who is assisted by five directors; the Director of news and External Services, Director of programmes, Director of Engineering, Director of Administration and the Director of Finance.

The entire broadcasting is grouped in three categories i.e. the Home Service, The External Services, World Service and News and Current Affairs which are also essential part of all the other services.

Pakistan Broadcasting Corporation has also a sales organization which deals with commercial advertisements.

The Central Production Unit of PBC is responsible for producing special programme for domestic consumptions and also for supplying recorded programme to other countries. The Engineering wing of PBC not only maintains and operates the broadcasting houses and transmitters but have also been successful in the field of manufacturing broadcasting equipments. The Equipment Production Unit has been fabricating a variety of equipments including high power transmitters in addition to carrying out repairs.

2.3 Prospects and challenges

It is wrong to believe that with the advent of television radio is to gradually fade away. When radio was invented it was thought likewise that newspapers shall lose their utility. All the three sources of informations namely newspapers, radio and television had not only survived but flourished simultaneously. Radio is one of the family members of mass media. Each medium has its own place and worth in the world of information and entertainment. Each medium has its unique characteristics, each has its own advantages and disadvantages. Radio can serve the society only to the extent that it retains the trust and confidence of its listeners, its credibility as a channel of information and its purposiveness as an agent of social change and development.

However for this reason it is necessary that it should observe high standard of accuracy and truthfulness in the presentation of facts and fairness, impartiality and balance in the presentation of opinion and views so that it may serve as a true forum of public interest.

There can't be two opinions over the fact that radio broadcasting is under constant threat from the newspapers and the television. As far as newspapers are concerned they pose a challenge to radio only in the field of news presentation. In this field radio

enjoys innumerable advantages. The modern television however is a potential threat for the survival of radio. It poses a challenge to radio in the news and current affairs as well as in the presentation of entertainment programme like music and drama. The facility of satellites has also revolutionised the television broadcasting but its use in radio has improved the quality and enlarged the sphere of influence too.

It is also a fact that VCR's and dishes had snatched the monopoly of the individual television stations. Specially for music and drama and other entertainment programmes one does not have to depend on TV. But it is news and current affairs where radio and TV have intense competitions and it is the quality of the presentations which reigns supreme and attract maximum listeners.

3. SELF ASSESSMENT QUESTIONS.

Q 1. Describe in detail the process of the development of broadcasting.

Points to note.

It started with the advent of telegraphic invention. Starting in 1922 broadcasting gained attention and importance during World War second as a tool of propaganda.

Q 2. Explain the development of broadcasting in the sub-continent with special reference to Pakistan.

Points to note.

1. Starting with a 1.5 Kw transmitting power station in Bombay in 1927, it grew smoothly in the undivided India. Presently there is a network of 22 radio stations in Pakistan.

2. Radio originating as a tool of propaganda has now transformed as a medium of social change and the greatest means of communicating information and knowledge.

3. It's also a tool for development.

Q 3. Compare the importance of radio with the press and television.

Points to note.

1. It is wrong statement that television is going to reduce the importance of radio.

2. However radio has got to be quite competitive to retain its place in the field of communication.

4. Suggested Readings

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|----|--------------------------------|--|
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UNIT NO. 2

IMPACT AND POTENTIAL OF RADIO

Written by : Mahmood Hussain
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1. OBJECTIVES

After studying this unit you should be able to :

- i. Describe the role of the medium of radio at a time when there is world wide explosion in the electronic media due to the introduction of modern techniques of transistors, digital system and satellites.
- ii. Describe the role of broadcasting in national building, developmental activities and public awareness against several hazards challenging the community, country or the world at large.
- iii. Explain the aims and objectives to promote credibility and tools to achieve credibility.
- iv. Elaborate the role of radio monitoring as a source of news gathering and policy formulation.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Radio as a medium of Mass Communication

The present age is rightly called an age of information and communication. Radio is the most important medium of communication. It has very special role in the developing countries where literacy rate is low. It is baseless to believe that television can reduce the importance of radio. Three main sources of informations namely newspapers, radio and television have not only learnt to live together but have flourished simultaneously. The media is supposed to play a practical role in the social and economic development through creating awareness and favourable public opinion towards social change. This is not an easy job in view of the very low literacy rate and deep rooted prejudices.

In this field of informational activity in the developing countries radio still plays a role that no other medium can possibly do. For example in our country radio serves agriculture like many other inputs and it is the best conveyer of information directly to the farmers. So far as the news and current affairs are concerned, despite government control radio remains the largest network of news collection and dissemination.

The government engaged in developmental activity believes that the media must provide communication support to its policies and projects and radio has to play a leading role in this regard as the largest medium. It is the first communication technology to achieve hundred percent coverage.

The medium of radio enjoys many technical advantages when compared to print media and television. It can be programmed in local languages, it does not need literacy to understand. It is portable and for a wide variety of subject matters, it has been demonstrated to be as effective teaching medium as the television.

Since a local station serves a small area, its aim should be "to reach right into the heart of the community of people", it is expected to serve. A local Radio station must be flexible and spontaneous to enable itself to function as the mouthpiece of the local community. Radio can easily endeavour to reflect and enrich the life of the society. The majority of our population is illiterate or undereducated. Predominantly they earn their livelihood through agriculture. Either they are farmers or work as farm labour. The rural people are simple and backward. The amenities of modern life are still beyond their reach. Newspapers and television are also not very common to them.

Under these circumstances the medium of radio is the only way through which they could be approached and motivated for a change. By now radio has become as the only medium which is closest to the rural masses and reaches to them with utmost speed.

2.2 Potential and Limitations

In our part of the world radio is the most important means of mass communication. For many people radio is the only source of news. Compared with the television and newspapers radio has many advantages. It is fast and can be operated without electricity too. Radio programme production costs lesser and illiteracy is not a barrier while communicating over it. Radio carries weaknesses too. It is heard only once, no back reference is possible. It is subject to atmospheric and other interferences. It can't compete with newspaper in the amount of material to be conveyed.

The introduction of T.V. has affected to radio listening. In addition to being visual the glamour of colour had helped T.V. to attract a large number of audience as compared to radio. Traditionally radio broadcasting is aimed at information, education and entertainment. The entertainment part was mainly based on music and drama. The music had drifted towards the ever flourishing cassette industry while drama has moved to television. It is the news where radio still reigns supreme.

Any broadcasting organisation which is news and current affairs oriented can easily attract the public attention. But in our part of the world the situation continues to remain otherwise. It is seriously felt that some radical changes are essential to improve the pattern of the news presentation and their contents and timings.

As a colonial legacy radio in the developing countries continues to be controlled by the official quarters. People who had nothing to do with broadcasting at times become the big boss or the chief policy maker. Their way of administration have been the cause of continued deterioration in the standard of broadcasting and loss of credibility of the medium.

2.3 Public opinion building and propaganda

Through information, publicity and propaganda either way and as and when required the needful objectives of public opinion building are achieved. As a mass medium radio's role can't be underestimated. Radio is called upon to play its role during normal and abnormal conditions. During normal conditions it works for the dissemination of informations for the sake of information itself or for moulding public opinion. In abnormal conditions, in addition to informations radio had been used as a tool for building public opinion through publicity and propaganda.

The radio can be used as an important instrument of public opinion building and propaganda provided the message is designed skillfully with precision and expertise. In a majority of developing countries development falls short of projection in spite of the handsome investments in the media. This is because of badly designed messages.

So far as the transfer of information is concerned, it is converted through different programmes specially the news. However the publicity and propaganda needs some degree of craftsmanship. A broadcasting organisation can launch publicity campaign on any issue. The information process may not have any specific objective but publicity has got a definite goal.

The propaganda is however a bit difficult and needs more depth and planning and expertise on the part of those handling the medium. As it looks today, it had not been so an ugly word in the past. It had a respectable birth from the latin word, propagatus, which meant 'to cause or to continue to multiply by generation'. It was baptised under the auspices of Pope Gregory the thirteenth (1572-85) who set up a commission to supervise missionary work and designated the president of the commission as cardinal prefect of propaganda. The objective of the Commission was to spread Catholicism. Originally the word propaganda was applied to organisations set up for the purpose of spreading a doctrine. Then it was applied to the doctrine itself and finally to the methods in spreading it. It however simply means persuasion; what matters is not the truth or falsehood of a statement but whether any persuasion is involved. Its purpose is to influence persons to do or think in a manner in which they would not have behaved if left to themselves.

Propaganda methods kept pace with the development of printing press and inventions of flying machines, but basically there was little change until radio's development as the most effective weapon ever used in psychological warfare.

The Nazis became pioneers in the use of radio as an instrument of conquest. In 1933, Hitler launched what is now as cold war, bringing into play his wireless transmitters to shoot an unprepared world bullets for the mind.

2.4 Developmental role of radio

Development is a complex process. It includes political, social and economic reform that will ensure equality and guarantee the space in which all human beings may attain their highest potential. And towards that direction the aspects of communication process is largely shared by radio.

In majority of developing countries development falls short of projections in spite of the handsome investments in modern media. The best that could be said was that some kind of communication went with some kind of development in some social situation. The developmental role of radio is a part of the larger spectrum of development communication which after getting due attention is being ignored.

It is important to recognise the meaning of development and communication and their relationship with each other. There was also need for development and communication theory to be systematically linked with the economic theory and patterns of cultural change. The quickest and most effective way of bringing about a change consciousness is the application of technology based communication,

principally radio. Radio has the advantage of being able to overcome barriers of illiteracy and distance. It is based on comparatively simple technology and also relatively less expensive.

Radio has the ability to create and transmit new images of what people can aspire to create psychic mobility. Additionally it can also disseminate information pertaining to health, education and agriculture and it is directly supporting specific development programme. The creation of a climate suitable for increased production and serving as a prime mover in economy was the essence of ideology of development communication.

2.5 The credibility

Maintaining credibility of a broadcasting organisation means broadcasting a news service or any other programme which is acceptable and worthy of belief to the people. Accuracy, balance, clarity and deadline having achieved together can produce a credible medium. Any broadcasting organisation which is not striving to earn credibility and listeners don't believe it, is simply wasting time and money.

Writing news for broadcasting is much the same as writing for a news paper or wire service. The idea is to present the information in logical sequence and in understandable language. There are no tricks to writing news for broadcast. Most elements that contribute to a good news story for print are also present in a good radio story. There are however a few basic principles that radio writers adhere to because of the peculiarities of the medium.

While it is true that radio news scripts are shorter than most news stories written for print, the radio news writer is still obliged to tell a complete story. Facts needed to put the story into perspective and provide balance must be included. Although radio news stories rarely run more than fifteen lines, they must be written in such a way that nothing of significance is omitted. This requirement places a premium on the writers judgement, and, in the long run, judgement - the ability to separate the important from the unimportant is the quality that separates good journalist from a poor journalist.

2.6 Monitoring

Every major broadcasting organisation is like the Tower of Babel. One important difference, however, is that these towers transmit rather than contain almost incessant flow of words from their polyglottous inmates, another difference is that these organisations are as much concerned with listening to other radio stations as they are with having their own sources. Most of the important broadcasting organisations actually listen to more news bulletins than they put on the air. Such organisations are not only the voice of the nation but also its ears.

In the present world of loose international relationship we should know what is going on else where in the world. It is human nature to know what others say

about us and about the world at large. The Monitoring Reports are not confined to news bulletins; they also take in commentaries, talks and features if needed. The purpose is to keep a record of what the world is saying and how various countries are presenting their point of views on national and international events and problems. The experts study these reports and try to find out how the minds of other nations are working. Where necessary counter statements are issued by the government. The international news gathering and broadcasting has now become so complex and efficient that some times news regarding two countries can be gathered from sources in countries not directly concerned in the dispute.

In the Indo - Pakistan sub - continent radio monitoring services were introduced in 1940, during the second world war. Radio Pakistan has two different sets of monitors. A smaller organisation, attached to the News Room in Islamabad listens to only English bulletins from different countries and working at top speed supplies verbatim reports to the editors. The other and much bigger organisation listens to bulletins from many broadcasting organisations in a variety of languages. These broadcasts are subsequently transcribed into English. One copy is then and there transmitted to the news room for possible use and the other is retained for inclusion in the 'Radio Monitoring Report' brought out early in the morning daily.

Presently news and current affairs programmes of fourteen languages from fifteen broadcasting organisations all over the world are being monitored by the Pakistan Broadcasting Corporation. The Radio Monitoring Report thus produced is not only used by the organisation itself but provided to official quarters for the purpose of study and policy making. As a source of information and possible use it is also purchased by a number of embassies and news agencies and newspapers.

3. Self Assessment Questions

Q1. Explain how best radio can serve being the largest medium?

Points to note

1. Every medium has its own importance.
2. The developmental aspect of radio is always to be kept in mind.

Q2. Elaborate some salient points explaining potential and limitations of radio broadcasting.

Points to note.

1. Describe radio as a senior medium than television.
2. Although television and the print media enjoy certain advantages even then radio remains the largest medium.

Q.3 Evaluate the differences between information, publicity and propaganda and under what conditions each one is applied?.

Points to note.

1. The techniques of information, publicity or propaganda are not new.
2. The modern age is age of information, latest trends and techniques.

Q.4 Analyse the developmental role of radio and differentiate between development communication and development support communication.

Points to note.

1. Mass media is agent of change and quantitative growth and one of the important tool of development.
2. Note carefully the difference between development communication and development support communication.

Q.5 Explain the importance of credibility of the radio medium and measures to maintain and consolidate it.

Points to note.

1. In our part of the world, radio is mostly under government control. Under such circumstances the broadcasters have to take care of the interests of the government as well as that of listeners.

Q.6 Explain aims and objectives of radio monitoring services and difference of monitoring done at radio and those at television, newspapers and news agencies.

Points to note.

1. Radio monitoring is a tool of news gathering as well as policy making on the part of the government.
2. Radio monitoring is the fastest and most accurate mean of news collection.

4. Suggested Readings

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UNIT NO. 3

REPORTING FOR RADIO

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1. Objectives

After studying this unit, you should be able to :-

1. Describe the significance and characteristics of a radio news story.
2. Elaborate different types of news items and their sources.
3. Explain the importance and application of voicecasting and actuality inserts in broadcasting.

2. SUMMARY OF THE MAJOR TOPICS.

2.1 Radio News: Definition, Scope and Characteristics.

There are just as many definitions of news as there are books and scholars on journalism. Same is the case with the definition of radio news. However all of them emphasise different aspects of the subject. There is something to learn from each one of them. Starting from the common phrase 'when a dog bites a man it is not a news; when a man bites a dog, it is a news' we can go through dictionaries and encyclopaedias to know as many definitions. In the present day world news can also be an account of an idea or a precise description of a problem. News is current information. But news can also be made out of the indications of what may happen in the near future.

No matter how one interprets the definition of news, a good reliable prediction or a speculation must surely be based on 'current information' ; that is news.

With the passage of time the evolution of the definition has been changing. It has different meaning for different persons and also on different media. Some thing a news for a newspaper may not be as important or of no significance for radio or television.

One of the most suitable definitions of news according to broadcasting point of view is "a new piece of information about a significant and recent event that effects the listeners and is of interest to them".

A radio news story is written for the ear, it is not meant for reading. A radio story is also not for any particular segment of the society. It is neither targetted for any special ethnic group nor is limited to any geographical boundry. Its drafting is therefore more ticklish than the print or visual media.

The most important stylistic principle in radio news writing is simplicity. If the language is too complex, it is possible that the story will not be completely understood by the audience. The radio listener can not retrieve lost information by reading a sentence or story. If the story is not understood the first time around, it would be lost to the listener for ever. Radio news writers generally apply a few rules of their own to help them get information across in the best (simplest form): keep the sentence short, avoid complex sentences or construction and use basic words not colloqualisms.

2.2 Sources of news:

News gathering is a specialised job which needs lot of skill. It reaches the news room mostly in four ways, through staff reporters, monitoring of foreign-broadcasts, through news agencies or press releases, hand outs etc. News falls into the news room from all the sources and at all the time and used then and there because there are plenty of news bulletins as against news papers which are printed once each day. The staff reporter is not only

responsible to collect his own stories but also generally asked to confirm doubtful stories filed by news agencies or called to elaborate the message contained in press releases or handouts.

The information wings of the Federal and provincial governments work as public relations departments of the government and their ministers. Every day these agencies issue a bunch of hand outs containing official news. This include reports of cabinet meetings, statements of the government functionaries, stories of development work and so on. In special cases and unusual situation press notes are issued to explain official position or point of view. The editor uses his own discretion and professional skill in using them on the basis of actual news value. These materials are not office orders but only information messages from official quarters and should be treated as such purely on merit. The press notes are to be taken more seriously and cautiously because they are issued in special cases and generally contain serious information. These too should also be properly edited and summarised according to the available space.

The news agencies, both national and international, are another important source of information. Perhaps the British news agency 'Reuters' is the oldest. Other major international news agencies are the French news agency, AFP; the American agency, AP; the Chinese agency, XINHUA; the Russian, ITAR-TASS; and the German news agency, DPA. Most of the countries have their own national news agencies. For instance Associated Press of Pakistan (APP) and the Press Trust of India (PTI). The major news agencies have their own separate agreements for the exchange of news with other international agencies thus filling the gap where they are not present.

In addition to APP there are many other news agencies in the private sector. Among them the most significant is the Pakistan Press International PPI. Other significant in the field are NNI, (the Network News International) PPA, (the Pakistan Press International agency) and KPI (Kashmir Press International).

2.3 Art and Scope of Reporting for Radio:

Reporting is the art of news collection and filing despatches to the news room for suitable consumption in the bulletins. In radio a reporter has got to be extra quick and accurate. The reporter has to keep his ears to the ground for possible rumblings. There are many areas which sometimes, without much of a warning, may produce headline news. Lot of skill and craftsmanship is needed to cover political events while the economic front is quite less hazardous. In addition to political, economic, sports and development news the door of investigative reporting is also there which how ever is not very common phenomenon in developing countries. A new spirit of enquiry and criticism has to be developed to break some ground in the field of investigative reporting.

The reporting for radio is somewhat different from that of newspapers and television. In Radio, it is always a race against time and demands, special skill and high sense of responsibility. Normal reporting assignments are easy to handle but specialised one require special knowledge, skill and training. For instance a

parliamentary reporter can't justify his job unless he knows the rules of business and procedural matters of the House. Similarly sports coverage is not justified without basic know-how of the game which is to be reported.

Perhaps far less hazardous are stories of economic front. Here too, there are areas of reporting which are far more important in Asia than in industrialised societies in the West. In many countries shortage of consumer goods and foodgrains lead to hoarding, black marketing and other malpractices. As an area of reporting, no less important is smuggling of essential commodities.

Even on his own a young reporter can discover almost any number of areas of reporting. But what is important is to see their relevance to the socio economic conditions underlying the pattern. The reporter is supposed to know his audience. He is also supposed to anticipate and work under pressure and speed.

The art of reporting is the ability to simplify complex matters and make them meaningful to the listeners. A good reporter is inquisitive, cultivates his own source, gets all facts asking a lot of questions and always watches for the angle. Rumours, speculations and opinion are outside the domain of a responsible reporter.

2.4 Voice Casting and Actuality Inserts:

Straight news reading is common in majority of broadcasting institutions because of its operational simplicity. The script is prepared and sent to studios for reading out. As far as short duration bulletins are concerned straight readings are all right. But for bulletins of longer durations some variety is to be introduced to retain the attention of the listeners. For this purpose in addition to the voice of the news presenter some audio material is used. It includes the voice of the reporter at a distant place, live or recorded and recording of the sound of the news; brief extracts from speeches, news conferences or interviews etc. Voice castings and insertions carry the listeners to the place of news event making the message perfect and interesting.

When a reporter is assigned to do a tape report, it is customary for the desk to give him specific time. The reporter will prepare his report as well as he can in advance, makes certain he stays within the limit. Although in the news, comments are not accepted but as a tradition this routine is violated while giving a situation and some comments or forecast is acceptable. As the reporter is delivering his spot a newsman back at the studio monitors it while an engineer does the actual recording. So a voice report or actuality is a joint production of the reporter, editor and engineer.

3. SELF ASSESSMENT QUESTIONS

Q.1 Define radio news and explain their scope and characteristics.

Points to note.

1. There is some difference of concept between the radio news and news on television or in the press.
2. Radio news audience are universal.
3. Structure of radio news is different as compared to television or the press.

Q.2 Explain some of the sources of news with special reference to radio.

Points to note.

1. Sources of news for radio, television or press are more or less same but their priorities in radio are different.
2. Reporters job in radio as a source of news is quite different as compared to press.
3. Significance of radio monitoring.

Q.3 Explain with some example the process of radio news reporting along with voicecasting and actualities.

Points to note.

1. Voicecasting and insertions are aimed at enlivening the broadcast.
2. Voice casting and insertions are different processes.
3. The durations of voicecastings and actualities are to be short.

4. Suggested Readings

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Feroz Sons, Lahore.
2. Mahmood Hussain,
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5. White, Paul W.,
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(1983) Broadcasting News Editing,
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UNIT NO. 4

NEWS WRITING AND PRESENTATION

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Reviewed by : **Ashraf Ans**

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1. Objectives

After studying this unit, you should be able to :-

1. Explain basic principles of drafting news items.
2. Evaluate different types of bulletins and their preparation process.
3. Describe different stages of news preparation, policies, pressures and process of presentation.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Writing for radio:

Writing for radio is writing for millions including every type of people, educated, uneducated, young and old, men and women from every section of the society. Radio is generally listened in houses where all the members of the family move together. It is therefore necessary that nothing should be there against moral ethics of our society. There are five key principles to be kept in mind while writing radio news. It is spoken, it is immediate, it is person to person, it is heard only once and it is sound only.

While it is true that radio news scripts are shorter than most news stories written for print, the radio news writer is still obliged to tell a complete and clear story. Facts needed to put the story into perspective and provide balance which must be included.

The most important point regarding style in radio news writing is simplicity. If the language is too complex or difficult it is possible the story will not be completely understood. Radio news writers generally apply a few rules of their own to help them get the information across in the simplest form. These are; keep the sentences short, avoid complex construction and use basic words not colloquialism.

Writers are encouraged to get into the substance of the story and this is best done by starting with a good declarative sentence that presents the most important information. The listener is not to be overburdened with too many facts in the lead. The listener should know immediately what has happened. Don't leave him wondering. Writing news for different audience also needs different approaches within the country, some news bulletins are for the whole people, while some are beamed for different provinces or for particular ethnic pockets. In the external services news is prepared for foreign listeners. All of them deserve special awareness on the part of the editor.

2.2 Preparation of News bulletins:

There are many categories of news bulletins in our part of the world. In Radio Pakistan the main categories are; national, world service (for overseas Pakistanis), regional, local, external and general overseas slow speed bulletins. National bulletins are meant for the entire population of the country and are broadcast both in Urdu and English. News bulletins for overseas Pakistanis are broadcast in Urdu in the World Service. Regional bulletins are broadcast in the regional languages. Local bulletins contain news and announcements of local interest in a particular city or area. External bulletins are broadcast for overseas listeners in their respective languages. The general overseas slow speed bulletins are broadcast at dictation pace for use in our embassies in different countries. In the preparation of these bulletins we have to go through the process of selecting and editing news and arranging them in order of importance. In case of longer duration bulletins headlines are also given. The headlines call for clearest and tightest possible writing.

The general News Room is the centre of activity in the preparation and production of news bulletins. The wire copy, despatches of reporters, monitoring

reports, hand outs and press releases are the main sources of news production system. Whatever lands in the news room undergoes a regular process of sorting. The editor has got to be quite selective and choosy. This is because of the limited space available for news cast. The skill to reject redundant material and select useable material is one of the basic requirements of a good radio editor.

Unlike newspapers, a radio bulletin is to be prepared by not more than two editors who select stories from large quantity of material. The editor is supposed to be quick enough to keep on selecting the probables and rejecting the useless. Then comes the stage of drafting. Before handing over the bulletin to the newsreader it is arranged in a logical order.

2.3 Problems and pressures:

The main challenge before a radio editor is to make the copy simple and easy to understand. The editor is supposed to be capable of writing simple and clear language and making crisp news draft. Difficult and useless words and phrases are to be avoided. Unlike periodicals and daily newspapers, radio news is always 'immediate' in nature. If it is official medium, the official obligations are also there. In radio there are generally no restrictions or specific guidelines. The editor is required to determine whether a particular item is to go on the air or not. Radio editor not only faces problem of short space but also of time as well. Preparing a bulletin is like running against the time. Every regular bulletin has to go on the air at a fixed time.

Almost in every bulletin several items are read unrehearsed by the news reader if drafted later after the bulletin has started. Smart-radio writers deal with such 'Problems stories' successfully as they are usually able to make sound judgements quickly and avoiding pit falls.

2.4 News presentation:

Presently news bulletins in Pakistan are broadcast in a flat manner without voice inserts and other actualities. This makes the news bulletins lifeless. Voice reports and sound actualities should be inserted in news and current affairs programmes to make them more interesting and credible. As a consequence of the present style of news production the radio editor in our country has little knowledge about tape editing techniques which include cutting of recorded material and dubbing etc. Editing of interviews for news bulletins is also a bit difficult which needs skill and training.

Our all news bulletins are translated versions of the master copy (prepared in English). This reflects lack of confidence on the part of those who are at the helm of affairs. Translated copy is always unnatural and complicated. If English is replaced by Urdu as a medium of editing it will bring about many advantages. It will also lead to a better and close liaison between the national and regional languages and help to promote national integration.

News reading is another integral part of broadcast journalism. After all it is the newsreader who conveys the contents of reports to the listener. The news reader should not only possess a good voice but a lot of other qualities including goo

accent and pronunciation, art of effective delivery, correct use of pauses and stress, intelligent reading and complete confidence.

The news reader is the real messenger of any news organisation. The message should be transmitted in an effective and pleasant manner. Both the message and its communication should be faultless. Often a radio station is identified through the style of its news reading.

3. SELF ASSESSMENT QUESTIONS

- Q.1 Explain basic principles of radio news writing and the objectives in view?

Points to note.

1. There must be some policy of the broadcasting organisation. If it is a national organisation, the government must have laid certain policy. If it is private, the management would have laid down certain principles.
2. There are basic points to be kept under consideration while news drafting, i.e. accuracy, brevity, simplicity, clarity, sincerity, impartiality, fairness, sobriety and balance.

- Q.2 Evaluate different types of news bulletins broadcast by Radio Pakistan and their system of production.

Points to note;

1. Radio Pakistan produces national news bulletins in Urdu and English. In addition regional and local news bulletins are prepared for specific areas. News bulletins are also produced for overseas audience, Pakistanis and foreigners both.
2. Co-ordination of different news units of Radio Pakistan and use of news agencies in the process of compilations of the newscast.
3. Certain news writing guidelines are to be followed in the process of news production.

- Q.3 Describe the problems and pressures faced during the preparation and production of news.

Points to note.

1. Problems relating to choice of language - what is the language of broadcasting, choice of suitable words and sentences.
2. To safeguard the interest of the organisation and the audience simultaneously.
3. Suitable voice selection for reading the bulletin.

4. Suggested Readings

1. John Herbert,
(1976) The Techniques of Radio Journalism,
Adam and Charles Black,
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5. Idrees Siddiqui,
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UNIT NO. 5

CURRENT AFFAIRS PROGRAMMES

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Reviewed by : Shafi-ur-Rehman

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1. Objectives

After studying this unit, you should be able to :-

1. Describe the difference between the current affairs and other radio programmes.
2. Distinguish various types of current affairs programmes.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Current affairs programmes: introduction and significance.

Current affairs programme is in fact news programme which gives some details about one or more particular news items. In this type there are many formats, as in other radio programmes. As news is a dry subject, its format should keep on changing in order to maintain listener's interest. Current affairs programmes have different subjects than other programmes. These are the news programmes to explain and provide details and also to comment over a particular event. Such programmes are broadcast to explain significance, the consequences and the effect of one or more news on people.

There is an explosion of information, every single minute and an hour there is a new information to communicate. In the third world where democratic traditions and institutions are not as deep-rooted as in the South, there is a growing need to bring transparency. Needless to say that transparency lays bare all secrets. While communicating on electronic media, objectivity should be hallmark of current affairs.

In our news bulletins there is much room for improvement, especially in Radio News bulletins. To give more credibility to our news bulletins, correspondent's voice or eye-witness account be incorporated.

In the third world where literacy rate is abysmally low, the importance of current affairs is not only to inform but educate as well. With the news item, a social & cultural background is needed to bring home the desired information. In a country like Pakistan where cultural pluralism like most of the countries, is not homogeneous, broadcast of current affairs assume relative importance. Ethnic feelings, political polarization, and religious intolerance are some of the plague spots. There are growing fears that ethnicity under certain circumstances has a propensity to become 'totalizing' displacing other loyalties and obligations to become the sole basis of identity. Then the likelihood of ethnic conflict increases, because people's identities and alliances take on a single, rather than a multiple focus, leading to a polarization of social division.

2.2 Types of current affairs programmes.

Current affairs programme are of two types, studio programme and field productions. Detail is as under :-

STUDIO PROGRAMMES

These are the programmes prepared in the studios. According to the need of current affairs programmes we can prepare the following formats.

a) **TALKS:** It is a format of current affairs as well as other radio programmes. This format presents informations on particular subject of common interest and utility with the personal experiences of the talker. Talks on radio are classified in different categories depending on the nature of the subject such as : Short/pep talks, religious talks, anniversaries/festivals talks, talks related to any current event (General Talks).

b) **DISCUSSION:** This is the format of each type of programmes in which more than two participants take part to discuss about some subject. Participants disseminate some information about some topic having more than one point of view of sharp contrast or opposing nature. It presents varying opinions on a specific subject and scope. Discussion programme may be of three types:- Panel discussion, forum discussion, and audience participated discussion.

c) **DOCUMENTARY:** French word documentary means a "Travel picture". This word has been taken in by radio from films and deals with sound pictures supported with oral evidence on the subjects it is dealing with. Thus in documentary sound is used to tell the story, the sound of the human voice, the sound of human activity and the sound of music. It contains the real words of real persons and the sound of the events.

d) **INTERVIEWS:** A radio interview is a story developed through questions and answers to find out the truth about an event, issue subject/topic or personality. Interviews are usually recorded before being broadcast, but some interviews are broadcast live. Three participants are required for interview, the interviewer, interviewee and the listeners.

e) **INTEGRATED NEWS BROADCAST:** These are the news bulletins prepared in the news section for broadcast. In such news bulletins reports of the reporters on the spot are integrated. These reports are used as a source for cross-checking the news coming from the various news agencies. These reports also help to present the objectivity of the broadcasting organisation concerned.

f) **NEWS REEL:** News reel, actually is a combination of outdoor broadcast (OB's) and studio recording and comprises some important news of the week or days. It presents depth of the news in focus. Background can be obtained from printed or media sources or the persons involved. It is preferable to include interviews or impressions.

g) **CURRENT AFFAIRS MAGAZINE:** It is a package programme depending upon many formats. In this type of programme informations about different events, personalities or development programmes are given.

h) **RADIO NEWS CONFERENCE:** It is just like an ordinary press conference taken place by a personality and published in the newspapers. Radio news conference may be about the performance of any institution, any event or any political, social, economical or literary subject.

i) **NEWS COMMENTARY:** This is a detailed information about one particular item (news) of general interest. Personal view point of writer is also included.

FIELD PRODUCTIONS:

Field productions are called outside broadcasts, (OB's). It is a broadcast different from studio. It means broadcast of an event originating

from a point remote from the studio booths. These broadcasts are arranged at the time of some important event. It could be done with simple reporting as news but it never attracts the listeners because the situation and atmosphere is not presented in reporting. These are microphones that record all these and carries to the listeners. OB's may be as under :-

- a) **RUNNING COMMENTARIES:** These are the field productions or OB's depending upon the eye witness accounts, both live or recorded. Such as sports coverages.
- b) **RADIO REPORTS:** It is a report about any event which could be highlighted by giving it different aspects. It may be about social or development sectors. It emphasises event itself and the impact that we expect on the environment or social life.
- c) **ACTUALITY INSERTS:** These are based on the recording of events functions and impressions of the people involved in the certain events.

3. SELF ASSESSMENT QUESTIONS

Q.1 Differentiate news and current affairs programme.

Points to note.

1. Current affairs programme are meant for elaborating the news. It gives detail about any event or explains the situation of those events which could not be included in the news due to shortage of time or space.

Q.2 Evaluate studio and field productions (OB's programme). Give examples.

Points to note;

1. Studio programmes are recorded in studios while outside productions are recorded or live broadcast away from the studios.

Q.3 Elaborate some current affairs programme with definition and scope of applications.

Points to note.

Current affairs programmes are Intergrated news broadcasts, News, commentary, Current affair magazine, Talks, Interviews, Documentary, Discussions, Radio News Conference, News reel, Running Commentaries and Radio Reports.

4. Suggested Readings

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2. Howard Grogh The Radio Programme
3. Paul De Macseneer,
(1982) Here is the News,
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4. Max Wylie Radio and Television Writing
5. Mahmood Hussain,
(1996) Radio Journalism,
National Book Foundation,
Islamabad.
6. John Herbert,
(1990) The Techniques of Radio journalism,
Adam and Charles Black,
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UNIT NO. 6

ENTERTAINMENT AND GENERAL PROGRAMMES

Written by : Abid Khawaja
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1. Objectives

After studying this unit, you should be able to :-

1. Differentiate and state radio broadcasts in terms of general and special audience programmes.
2. Compare and state various types of radio programmes.
3. Explain the formats of radio dramas, documentary and music programmes.
4. State the importance and effects of special audience programmes like children, women and religious programmes.
5. Describe the nature of special programmes on special days, anniversaries, festivals and publicity campaigns.

Besides, general programmes through - out the world also caters specific needs of different target audience groups or sub-groups of the society. These sub groups may comprise rural listeners, farmers, women, children, youth, elderly people, labourers, armed forces personnel, sick people and students etc.

Radio being the hot mass medium of the era involves and stimulates, creative innovation and change which are essential for over all global development. Therefore, if it has to serve as a mass medium in its true sense, it must accommodate various versatile needs of the society. This has led radio to produce and present special and specific programmes for special listeners/ audience which are termed as special audience programmes. However, the aims and objectives of these programmes are to attract, involve and entertain as big an audience as possible. The terms general and special audience both refer to the target population for which relevant sound material imaginatively designed into a radio programme of adequate format is broadcast. Again the term format refers to the production technique, shape and style of a programme.

The most common programme formats are:

- Talk

- Interview

- Feature

- Documentary

2. SUMMARY OF THE MAJOR TOPICS

2.1 Introduction to the general entertainment and special audience programmes.

Radio broadcasting ever since its birth has kept growing in terms of its programmes, policies and target areas in order to meet the requirements of its listeners and ever changing demands of the time. The broad roles of this medium remained,

- To inform,

- To entertain,

- To educate.

To clarify Radio Programmes there are basically two types of programmes.

- General programmes

- Special audience programmes.

The general programmes, as suggested by the title itself are related to heterogeneous, wide spread population of the listeners and are addressed to all the listeners.

Drama

Discussion

Radio Report

Eye witness account (commentary)

Quiz

Music programmes and

News

All the formats of general and special audience programmes are equally effective provided those are target listeners oriented and produced with high professional skill and quality.

Regarding programme classification, you may again refer to Television Broadcasting Unit No.15 (Entertainment and General Programmes).

Radio unlike television with the revolutionary invent of transistor is portable everywhere in houses, automobiles, shops, agricultural farms, factories and classrooms etc. It enables to overcome geographical barriers long distances and lack of roads. The message put over for broadcast is immediately received making it topical, up-to-date and eliciting immediate response. Therefore radio remains a major source of information, education and entertainment all over the world, irrespective of developed and developing countries.

In a country like Pakistan, where developed means of communication are not wide spread, radio with its widest outreach has a potential to serve the entire population (urban, rural, general and special groups of population) even in the remote areas at a very little cost. For many people it is the only source of entertainment. So the young are attracted, the tired relaxed, and those who are in remote places offered compensation. Within the sphere of general and special audience programme, radio replaces hundreds of extension workers who may be required to carry out developmental activities in the target area. It provides services to social and civic life, create an awareness on various social issues and bring behavioural change of the listeners for development. Usually small issues are discussed with solution oriented approach. Following are the major features of radio broadcasting with regards to both general and special audience programmes.

- 1) Radio overcomes, illiteracy by direct communication with the audience in simple spoken language.
- 2) Radio being an intimate medium - one to one communication - provides a voice, which is more personal, might be a source of personal pleasure to the individual.
- 3) Radio is available everywhere in the field, in the helicopter and down the mine. It goes direct to the point of reception.

- 4) On radio, listening is not an exclusive activity. At the same time the listener may be planting, working in a factory, lying in sickness, engaged in weaving and housekeeping etc.
- 5) Time is more abundant on radio as compared to that of television. It can be freely utilized for different audience.
- 6) Radio is locally oriented and real source of entertainment within a geographical community of a specific demography. It serves the community by dealing with its every day problems like transport, Job, education, health and liesure etc. Radio is like a companion to widespread individuals, the lonely listeners.

The approach of general programmes is simple and straight forward with strong elements of listener's interest to attract. The contents of the programme are generalized but at times aiming at imparting useful information to the listener or bringing a required change in behaviour of the target audience.

All radio programmes are divided into either "spoken word" or "music". Each of the two categories are presented in several formats. The term "spoken word" includes all programmes except music comprising talk, interview, discussion, news commentary, quiz, narrative feature, radio report, eyewitness account and even drama/ skits / dramatic feature. Obviously spoken word is the basic material and general tool of communications. Major broad objectives of the programmes are :-

- 1) Entertainment.
- 2) Motivational and persuasive programmes for development.
- 3) Indirect Education.
- 4) Publicity.

Because of the absence of visual element, it is all the more necessary that radio voice should be polite, attractive, and familiar in style. The contents should be skillfully presented in such a way that interest of the listeners is not lost.

The voice should be released with clear articulation and a good resonance, with an unrestricted flow of sound to give a rich and musical texture.

It is very important for a programme planner to know his target audience. He is required to study the listeners profile and general characteristics of socio-economic, cultural and moral values, traditions, believes and superstitions in details. "Think like a wise man, but talk in the language of people". (Aristotle).

2.2 Classifications of programmes.

Radio programmes can be classified on the basis of various criteria. However, the broad classification of programmes is made on the following basis :-

1) Aims of programme

Under this approach programmes are classified in accordance with the overall aims conceived by the planner. This classification comprises entertainment programme, information programmes, educative programmes or social purpose programmes.

2) Audiences of the programmes

Radio programmes can also be classified into various kinds in terms of the target audience they address. Example include : Children programmes, women programmes, Youth programmes, Students programmes and programmes for senior citizens and rural listeners etc. At broadcasting stations sometimes different programmes are assigned to different producers, who conduct researches, make plans and carry out productions for particular clienteles.

3) Formats of the programmes

A common and established classification of radio programmes is to categorize them in terms of various formats such as drama, talks and discussions etc.

Since radio programme formats are well familiar to both the programme makers and the audience, hence names of formats are announced as such. Sometime at a radio station separate programme sections are established and production staff is assigned there e.g. Drama Section, Talk Section, Music Section etc.

The programmes are planned, produced and presented with efforts to create a novelty in style.

Experimentation in planning production and presentation of programmes is conventional in radio broadcast and is known as the soul of broadcasting. The programmes are pre-viewed by the broadcasters before putting them on air and are evaluated on the basis of contents, mode of presentation, skill, style and experimentation in production. The feedback received from the listeners is also taken into account and the next programme is tailored keeping in view the healthy criticism of the professionals and the listeners. It is a continuous process and practice of the programmes to make their programmes more effective.

They believe that "Nothing kills broadcasting more than routine".

The above three types of programme classifications are often referred to the literature and broadcast practice. In real practice, however, all these types of programmes are often studied in a natural sequence according to the demands of target area.

Study a day's programme schedule of radio Pakistan. The cue sheet will name various programmes irrespective of a particular classification. You will see titles such as "Drama", "Women programme", a "talk" and "educational hour" in one series.

This type of scheduling may be in accordance with the listening habits of the people of the area or due to the availability of certain listeners group in those particular hours of scheduling.

As regards your studies in this unit you are required to further study the characteristics and effects of the following familiar kinds of programmes :-

- i) Talks
- i) Interviews
- ii) Discussions
- iv) Drama
- v) Documentaries
- vi) Music
- vii) commercial programmes
- viii) Special audience programmes including programmes for children, women, students, youth, farmers and listeners of rural areas.

2.3 Radio Talk

Radio talk is written in simple day-to-day spoken language. Talks are often planned in series but there could be some stray talks according to the need of time or emergency. Radio talk is neither a lecture nor oratory. It must be about one particular subject emphasising the core of message. It should be short and concised. It is delivered with personal touch in first person, on one to one basis.

2.4 Interview

It is most important and widely used format of radio broadcasts, as people like listening to the people talking with each other. It has an element of curiosity to know about personalities, facts, events and happenings. Interview by its contents is a process of digging out information and facts about the subject concerned and is known as a format of multiple dimensions.

2.5 Discussion

Disussion being an interactive form of oral communication is a suitable format for radio. To exchange our thoughts with fellow human beings, discussion is the most ancient the most effective natural and spontaneous vehicle. Like talks and interviews radio discussion is also an "indigenous" format of the sound medium.

Discussion is suitable where the issue is of multifaced and somewhat controversial in nature. Different participants present different points of views with the purpose of giving information to the listeners. If the listeners queries are taken care of, they feel a sense of participation in the programme. This help bridge the gap between the programme makers and the listeners.

Ideally there are three to four participants in a radio discussion who should exchange the ideas and argue in an understandable way. If there are so many people it becomes difficult for the listeners to distinguish among the voices. The participants should represent different experiences, to keep the atmosphere of the discussion alive. The moderator is the leader or rather coordinator of the discussion. His job is to introduce the topic and the participants, steer the discussion, help the participants to express their opinions, wind up the discussion and if possible make conclusions. As a structure we have four types of discussions :-

- 1) Panel discussion
- 2) Forum discussion
- 3) Audience participation discussion
- 4) Symposium

Discussion can be broadly classified into two types :-

- 1) Positive discussion: In this type the issues discussed are negated by no one.
- 2) Controversial discussion : This includes issues with lot of contradictions.

2.6 Radio Drama

Radio drama is an adapted form of stage drama. The main difference between the stage and radio drama is that audiences of stage drama can see the performance of actors with full attention while radio drama is presented through sound alone.

It is the listener who develops the entire scenario in his imagination while listening to the dialogues from the radio set. This makes radio drama virtually a theatre of mind. While the actors in stage drama are grouped in a building, radio drama is presented to a mass audience who are scattered and alone at homes. Voices at stage are unnaturally loud while on radio these are as normal as in ordinary life.

Glamour of television drama has affected the popularity of radio drama. However radio drama has some advantages over television drama which requires huge settings, costumes and finances. On radio big moves and changes in terms of place and time can easily be interpreted through the sounds. Radio writers as compared to television writers can create as many scenes involving different places as they derive. They can even move from earth to the space only with the help of dialogues or a sound effect. In this sense radio drama is not much expensive to present.

Nevertheless the very simplicity of radio drama requires more imaginative and innovative writing and production techniques to produce a good radio drama. The only available tools are sounds and the skill to study different sounds (dialogues and effects) creating the required effect interpreting a particular dramatic situation and atmosphere.

Radio drama like television drama can further be classified as serial, series and single plays but even in a serial, an episode is ought to be a complete play in respects of its rising actions, twists, climax and anticlimax etc. A strong story line, development of the plot into natural scenes, characterisation, dialogues and sound effect and music are the main ingredients of a drama.

Dramas are used for various motives including entertainment, education, and social purpose like community development.

In the third world broadcasts including Pakistan, radio drama is often used as a part of publicity and propaganda campaigns. Stories on such themes may have weak plots and predictable conclusions.

2.7 Radio Documentary

The term documentary is derived from French word "Documentative" which means a "travel picture". Documentary is defined as a programme which reproduces or interprets real life situations. Consider the "document" part within the title of this format which implies the presentation of facts and actuality reporting (the documents). Documentary is basically a programme which presents various aspects of topic, fact or subject objectively.

Because of narration of facts this format is also considered a "real radio". Documentary is a creative form in which a given subject is treated using the techniques of sound medium including voices of actual people, giving their experiences, real events and sounds of locations.

Documentaries are broadcast for general audiences covering a wide range of subjects that need investigation and have wide appeal. These can be informative and educative. Documentaries can comment on social conditions, present different opinions of people and factual account.

Another version of documentary is the latest production trend of "Documentary drama" which includes recreation of certain parts of the documentary in the studies using dramatic techniques. This is referred to as the fiction part of the documentary. Nevertheless this portion is only to help representing the facts. The contents of the information used through the "drama portion" is not "fiction" itself.

Your studies on documentary should include the production techniques and their impact and also the purposes where documentaries are useful. The broad range subjects of documentaries are:

- i) Information, news and current affairs.
- ii) Investigative topics such as political and social issues, historical events. Here the documentary attempts to answer the journalistic queries of "who, what, when, how, why and where".
- iii) Personalities
- iv) ideas

2.8 Music

Music is a personal hobby, a performing art and an enjoyable recreation.

Music is holding an important place in the general broadcasting since the early days. Music fills a large part of all radio channels (except news channels.) Consequently music has taken the role of chief source of entertainment on radio. Importance of music can be viewed from the fact that radio is not considered complete without music and it is almost half side of radio. Entire production activities are seen in terms of either "spoken word" programmes or "music".

If "spoken words" are vehicle to express thoughts, the music conveys feelings and light sentiments. Besides solo music or instrumental music, the combination of music and poetry is rather more popular. In fact the term "music" in daily usage means poetic rendering sung in harmony with the musical instruments.

It is said that the future of radio is associated with two things - current affairs and music. The broadcast stations keep pace and remain accommodative and flexible to promote new trends in music.

To watch the programmes with the mood of the listeners is an important motive of the broadcast planners. No doubt one of the most important functions of contemporary music is to reflect the mood and aspiration of the people of the time. The most successful music is the one that performs its job well.

Disc-Jockey programme.

Disc-jockeying (D.J.) programmes, popular all over the world, have a unique style of presenting music along with the chit chat in a fast mood. A large audience mostly the youth find attraction in Disc-Jockey programmes. The Disc-Jockey style of western programmes have been adopted by Radio Pakistan in various "hourly chunks" putting together folk, light, pop and film music with small talking referred to as compering.

You should continue to study the important aspects of musical programmes in terms of their popularity, basic features and effects on society.

2.9 Children programmes

- Children programmes are planned and presented in accordance with the specific needs and mood of children as a special audience.
- Programmes comprise such items that have special interest for children including stories, skits, introduction of children, specially composed musical items, talks and chit-chat.
- Examples of children programmes from Radio Pakistan include: weekly composite children programme from all stations in Urdu as well as in regional languages, bed time stories. "Aye Quran Parhein" is also presented for children.

- You should distinguish between programme exclusively meant for children of 5 to 12 years of age, pre-school children and curriculum based educational programmes.
- Special surveys, researches, production techniques, feed-back and evaluation are all necessary tools for the effectiveness of the programmes.

2.10 Womens' Programmes

- Womens' programmes are special audience programmes.
- It is almost an international trend to allot specific time for women listeners from all the broadcasting stations.

In third world countries including Pakistan, programmes for women have special motives which include: to rouse awareness about their rights and responsibilities, improve the economic productivity of women folk, provide them entertainment through items of interest in their own every day spoken languages and styles and to give educative messages.

- Programmes are presented in friendly and sympathetic manner by the women compers to create a sense of belonging among the women community.
- Items of womens' programmes include : news and its background explanation, music of women's choice, interviews of working and prominent personalities, cookery, household, health, beauty and nutrition, dress and fashion, business enterprises and community development.
- Radio Pakistan has alloted exclusive time for the women listeners. Example include : weekly womens programmes from all stations in Urdu and regional languages.
- Your studies should concentrate on the scope, reach and impact of womens' programmes.

2.11 Religious programmes

See Television broadcasting Unit - 15 of this study guide.

2.12 Rural programmes

Rural areas in third world countries are usually back watershed of civilization. In Pakistan, rural population is the back bone of our national economy, as it is responsible to promote the most important culture of the country - the Agriculture. Our socio economic conditions are closely related to the rural community, the most productive population of the country, in terms of food, other agricultural products and raw material. Radio Pakistan from its very inception has

been paying close attention to this developing sector. Rural programmes, the most popular programmes of every regional radio station of the country, have contributed a lot to the uplift of rural community in general and farmers in particular. Rural programmes, which have been established as most powerful cultural programmes, have achieved tremendous success through their valuable broadcasts, designed to depict the pace of development in every field of life. According to a report of FAO, mechanized agriculture in Pakistan, was only possible due to radio broadcast which have contributed to the face lifting of socio economic conditions of the rural areas. As a format rural programmes are being put over in the form of magazine programme/ composite programmes presented by two popular stock characters, representing rural life, in regional languages. The atmosphere of the programmes is entirely traditional and folk and its contents include almost all the formats. Rural programmes, aiming at over all rural development and to keep the listeners abreast with the developmental projects of the government, known as entertainment programmes are in fact motivational programmes. These programmes can be termed as campaign programmes involving the listeners indirectly to participate fully in development campaign.

3. Self Assessment Questions

- Q1. Distinguish and explain the two broad categories of radio programmes namely general audience entertainment programme and special audience programmes.
- Q2. Describe the salient features of radio broadcasting which are common to the general as well as special audiences.
- Q3. Explain how radio programmes are classified. Give examples.
- Q4. How would you compare radio talk with a lecture in terms of writing and delivery?
- Q5. Write a short radio talk of two minutes on why are you studying "Electronic Media". Use simple spoken language, short sentences and personal touches.
- Q6. Write salient features of radio discussion?
- Q7. Radio drama is "the theater of mind". Explain.
- Q8. Explain how radio documentary differs from other spoken word programmes like talks and discussions. How radio documentaries can be used for general audiences?
- Q9. Future of radio is associated with news and current affairs and music. State why? Explain the music programmes on radio.
- Q10. State the important characteristics of radio children programmes.
- Q11. Why separate programmes for women are needed from radio? what should be the contents of womens programmes?
- Q12. How radio can promote religious ideologies in a society? Give examples from Radio Pakistan.

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EDUCATIONAL RADIO

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1. **Objectives**

After studying this unit, you should be able to :-

- i. Explain the evolution of educational radio.
- ii. Describe the role of radio for education in a given situation.
- iii. Analyse the educational impact of radio.
- iv. Explain the rationale behind categorizing the radio programmes in more than one way.
- v. Describe and compare radio programmes in terms of programme formats.
- vi. Review different approaches of making educational use of radio.
- vii. State AIOU experience of educational broadcasting.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Introduction and evolution.

Educational broadcasting usually comprise a series of programmes on a subject, like the sequence and chapters of written material of a book, so designed to assist the educational process. Radio programmes falling under educational broadcasting are normally planned in conjunction with the prescribed syllabus.

In global perspective, use of radio for educational purposes has its own history. The broadcast medium has been used both for curriculum based and general educative purposes.

"School Broadcast" was already established before the Second World War. United States, Australia and United Kingdom has successfully woven the radio programmes into the normal school time tables. During and immediately after the Second World War a shortage of teachers was felt in Japan. At that time radio helped to compensate the lack of teaching personnel in various disciplines. Later, radio was given new roles.

In general educative role, radio has been extensively used to teach languages, civic sense, social values, music, hobbies and life long educational requirements.

In the third world countries like Pakistan with a high rate of population growth, lower GNP and per capita income non developed communication and wide spread illiteracy, it is difficult to allocate required resources to educational sector. Hence the nonformal educational approaches with modern means of communication, including radio should be used for the spread of education.

In Pakistan during 60's and early 70's radio has been used to re-inforce the formal schools curriculum under "School Broadcasts". This category of programmes is now no longer broadcast from radio Pakistan. However radio is used in other educative areas like religion, agriculture and community development.

Radio is effectively used in India, Korea, Thailand and other Asian countries for disseminating knowledge.

In U.K the Open University was originally named "University of Air". In Japan it still exists as "University of the Air" indicating clearly the major role of broadcasting in the non-formal education.

Radio is especially effective in rural areas. Among the salient characteristics of radio the immediacy, cost effectiveness and wide range are prominent. It does not require electrification. Radio gives current and up-to-date knowledge. Radio can cross the barriers of illiteracy.

It is important for you to study the limitations of radio as well. Radio depends on a single sense: hearing. It cannot show the things and happenings. It is good for oral communication only. Also it is a "one-chance" medium. Serious, sophisticated, scientific, technical and detailed information cannot be given through radio.

2.2 Role and Impact of Educational Radio

The oral communication has successfully transferred knowledge and culture in the past. Supported by new technologies radio is more capable now to cater the educational needs of the people. It has the potential to create awareness and carry out teaching.

Radio belongs to the family of mass media. It very interestingly performs two functions simultaneously, which are of diverse nature. As a mass medium it can reach to the wide spread masses. At the same time it can communicate to the individual listeners in their private homes on one-to-one basis.

The role of educational radio is not fixed and permanent. Its exact utility depends on the aims and objectives to use radio backed by the will and seriousness of the planners. Role of radio may range from giving simple information to more systematic use like school broadcasting and directly or partially teaching in a non-formal distance learning environment.

Role of radio could be enormous but still limited due to the inherited weaknesses of the medium. Radio is one way of communication. It is also non-pictorial. Broadcast timings may not suit some people. Radio listening requires concentration which needs practice.

2.3 Kinds of Educational Programmes

The different kinds of radio programmes can be studied in more than one way. One rationale to categorize the educational radio is based on its direct or indirect teachings methods.

In the former instance of direct teaching you may quote the example of Radio Pakistan's farm-forum agricultural programmes targeted to farmers where radio is teaching directly without any other source. Teaching of Quranic Language is another example where Tajweed and Qirat is taught directly through radio.

In support of the latter category of indirect teaching you may quote "school broadcasting" in support of formal educational system and AIOU radio programmes of a non-formal system. Both intend to re-inforce and supplement text books and face-to-face learning.

The different kinds of educational radio programmes can also be studied in terms of programme formats. Programme format refers to the production techniques and styles of a particular programme. Drama, talks, documentaries, interviews and audience participated programmes are all different formats of radio programmes. Each format should be studied in terms of its unique characteristics, presentation of contents and impact. Following is a brief detail of each format:-

i) **Radio Talk** : It is the most commonly used format of radio broadcasting where information is delivered in a simple manner.

Educational radio talks, in a way serve as a substitute of classroom lecture. However according to broadcast theory a radio talk is neither a lecture nor any sort of oratory. It is a conversational type of communication on one-to-one basis. It is a 'talk'. The talker should use 'I' and 'you' with personal warmth. Talk is not another

name of reading the text book pages. The talk should be exclusively written for radio in simple sentences with simple ideas. It should be interesting.

Almost always the talks are planned in series each talk having its own subtitle. The contents of the main subject or series is divided into logical sequence to form the series. The individual talks are then broadcast on fixed days of the week so that listening habits can be developed among the target audience.

ii) Radio Interview: Radio interview is closer to two-way communication. There are two sides of an interview i.e. the interviewee and the interviewer. In educational context the interviewee represents the teacher (source of information) while the interviewer represents the pupils (recipient).

Interview is an easy and quick way to impart information in a natural atmosphere. Interview is a good medium for subject specialists and working practitioners, as well as common people who can give valuable information but are either busy or cannot write scripts.

iii) Panel Discussion: Exchange of ideas through conversation is an ancient practice in teaching and learning situations. Panel discussion is a radio programme format in which four to five people talk on some given topic. An impartial chairperson guides and directs the discussion.

Students are often exposed to more than one versions or point of views, sometimes controversial and opposite in nature. Subjects like social issues, literary criticism and development strategies usually have more than one explanations. Hence these subjects are especially suitable for discussion programmes.

Discussion demands that each participant should present his/her point of view, experience and arguments. The intention is to enlighten the audience. The conclusion at the end may be drawn by the moderator or left for the audience as a follow up activity.

iv) Radio Drama: Because of the sound medium radio drama is said to be "theatre of mind". Scenery is conceived in the imagination of listeners. In this way the audience become involved in the programme.

Drama communicates to the listeners in two ways: through information and through empathy.

As regards information it is given through characters and story. The stories of educational dramas are factual and realistic. Too much fiction is not desired.

As for empathy, this is a technique where the drama makes the listeners feel if they are living through the same experience as that of the characters of the story. 'Empathy' is to feel the experiences of others. Hence educational drama helps the audience to share information and feelings with the people and situations about whom they are studying.

Short dramatic sequences can also be used in other programmes like "radio magazine" and "features".

v) Magazine Programme: Magazine programme is a format in which a number of short items on some related topic are linked together through narration or other devices like music or pauses.

The variety of items or magazine programme, presented in a lighter mood make the programme entertaining and interesting. However in this format there is no time to go into the depths or details of the subject.

Purpose of educational radio magazine is to give information in entertainment-oriented style. Items comprise short talks, interviews, music, letters, quiz, news and views and announcements.

Examples of educational magazine programmes on Radio Pakistan include college and university magazine and rural broadcasts.

vi) Radio Feature: Radio feature is a typical radio broadcast format. It is taken as a serious and sober informative programme. Feature usually restricts itself to one theme. The educational message is given through a variety of voices, in the form of pep talks, interviews and narration. Voices and sounds from the actual locations can also be combined in the programme. Usually there is a combination of male and female voices in a feature. In addition to narrators, actual people and actors can also be added.

2.4 Different Approaches of Using Radio for Education

"Approach" of using radio for education should mean how radio can be "used" for educational purposes. The study should include various aspects and possibilities of educational radio including: the role of radio, its contribution towards learning, whether used as a total source of teaching or interlinked with other sources like text or class room. If interlinked with other sources whether to complement or supplement them? What are the objectives to use radio and with what expectations and evaluation system? whether the text, being taught through broadcasts, will be reproduced in the examinations or it is just an additional information.

As regards radio in support of formal school system it is important to note that coordination of two separate departments is required here. You should study how to integrate education departments with the broadcasting institutions of the country. What innovative methods are still there to be tried out?

Following are some of the approaches to use radio for education:

i) School Broadcasts: School broadcast is the earliest systematic approach where radio was combined in the classroom teaching environment at school level. The broadcast stations co-ordinated with educational authorities in developing contents of school broadcasts according to the established curriculum. Programme transmission schedules were drawn keeping the school time-tables in view. Listening rooms were arranged in schools. Teachers had the synopsis and time-tables of radio programmes before them. Broadcast notes are available. Pre and post broadcast activities can be arranged. Feedback and evaluation is conducted.

ii) General Educative Programmes: Radio is widely listened every where all over the world. In most of the countries broadcasting is a public service, administered by the government. Besides entertainment and news, most of the radio stations have also assumed the responsibility of providing certain types of education to the masses. Hence radio stations continue to broadcast general educative programmes comprising topics such as ethics, social and economic development community work, health and religion. Since these broadcasts are not linked with any fixed and formal curriculum they fall in the category of "educative broadcasts".

iii) **Radio-Vision:** Radio-vision technique has actually been used by the BBC in United Kingdom in support of school education. Still pictures on slides for classroom projection were supplied to the schools in advance. On fixed timings radio programmes were broadcast in order to explain and complement the pictures.

Besides this experiment radio-vision can be used in other ways. Pictorial books can be used in place of projection. Teachers can also record the broadcasts for future use.

The radio-vision technique has the advantage of cost effectiveness as compared to television.

In Pakistan some techniques similar to radio vision are being used on Radio Pakistan and Pakistan Television where the written text from the Quran is narrated to teach Qirat and language pronunciation and recitation.

iv) Radio as a Teaching Source in Distance Learning:

This approach has been tried out in various countries including UK, US, Canada, Japan, India, Thailand and Pakistan.

In distance learning system radio is taken as one of the teaching sources in the multi-media teaching system. Certain roles are assigned to radio. In UK Open University radio is assigned the following tasks:

- i) To provide remedial tutorials.
- ii) To provide corrections or updating of materials where print cannot reach quickly.
- iii) To provide primary source materials i.e. recordings of people and events in real sounds.
- iv) To arrange lectures by eminent scholars.
- v) To teach drama, dialogues and music.
- vi) To influence students' attitude.
- vii) To introduce new concepts.

With some variations similar or above tasks are assigned to the AIOU radio broadcasts in Pakistan.

v) **Direct Teaching:** Through the direct teaching approach radio takes over the place of teacher. This approach is particularly appropriate to have access the remote areas where schools do not exist.

vi) **supplementary and complementary approaches :** In supplementary approach radio brings the latest information to classroom or home listeners in order to enrich the subject areas. The broadcast is supplementary (additional) to the text books.

In complementary approach, radio is rather more tightly linked with the teaching process. The broadcasts should be listened by the pupils in order to "complete" the learning process.

2.5 AIOU Experience

Allama Iqbal Open University, through its flexible teaching and open learning systems has made the concept of life-long education feasible: The university is open, particularly for those who must continue earning their livelihood while at study. University operates in various areas including general education (intermediate, degree etc), teachers education and functional education (skills and income generating activities). Teaching is carried out through multi-media channels such as correspondence (books), tutorial sessions and radio and television broadcasts and non broadcast media material.

In general the basic and core learning material comprises books while the media reinforce and give audio and visual representation of the principles written in the text. However in certain cases where the clientele is not literate, the media itself become the basic learning source. One example is the Basic Functional Courses of AIOU intended for illiterate rural masses.

All media materials are produced in the Institute of Educational Technology at AIOU campus, which is equipped with radio and television studios. There is a close collaboration between the University and Radio Pakistan and Pakistan Television.

The role and utility of media component in the teaching learning system of AIOU is not fixed and permanent. The University has adopted a balanced approach by benefiting the experience of other countries. In UK, for example, the Open University was originally named as "university of the Air" which meant that the main teaching thrust will be dealt with radio and television. The correspondence tuition (text books) and face-to-face tutorial classes will only reinforce the media teachings. But soon after the University was renamed as Open University giving a realistic importance to the text books and not to depend entirely on broadcasting.

To develop course materials, certain procedure is followed at AIOU. There is a 'course team' for every course, comprising academicians, subject specialists, unit writers, designers, editors and media producers. Various combinations of teaching methods and communication channels are suggested. Besides text books other media such as radio, audio cassettes, television and video cassettes are selected. Media support is not necessarily provided to all courses. Radio in particular is recommended for languages and explanation of phonetics, social sciences, teachers trainings and religion.

Radio and television broadcast schedule is sent to the students. Ideally radio programmes are synchronized with the study schedule to come after when the students have already studied the concerned unit. Tutorial meetings and radio broadcasts fall on different dates. So far, radio support has been provided to approximately one hundred courses. This also includes the non-broadcast of audio cassettes.

AIOU broadcasts are arranged in the form of series having direct links with the overall curriculum areas. There is no one single fixed approach and method to use radio for teaching purposes. The format and the styles range from talks, lectures, interviews, magazines, case-studies, documentaries and dramatized features.

In language-oriented courses like Arabic, Urdu, Persian, English and Sindhi radio is effective to teach phonetics aspects like correct pronunciation and accent, new words, recitation and poetry. In some cases radio listening is essential. For social sciences radio is used to reinforce the core text material.

For basic level functional courses targeted to illiterate people, audio recordings are the basic teaching stuff.

Allama Iqbal Open University has so far made use of more than two thousand radio programmes for various courses. Revision of this learning material is a continuous process. Radio is quicker to incorporate changes as compared to the text books. The weekly informative programme "Jamia Nama" helps the University teachers, media specialists admission and examination staff to establish links with the students. This linkage creates a sense of belonging among the wide spread isolated students.

Recordings of radio programmes are also provided to study centres of AIOU spread all over the country where participants can listen them.

3. Self Assessment Questions

Q.1 The evolution of educational radio is another name of experiences of using radio for different purposes with different approaches. Trace the historical development of educational radio?

Q.2 Role of radio for education is not fixed and permanent. Read various case-studies of different countries and list how radio is being used in various situations?

Q.3 Educational impact of radio can be analysed by conducting researches and sample surveys. In order to assess the impact of educational radio what kind of questions would you suggest to be included in the questionnaire?

Q.4 Radio programmes can be categorized in more than one ways. Describe the kinds of programmes in terms of radio format? What are the advantages of each format?

Q.5 Different experiments are done in educational radio such as school broadcast, farm forum programmes and Open University broadcasts. Describe various approaches of using radio and their utility?

Q.6 Differentiate between educational and educative programmes. Give examples.

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UNIT NO. 8

RADIO TECHNICAL ASPECTS

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1. Objectives

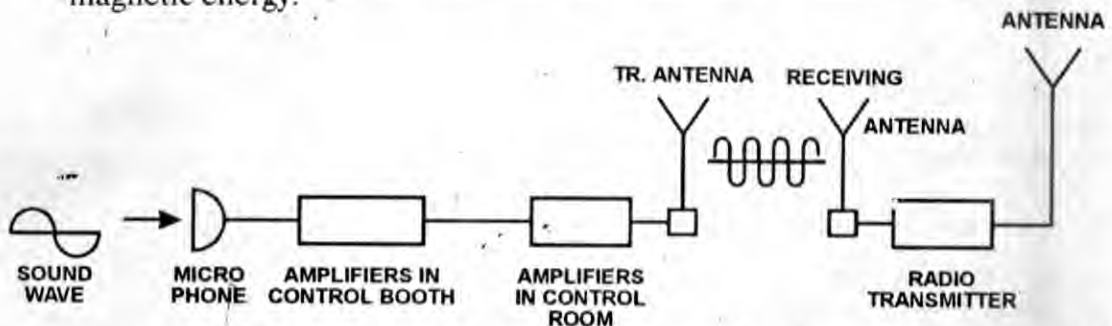
After studying this unit, you should be able to :-

1. Explain the technical aspects of radio.
2. Elaborate the various elements of the technical broadcast chain.
3. Evaluate utility of microphones, tape recorders as well as dubbing and editing of a programme.
4. Describe the function of a transmitter.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Radio Broadcasting System.

A broadcasting system is a chain of technically/ electronically coupled elements which is used to pick up an ordinary sound wave, convert it to an electrical wave (of some frequency say from 50 HZ to 10 KHz) without any change in its parameters. This sound wave is fed to a radio transmitter where its frequency is again raised by combining it to a third wave of a higher frequency called the radio frequency. This is the frequency which is allotted to a particular radio station. This is called the carrier frequency while the wave of the second frequency is called the audio wave. The audio and carrier waves are combined electronically through a process called Modulation. This important process takes place in a radio transmitter. Further this modulated wave is fed to an antenna which radiates this wave in the form of an electro magnetic energy.



This electromagnetic wave is intercepted by the receiving antenna of the radio receiver, amplified in steps and separated from the carrier wave. The audio power signal thus becomes enough to actuate a speaker which converts it into sound wave, which we hear sitting before the radio set.

The Radio Broadcast System belongs to the electronic media. Like print media, journals, newspapers etc., this medium also conveys information to the listeners. This medium stands high as compared to all the media as it reaches and communicates with all high, middle and low classes and also to every nook and corner of a country in addition to serving international targets abroad.

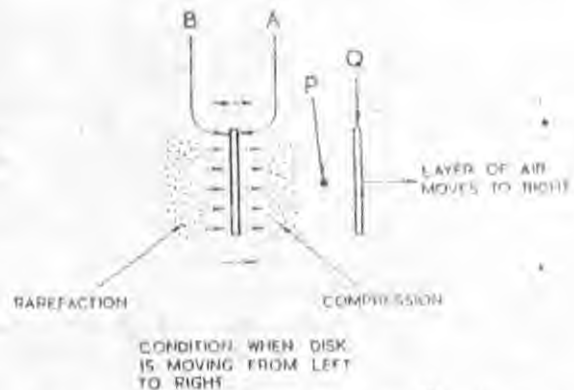
The radio medium conveys the latest information to the masses, entertains them, helps them in fighting against various diseases, helps them to understand methods of modern agriculture and education. It creates feelings of understanding between the people of various districts, divisions and finally between the various provinces. As to how this is done, all depends upon the hardwork, intelligence and sincerity of the Producers, Engineers and Newsmen working day and night in the broadcasting houses and the transmitting stations. The broadcasting houses are usually located in cities to make them easily accessible for artists and broadcasters. The transmitting stations are normally located outside the cities where big pieces of land are easily available for having a transmitting station alongwith its aerial system.

2.2 Microphones:

Before studying microphones, it will be appropriate to know the nature of the sound waves.

The Nature of Sound: Sound is caused by the vibration of any object at a frequency within the audible range of 20 c/s-20 Kc/s, although the limits of this range vary.

Fig.1 Illustrating Sound Waves



The vibrations of an object is transmitted to the surrounding air, and so to the ear of the listener, who from past experience associates various aural sensations with certain occurrences. Sound waves travel at a speed of about 1,100 ft. per second in air at normal temperature and pressure, and from the equation wavelength velocity/ frequency, we can determine the wavelength of a sound of any frequency.

Principles of Microphones:

Microphones are used to convert acoustical energy into electrical energy, and the main requirements may be summarised as follows:

1. Over the audible range the electrical output should be proportional to the acoustical input.
2. The electrical output should not contain harmonics, "overtones" or sum and different tones not present in the acoustical input.

Microphones may conveniently be classified thus:

- i. Principle of conversion of acoustical energy into electrical energy.
- ii The nominal directional characteristics obtains.

2.3 Recording formats :

The recording equipments and the reproducing equipments are associated with each other; the former records the programmes while the second reproduces them for listening etc. These equipments are very sophisticated and robust for professional use and are costly whereas the ordinary ones being not so much sophisticated, are cheap and are accessible for common man use.

The recording and re-production of sound or two different processes which work against each other i.e., one records the sound whereas the other reproduces it. The reproduction of sound is a replica of the recorded sound. Now a days most of the recorders and reproducers work on the principle of magnetic recording.

The magnetic recordings can be made on either a plastic and iron oxide tape or on a wire of small diameter. The wire recorder is now outdated. The tape is used practically in all modern magnetic recording equipments.

As there is no wear on the tape in the recording or play-back operations they can be used almost indefinitely. If the tape should break, the two ends can be joined by the use of a plastic splicing tape. The use of magnetic tape has added great flexibility to recording operations. If a mistake is made, a correction can be repeated. The section of the tape containing the error is removed and the corrected version is applied in its place.

Many unique effects can be accomplished before the recording is complete:

1. Two or more recordings can be superimposed on the same tape,
2. the range of certain audio sections can be increased or decreased with the help of filters and
3. echo and other effects can be added.

If the recording is no longer needed the sounds can be removed by erasing and the tape can be re-used.

Some of the other advantages of the magnetic recorder are (1) excellent fidelity can be obtained, (2) longer recording time (3) the practically compact record simplifies storage and handling, (4) it provides instantaneous playback without processing, (5) it has a minimum of background noise, (6) it is effected very little by external vibrations, and (7) it is completely portable.

A disadvantage of the magnetic recorder is that regular preventive maintenance must be performed. In order to prevent deterioration of the recording on the tape, all parts of the equipment touching the oxide-side of the tape - such as tape guides, capstan and roller, and head surfaces - should be cleaned regularly with grain alcohol. Also, during recording and/or play-back the head may become slightly magnetized. This small amount of magnetization may (1) add noise to the recording, (2) cause part of the signal to be erased, and (3) lower the signal-to-noise ratio. It is therefore of prime importance that the heads be demagnetized regularly, using a device designed for this purpose.

2.4 Control Room :

This is a room within a Broadcasting House. It is the technical central room in which such equipments are installed which can handle incoming sound signals, amplify those signals to a suitable value being sufficient to feed into a transmitter (studio to transmitter link - STL) for being transmitted to the main transmitter of that Broadcasting House.

It is also used to handle sound programmes coming from various studios viz; talks, dramas, features, documentaries, music etc., amplify them to a suitable level to drive the tape recorders in the recording room for the purpose of recording these programmes on tapes.

The control room also process the sound signals, for feeding the general programme monitoring within the various important points in the broadcasting house.

The equipments installed in the control room are generally, audio mixers, power amplifiers, monitoring amplifiers, emergency power supply systems and switching equipment for incoming and out-going programmes. Audio consols receive the incoming sound programmes and process output, for distribution network.

2.5 Dubbing

It is a technical term used for producing copy of a prerecorded item. It is infact a recording. Sometimes it is desired that a copy of a recorded item is required to be sent to other stations, in that case dubbing is carried out, the copy is sent to other stations and the master copy is retained.

2.6 Editing:

Editing means deleting something which is unwanted, objectionable, repetitions or any other flaw that has been recorded during the original recording. Editing can be carried-out in two ways. Electronically through the recording machines or through cut & splice method. Of these two methods electronic editing through recording machines is preferable. The edited recorded tape is the final flaw-less tape which is put on the air as and when required. An edited recording is infact a finished product, ready for broadcast.

2.7 Transmitter :

A transmitter is an important unit of the radio broadcast chain. It is this unit where the generation of the broadcast radio frequency takes place from a crystal controlled oscillator, audio signals are received from the broadcasting houses through telephonedlines STL and through a method called "Modulation", the two waves (audio signal and R.F Carrier) are combined to obtain an electromagnetic wave which from the output of the transmitter is coupled with antenna system. The new wave radiated from the antenna system reaches the antenna system of the radio receiver of the distant listener. The modulation in the transmitter takes place in different ways.

The salient methods of modulation are;

1. Amplitude modulation. (A.M)
2. Frequency modulation. (F.M)
3. Phase modulation. (P.M)

In the amplitude modulation, the amplitude of the radio frequency wave (carrier wave) is changed according to the amplitude of the audio wave. If the amplitudes of the two waves become equal to each other, the modulation is called 100%.

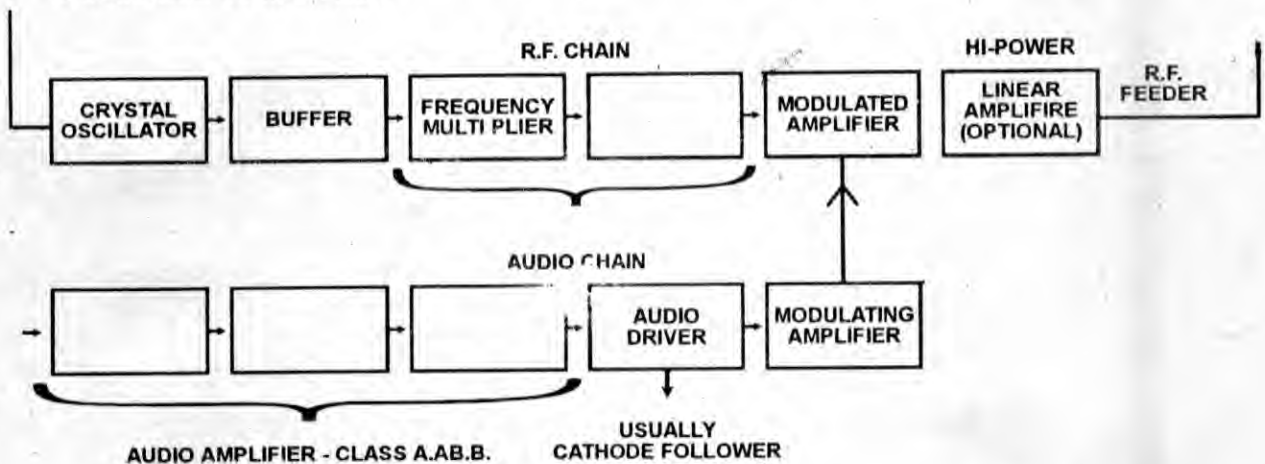
By using the method of modulation generally called amplitude modulation, we can transmit our programmes in two ways (i) Medium Wave transmissions, which range from 645 KHz to 1605 KHz. This is called A.M broadcast band (ii) Short Wave transmissions which range from 3 MHz to 30 MHz.

The frequencies of the Medium Waves are low, and hence their range of services is also small. However, this range of services depends upon the power of the

transmitter. The greater the power, the greater the service area, such transmitters are normally meant for Home/National or Regional services.

The frequencies of the Short Waves are high and unlike medium waves, as soon as these waves leave the transmitting antenna take dominantly the form of sky waves and this can cover distant target areas and such radio transmitters assume the form of international stations.

In Amplitude Modulation, some other methods also exist viz; Amplitude Modulation, Screen Grid Doherty Modulation, Pulse Duration Modulation and Pulse code Modulation. These methods are economical as compared to the Amplitude Modulation. They have also very good efficiency and performance. Schematic Diagram of Radio Amplitude Modulation Transmitter is given here which will provide all understanding of the complete Amplitude Modulation Transmitter:



The performance of an Amplitude Modulation system is limited by the effects of interfering impulses of various kinds such as atmospheric and man-made disturbances.

Frequency Modulation:

In systems where the signal alters systematically the frequency rather than the amplitude of the carrier wave, signal transmission can be effected with a substantial lowering in the relative level of all types of interference. This is called Frequency Modulation.

AM verses FM

In Amplitude Modulation, the intelligence we wish to convey is carried as variations in the amplitude of the carrier current. In frequency modulation, this intelligence is carried as variations in the frequency of the carrier current.

In amplitude modulation, the unmodulated carrier signal is fed to an amplifier and the modulating signal is used to vary the gain of this amplifier. Hence the amplifier's output is the amplitude-modulated carrier signal. In frequency modulation, the modulating signal is used to vary the frequency of the oscillator that generates the carrier signal. Hence the output of this oscillator is the frequency-modulated carrier signal.

3. SELF ASSESSMENT QUESTIONS:

- Q.1 What do you know about the Radio broadcast system? Elaborate the system with the help of a block diagram.
- Q.2 What is a microphone? Describe the principles of different types of microphones. Explain their general features.
- Q.3 What are the advantages of magnetic recorder? What type of effects can be achieved before recording a programme?
- Q.4 What is the importance of a control room in a broadcast chain? Explain briefly.
- Q.5 Explain the function of a transmitter. What are the various methods of modulation.

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- | | | |
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NEW TRENDS AND CHALLENGES

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Reviewed by : Mahmood Ali

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1. Objectives

After studying this unit, you should be able to :-

1. Describe the function of satellites.
2. Analyse the international broadcasting **system**.
3. Evaluate the impact of radio in the future.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Satellite Communications.

Evolution and Growth of Communication Satellites

The idea of communication through a satellite, in particular with a synchronous satellite was conceived in 1945 by Arthur C. Clark, a famous British science fiction writer. Clark had already pointed out that a satellite in a circular equatorial orbit with a radius of about 42,242 km would have an angular velocity that matched the earth's own. Thus, it would always remain above the same spot on ground and it could receive and relay signals from most of a hemisphere. Three satellites spaced 120 degrees apart could cover the whole world with some overlap provided that messages could be relayed between satellites and thus reliable communication between any two points in the world was possible. Clark had also stated that the electrical power for the satellite would be obtained by conversion of the sun's radiation by means of solar cells.

The International Telecommunications Satellite Organization (INTELSAT) was established in 1964.

INTELSAT Organization has grown to over 100 member nations and over 33 INTELSAT satellites have been launched.

Thus a new era of Communication via satellite (satellite Communication) had begun and now over hundreds of geostationary satellites of different countries of the world are in the service. This is expected to grow in a very large number in near future.

1. Synchronous Satellites

The synchronous satellites used for communication are widely called the *communication satellites*. These satellites are classified in terms of their territorial coverages e.g. global, regional, or national (domestic) - or in terms of the type of services offered - e.g. fixed, mobile, maritime, aeronautical, etc. or point to point, broadcasting, commercial, military, amateur, experimental etc. The global or international satellite communications is served primarily through the INTELSAT satellite system.

2. General Characteristics Of A Satellite Communication System.

Fig 9.1 indicates the general structure of a satellite communication system. This consists of a satellite in space that links many earth stations on the ground. The user is connected to the earth station through terrestrial network. This terrestrial network may be a telephone switch or a dedicated link to the earth station. The user generates the baseband signal that is processed and transmitted to the satellite at the earth station. Thus the satellite may be thought of a large repeater in space that receives the modulated carriers in its uplink (earth - to - space) frequency spectrum from all the earth stations in the network. It amplifies these carriers and retransmits them back to the earth in the downlink (space-to-earth) frequency spectrum which is different from the uplink frequency spectrum in order to avoid the interference. The

signal at the receiving earth station is processed to get back the baseband signal which is then sent to the user through a terrestrial network. There had been no difference in the uplink and downlink frequencies, the satellite's transmitted signals would have blocked up the uplink received signals and so there would have been no isolation between the transmitter output and the receiver input.

On the guidelines of WARC-1979 commercial communication satellites use a frequency band of 500 MHz bandwidth near 6 GHz for up-link transmission and another 500 MHz bandwidth near 4 GHz for downlink transmission. In fact an uplink of 5.725 to 7.075 GHz and a downlink of 3.4 to 4.8 GHz is used. The 500 MHz allocation is usually divided into 12 channels of approximately 40 MHz each and the level of transmit power per 40 MHz channel is typically of the order of 5 to 10 W. This allows each of up to the 12 transponders to carry one TV channel or about 1500 analog FM voice circuits. If digital modulation is used, transponder data rates from 50 to 100 Mb are achievable. With the use of single side band (SSB) modulation technique about 10,000 voice circuits could be carried over a single satellite transponder. Modern communication satellites also employ frequency reuse to increase the number of transponders in the 500 MHz allocated to them.

It should be of importance to note that 6/4 GHz bands have been the most popular because they offer the fewest propagation problems and historically RF components for these bands have been readily available. Rain attenuation is also not much serious at these bands. Sky noise is also low at 4 GHz and so it is possible to build receiving systems with lower noise temperatures at 4 GHz. With the overcrowding of geostationary satellites at 6/4 GHz band, 14/12 GHz band is also being used in commercial communicating satellites. Here uplink is of 12.75 to 14.8 GHz and downlink of either 10.7 to 12.3 GHz or 12.5 to 12.7 GHz. This frequency band is not yet congested and is hoped to be used extensively in future.

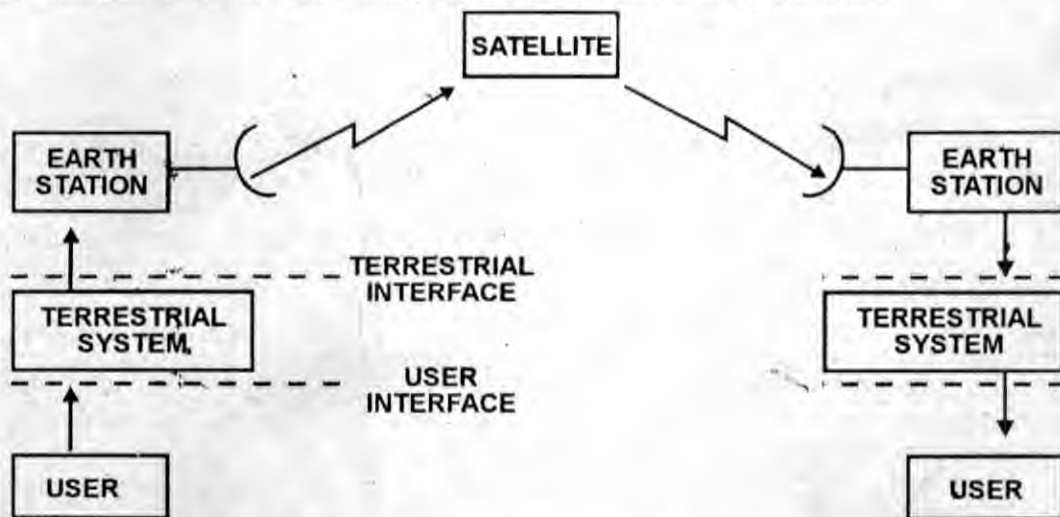


Fig. 9.1 General Structure of a Satellite Communication System

Satellite communication, however, has the economical advantages. The satellite costs are independent of distance whereas the terrestrial network costs are proportional to the distance. The cross over distance at which the costs are equal is relatively much better with the satellite. However, if needed repair is nearly impossible after launching the satellite and also the equipments are subject to

extreme environmental stresses. As compared to the fibre optic cable, the satellite communication has the advantage that the quality of transmitted signal and the locations of stations sending and receiving information are independent of distance. So long as two stations fall within the geographic coverage area of the satellite antenna pattern, those two stations maintain the same quality of information transfer whether they are 60 km or 2000 km apart.

3. Active and Passive Satellite

The difference between a passive and an active communication satellite arises from the fact whether the communication relay (here satellite) involves passive reflection or an active electronics system. In the passive satellite system the ground transmitting system beams power at the reflector. The receiving ground system receives fraction of the power that has been intercepted by the reflector and reradiated. In active satellite, the satellite receives a fraction of the energy beamed towards it by the ground transmitting system and the received power is amplified by active electronic means, usually in conjunction with frequency shifting. The power received by the ground receiving system is determined by the power level of the space craft transmitter.

The most important comparison of the communication capability of active and passive satellites is the amount of power radiated towards the receiving ground stations by the satellite. Actually the communication capability of active systems with directional antennas rapidly becomes much greater than that of the passive systems as the altitude is increased. Passive systems are incapable of competing with active systems with respect to communication capability except at low altitudes.

Modern communication satellites are active satellite systems. Now-a-days space qualified reliable, long life electronic equipment are available and these have enhanced the capability of active satellite system.

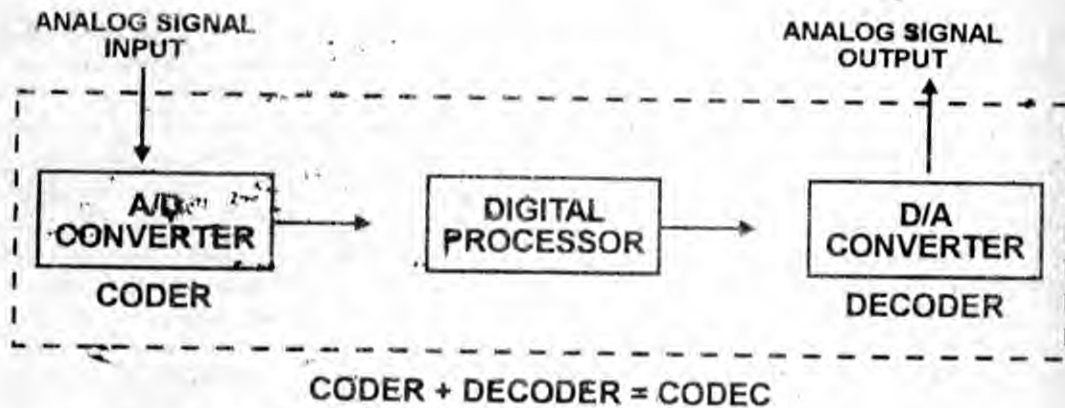
4. Advent of Digital Satellite Communication

With the fast development in digital electronics technology, access techniques and possibility of expanded communication network, digital signalling techniques have been introduced in communication by satellites. The advantages of digital signal transmission are now very well established and can be easily numbered as (i) the ease and efficiency of multiplexing multiple signals or handling digital messages in 'packets' for convenient switching ; (ii) the relative insensitivity of digital circuits to retransmission noise, commonly a problem with analog systems, (iii) potential for extremely low error rates and high fidelity through error detection and correction, (iv) communications privacy and (v) the flexibility of digital hardware implementation, which permits the use of microprocessors and macroprocessors, digital switching and the use of large scale integrated circuits (LSI). Thus the digital transmission techniques have gained increased usage for satellite communication, microwave relay, and cable or waveguide transmission. In laser satellite communication too digital techniques have been successfully utilised.

5. Modem and Codec

The equipment that carries out modulation (MOD) and demodulation (DEMOL) is called *modem*. Similarly the equipment responsible for carrying out

coding and decoding is termed *codec*. These two devices are widely used in digital satellite communication. Modem is used as an interface between analog and digital systems. These play an important role in computer communication networks and ISDN systems. Codecs are used in digital television systems and normally consists of a pair of A/D converter and D/A converter. It is a kind of black box digital device as shown in Fig.



2.2 International Radio Stations:

The section "Transmitter" has been devoted to understand the medium wave transmitters. These transmitters operate on the frequency range 645 KHZ to 1605 KHZ. These transmitters have a specific service area within a particular country depending on the power of the transmitters. Thus many such stations have to be set up to cover a country. These stations are used to cover a particular country and are called National Stations. The transmitters which operate on the frequency range 3 MHZ to 30 MHZ are called short wave transmitters. The transmitted waves from such stations are fed to directional antenna systems which convert into sky waves and are used to cover specific target areas lying into other countries and thus these are called international radio stations. This mode of service has been in use since long and is still in use.

The advent of satellite communication is now being used to Internationalise Radio Programmes with a very high level of quality as it operates on very high frequencies and is free of disturbances.

2.3 Prospects and Challenges:

Better prospects are now available in radio through satellites and to adopt this system is posing challenges in the field of radio communication.

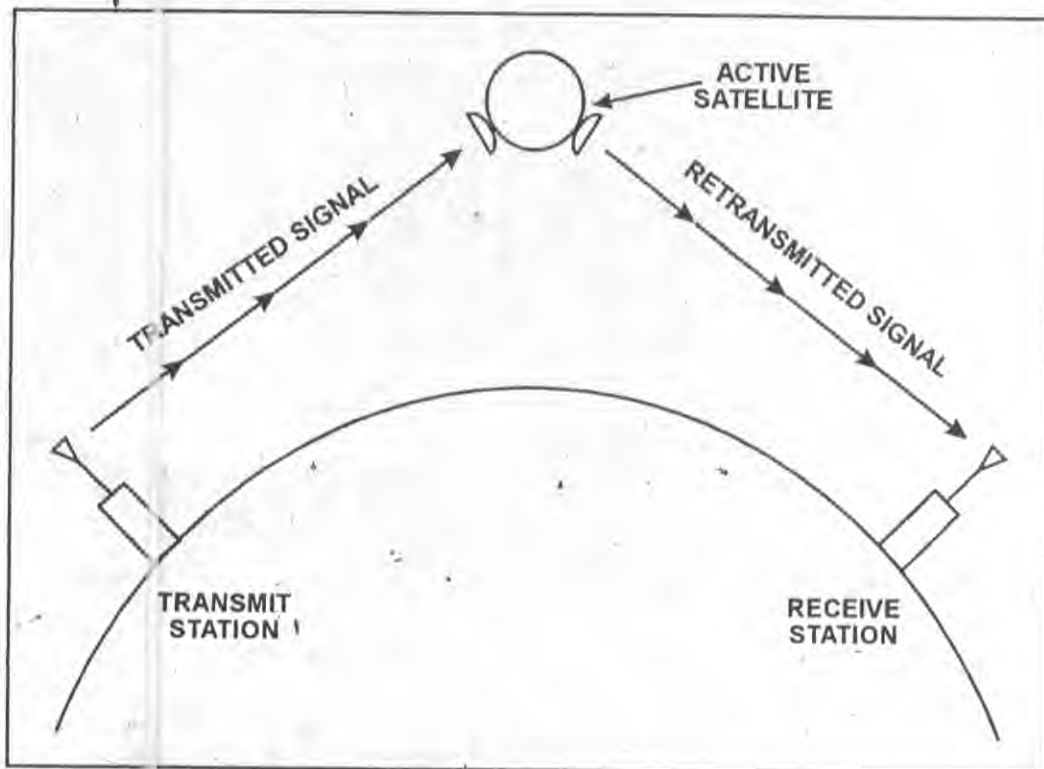
Satellite Broadcasting:

The space communications equivalent of an earth-based repeater is called an active communications satellite.

A high-powered signal is transmitted from the sending station on the Earth. This line of sight microwave broadcast travels through the atmosphere and to the receiver of the active satellite. The output of this receiver is fed directly to a transmitter within the satellite and a new signal which contains the same information as the old one is transmitted back to the Earth. Even when very high amounts of power were used by the Earth transmitter in a passive satellite system,

the signals that were received back on Earth were extremely weak. The same high amounts of power must still be used with an active communications satellite system, but since the signal is retransmitted out in space within the satellite proper, the received transmissions back on Earth are far stronger.

The active satellite system is the one we are interested in as far as television receive-only Earth stations are concerned. The original broadcasts are transmitted from very high-powered Earth stations whose antennas are aimed directly at the satellite. These stations transmit on a frequency of around six gigahertz. Out in space, the active satellite is equipped with transponders. A transponder is simply a transmitter and receiver which are connected to one another. The detected information from the receiver is fed to the input of the transmitter and beamed back to Earth. One satellite may have a few transponders or possibly even twenty or more. When receiving satellite TV at home, each transponder serves as a separate television channel which can be selected in much the same manner as is done today with your present set.



Satellites are usually physically small devices and space must be conserved wherever possible. For this reason, a satellite with many different channels may have only two antennas, one for transmit and one for receive. Each channel shares these antennas by using them for small fractions of a second. To provide an easily understood example, let's assume that a satellite has two channels which must share the same antennas. Channel A may use the antennas for 100 milliseconds and then be switched off for an equal amount of time while channel B uses the system for 100 milliseconds. When channel B is switched off, channel A uses the antennas again. Channel A and B will be switched on and off many times during the blink of an eye,

but you could never tell this by watching a received picture at your Earth station because of the speed with which the switching occurs. If you were watching channel A, you would never know when channel B was using the same antennas to transmit on another frequency which you were not receiving.

In any event, the on/off nature of satellite transponders is totally unnoticeable by human beings.

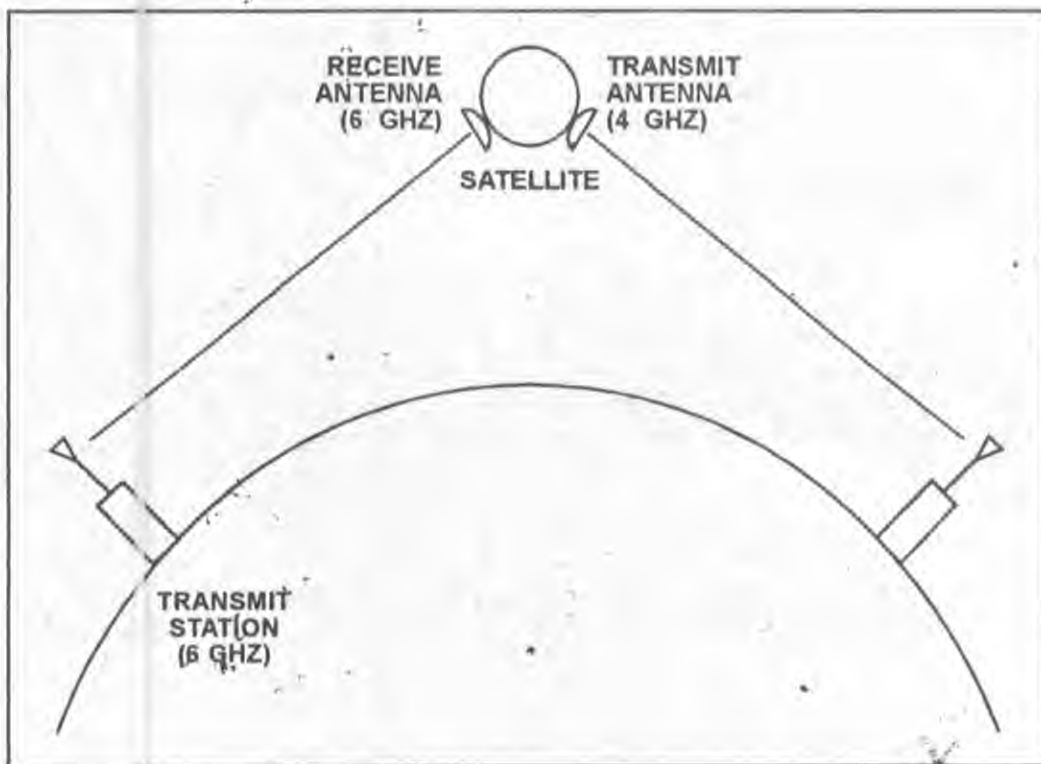
As was stated earlier, most television stations which use satellites for their broadcasts use very high-powered transmitters on the ground. They transmit at a frequency of approximately six gigahertz, but these signals do not come back to earth at the same frequency. Referring to Fig. the six gigahertz transmission leaves the earth and travels to the satellite. The orbiter's receiver is designed to detect a six gigahertz signal. It pulls the audio and video informations from the transmissions and then feeds it directly to the satellite transmitter, which has an output at a frequency of about four gigahertz. This is the frequency which the earth-based television receive station is set up to detect.

Since we know that the satellite signal is originally transmitted on the Earth, travels into space, is retransmitted by the satellite at a different frequency and is finally received back on Earth again, it can be said that the signal that is ultimately received by an Earth station is a function of:

- * The signal transmitted to the satellite at six gigahertz.
- * Signal processing in the satellite.
- * Signal transmitted at four gigahertz from the satellite.
- * Directivity of the satellite antennas gain.
- * Path loss.
- * Gain of the receiving antenna.
- * Noise temperature of the antenna.
- * Low noise amplifier noise temperature and gain.
- * Cable loss to the receiver.
- * Receiver noise figure.

All of these terms may not be familiar to you however. This list is presented to show the difficult factors which determine how well a signal is received by your personal Earth station. There are many different satellites in orbit around the Earth. It is from these satellites that a whole new world of television enjoyment emanates. Sure, all of the signals are originally transmitted here on Earth, but with a satellite deep in space, these transmissions can be received by so many more persons. The wonderful thing about receiving signals from satellites is found in the fact that we tend to pay very little attention to these multi-million dollar orbiters. We know they are up there and we know their positions in order to properly aim our antennas; but

other than this, the Earth station equipment is the part of this complex system which gets the most attention. The satellites are reliable, always present, and simply do not require the attention that our personal Earth stations require. Billions upon billions of dollars of research have gone into making our satellite programme as dependable and useful as it is.



SUMMARY

Satellite broadcasting has opened up limitless opportunities for the average person. We have been realizing the advantages of space technology for many years. Previously satellites were used strictly for government, military, and scientific purposes. In the early 1960s Telstar brought satellite communications into every home. But even then, and for many years thereafter, the average person had little control over what he could receive. Now, with personal satellite television Earth stations being offered at affordable prices, a tremendous variety of programmes can now be received from space. This field can only continue to grow. New programmes and programming services are being offered on a regular basis. All the average individual has properly equipped his receiving site with the electronic devices which will enable him to tap this bountiful resource. As the state of the art advances, equipment prices should drop and programmers will become more and more competitive by offering information, entertainment, and a myriad of other services which will be aimed directly at a mass of individuals rather than to a few scientific, government, and military installations.

As additional satellites are placed in orbit, the personal Earth station will become more and more valuable. It has been predicted that within this decade, the satellite television service will become more and more of a replacement for conventional television broadcasts. The versatility of space communications is far superior to Earth since more people are able to take advantage of many broadcasts. Development in areas such as this tend to become aligned directly with user needs and demands. As more individuals have their own Earth-receiving stations, the industry will respond. Already, there are plans for more satellites and more programmes. The consumers, are the one who will reap the benefits of these achievements.

3. SELF ASSESSMENT QUESTIONS:

- Q.1 What is the general structure of a satellite communications system?
- Q.2 Describe the active and passive satellites.
- Q.3 Describe briefly digital satellite communication.
- Q.4 What is an international Radio station. Describe the salient features of the National and International Radio Stations.
- Q.5 Summarize the prospects of satellite broadcasting.

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PART -II
UNIT NO. 10

**INTRODUCTION AND DEVELOPMENT OF
TELEVISION**

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Reviewed by : Abid Khawaja

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1. Objectives

After studying this unit, you should be able to :-

1. Describe the historical development of television in the world perspective in terms of early innovation in television broadcasting, technological progress in the key countries, transmission experiments followed by early adopters and the recent expansion of television in the world.
2. Describe the establishment of television broadcasting in Pakistan from early 1964 in terms of pilot stations experiments till recent years expansion including inception of PTV-2.
3. Analyse the development of television in private sector i.e. STN as well as the history of satellite channels in Pakistan.
4. Elaborate the electronic media policy of the government of Pakistan, applicable to public and private channels.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Historical Development of Television

Television is the result of technological developments of the nineteenth and early twentieth centuries. Television network began in the 1930s, Rapid growth of programming came about following World War-II.

Having in two decades - the 1930s and 1940s - emerged from experimental beginnings to become a fixture in Britain and the United States, it would, in two more decades, become a world medium.

Developments came with startling speed. Industrial nations that had participated in pre-war experiments could be expected to make early starts in post-war television; they included Japan, Canada, Australia, and a number of European nations. Less expected was a burst of activity from other nations.

In Latin America, Mexico, Cuba, and Brazil led the way, all launching television operations in 1950. They were followed rapidly by others. By the end of that decade eighteen Latin American nations had some form of television, with more on the verge. Asia virtually kept pace, with the Philippines starting in 1953. By the mid-1960s eighteen Asian nations including Pakistan, had entered the television age; others were planning to follow. Africa was not far behind. Algeria began in 1965, Egypt in 1960. By the end of the 1960s fifteen African nations had made a start in television. Half the world's nations had by now joined the procession.

2.2 Pakistan Television, History & Development

Pakistan's first pilot Television Station went on air from Lahore on 26th November, 1964. Now Pakistan Television has two channels called as PTV and PTV-2.

The idea to establish television in the country was supported by the report of the commission on National Education set up by the Ayub government in 1958. The commission concluded that television was necessary for educational, economic and social set-up of the country. Interestingly the major emphasis was on education and hence the television was introduced in the name of education. Initially television was set up with the help of UNESCO, Colombo plan and Japanese government.

The Japanese report submitted in 1962 urged that television should be introduced as a general purpose service and also cater to the educational needs of the masses.

Funding was a matter of concern for a poor country like Pakistan to meet the graving cost of television broadcasting commercial telecast was also permitted. This was a step forward for self-supporting part of revenues required.

The cabinet decided in 1962 that educational television be established in Pakistan and it should be under government control.

In October 1963 President gave his consent and said "television is not a luxury, it is a necessity".

As a result of an agreement between the government of Pakistan and government of Japan, the Nippon Electric company established two pilot stations at Lahore and Dacca in 1964 and 1965 respectively. Initially these stations operated daily for three hours.

Later on more stations emerged. Now there are 5 PTV centres in Pakistan namely Karachi, Lahore, Islamabad, Quetta and Peshawar.

In 1993 PTV-2 was established in order to cater to the needs of educational field in the country. PTV-2 was established at Islamabad. Further educational centres are planned to be operative in other PTV centres to work exclusively for education.

As regards the transmission of PTV-2 there were 16 re-broadcast booster stations in the initial year of 1993. The transmission network will further expand with the passage of time.

The Television promoters company which initially started programming in Pakistan in 1964 was converted into a public limited corporation in 1967. The Managing Director, nominated by the government is the executive head of the corporation. The corporation functions under the control of chairman PTV. There is a Board of Directors to look after policy matters and important affairs of the corporation.

Ambitious plans were chalked out for the development of television from the inception and a good many of these goals have been realised. Talent in the country has been sought out, nurtured, encouraged and developed. A great number of skilled and technical hands, producers and allied personnel were required. The need

has been fully met from within the country. With modest beginning PTV steadily progressed to become an established network, recognized as one of the leading TV organisations in South East Asia. In achieving this goal the enthusiastic and dedicated efforts of those working in PTV as well as associated with it and the encouragement of the government of Pakistan were the most vital factors.

Today television has a national network covering the six main programmes producing and transmitting centres are linked with high-powered re-broadcast stations. The telephone and telegraph department of the government of Pakistan established a microwave link in 1975 connecting all these six centres and their re-broadcast stations to form the PTV hook-up, known as the National Network. Satellite up link was established in 1992.

Colour television introduced in Pakistan in 1976, has added immeasurably to the viewing pleasure of the masses. The sophistication and artistry of PTV productions has also stood to gain from the introduction of colour TV. PTV productions have entered the international competitions since 1971 and many are the awards they have won for the country.

During the early years of PTV, a Central Training Institute was set up for the training of programme producers and technical personnel. This institute has now been elevated to a full-fledged PTV Academy, imparting training to television personnel in all fields - news, engineering, management, finance, current affairs, programme production etc.

Television was introduced in Pakistan to promote an enlightened awareness of the world, foster a consciousness of Pakistan's own heritage, the social and economic growth of the country and to provide inspiration and guidance for progress and prosperity. Television was considered necessary also for bringing about a genuine revolution in the social and cultural life of the masses. It has a role as an instrument and most effective medium of education, entertainment and information.

Development, with PTV, is a way of life. Over 32 years, it has developed in all spheres, gradually and surely. It is PTV's earnest endeavour to provide inspiration to the nation and help in the process of dissemination of Islamic values and nation building activities besides meaningful programmes even in the context of entertainment programmes.

As students of electronic media you should be able to continue the studies and research in specific objectives of television and its impact on general masses as well as special audience groups.

2.3 Private T.V Channels in Pakistan

Electronic Information and Broadcast network in Pakistan is controlled by the government. Due to government control, it is not possible for any individual or a company to launch a private television channel in Pakistan independently.

In 1989, the Government of Pakistan has granted a licence to PTN (Peoples Television Network) later renamed as STN (Shalimar Television Network). STN was allowed to establish television station in 22 cities of Pakistan.

The basic idea behind the creation of STN (initially PTN) was to have a TV channel broadcasting programmes of entertainment and of national importance with the collaboration of private sector without incurring government expenses.

STN provides 30% of its air time to the government for its programmes free of charge.

Programmes are produced in the private production studios. Intellectual property owners and talents are involved in the activity which has benefitted the talents and have made private productions a profitable business.

3. SELF ASSESSMENT QUESTIONS:

- Q.1 Describe the historical development of Television in the world.
- Q.2 Elaborate the establishment of Television in Pakistan?
- Q.3 Analyse the Policy of Government of Pakistan about the licencing of private cahnnels in the counrty.

Also refer to the dish antenna channels available in the country.

- Q.4 Compare the salient features of STN with PTV.

3.1 Key Note

- Q.1 Beginning of TV in the World, gradually development in Britain and America - Development in Africa - Asia and Pakistan.
- Q.2 Beginning of Television in Pakistan - pilot stations at Lahore - completion of experimental phase - emergence of PTV - opening of TV Centres at Islamabad - karachi, Lahore, Quetta & Peshawar - PTV-2 - Rebroadcast stations - Colour television - TV Academy.
- Q.3 Government control over media - licence to STN - private Production Houses.
- Q.4 History of PTV and STN - Government control verses Private channel - own production verses private production houses.

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UNIT NO. 11

IMPACT AND POTENTIAL OF TELEVISION

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1. Objectives

After studying this unit, you should be able to :-

1. Explain the potential and impact of television on cultural, political, economic and social behaviour of the people.
2. Describe the link between television and social values.
3. Evaluate the role of television in Pakistani society.
4. Explain the potential of television as a medium.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Potential and Impact of Television on Behaviour

Television is an audio-visual medium and has a tremendous potential to influence its viewers to a maximum level. Its mode of persuasion distinguishes it from the rest of the media. Besides, it has a greater entertainment value. That is why for people it does not have any informative or educative priority. The history of television in Pakistan shows that it was introduced as an entertainment gadget.

The mode of education through television differs in its manner and organization. As Marshal Mc Luhan puts it, it is a cool medium one has to present things softly and pleasantly if one wants a maximum impact. That's why education information and guidance must be presented in an entertaining manner. The more it is light and indirect, the more it would penetrate deeply into the minds something which we, in Pakistan, badly need for maximum awareness among the masses. We, also need to know the tremendous potential that T.V has for educational purposes. It is ironical to note that the government and the masses both are unaware of the remarkable role of T.V. The unchecked use of television for personal ends by successive governments has marred the credibility of television to a disastrous level. They have never considered television more than an entertainer. This has created a distorted image of television in the minds of the viewers. This hinders the mass education revolution which can transform our society from illiterate to literate.

There is a need to systematically arouse the expectations of the masses as without their consent nothing usefull could be imparted. At the same time the government must loosen its grip on television and make proper arrangements to recover the lost credibility of the medium and use better minds for arranging its policies. This must always be kept in mind that without the informative credibility, the medium would never gain the status of a guide and educator, and would remain as an entertaining juggler with less positive utilization.

Extensive research has been conducted and is continuing, to determine how, and to what extent, watching television influences human behaviour. It is matter that concerns social Psychologists as much as media theorists.

The youth audience (Pre-school to high school) is Television's most eager and impressionable audience. According to studies audience aged up to 18 spends

more hours watching television than in the class room. Children 3 to 4 years old spend 20 percent of their working hours on Television.

Television is also considered as a reason for the drop in student's reading skills. T.V Advertisements has been considered as health hazard for children of 2 to 8 years age.

However no research has ever recommended to stop television as a medium, but its systematic and judicious use has always been emphasised. Its potential and impact as a very persuasive, convincing and positive medium has been recognised without any doubt.

A. Cultural Impact

Media not only inform but also serve the cultural purpose of lessening tensions and enhancing harmony. The positive cultural values can be easily made clear through the audio-visual medium of television. In the same way the negative and destructive tendencies can be shown in an evil shape. Thus making the task of harmonizing the culture on cultural and sub-cultural level easy.

Television do have cultural effect. Media theorists believe that a new global culture is emerging through television. Fashion, dress, decoration and food are under influence. Pop Music is now considered as a universal music. Television is the sole source of its wide popularity. Special production techniques and use of special effects has made pop music the most popular among masses and now there is seldom any country in the world where this form of music is not on the top ratings.

Programmes like Fashion shows, Style, Catwalks dress designs has influenced people's dresses. Programmes on food dishes is another field in which television has influenced its viewers.

The powerful cultural traditions of alien cultures are getting popularity due to television's repeated telecast.

It is imperative to safegaurd the local culture and traditions by depicting right perspective and true representation of the local customs and cultural heritage.

B. Political Impact

Politically speaking, television accentuates the image of leadership. This exaggeration of the leadership potential can easily be used to support the fragile

leadership structure, which has never got its due respect due to weak political consciousness. Although the political consciousness is a task within the dominion of education, for a transitional phase it can help to build a stable system.

The Pakistan political culture is in its development phase. It is developing its democratic institutions. Television can play a vital role in the development of democracy. It can educate people through the audio-visual debates which are nearer to reality because they give a feeling of participation to the viewers. This also gives a boost to a culture which has freedom of expression as its basic principle.

Television also has the potential to transport images of political activity from other political systems. This enhances political consciousness and the glimpses of advanced political systems heighten the expectations of the masses. The developing political system does not have the facilities of a developed one. This, in turn, becomes a cause of general political anxiety. So, it is always the responsibility of the mediemen to educate the masses that the system is heading towards the goal of greater freedom and responsibility. But this can only be useful, if the political leadership also busy themselves in the fulfillment of these promises. If they fail to do so, television will lose its credibility - thus relegating itself to mere propaganda gadget.

It is important to know whether television is strengthening or weakening the political system, political institutions, and enhancing the political knowledge and awareness? Different nations has conducted surveys and concluded that television as a medium has enhanced the political knowledge and awareness.

Television has proved the most powerful during election campaigning. Apart from election related activities it has been covering all important political events. In 1947 in USA the opening of 80th session of the congress was telecast for the first time. In 1949 people watched the inauguration of U.S President Harry Truman. Since then such political events are covered live and millions of people witness these history making moments.

In Pakistan all important political events are telecast live, which include inauguration of National Assembly, Senate, Oath taking ceremonies of President and Prime Minister.

In USA before presidential election TV debate between presidential candidates has become the most important event and plays a decisive role.

In USA, TV debates started in 1960 and first television debate was between the then Vice President Richard Nixon and Sen John F. Kennedy.

In Pakistan's presidential election of 1988, television time was offered to all the presidential candidates. Except the then sitting President Ghulam Ishaq Khan all presidential candidates accepted the offer and briefed the public about their future planning and programmes.

In 1993 election, Pakistan television invited all leading party leaders to express their views on different important issues in a series of programmes under title "ELECTION 1993". PTV launched a number of other programmes for general public, such as "How to cast a vote" "Importance of casting of vote" and information about Pakistan's political system.

Television has now become an integral part of political system. Its role starts well before election and it continues till the political activities of next elections.

It is an established fact that Television has elevated the level of politics. It plays an important role in making democracy more rational and responsible. In developing countries television has enhanced overall political awareness.

C. Economic Impact

Apart from giving live information about the economic activity imparting economic education, television creates consumerism. Advertisements on television are so fabulous that almost all with capacity to buy go for it. This also affects the saving capacity of the society. With the decrease in savings the institution of social welfare also diminishes because with increase in demand the people are not left with much to invest.

D. Social Impact

Television directly affects the social relationships which bind individuals to each other. It shows the nature and patterns of a nation's cultural structure. It also shows the interactions among different sub-cultures. The fusion of local cultures into a national culture is also depicted on television. These are the patterns which govern social relationships.

Television also combats the signals from alien cultures. The cultural invasion is nothing but depiction of the structure of the social relationships of the alien culture.

Television has made people captive in their homes. They spend more time before TV. They prefer watching their favourite programmes than visiting friends.

Before television evenings were free and social contacts were more. TV has affected the social get togethers. Children spare less time for games than watching cartoons programmes and other favourite programmes. TV has made people passive than before.

It depicts the alien social relationships which create awareness and anxiety at the same time. In fact, it shows the weak and strong points of social set up, thus giving a chance to repair and strengthen the weakening bonds. On the other hand, if used for nefarious designs, the televised picture might develop frustration among the viewers. If the picture of the alien social relationships is made all rosy, exempting the flaws which are always there in every structure, the exposed viewers will resent their own arrangement. Unluckily, this is how present state of affairs is. The western pattern of life seems to be very well organized because the western media depict those social patterns which are lacking in our own set up. They never expose their weaknesses. Even if they do, it is always done in a controlled manner. They show that there are many ways out of any trouble within their set up. They have alternatives. Their capacity of the social structure to absorb opinions is greater.

2.2 Television and Social Values

Television has the potential of explaining values. It can use the pictorial capability to show the values within their proper environment. It can also make the viewer feel the importance of values by documenting the expressions. There must be an effort to educate them before making them comply with any change or progress in social values. If this is properly done, the impact would be for more greater than the other media. The reason is that television can convince the people more easily and powerfully than the rest.

Television supports status-quo. It follows the social agenda and strengthens the already existent values. The reason is that television is an entertainer. People take it casually. Secondly, its target groups are never clearly demarcated. Thus creating the proper mind for change it is not within the purview of television. Its perishable signals are also a handicap which incapacitate the medium of a second look. As such, the task of change and control is still within the domain of the printed word.

2.3 Credibility of Television

Seeing is believing. Television is a medium which has the advantage of showing actual visuals to viewers. Being visual medium it has edge over media. It is

much easy for this medium to establish its credibility. Credibility is the most important factor for any medium of communication. Viewers trust is prime requirement. Some western and American networks claim objectivity in reporting, yet one can feel slant. Credibility is the most fragile object. Viewership is directly related with credibility. Slight mishandling may cause distrust.

One opinion about television credibility is that it is a propaganda gadget. It never gained the degree of credibility which its predecessor, the newspaper, had and still has. There are psychological as well as physical reasons behind it. Psychologically speaking, television is less incredible because it was put into the war propaganda machinery from the very outset. The image which it gained was of a persuasive agent of the men in power and never that of an educator or reformer. In our own country, it took its first breath during the martial law. Thus television has no history of struggle and pain to make it worth-while in the eyes of the viewers.

To make the medium credible there is a need to give it a greater autonomy. Once this is done the medium can work far more actively. Physically, the audio-visual capacity of images affect the expectations of the viewers. On their television agenda priority is given to entertainment, to fiction rather than facts. Although this is also a psychological hindrance, but still its cause is physical.

2.4 Role of TV in Pakistan

Pakistan television started during dictatorship. Its policies were initially formulated then. The process of change towards freedom is slow, even slower than the democratic process in this country.

PTV has national integration on the top of its agenda. It tries its best to make a Pakistani culture evident. It has not been properly successful because the lack of independence makes it less credible. If censorship and governmental control is lifted PTV might perform a more positive role. It also has a role in development awareness. The unity of Muslim Umma through the cultural representation of different Islamic cultures is also a major contribution. The countering of the enemy's propaganda is a task which the PTV is forced to do, and is doing continuously.

The attitude of the Pakistani political elite is never democratic. Thus, this effective instrument, within the full grasp of the government, could never work for freedom of expression. This is what is happening to PTV. The private channel, NTM, is also very much dependent upon governmental advertisements, and the fear

of censorship which could ruin its great investment also forces NTM to comply with governmental commands even more than PTV.

The reason behind the lack of courage in NTM is political as well as economic instability in the country. There is not any well developed industrial base to support the information structure to the limit of independent criticism. Thus, the lack of competition among the channels, as well as, donors make the television a servant to the government in power. We have great majority of rural television viewers while the programmes, especially the Prime Time programmes, are made for the urban population. There has been an effort to compensate, by depicting rural scenes, but there is still a lack of understanding due to the lag in proper survey of rural attitudes.

2.5 Potential of Television as a Medium

Television has an immense motivating capacity for change in a society which occurs imperceptibly i.e., change through drama and fiction.

Television has some drawbacks in our socio-economic structure, its high cost and dependence on electricity, for example. This factor has been greatly minimized by the cheap Russian and Chinese sets. Now these sets have also alternate power arrangements.

If used properly, television has the potential of bringing about political, economic and socio-cultural change. It can educate most powerfully through its audio-visual capacity. The mimic make the linguistic barrier obsolete. For making this useful, there is a great need for a survey of all the target viewers, to know their strength and weaknesses, to learn their needs and prepare programmes accordingly. Unfortunately this has not yet been done. As such, the potential of television as a medium has remained unutilized.

3. Self Assessment Questions

1. What impact of television has appeared in our cultural, economic, political and social life?
2. Role of T.V in our society is not satisfactory. Give your arguments.
3. Evaluate the potential of T.V as a medium.
4. Elaborate the credibility of television.

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TELEVISION NEWS REPORTING

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1. Objectives

After studying this unit, you should be able to :-

1. Describe various aspects of Television News Reporting.
2. Explain the Television news coverage requirements and techniques.
3. Elaborate the requirements of On camera Reporting. This unit will also give you a brief account of sources of Television News and its distinguished features.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Distinguishing Features of T.V. News

Television news differs from newspaper in content, arrangement, style and delivery. The receiver of the information is different also, although in many cases, the television news viewer is also a daily newspaper reader. He is different because the medium of television requires different degrees of attention and participation than does the medium of print.

Quite opposite demands are made by the television medium. The viewer sits passively. He does not come to the news, as he would by turning the pages of the evening paper. The news comes to him. It follows him around the room if he gets up from his chair. It follows him into the kitchen when he goes for a snack until he is out of earshot. While he watches the tube, his sense of sight is captured, so his imagination is not called forth. However, television news does not demand the viewer's full attention. His mind may wander.

What this means is that the television news writer has a more elusive target at which to aim his information than does the newspaper writer.

The factors of news choice are the factors of attention: What will or ought to make someone pay attention. The most important news to you is news which vitally concerns you - like:

- Personal involvement
- Danger
- Excitement
- Economic effect
- Urgency
- Nearness (Place)
- Human interest
- Novelty

2.2 Sources of T.V. News

In theory, television news departments and newspaper editorial departments have identical sources of news gathering. In practice, it does not quite work out this way. One reason for this is that the two media differ in the kind and degree of news they use.

Television is primarily a visual medium and it is virtually the only medium which is able to show action, the sources of news must include the sources of newsfilm and videotape. Many news programmes are prepared each day around film and videotape. The main sources of TV News are as under :-

- 1- News Agencies
- 2- Monitoring Reports
- 3- Foreign Office spokesman
- 4- Parliament
- 5- On camera crew
- 6- Stringers
- 7- Feeds
- 8- Own film library
- 9- Handouts
- 10- Scheduled events
- 11- Public relations representatives
- 12- Politicians
- 13- Colourful characters

2.3 News Coverage : Requirements & Techniques

The television news coverage is different from covering the news events for radio and Press.

Being a visual media almost every TV reporter leaves the newsroom for news coverage with a camera person or crew who will make sure pictures are taken and sound is recorded. Every reporter, of course, carries a note pad and pen, for jotting down important facts while covering a story. Such notes make it easier to write a script under deadline pressure in the field or back in the newsroom. It is important to write the correct spelling of a newsmaker's name and his title, because this information probably will be displayed on the screen when your story airs.

Also carry an audiotape recorder. Use it to record people interviewed in the field. The quality of the recording is not important because it will not be played back on the air. By using that audiotape along with your written notes, you can begin organizing your on-air report before you come back to the station. If you have time you will want to see the tape that was shot in the field before you start writing. That audiotape can help you decide quickly what sound bites to use and the length of the sound cut.

Observation is especially useful tool on initial assignments in the field. In addition to observing the facts of a story, watch how more experienced reporters are covering the event: who are they interviewing? What are they photographing? Where are they doing portions of their narration on camera? You will learn from the choices and decisions they make as you try to gain confidence in covering a wide range of story assignments.

The TV reporter while reporting the news assignments must strive to be accurate, fast, comprehensive, and vivid as you work under deadline, pressure and perhaps sift through conflicting or incomplete informations.

For TV coverage, it is especially important that you arrive at a news point early. Camera positions may be at a premium for latecomers. Try to sit in plain sight of your camera operator. You will not want to shoot everything so the camera operator has to know when to start and stop. If an advance text of a statement is available, you might underline the portions that interest you as a guide to the camera operator.

Those who call a news conference may provide a plug-in point to a house public address system. But most often you will set up your own microphone. Check the audio system in advance to make sure voice level and technical quality is good.

Try to find out in advance what kind of lighting problems you can expect. Electronic cameras must be adjusted for colour balance before the news conference.

This involves aiming the camera at some white object and pushing the "white balance" control.

2.4 On Camera Reporting

A concise but comprehensive report about an event or issue which is presented by the reporter himself by appearing in front of camera is called an 'On Camera report'.

It is a style of reporting which is more communicative, more effective and more credible. In such a report any approach like informative, investigative or analytical can be adopted.

The essential element is the appearance of the reporter on camera, though just for a few second. Generally, the reporter includes, in his report, shots of the event or relevant visuals about the issue as a video package.

For Camera reporting a reporter should fulfill the following criteria :

- 1- Suitability for On camera appearance.
- 2- Ability to write spoken language.
- 3- Fluency in speech.
- 4- Correct pronunciation.

3. Self Assessment Questions

- Q.1 State the distinguished features of TV News.
- Q.2 Describe the sources of TV News.
- Q.3 Explain the requirements and techniques of TV News coverage.
- Q.4 Critically analyse the value of On-camera Reporting on Television.

3.1 Key Note

- Q.1 Difference from newspaper and Radio - Difference in target audience - difference in writing style.
- Q.2 Identical sources - visual medium - news film and video tapes.
- Q.3 Difference from Radio and Press, accurate comprehensive and vivid - camera positions. - microphones - lighting.
- Q.4 Definition - essential elements - criteria.

4. Suggested Readings

- | | | |
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UNIT NO. 13

T.V NEWS : DRAFTING AND PRESENTATION

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1. Objectives

After studying this unit, you should be able to :-

1. Elaborate the process of production of T.V bulletin.
2. Explain the role of panel producer and its pivotal position.
3. Elaborate the function of visual editing.
4. Describe different kinds of visuals.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Planning a Bulletin

Planning of a TV Bulletin starts with the drawing out a film/visual order. The film order includes all the possible film material available for the up coming bulletins. It serves as a basic skeleton of the bulletin and the editor makes it sure that films/visuals included in the order, are placed on the basis of their significance and news in arranging the films/visuals, a conscious effort is made to ensure that a natural link between these visual stories is established and one story follows the other in a rhythmic manner.

All the spoken word news items are adjusted within the parameters of this film order. Once scripts for the film/visual material are typed out, the newscaster goes through the rehearsal. During the rehearsal, producer of the bulletin or co-producer ensures that the newscaster synchronises the commentary with the visual, leaving proper gaps for the actuality sound bites. If, during the rehearsal, the commentary does not match or synchronise with the visual, it is edited or re-written in accordance with the requirements of the visual shots. The Producer also takes care of the visual punctuation which is very important for the telecast copy.

After the rehearsal, the bulletin is arranged in the pre-planned order, chalked out for the actual telecast of the bulletin. Telecast punctuation is a matter of personal choice and depends upon the availability of visual aids. The news times can be arranged in various chunks such as national chunk, international chunk, local chunk and sports chunk. Finally, the producer puts the bulletin on air.

2.2 Drafting for TV

Writing for TV is similar to writing for radio. It employs the same informal language of broadcast style and roughly the same structure of lead-in/bite or lead-in/report. There, however, the similarity ends.

The cardinal rule of writing to pictures is that copy and picture must be correlated.

Copy delivered on-camera by an anchorman or reporter is "free". That is, it need not be tied to specific pictures because we are seeing no pictures. But once the

screen is fully occupied by a graphic, title, or videotape, the "freedom" is lost. Copy must refer to what we are seeing, at the time we are seeing it.

This is absolutely fundamental. And it explains why so much money, time and efforts are spent on getting the right pictures in the first place. If the pictures show the elements of a news story specifically, the writer can combine editing and writing to tell the news "reely," to present it in whichever order and structure he or she thinks does the job best.

But things don't always work out that way. The "right" pictures are not always in hand. Thus the writer must find some way, some language, to tell the right news while incorporating the taped visuals that are available.

One option of course, is, not to use the tape at all if it doesn't show exactly what the writer wants to tell. However, in the real world, this option is rarely exercised. The name of the game is to exploit the medium's visual aspect whenever possible. In practice, this means going with whatever tape happens to be available as long as it is related to the subject at hand. And for the writer, this means tailoring language to fit the situation.

Drafting for TV cannot be haphazard. It requires discipline. It requires the writer to assess all the available elements - story points, picture, sound, plus the allotted air time - before sitting down to write.

2.3 Different Kinds of Visuals

The sources from which the TV station gets the visuals determines the kinds of visuals. Normally a TV station gets the visual through the three main channels:

- (1) The efforts of their own reporters.
- (2) The wire services
- (3) Network news services

Apart from above three sources, the TV stations also secure visuals from :

- A- Local staff and free-lance camera crews.
- B- Network newscasts.
- C- Network closed circuit feeds.

- D- Group or regional pools
- E- Government or company handouts.
- F- News agency wirephotos.

2.4 Visual Editing : Principles and Techniques

Videotape cassettes are factory sealed. The tape is never touched by human hands, nor should it be. A smudge of dirt or even the skin's natural oils can damage not only the tape but also the recording and playback circuitry through which it passes. All editing is done electronically. The film is edited manually.

The way tape works is this: sound and picture are encoded in magnetic particles on the tape's surface by the record circuitry. Editing and Playback circuitry read this code to reconstitue the images and sounds. The sound and picture are on separate tracks, enabling tape editors to rearrange them independently of one another.

Tape gear is constantly being improved, being made lighter, more light-sensitive, more shockproof, more weather resistant and more flexible. However, the basic components remain the same and TV journalists must be familiar with them in order to exploit their capabilities. A TV writer or reporter may never have to operate the equipment, but he or she must understand its use to integrate taped material into field reports and newscasts.

Video Editing Techniques:

In the first instance, it is the people in the field, the reporters and the cameramen who must understand picture composition.

It is they who provide the raw material for writers, producers and tape editors. However the editors must understand picture composition and terminology to make the best use of the raw material. Moreover a TV journalist must at least know what his or her colleagues are talking about, whether or not he or she is ever involved in editing or shot selection.

Editing experts have determined two general methods for editing and correlating sound with picture: scene by scene and as a flow:

Editing scene by scene

This technique is easier to learn and is frequently used by field reporters to help guide tape editors in the choice and order of scenes, employs a key or phrase that corresponds precisely with the appearance of a given picture.

Editing as a flow

By far the more difficult, more creative, and ultimately more satisfying technique is writing that lets thoughts and subject matters flow seemingly effort-lessly one to another. In this technique, the references to specific pictures are more oblique, more off-handed, more like conventional storytelling.

2.5 Newscaster : Role and Requisites

To be a newscaster, you do not have to look like a movies star. But a certain modicum of appearance and performing ability is required.

No matter what TV journalists would like to call it, a newscast is a show, a "performance" by news professionals. Performing is a fact of life in television, people can see you as well as hear you.

Television being a close-up medium concentrates mainly on your face.

The key to appearance on television is having or cultivating a unique and memorable look. Visual recognition is the dominant identifiable aspect of television. It is more important than the voice, even though that is very important. Your appearance should be unique, clearly different, if it is to be easily remembered by viewers. Being exceptionally beautiful, handsome, ugly, strange, exotic, large, thin, nervous, or energetic can be the basis for a memorable appearance.

2.6 Production of Bulletin

Production of TV News Bulletin is a highly specialised job which requires professional skill, strong nerves and sharp reflexes. The producer is assigned to put the bulletin on air live. He is the leader of the team comprising scores of engineers, cameramen, audio technicians and lighting experts. He gives command to the visual switcher, studio switchers, telecine operators, video incharge and computer experts. At the same time, he keeps in touch with the cameramen and boom operators in the studios. While conducting this complex exercise, he never loses his contact with the anchorperson/ newscaster and goes on giving instructions to all the staff involved in

the production. Before going to the panel, the producer marks his cues on his copy of the bulletin. These cues are marked for putting the technicians and operators of various gadgets/ equipment on "standby" and start the machines accordingly so that films and visuals stabilises before going on the air and do not flicker on the TV screens. Before putting the visuals and different camera shots on air, the producer takes a look at the various TV monitors to ensure that the right visual goes on the air and the quality of various sources matches with each other. While sitting at the panel the producer also remains in touch with other TV centres through a Hot Line and gives instructions to the Panel Producers sitting at other centres for coordinating the production of their respective chunks.

3. Self Assessment Questions

- Q.1 Describe the process of planning a television bulletin.
- Q.2 Elaborate the position of a Producer in planning the bulletin.
- Q.3 Why the rehearsal for visual is important for TV bulletin.

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**CURRENT AFFAIRS PROGRAMMES
INTRODUCTION AND SIGNIFICANCE**

Written by : Sarwar Munir Rao
Reviewed by : Prof. Dr. Miskeen Ali Hijazi

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1. Objectives

After studying this unit, you should be able to :-

1. Explain the Current Affairs programmes and its different kinds and significance.
2. Describe the techniques by which the discussion/ talks programmes, Field and Sports programmes are recorded and televised.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Current Affairs programmes - Introduction & Significance

Programmes on current topics relating to all the relevant fields of day to day life, dominating the daily news scene are known as Current Affairs Programmes.

Current affairs programmes are also called as follow up programmes of news events.

Basic purpose of current affairs programmes is to high-light all aspects of the issues and opinions of the people about them.

In current affairs discussion programmes government officials, intellectuals, educationists, research scholars, economists, politicians, scientists and socialologists express their views.

In news bulletins due to time limitations only hard news are accommodated. The hard news only concentrate on stories of national and international significance while the current affairs programmes can cover details of routine government activities, politics, foreign affairs, social and civic problems. These programmes provide an opportunity to get education and information about the issue.

Engagements of President / Prime Minister and other VIPs are also televised in current affairs slot. Special reports of parliamentary proceedings, national and international level conferences are also part of current affairs coverages.

Sports events are also covered under current affairs.

2.2 Different Types of Current Affairs Programmes

Current Affairs Programmes are classified into three categories:

- A- Studio Programmes
- B- Field Production Programmes
- C- Sports Programmes / Events

A- Studio Programmes

In the category of Studio Programmes there are two classifications, one is Discussion / Talks programmes while the other is Interviews:

i) Discussion/ Talks Programmes

Discussion/ Talks programmes are basically studio programmes, although sometime keeping in view the nature of assignment, these can also be recorded out-door. In the discussion/ talks programmes, one or more than one participant take part. If more than one participant are involved, then one of them is called compere or moderator. In the discussion programmes several opinions, whether in favour or dis-agreement can be aired. It may range from original conversations to serious arguments, but it should also stimulate interest. In the discussion programmes one can get more balanced coverage of a topic than in a single talk of interview.

ii) Interview

In current affairs programmes the interviews are usually conducted with three types of interviewee:

1. The expert
2. The celebrity
3. The man in the street

The main objective of current affairs interview should be to obtain information from the interviewee in the shortest possible time in the clearest way.

There are different types of current affairs interviews, but essentially, they can be divided into three basic categories:

1. The information interview-which seeks to bring out facts.
2. The opinion interview-which gathers views and comments.
3. The personality interview-which portrays a great man or woman.

B- Field Production

Out-door broadcasting van is called a mobile television control room or a

Mini Studio. This van is used for live recording or telecast from the place where the event is happening. For example a live coverage from the cricket or hockey ground where the match is being played can be called O.B. Recording. The O.B. Van can also be used at the airport for live coverages of VVIP's arrival and departure.

O.B. Van is directly linked with the television transmitter through control room where the signal is being recorded for onward direct transmission to the public - network.

ii) **Live Telecast**

Any activity which is covered right from the venue of the event is known as 'Live telecast'. Live telecast coverage is done through OB Van from the place where the event is taking place.

C- **Sports Coverages**

In the Current Affairs Programmes, basically, three types of sports coverages are done.

a- **Live coverage of the Sports Events:**

These events are covered on OB Vans especially the major games like Cricket, Hockey, Football, Snookers and Table Tennis. These matches are covered live.

b- **Recorded Programmes:**

Some sports events are reported after recording. Usually this is because of non availability of funds and non accessible and difficult routes where communication is not possible for linkage.

Informative Programmes

Informative programmes relating to sports also come under Current Affairs coverage:

They are:

- i) Sports Documentary.
- ii) Interviews with sports personalities.
- iii) Quiz programmes on sports.

3. Self Assessment Questions

Question :1. Describe the Current Affairs Programmes and its significance.

Question :2. Elaborate different types of current affairs programmes and also discuss the difference between Studio programmes and Field Production.

Question :3. Analyse various types of sports programmes.

Key Notes

- 1- Current Affairs Programmes are related to current topics, dominating the daily news scenes, purpose of these programmes is to highlight all aspects of an issue. News bulletins cover hard news while current affairs programmes discuss in depth details.
- 2- Current Affairs programmes are classified as Studio Programmes, Field Production programmes and Sports programmes.
- 3- Current Affairs programmes cover the sports events. Sports coverages are done live from the ground. Sports programmes can also be recorded and televised later on.

4. Suggested Readings

- | | |
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UNIT NO. 5

ENTERTAINMENT AND GENERAL PROGRAMMES

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1. Objectives

After studying this unit, you should be able to :-

1. Describe each type of television programme in terms of target audience, the motives and the formats.
2. Prepare a hypothetical programme planning for a television company accommodating different types of programmes for different clientele of the country.
3. Analyse a given television programme to determine its format and related characteristics.

2. SUMMARY OF THE MAJOR TOPICS

2.1 General Entertainment Programmes

Television is attributed to three broad functions: to inform the people, to entertain the people and to educate the people. Out of these three, the entertainment element occupies largest share in terms of time and resources. Television is basically an "entertainment - oriented" medium. Even the education and information elements contain a touch of entertainment in order to capture the attention of its target viewers.

Today television plays and music shows attract hundreds of viewers who sit before mini screen, sometimes to kill time - sometimes to satisfy their internal instinct. Obviously we love being told a story - to get out ourselves escape - to dream of being bigger, stronger, braver -- to risk life, stalk a killer -- all this safely, secretly in the intimate closeness of our own television screen.

All television broadcasts are either targeted towards general public (the masses) or to a more specific population group, such as, women, folk, youth or children. The former types of programmes are referred to as "general audience programmes" while the later are called "special audience programmes".

However while making a distinction between general and special audience, in actual practice, the fact should be kept in view that the "general audience" is a relative term. For people in a European homogeneous classless educated society the general audiences include all citizens. On the other hand in an under- developed heterogeneous society where there are apparent classes of people, such as poor and rich, jagirdars and harees and privileged urban people and unprivileged rural masses the term "general audience" does not actually denote the average citizen of a country. In such a case the general audience are, paradoxically, those "specific people" who have access to media and the programmes are about them. For example, in Pakistan, television viewers are the people who live in cities and towns with sufficient earnings and having television sets. Thus we observe that the programmes from PTV labelled as "general audience programmes" infact cater to the needs of city dwellers who are relatively literate and comfortable masses. Consider Pakistan television plays where the characters, dialogues and the themes consciously or unconsciously reflects the living styles of middle class people of Pakistan.

Interestingly the television centres in big cities like Karachi and Lahore produce plays with urban oriented story-line, while television centres at Peshawar and Quetta choose the topics relating to feudal or tribal background and their rural life depiction is near reality.

2.2 Classification of PTV Programmes

Pakistan Television has made five categories of programmes. Five separate production divisions are responsible for the production of programmes.

- a) Programmes Division. b) Current Affairs Division.
- c) News Division d) Educational Programmes Through PTV-2
- e) Sports Division.

PROGRAMMES DIVISION is responsible for the production of all sorts of entertainment programmes. These programmes are further categorised in national network programmes and regional language programmes.

Both the categories include entertainment and general programmes of the following types

- 1) Plays - TV Dramas - Telestories,
- 2) Music - (classical - Light music - Folk - Pop music).
- 3) Children Programmes - (Plays - Music - cartoons - Quiz-shows).
- 4) Shows / Magazine Programmes.
- 5) Youth/ Women/ Student/ Special occasion programmes as on Eid, M-mass, Anniversaries etc.
- 6) Religious Programmes.

Other than entertainment programmes are produced by other production divisions, mentioned above, produce current affairs programmes covering national/ international important events, governments policy projection programmes, news bulletins, sports programmes and educational programmes.

A separate T.V channel PTV-2 is exclusively meant for the production of educational programmes.

PTV also import entertainment programmes in foreign languages which includes English feature films, comedy shows, cartoon programmes etc.

Entertainment Programmes on Private T.V Channel.

NTM, Network Television Marketing is a Private T.V Company which transmits its programmes through the transmitters of STN, (Shalimar Television Network). Most of its programmes, are entertainment oriented. It telecasts T.V dramas, music programmes, shows, English programmes, English, Urdu, Punjabi, Pushto or Sindi feature films.

One rationale to distinguish the programmes from one another is based on the format or presentation style of programmes. Thus we talk about dramas in contrast to musical programmes and separate discussion programmes from documentaries, as well as, talks from stage shows. There are three broad approaches to classify television programmes:

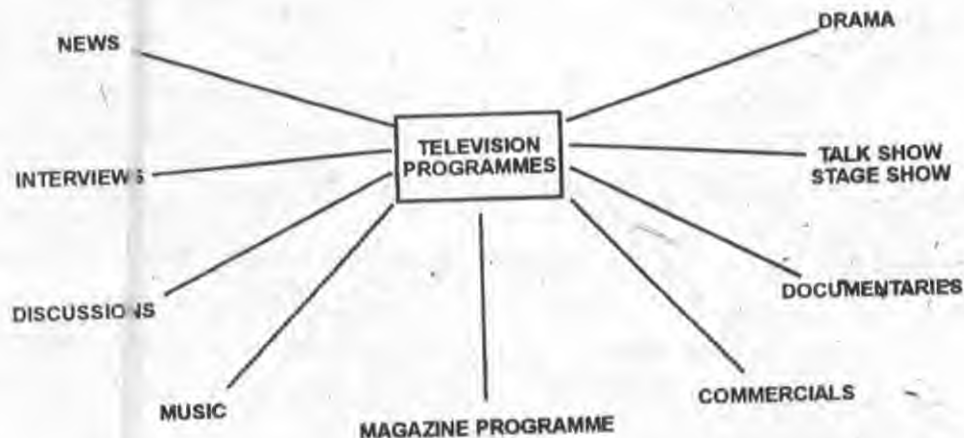
- i) From production format point of view: Dramas, panel discussion and documentaries are different formats of programmes because their presentation and treatment style differ from each other.
- ii) From contents point of view, contents are based on the overall aim of the programme. Contents reflect whether a particular programme is meant to provide entertainment, information or education. Consequently the programmes are called entertainment programmes or educational programmes etc.
- iii) From the audience/ viewers/clientele point of view. This type of programme classification is quite common and in wide practice in the broadcasting organizations and literature. Under this type of classification programmes are prepared keeping the specific sub-groups of audience in view. The audiences may be children, women, students, disabled persons or the youth.

Television programmes are made in different formats and presentation styles. Talk-shows, music and dramas are some of the popular formats. Choice and selection of programme format is related to certain factors such as the programme contents, the theme, objectives, the audience, and broadcast time. Every programme, whether intended to give information, education or entertainment, is produced under some established and acceptable format.

Television is an experimental medium, always keenly interested in adapting new production styles. Over the years a variety of programme presentation styles

have been tried out on television. Various formats are distinctively unique from one another.

The diagram below shows some popular television formats :



Selection of programme format is significant for programme planners and publicists. It is also significant from the viewers point of view. People have their own choice for certain formats. It is also important for the researchers to study the characteristics of programme format to assess their impact. The important factors influencing the choice of format include :-

- i) **Broad aims:** What kind of effects the planners wish to create among the audience. Format of short messages is good for motivational purposes which is seen anyway. Drama is effective to appeal to emotions such as patriotism and concern for certain social issues.
- ii) **Target audience:** Children generally like cartoons, moving images and storytelling. Youth like to participate in the programmes. Inter-active talk-shows provide a sense of participation. For general public the widely acceptable formats are dramas, stage-shows and music.
- iii) **Transmission time :** Formats sometimes depend on the time available for transmission of the programmes. Morning time programme formats are suitable for viewers groups such as women folk, unemployed and elderly people. Nights are suitable for serious programmes such as discussions and documentaries.
- iv) **Resources :** Formats also depend on the available resources. Drama production is expensive than a panel discussion. A good documentary require more time than to make a talk-show.

The broad categories of programmes you are studying in this unit should include all the popular formats used for general entertainment purpose. You should also study the characteristics and impacts of various formats.

2.3 Drama

Television drama is a popular and favourite form of entertainment all over the world. Basically television drama is an adapted form of art that comprise the traditions of theater, film and radio. Later the unique television presentation techniques brought about a clear distinction to television drama. Generally, television drama is meant for entertainment purposes. It has also been instrumental, in the third world countries, for propaganda, publicity and to create awareness about various social issues. Drama has a strong emotional involvement for the audience.

Television drama is further classified as single play, drama series, drama serial, documentary drama and soap opera.

2.4 Documentary

Television documentary is creative treatment of actuality. A wider meaning is factual film.

Television documentaries are the kind of programmes through which a research-based topic (document) is eventually brought on the screen in visual form. The people, locations and events represent real life situations.

Documentaries are non-fictional format that attract reason and logic, hence useful for giving serious information and knowledge. Documentaries have strong academic touch and can be used as a reference material. Making of a documentary is a time consuming job. Also the viewing requires a certain level of sophistication on the part of the audiences.

Some critics think that capturing absolute "reality" on video documentary is not possible. This is because during production of documentary some interviews and actions have to be "arranged" before recording. Thus the spirit of "reality" is often lost.

Documentaries can be prepared on various topics such as:

- News and current affairs

- Historical events and sites.
- Social, political and economic issues and public nuisance.
- Ideas
- Personalities

2.5 Music Programmes

Music has been a favourite activity of man since ancient history. It remained not only a personal hobby but a performing art as well.

Television has brought about new dimensions and fresh treatments to music through the changing images and colours on the screen. Video effects have revolutionized musical presentations. Poetry is represented in visual terms through quick imagery.

Ever since radio and television institutions are established, music has been given much attention. The broadcasts since early days were categorized into either music or spoken word. If spoken word is a vehicle to express thoughts, music is used to express feelings.

Music will remain an experimental and favourite area in television. A large proportion of resources, transmission time and production efforts are devoted to the television music all over the world. Generally it is the music that fills the greater part of the broadcast time each day.

Music offers entertainment and liesure to the people. It is said that one of the important functions of contemporary music is to represent the aspirations, thoughts and mood of the present time and people. The most successful music is the one that performs this job well.

Music occupies a larger time of television transmission in Pakistan. Beside folk and classical music, attempts are made to express the present day mood of the youth of the country. Thus we witness the modern style music programmes and DJs quite popular among the new generation.

You should study the popularity and relative importance of music programmes in terms of following categories :-

1. Classical music

2. Light music
3. Folk music
4. Pop music

Television music is now totally different. Television music is creative representation of moods and melodies through visual gimmickry, special effects and lighting. Pop music has changed the concept of music programmes. Singers and musicians have become performers.

2.6 Women's Programmes

Women's programmes fall in the category of special audience programmes. This category is specially coined and applied in the third world developing countries like Pakistan. In western and European countries there are hardly similar distinctively separate programmes for women folk.

Women comprise a large proportion of the television audience. It is a recognized fact that women belong to the disadvantaged group of our society. They have lesser access to education, social mobility and economic activities. It is therefore necessary to create awareness among the women population to improve their education and economic productivity.

"Educate a man and you educate an individual, educate a woman and you educate the family". One purpose of women's programmes is to provide them necessary information in a friendly and sympathetic tone to build their confidence.

Some of the programmes containing matter for the interest of women include: morning transmission "Subah Ki Nashriat", special thematic plays concerning the life style of women and their problems, women Mehfil-e-Milad, and TV reports covering the events relating to women's activities. Women programmes also contain items such as news events and its background explanation, music of women's choice, interviews and life sketches of prominent women, cookery and household, health care and nutrition hints, beauty tips, dress and fashion, business enterprises for women.

You should study the scope, approach and impact of women's programmes.

2.7 Children programmes

Children programmes are also special audience programmes. Children

comprise a substantial proportion of television viewers. Television companies all over the world prepare programmes having special and exclusive interest for children. Programmes makers conduct detailed researches to find out new interests for children. A continuous feedback and evaluation is necessary to assess the popularity and effectiveness of children programmes.

In Pakistan as well there is always a number of programmes of air targeted towards children. These include musical programmes, dramas, cartoons, trips to interesting places and quiz shows etc.

It is important to make a distinction among the children programmes, students' programmes and the programmes for the youth.

More meaningful programmes are those where the age group of the viewers is determined. Usually the children audience comprise age group between 6 years to 10 years.

It is also necessary to distinguish the educational, informational and entertainment programmes from each other. Thus we see that "Sesame Street" is targeted at pre-school disadvantaged children while school broadcasts are meant for school going children. On the other hand cartoon programmes such as "Mickey Mouse" are purely entertainment programmes.

You should also study the effects of television on children. Television is sometimes accused of promoting violence, crimes and sex. Children are very quick in copying the action shown on television. Violence on television is a much debated issue. Even cartoon programmes are labelled as violent.

2.8 Religious Programmes

It is interesting to have a comparative study on the religious broadcasts of different countries, having different socio-political, historical and cultural backgrounds.

Countries like Pakistan claiming a religion-based ideology are obliged to devote a reasonable time to religious education through the media. Hence we see that on Pakistani television channels regular Islamic teaching programmes are scheduled as routine broadcasts. Besides, special programmes are also arranged on religious festivals and anniversaries. These programmes are aimed at developing national unity, harmony and tolerance.

Similarly in other homogeneous religious societies religious broadcasts are common feature. Besides pure religious programmes the ideological doctrines are also presented through normal programmes such as dramas and documentaries.

Public media of secular societies are also bound to allocate certain broadcast time for the followers of various religious minorities living in the country.

In Britain 3% of the transmission time is devoted to religious broadcasts. In BBC a "religious broadcasting department" is working for the promotion of religious programmes.

A common feature of religious broadcasts is to prove the validity of religious principles in the present day life.

It is rather only in the absolute non-religious states where religious broadcasts have no place over the media.

Common formats of religious programmes include lectures, discussions, sermons, live broadcasts from the holy places, documentaries, carols, Hamd-o-Nat and Qawwalies.

Religious programmes are characterized by a peculiar simple straight forward style. There is hardly a new experimental and artistic treatment introduced in the programmes. Programmes comprise plain contents. It is the religious flair of the audience that promote viewing. These broadcasts are generally taken for granted and accepted "as they are". Production and artistic values are seldom discussed in the critical reviews.

Some religious programmes tend to be very limited in their scope and information. They seldom penetrate deep in the spirit and thought. The participants are usually common people.

3. Key Terms

i) Format

- a) The shape, size and style of a programme.
- b) The general style and appearance of a stage or television presentation, e.g. a drama or a documentary.

ii) Magazine Programmes: It is a programme in which four to five different items are collected. In other words a single programme containing four or

five short duration programmes, each produced with most suitable production format. A magazine programme may contain short duration play - called skit, a short music programme, may be one song, quiz, a short duration information film, and even news. All items in a magazine programme may have independent themes or all may have some theme and subject as PTV's programme "Kashmir Magazine" has information, film, discussion on some Kashmir topics, Kashmiri song (Naghma), historical background of some places or personality, refugees interviews and Kashmir news.

iii) Single Play

Also called full length or long play with complete story. Full length plays, sometimes thematic, are usually associated with unique story and treatment that distinguish them from a common serial. Example from PTV "TV theatre" or a special play on Independence Day, Defence day etc.

iv) Drama Series

A chain of separate plays, each with a complete story. The major stock characters, surroundings and locations remain the same. Plays from the series are telecast on fixed days of the week.

Example from PTV "Andhera Ujala" and "Colombo", etc.

v) Serial play:

A long story separated into various segments also called episodes. This format was early introduced through dramatization of some classical novels. Gather all the episodes and you will get a full play. Example from PTV "Kauda Ki Basti" and "Aik Thi Gurya", etc.

vi) Soap Opera:

A form of serial play where the story continues for very long time. Some soaps like "Coronation Street" is almost never ending. The story and characters of soap opera represent certain class of people and place showing their every day life as well as their love and hate relationships. The continuous story keeps turning and introducing new characters.

vii) Documentary Drama:

Also known as docu-drama is a special kind of play produced in a

documentary style. Docu-Drama is an attempt to blend the fiction (drama) with the real life (documentary). One purpose of docu-drama is to establish authenticity with the help of actual surroundings and non-professional actors. Docu-drama is a favourable format in raising awareness on social issues and establish history with entertainment perspective.

viii) D.Js (Disc Jockeys)

One who presents recorded musical items alongwith chit chat in a fast mood.

ix) Special audience

In contrast to general audience a more specific group of listeners like women children or students.

x) Treatment: The treatment is the "Story" of the programme presented in straight forward, plain language. Object is to enable every concerned to study the project. It is an opinion on the style, emphasis, mood and shape of programme as it will finally emerge. Treatment determines the format and method of presentation.

4. Self Assessment Questions

Q.1) Classification of television programmes can be made on more than one rational . Explain and give examples?

Q.2) How would you differentiate television programmes meant for general audience and special audience? Make a one day broadcast schedule accomodating programmes (with timings) for various clientele.

Q.3) Explain different kinds of drama formats?

Q.4) One function of contemporary music is to represent the mood and feelings of the present time and people. Discuss?

Q.5) Much of the religious programmes are taken for granted. Do you agree? Critically review the religious broadcasts and suggest improvements.

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EDUCATIONAL TELEVISION

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1. Objectives

After studying this unit, you should be able to :-

1. Compare and contrast educational television with television for general purpose.
2. Recall the history of educational television to analyse its trends.
3. Elaborate different kinds of educational programmes.
4. Analyse advantages or merits of different kinds of educational programmes.
5. Appreciate television as a dynamic source in pedagogy.
6. Select suitable educational television approach for a particular educational scheme.
7. Evaluate AIOU experience in the use of media.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Introduction and evolution

Television has been given considerable importance in many countries as a source and a tool of teaching. The success stories of using television for education in many countries has negated the concept that television is basically an entertainment-oriented medium and it is hostile to thoughts.

Television is adaptable and can follow different approaches when used in different educational situations. The medium is used for formal, non-formal and informal education.

To support formal education, television usually functions as supportive and reinforcement tool. Television can be attached with school curriculum and time tables. When systematically organized it takes the form of "school broadcast". Proper schedules of television transmission with details of broadcast notes are prepared jointly by the television and education authorities. The teachers are well aware of the contents of programmes. Under the concept of "school broadcast", programmes are viewed in class-rooms under the guidance of teachers. Activities before and after watching the programmes may also be conducted.

In non-formal education, television has a more specific role to play. When used as a part of multi-media communication tool, television can directly or indirectly teach the subject matter. In distance learning television may perform various innovative roles such as classroom substitution and regularity in studies.

While listing the use of television, in the broader terms of information and education, you should try to understand the difference in the educational and educative use of television. In strict sense the terms "educational television" and "instructional television" refer to the use of television in the teaching and learning of only curriculum based contents. But we also see a huge number of television programmes that disseminate knowledge, enlarge our sensibilities and teach certain skills. These programmes are intended for general audiences. There are not text books involved, no examinations and no obligation on the part of the viewers to "do something" in response to these programmes. Hence these programmes fall in the category of "educative & informative programmes".

Out of the three great purposes of broadcasting (i.e. to inform, to entertain and to educate) it is the educational use which is more definite, more purposeful

and least controversial. However success of educational television is more apparent where people accept it as an authentic source of information such as books.

Importance of television to communicate information, ideas, skills and attitudes have been affirmed by researches. You should attempt to study various reports published on educational television in different countries in different situations.

In the words of Gerald Beadle, Director TV BBC "next to home and school I believe television to have a more profound influence on human race than any other medium of communication".

ETV (Educational Television) is a generic term applied to express the use of television for various teaching and learning purposes. Other related terms like ITV (instructional television) or School Television should all be considered as forms of educational television.

The history of "educational" and "educative" television is closely associated with various experiments starting right from the advent of television. However all countries have not gone through the similar experience in the use of television for educational purposes. As a matter of fact there is great variation in the actual practical utilization of television for education within a country among different channels and the broadcasting organizations among different countries of the world.

Take the example of running a separate channel for education transmission. A third world country like Pakistan is operating an exclusive channel in the name of education where-as other countries of similar status have not embarked on this situation. Even in various European and Western developed countries there are no exclusive educational channels. The use, effectiveness and impact of PTV-2 in Pakistan as an educational channel is a big question in terms of planning and need-based actual utilization.

Success of such an expensive medium depends on various factors. Firstly the planners should know the actual learning requirements of the society that can be catered successfully through television. The requirements should therefore be thoroughly calculated by need-assessment surveys and researches. Secondly, there should a regular flow of series of properly planned tele-courses followed by wide publicity. And thirdly there should be a system to get continuous feed-back from the target audience and evaluation of the whole range of activities.

Television was introduced in Pakistan in 1964 in the name of education but ironically, education remained a lesser priority among the overall programme activities at PTV. Later ETV was established as a separate section within PTV. The important educational activities of ETV includes literacy campaign "Naye Din", various school curriculum related series and general educational programmes.

Since 1974 ITV has been cooperating in making and transmitting AIOU course-based programmes. From 1984 AIOU has been producing its television programmes in its own studios which go on-air through PTV transmitters.

Now the educational channel PTV-2 is supposed to cater the learning needs of the society including students, farmers and skilled and semi-skilled personnel.

On American scene educational television appeared in 1953. In the next seven years fifty channels were operating in U.S. National Educational Television (NET) provided thousands of recorded programmes to the instructional television centers. Consequently television programmes pattern and viewing habits were established. Up to now two to three generations of Americans had been brought up under the television influence. Educational stations are putting more than 1800 hours of programmes on air each week.

Japan is making extensive use of television for educational purposes. Schools and educational institutions are automatically equipped with receivers to facilitate the group viewing. NHK devotes a high percentage of its time to education. Japan has launched a broadcast satellite to improve transmission and its reach to all hilly and remote areas of the country.

In UK all television channels devote certain time for education. Programmes of UK Open University are jointly prepared by the University and the BBC. These are transmitted through the BBC-2. All important channels like the BBC and Independent Television (ITV) have educational television set-up within their organizations. School Broadcasts are regular feature on the BBC and ITV.

In India experimental educational television started for higher school in 1960. From 1975, Delhi "Door Darshan" expanded the educational television transmission. Later a network was established to cater the educational needs of schools and out-of-school public. India is using satellite INSAT-I for education since 1982. This has also made the national hookups possible.

2.2 Role and Impact of Educational Television

If media is to work as an effective teaching tool then certainly it is helping hand towards achieving the aims and objectives of education.

Media is an agent to boost cultural, economic and social development activity. Television, as an important mass medium disseminate education through formal and informal methods.

Formal educational television methods, in simple terms, means a direct source to teach the syllabus-based lessons. In its informal role, television reinforces what formal education is already offering.

Television also continues to benefit the masses by making them conscious of their environments, rights, duties and privileges. It is a source of teaching etiquettes, language, skills, hobbies, social relations and religious believes.

Role of television is neither fixed nor easily tangible and measurable. The role is directly related to the question of how far the planners are serious and determined to use television. The role could either be enormous or, on the contrary very meagre, depending upon the specific tasks and available resources. Generally television can help to achieve the following objectives:-

- a) Social equality in education.
- b) Enhance quality in education.
- c) Reduce dependency on verbal teaching and teachers.
- d) Provide flexibility of time and space in learning.
- e) Stimulates learning.
- f) Provide mass education opportunities.

As far the impact of educational television it should rather be studied in more narrow and specific areas. In the words of Schram; "TV is more effective in teaching mathematics, science and social studies. Where as history, humanities and literature has not benefitted from this medium the same degree".

The impact of television on macro level should be studied in three areas namely:-

- 1) Teachers' competencies.
- 2) Students' competencies
- 3) Effects on general viewers

2.3 Kinds of Educational Programmes

In the broader sense the educational television programmes follow more or less the same variety of formats which are already established in the making of general television programmes. However, the difference lies in the treatment of subjects, its explanations, the repetitions, and summaries at the end, to make the things understandable. Educational programmes are more direct, sober and economically designed.

Following kinds of formats are frequently used in educational television:-

i) Illustrated Lectures: The lecturer uses graphics and film materials, maps, models, actual things and animations as visual aids.

ii) Magazine format: A number of short items, usually each of five minutes duration are linked together to create interest and variety. Different topics or sub-topics can be included in a magazine format.

iii) Drama: Specially scripted dramatized presentations are used to illustrate certain behaviours. The story line should meet the pedagogic requirements of the subject area.

Drama format attracts the audiences, specially the adults. It is good for follow-up discussion. Drama can illustrate the complex real life situations, however only simple messages are possible through this format.

iv) Quiz Shows: Quiz shows help to create a sense of participation among the home audiences because of the instructiveness of questions and answers. The viewers feel their representation in the programmes. It is low cost and simple format. It is used to give verbal information. It is good to stir the memories through interaction techniques.

v) Studio discussion: Discussion is effective when the topic is multi-dimensional, debatable and needs to tackle different point of views. Participants of discussion should have different experiences and back grounds. Topics should not be dealt with superficially. Concrete and memorable knowledge should be given. Lively discussions are better than dull and lengthy type of statements.

v) Documentaries : Documentaries represent the world "as it is". In educational perspective documentaries help to give factual and first hand knowledge through eyewitness accounts and not through fiction, drama or lectures. Documentaries make good use of the radio and television media. This format is interesting and effective for group discussion.

2.4 Different Approaches to use Television for Education

Television is only a medium of information. It can achieve various educational objectives and cater to the needs of different learning environments. For example among various uses television can serve in four wall class-room situations, as well as, help the individual learners at homes, under distance learning schemes. It can be used for direct teaching without teachers or it can be mixed with other information sources like text books or class-room.

Hence we see that television can be used in more than one way depending on the deliberate goals, learning needs, learning situations, teaching contents, existing delivery networks and the available resources.

The planners have to devise proper usages of television at the very start of an educational scheme. Following are the main types of approaches to use television :-

i) Total TV Teaching

In this method television is the chief or only the teacher. There is no other source to supplement or complement the television broadcasts.

For instance TV can teach literacy and numeracy directly to the viewers at homes or in study-groups in viewing centres. Certain skills can also be demonstrated directly to the viewers so that they can practice and apply. Further examples include programmes for pre-school children such as Sesame Street. Many television networks including PTV-2 have assumed the responsibility for total teaching. In this approach television channels develop and follow their own curriculum.

ii) TV as complementary Source

In this approach television is tightly linked with the curriculum requirements. Television is built into the total teaching process and methodology thus becoming an essential component of teaching and learning. Various programmes in sequence are linked with the text books and teachers explanations. If the students miss the programmes the effectiveness of teaching will be reduced. Television in this method

is mandatory not optional.

(ii) TV as supplementary Enrichment

Television is often used to reinforce and enrich the subject areas. In this approach television brings further knowledge, in addition to other basic teaching sources. Viewing is flexible and optional.

2.5 AIOU Experience

AIOU is a distance learning institution. Students in this system are not supposed to come at campus for class study. However the "Open Learning System" of AIOU is not absolutely parallel to that of "independent studies" by the private or external students who are registered with the boards or universities and appear only for the final examinations. They get degrees on successful completion of terms. AIOU learning system is more systematic and disciplined. Here progress of the students is regularly monitored and multi-media communication channels are used for the teaching and learning purposes.

Usually it is the print medium that assumes the role of providing the basic and core learning material to the students. Other sources such as face-to-face tutorial support and radio and television broadcasts have their own utility.

Tutorials help the students to get guidance and seek clarity in certain subject areas.

The electronic media is used for a variety of purposes depending on the requirements of the courses and teaching methodologies. Following is the summary of various uses of television :-

- To show practical application of the principles already written in the text books.
- to show laboratory work and demonstrations.
- to humanize distance education. The media helps to fill the gap between the teachers at campus and the students at homes. Thus it creates a sense of belonging among the distance learning students.
- to improve language skills by showing language in use and its drills.
- to improve teaching skills by showing model teaching techniques.

- to show real life situations.
- to show micro-scopic things on magnified scale.
- Animation
- Dramatic presentations to show human behaviour or history.
- Slow motions
- Case-studies

The common motive behind using media channels is to explain and provide evidence to the syllabus contents. Specific objectives of television education may vary from course to course. The correspondence materials i.e. the books of AIOU generally cover the theoretical and analytical aspects of the subject, while television attempts to show these principles in real working situations through the visual representation of written words.

AIOU has so far produced more than four hundred television programmes and many non-broadcast audio-visual cassettes. Slide tapes and flip charts are also used as visual media.

Television is used in science, technical and vocational subjects. The demonstration through television helps to substitute the laboratory experiments. In social sciences and languages, television is used to show real life situations.

Television also helps to understand information which is too complex for the written or spoken explanation.

3. Self Assessment Questions

1. The ETV (educational television) or ITV (instructional television) and the general educative television all are more specifically connected with our practical lives as compared to the other two services of broadcasting i.e. entertainment and information. Discuss and explain how?
2. Different countries have different experiences of educational television. Explain.
3. Describe the several roles and functions of educational television.

4. The output of educational television depends on what extent and how the planners wish to use the medium. Do you agree?
5. Elaborate various kinds of educational programmes? Explain their advantages. Give examples.
6. Various television formats like drama, illustrated lectures, documentaries and stage-shows are commonly used, both in entertainment television and educational television. Still there are apparent differences in their styles, treatment and approach. Explain and give examples.
7. Evaluate the purpose and utility of each of the following types of approaches in educational television :
 1. total television teaching.
 2. television as complementary source.
8. Explain how AIOU has used television as a means of communication and dissemination of education in its distance learning system. Suggest improvements.

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TELEVISION TECHNICAL ASPECTS

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1. Objectives

After studying this unit, you should be able to :-

1. Explain the broadcasting system in terms of the process of electronic transmission and presentation of distant scenes and the associated sounds.
2. Compare and contrast different-recording formats in terms of video machines and tapes used in each system.
3. Explain the importance of sound in TV broadcasting. List various types of microphones and state their salient features.
4. Explain the importance and various purposes of make-believe environments in television studios called "sets".
5. Distinguish between various types of sets.
6. State the importance of artificial lighting in television studios.
7. Describe the traditional "three point lighting pattern" used in television studios.
8. Explain the system and working of Cable Television.
9. State the use of Close Circuit Television.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Broadcasting System

Broadcasting means dissemination of any form of message through radio electric communication on Hertzian waves. The waves are received by public either directly through the receivers or through the medium of relay stations.

Television broadcasting is also defined as electronic transmission and presentation of distant scenes and the associated sounds. The term television broadcasting include both video and audio signals.

Radio and television programmes are broadcasted on certain electromagnetic waves system. The entire electromagnetic spectrum covers many types of energies like electricity (used at homes), radio waves, ultrawaves and x-rays etc. The radio waves due to their unique quality are used to carry signals.

Radio waves travel at a constant speed of 186,000 miles per second. The radio waves were called "Kilo cycles" or thousands of cycles per second. Now the "cycle per seconds" are called "Hertz" after the name of Rudolph Hertz, the German scientist.

The radio spectrum is so extensive that it is divided into "long waves", "medium waves", and "short waves". Later more portions of the spectrum consisting of higher frequencies were discovered. They are named as VHF, very high frequency, UHF, ultra high frequency and super high frequency (SHF).

Before the sound is heard on radio or television or the picture is seen on home screen there must be modulation of various kinds of energy. As regards sound waves in the studio these are changed into electrical energy, then into radio energy, back to electrical energy, and finally, it emerges in sound waves nearly identical to those in the studio.

When a singer performs in the studio the sound waves strike against a microphone through which steady electric current is passing. The electrical current comes from the microphone travels to the transmitter.

Radio transmission is converted into sound waves at the loudspeaker. The picture is still an electronic pulses, is converted into light waves (picture) on the cathode ray tube, the end of which is TV screen. The picture consists of a pattern of dots produced by an electronic beam transmitting the screen rapidly. The movement builds a complete picture. The electron beam travels to the screen in lines; the

closer the lines, the sharper will be the picture. The systems vary from 405 lines, 525 lines, 625 lines and the latest high vision television 1125 lines.

In case of television the picture is basically produced electronically as opposed to the photographic process. Picture and sound waves are transmitted on radio type waves. In studio, initially light waves reflect from the scene. The electronic picture is formed on camera and then is transmitted by a radio transmitter, as a radio wave, going out from an aerial. The picture and the sound are sent simultaneously. This signal travels through air or space and is received by another aerial. It is more difficult to receive the picture and sound together as one signal. When the signal is received by the aerial it is sent by means of cable to the television receiver. The electrical energy fluctuates in the same pattern as the electricity coming from the camera. Here the signal is sorted out into vision and sound. The sound is received exactly in the same way as radio.

2.2 Recording formats

Various types of recording formats are available in the world of electronic markets. Historically speaking these various formats have been introduced one after the other with different technical and recording features that in turn give different output ability.

Some recording formats are of non-professional non-broadcast standards. Examples include VHS (Video Home Service) and VCS (Video compact system). The broadcast standard formats include U-Matic, betacam and one inch tape formats.

The most apparent difference between the formats is the price and quality. They also differ in video tape size, running speed and resolution etc.

Following is the introduction of each type of recording format :-

1) Two Inch Tape

This format also known as "Quad" was in use during the early periods when video recording was introduced in television broadcasting. The tape used is two inch wide on open reel system gives very good quality but the equipment is expensive and the tapes are difficult to store. This format was later replaced with one inch format.

II) One Inch Tape

Also known as "C" format, the most common version of one inch tape. This format also produce broadcast standard signals and has been widely used for the broadcast purposes. The tape used is one inch wide on open reel system. Programmes produced on lower formats are sometimes copied to one inch for editing to achieve better quality results.

III) BVU

BVU was introduced in 1970. It is known as "High Band U-Matic, since it is an upgraded version of U-Matic. In this format instead of open reel tape three quarter inch wide cassette system is used. This tape of recording format is commonly used in broadcasting, especially in quick recording situations such as ENG (Electronic News Gathering). Tape width of U-Matic format is 19 m.m and tape speed is 9.5 cm per second. Maximum duration of the tape is one hour.

IV) U-Matic

Also known as "Low Band U-Matic Format". Like BUU three quarter inch wide tape in cassette is used. Low band also gives broadcast quality signal.

V) Betacam

Betacam is half-inch video tape format system. Betacam S.P gives a fine output recording quality of broadcast standard. The system in recent times has replaced U-Matic broadcast system and now in wide use all over the world. Tape width of Betacam is 12.5. mm and tape speed is 1.8 cm. Maximum duration of the tape is 3 hours.

VHS (Video Home Service)

This is half inch wide, cassette system, the most popular domestic machine with recording and/or play back systems. The recording quality on half inch VHS is not that of broadcast standard but it can be copied on broadcast standard formats for use.

Maximum duration of VHS tape is 3 hours. The tape speed is 2.3 cm per second.

VCS (Video Compact System)

This is a half inch wide cassette format system. It is referred as mini-VHS format using physically smaller cassettes designed to fit inside a dummy full size VHS cassette that can be replayed on a standard VHS machine. It gives greater portability at the cost of reducing recording length to 20 minutes each cassette.

Single System Format

The latest smaller low weight cassette system format where video recorder is incorporated with camera in one integral unit. Most common version is Sony Betacam.

You should study further to know that different recording and playback formats are used to meet different applications. All formats are incompatible. However recording made on one format can be copied on the other format if both kinds of machines are available.

As regards video cameras, in principle these can be used with any format as long as the wiring of the plug which connects the camera lead to the video recorder is correct. The adaptors also help in this regard.

2.3 Microphones

Microphone is one of the important apparatus used in broadcasting (radio as well as television) for turning sound waves into electrical waves. These electrical waves then are used in transmitting (or recording) the sound.

Since radio is a medium of sound and sound alone it is absolutely essential that reception should be clear, acceptable and effective. This, in turn, is only possible when the microphones used are of good quality, right kind and for specific purpose.

Sound, in radio is not just another name of audible speech either recorded or live, it also comprise the natural sounds of locations such as traffic, streets, bazars and fields. "Sound effects" have special meaning in radio broadcasting. These natural sounds enhance the importance of radio programmes and help in creating "sound pictures" that brings the images of real and physical things in the minds of listeners. If appropriately used the audience have a feeling of being at the location.

Different kinds of microphones capture the sound in different ways. The choice depends on the fact what kind of impression of the sound is required. For

example in a crowded room equal sound is required from all directions or somebody in particular is given attention. In the former case omni-direction microphone is used which picks up sound from all directions. In the later case uni-direction (single direction) microphone will be used that tends to pick sound from a certain direction.

Many kinds of microphones are available and used in broadcasting. One way of differentiating microphones from one another is to see their design of picking sound from one side, two sides or all sides. Following are the kinds of microphones.

Uni-directional

Uni-directional microphone is sensitive only to sound coming from one direction. This kind of microphones is usual for solo talks, interviews, and also vocal singing where the intention is to pick sound from one direction only. Gun microphone is a highly one directional microphone. It has a long appearance like a gun which is effective to pick up sound from distance.

Bi-directional

Bi-directional microphone is live on two opposing sides with equal sensitivity. These are used where sound is to be picked from both sides.

Omni-directional

Omni-directional microphone is capable of picking up sound from all directions with equal senesitivity all around. This microphone is used for recording general sound and atmosphere especially when the speakers are at close range to the microphone.

In addition to the above, microphones are also classified on technical basis. Following is the detail:-

Carbon Microphones

In carbon microphones pile of carbon granules is used. When sound waves act on the carbon granules the microphone becomes sensitive due to changing resistance of piles of carbon granules.

Carbon microphones are cheap to manufacture and are used in speed communication like telephones. They are not used for music. They are now replaced by dynamic microphones.

Cardioid Microphones

Cardioid microphones have a response pattern like heart shaped field.

Condenser Microphones

In condenser microphones diaphragm forms one conductor of a condenser whose capacitance is varied by the action of sound waves upon the diaphragm. The varying reactance introduces the current variations delivered as speech signals.

Crystal Microphones

In crystal microphones the operation depends on the principle that certain crystals develop electric charges on certain surfaces due to sound waves. This is low cost medium quality microphone with limited frequency range.

Dynamic Microphones

Microphones which work on the electro dynamic principle are grouped under the generic term of dynamic microphones. It is a moving coil microphone in which pressure variations in the sound waves, vibrate a diaphragm to which a small coil or wire is attached. This microphone is both uni-directional and non-directional in the sense that it is uni-directional to high frequencies and non-directional to low frequencies.

Ribbon or Velocity Microphones

A metal ribbon is suspended between the poles of a magnet. Sound waves strike the ribbon and cause its vibration thus a current is produced.

Radio Microphones

A microphone attached to a small transmitter concealed in the pockets or clothing. This microphone gives freedom of movement to the people acting before the camera without the fear of microphones cables.

2.4 Set Designing

A substantial number of television programmes is made in the studios on the transitory make-believe physical environment called "sets". Set-designing or staging is the skilful arrangement of creating scenes before the camera. The purpose of set

designing is to create or modify a particular pictorial effect. Sets reflect the mood of the programme.

Set designing is an art and a skill. Designers are the trained and qualified people who perform the job of set designers. Designer should be aware of the practical job of set designing and the thoughtful work of conceiving the scene in imagination. The mental work is called "visualization". While set designing is a practical work anybody can be a "visualizer" so far as one is generating ideas of making sets.

You should also study different kinds of sets in terms of the physical environment, the space they occupy and the illusion they create.

Generally a television (or film) set has three physical sides with no roof on the top. This is because one side has to be left open for camera movement. The lighting grid is fixed on the top in place of the roof.

Television sets are made with different kinds of materials. Light wood, hard board and paper are usually used in erecting the sets. Sometimes only a wide picture is enough for a set to create the back ground effect.

Sets are made in accordance with the requirements of the script, scene and directions.

You should watch television programmes with an eye to see different styles of sets. Illustrative books are also helpful. Following are some important functions and styles of the sets :-

i) Realistic sets :

Realistic sets convey the impression of actual environment. Sometimes the sets are not absolutely realistic but only give the impression of certain locations.

ii) Decorative Sets:

Sometimes emphasis is upon decorative patterns. Here various colours, shapes and patterns mixed with the lights are used to please the eye. These kinds of sets are used in stage and music shows.

iii) Fantasy Sets

Fantasy sets consist of abstract and a non-realistic environment.

2.5 Lighting

Lighting is one of the important elements in television. It is not only indoor (studios) where lighting is required but it is often a necessity in the outdoors at locations, as well.

Basic purpose of using artificial lighting is to create the natural environment where the action is taking place. In television studios a network of lights installed is called "lighting grid". The roof of the sets is rarely shown in television programmes because it is already occupied with different kinds of lights.

Lighting is the action of illuminating an artificial scene to look natural. This is done by controlling and manipulating the voltage, the direction and the distance angles of lights. It is the lighting that creates different times of the day and night besides more sophisticated work of creating dramatic effects. It is also through the studio lights that the sky lighting and appearance of stars and moon are seen. It is the lighting that shapes reality before the camera.

Proper lighting work creates excitement and a sense of reality where as unthoughtful lighting results into flatness, artificiality and boredom.

It is the quantity and distribution of lights that help portray a particular scene on the screen. In order to study in further depth you should concentrate on three distinct aspects in the art of lighting. These are (i) the source of light whether hard or soft (ii) the angle of the throw i.e the path the light follows and (iii) the colour of light.

The traditional and frequently used pattern of lighting used in television sets is known as three-point-lighting. It comprise three sources of lighting (i) Key light (ii) fill light (iii) back light.

Key light is the main source of light that illuminate the object. If the object has to move there can be more than one key lights. The key light creates hard shadow.

A fill light is used to "fill" the shadows created by the key light. The fill light should not create additional shadows. Therefore it comes from near the camera.

The back-light shines on the back of a person. It separates the actors from their background. If there is no back-light the actors will seen merged in the back ground scene. The back light adds three dimensional effect on the picture which, in fact, is two dimensional. This light illuminates the top of shoulders and back head of the actors.

In addition to the above three types of set, lights are also used to illuminate the walls and furniture of the set. These lights are thrown directly or indirectly on different areas of the set.

All these lights are used in different combinations with different light intensity and distances. You should visit television studios to observe the functions of lights. You should also see the television programmes to analyse the effects of lights.

2.6 Cable Television

Cable Television is a system for distribution of audio-visual information via coaxial cable. The system includes its signal receiving amplifying and controlling equipment and signal origination equipment. Since this system involves physical network and distribution of cables it is only operatable under government permission. Cables may be buried underground or hanged with the poles. Amplifiers are placed to boost the signals at intervals along the cable.

The essential features of Cable Television system include headend for amplifying and processing signals for cable transmission, coaxial cable to carry the signals to subscribers terminal, equipment connected to subscribers' TV receivers and antennas. Headend is the source of transmission. A studio for programme making can also be added with the headend.

The basic difference between cable TV and broadcast TV is that the television signals are transmitted over cable rather than broadcast.

Cable TV and CCTV (close circuit television) have a common feature. Both are closed in the sense that the signals they originate cannot be picked up off-the-air by anyone having a television receiver.

The difference between Cable TV and CCTV is that cable TV supply its programmes to a number of users while CCTV is used within a building, for example, campus of a medical college.

The Cable TV is sometimes also referred to as "Pay to". As the name suggests the subscribers pay money to the cable TV company for supply of programmes. Various channels with a wide range of variety of programmes are fed through cable. In addition latest news and informations regarding business, currency, shares, banking, sports and travel etc is available on cable.

Cable TV has made it possible to feed the programmes which are not broadcast through normal transmission. It may include un-censored films, sports and certain educational topics for the consumption of special audience. Cable Television is quite successful in United States.

Education is one of the important areas of social application of Cable TV. Programmes containing dense and detailed information can be supplied through cables.

Cable TV has a capacity of two way communication. The subscribers can talk-back into the broadcast station.

Privacy is inherent to Cable TV in all programmes. Cable transmission is intended to its members only. Cable programmes have mainly of thematic character based on films, music or sports.

2.7 Close Circuit Television

Close Circuit Television as the name implies operates within a specific area, more often at a campus or within a building. This kind of channel is usually owned by an institution in order to feed the video pictures from a source room to other cable-connected-rooms, within the building. CCTV is the commonly used abbreviation for Close Circuit Television.

CCTV is a system for distribution of audio visual information via coaxial cable. A CCTV unit includes its signal distribution, signal receiving amplifying and controlling arrangements. The system is under control of the user and hence fall in the category of "Dedicated System". The system is referred to as "single user system" where it is the user (e.g. a medical college or a factory) who determines the contents, scheduling, points of reception and other matters relating to do with the programme transmission.

Cable TV and CCTV are physically identical. Both are close in terms of their signals distribution system which is through coaxial cables as compared to the broadcast system.

CCTV is more suitable to higher or professional educational institutions where live demonstration is frequently required to be shown to other classes. Privacy is an important feature of CCTV. This in turn makes it possible to give freedom to the user to disseminate such information to the limited people which may not be suitable or interesting enough for the general audience.

3. Key Terms

Amplifier :

An electrical device that amplifies the voltage, current or power of an electrical signal.

Coaxial cable:

The most commonly used means of signal transportation for Cable TV, consisting of a cylindrical outer conductor surrounding a central conductor.

Headend:

It is the electronic equipment located at the start of a cable system. Headend usually includes antennas, preamplifiers, modulators and related equipment. Antenna tower and the main building (with studios) are also included.

Cathode :

Negative element of an electronic device.

UHF:

Ultra high frequency; the frequency of 625 line television also used in Pakistan.

Format :

Format in the content of video recording refers to the kinds of video recording machines.

Colour Temperature:

A measurement of the strength of light expressed in degree kelvin.

4. SELF ASSESSMENT QUESTIONS

1. Before the sound is heard on radio or television or the picture is seen on home screen there must be modulation or various kinds of energy. Explain the process of broadcasting system.
2. Describe different recording formats with reference to various types of recording machines and the video tapes.
3. Explain the importance of sound in television broadcasting. Elaborate various types of microphones and state their salient features.
4. Stage or a set in the studios is installed in accordance with the mood and requirements of programmes and its purpose. Discuss and explain.
5. Lighting makes the artificial scene of television studio to look real. Elaborate various purposes and techniques of lighting.
6. Close Circuit Television can meet different requirements. It varies from a simple inexpensive unit with a linking camera and a receiver in a single classroom, used primarily for purpose of magnifications, to an installation in a single school or for a group of institutions, within an area. Evaluate the utility of CCTV.
7. Explain the system and working of Cable Television.

Activity

Visit a television centre and request the Engineering Manager to allow you an educational tour of the technical areas. Observe the recording machines, microphones and transmission system.

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NEW TRENDS AND CHALLENGES

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1. Objectives

After studying this unit, you should be able to :-

1. Elaborate the satellite system, message communications and its evolution in the world.
2. Describe the prospects and challenges of broadcast journalism, technological development and its future.
3. Have a knowledge about the International T.V. channels.

2. SUMMARY OF THE MAJOR TOPICS

2.1 Satellite Communication

The satellite is an electronic "mirror" aimed at earthward from a specific point in space. The satellites utilize radio waves operating in the microwave band to relay signals which are "up-linked" from earth, and "down links" them back to the planet.

Satellite do one or both of two things : observation satellites of which a particular form is the "spy" satellite, observe events on earth, and report these to their controller: communications satellites of which a particular form is the telecommunication television satellite, relay signals from one point on earth to another. Reception of satellite signals just requires a fixed dish aerial, and a 'black box' of electronics for decoding and amplifying the signals. Communications companies use satellites because a single satellite channel can carry much more communications traffic than can a terrestrial link such as a telephone cable. Television channels can therefore easily be distributed by satellite nationally or internationally to operators of local cable television systems via a large dish aerial.

The world telecommunications authorities and International Record Carriers looked to a communications satellite revolution, on both national and international levels.

All of these dreams were quickly fulfilled. By the mid-1960's, hundreds of satellites had been launched, and a half dozen countries, including the United States, USSR, France, China, India, and Italy were operating their own satellite systems. National Pride, the initial motivation, soon gave way to economic necessity as both the developed and "third world" looked upon satellite technology as a cornucopia of new wealth and riches.

The first television channel to be distributed by satellite to local cable operators was established in the USA in 1975.

Television networking is sophisticated and expensive. One television channel consumes spectrum that could otherwise carry 2000 telephone calls simultaneously.

Now over 50 communications satellites are circling the globe, providing hundreds of channels for television programming. A dozen languages and as many cultures are being presented.

2.2 International TV Channels

The electronic "MIRROR" has made the whole world a Global village. Over fifty satellites are circulating over the globe, providing hundreds of channels for Television programming. According to latest reports following are the main satellite communications.

1. RIM SET 2

7 TV channels are providing television transmission under RIM SET 2, six of them are Indian origin, while one channel is of New Guinea.

2. STATIONER 7

Russian satellite is providing two channels, one is originating from Russia while the other is originating from UK.

3. APSTAR 1

Apstar 1 is providing sixteen channels, seven of them are originating from USA, six from China and one from Hongkong. Two channels are under testing.

4. RANSET 1

Ranset 1 is providing five channels, all are originating from India.

5. CHINA SET 5

China Set 5 is providing eight channels, all are originating from China.

6. ASIA SET 1

Asia Set 1 is providing ten channels, five are originating from UK, three from India, one from Russia and one from Pakistan (PTV-2).

7. STATIONER 21

Stationer 21 was providing four channels two of them are recently closed, now it is operating two channels, one from Russia, and other is from UK.

8. STATIONER 14

Stationer 14 is providing three channels, one is originating from Moscow, one from Azarbyjan and one from China.

9. INSET 2 B

Inset 2 B is providing twelve channels, eleven are from India and one from USA.

10. STATIONER 6

Stationer 6 is providing four channels, all of them are originating from Moscow.

11. INSET 3

Inset 3 is providing two channels. Both are Indian.

12. STATIONER 3

Stationer 3 has two channels, one is operating from Nepal, while the other is under testing.

13. STATIONER 20

Stationer 20 is operating three channels, one is from Moscow, one is from Vietnam and one from France.

14. INTELSET 602

Intelset 602 is operating eleven channels, one from India, one from France, one from USA, one for Germany, one from Japan, one from China. One channel is joint venture of Japan and UK. Three channels are being operated from Iran, while two channels are available for satellite feeds.

15. INTELSET 604

Intelset 604 is mainly Sports and news communication. It is providing two channel facilities to the various countries for satellite feeds.

16. STATIONER 5

Stationer 5 is providing one channel originating from Moscow.

17. STATIONER 12

Stationer 12 is providing three channels, one from France, one from Portugal and one from Russia.

18. ARAB SET IC

Arab Set IC is providing sixteen channels, one is operating from USA, two are from Saudi Arabia, one from Egypt, one from Moscow and one from Mauritania. One is from France, two from UK, two from UAE, one from Kuwait, one from Jordan, one from Oman. Two channels are fixed for Arab League's news feeds.

19. ARAB SET IE

Arab Set IE is providing seven channels, five are from Egypt, one from Italy and one from Syria.

20. INTELSET 702

Intelset 702 is providing four channels, two are originating from Egypt, one from USA and one from France.

2.3 Prospects and Challenges of TV

Broadcast journalists have become accustomed to technological change. They have accommodated their working habits and techniques to suit, successively, the switch from black and white to colour, the switch from film to video tape, the arrival of live transmission, and the advent of computer-assisted electronic graphics and titles. But none of these technological advances encompasses such thorough-going changes of environment and procedure as the coming computerization process.

Television is quite different from radio. Experts report that there will be three kinds of technological advances which, in greater or in lesser measure, will alter the nature of TV journalists' work, both in the studio and in the field.

The first advance already nearing perfection, involves the change over from the present analog system of television to the new digital system. The analog TV signal is produced by waves whose frequency and intensity re-create a picture analogous (similar but not an exact replica) to reality. The system entails a certain amount of distortion and picture loss, including the TV cut off phenomenon.

The digital system, produced by, what else? computers, re-creates a picture exactly by breaking it down into digital information that is then reconstituted at the point of reception. No distortion, no picture loss, no more TV cut off problem.

cameramen and tape editors will thus be sure that what they see will be the same as what home viewers see, and they will chose their shots accordingly.

Because analog and digital systems are incompatible the home TV set has to be able to "read" the digital information. It will take many years before the new system completely displaces the old.

The second predicted major technological advance is the perfection of a new generation of compact, lightweight videotape cameras and recorders.

According to TV technology experts, the next "Plateau" will be the perfection of 8mm (also called "quarter-inch") videotape gear, with a cassette about the same size as a current audio cassette. Such small-format video gear already exist, but its quality was generally poor, not even good enough to satisfy most amateur enthusiasts. Inexorably, however, the technology will improve, and, the experts say, the day will come when both from the technical and financial viewpoints stations will no longer be able to resist-especially if as seems likely, their three-quarter-inch gear is on its last legs at the time.

This third predicted advance in TV technology brings us into what only a few years ago was considered "Star Wars" territory. The development of powerful transmitters in TV technology will permit live remote broadcasting any where, any time.

Soon, the experts predict, will come the day when a TV news reporter, a camera in one hand, a microphone in the other, and a mini transmitter strapped to his or her back, will be able to report live via satellite from any where in the world, to any where in the world, anytime day or night.

3. SELF ASSESSMENT QUESTIONS

- Q1. What is satellite, also analyse the up-link and down-links terminology.
- Q2. Elaborate the difference of "spy satellite" and telecommunication satellite.
- Q3. How many satellites are available in the world.
- Q4. Elaborate the prospects and challenges of television, also explain digital system.

4.SUGGESTED READINGS

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