

DJMC - 09

**Diploma In Journalism &
Mass Communication**



TV & Radio Journalism

Message for the Students

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On the occasion of the birth anniversary of Babasaheb Ambedkar, the Gujarat government secured a quiet place with the latest convenience for University, and created a building with all the modern amenities named 'Jyotirmay' Parisar. The Board of Management of the University has greatly contributed to the making of the University and will continue to this by all the means.

Education is the perceived capital investment. Education can contribute more to improving the quality of the people. Here I remember the educational philosophy laid down by Shri Swami Vivekananda:

“We want the education by which the character is formed, strength of mind is increased, the intellect is expands and by which one can stand on one’s own feet.”

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Dr. Babasaheb Ambedkar Open University

(Established by Government of Gujarat)

Diploma in Journalism and Mass Communication

DJMC-09

Radio and TV Journalism

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UNIT: 1

A SHORT HISTORY OF RADIO & TV IN INDIA

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1.0 OBJECTIVES

After going through this Unit the student will be able to

- Describe the major developments of Television
- Identify the milestones of television history in India
- Know about Background of Radio and its evolution

1.1 INTRODUCTION

Whenever we listen to the word television or radio, the picture of a Radio or TV set placed in a drawing-room come to in our mind. Where children are enjoying the cartoon, you watch your cricket match or the female members might be watching their favourite serials. You may be listening to FM radio while travelling or your mother listening music while cooking. So how these unique devices are invented and become popular among the mass. Who are the people or organisations involved in the history of these mass communication tool? So in this Unte, we will talk about the innovation, evolution and spreading of radio and television technology. Today audiovisual communication has become an integral part of our lives, both radio and television influence, entertain and educate us in numerous ways. also Before 40 years, very few homes had television sets and Doordarshan was the only channel available for the people of India. Now our TV remote had the option to choose more than 300 channel and all most all the mobile phones have an option for FM radio.

1.2 INSPIRATION FOR WIRELESS COMMUNICATION

Radio waves are also called electromagnetic waves. It has the lowest frequency and the longest wavelength of any type of radiation in the electromagnetic spectrum. The question arises as to why human brains have thought about radio technology. The telegraph (invented in 1837 and then by the telephone in 1869) was the first means of long-distance communication. These inventions used cables to transmit the sound of the transmitter to the receivers. Another problem was that the telegraph and telephone used extensive cable networks to send information.

The origin of the radio is related to the desire to improve telegraphy technology. Its an aspiration to free from the problem of cable telegraphy and to allow wireless transmission. One of its practical applications is to connect reduce geographical barriers. This would allow contact with offshore boats.

The Scottish physicist James Clerk Maxwell foretold for the first time the existence of radio waves in the 1860s. In 1886, the German physicist Heinrich Rudolph Hertz demonstrated that like light waves and heatwaves, rapid variations of electric current could be projected into space through the radio wave. In a classroom experiment, Hertz fabricated a capacitor that produced these radio waves. Hertz did not believe that his experience had a practical application.

1.3 INVISIBLE LIGHT OF J. C. BOSE

Sir Jagdish Chandra Bose made an instrument called ‘The Coherent’ to detect radio waves. Towards the end of the 19th century, several experiments using radio waves were carried out to achieve wireless telegraphy. In 1895, Indian scientist J. C. Bose gave his first public demonstration of electromagnetic waves at Kolkata City Hall. At a distance of 75 feet, an electric bell rang remotely and ignited a small charge of gunpowder. The guests were surprised by the demonstration of ‘Adrisya Alok’ or ‘invisible light’ which could go through walls.

The wireless demonstration of Mr.Bose was remarkable for several reasons. It happened two years before the first public demonstrations of Marconi's public wireless telegraphy in England. While Marconi was very interested in radio marketing, Bose's interest was purely academic; In fact, Bose categorically refused to patent almost all of the inventions. Bose believes that ideas should be freely shared. In 1998, the IEEE (IEEE The Institute of Electrical and Electronics Engineers is a professional association of electronic engineering and electrical engineering) accepted Sir J. C. Bose as the inventor of the mercury drop coherer used by Marconi. The coherer is one type of radio signal receiver.

1.4 THE INVENTOR OF THE RADIO

The first inventor of radio, however, is a very controversial subject. Guglielmo Marconi, the Italian inventor and entrepreneur, often receives credits for radio. Although Tesla was the first, Marconi patented his invention in 1896, while Tesla did it in 1900. A year later, in 1901, Marconi transmitted the first signal crossing the Atlantic from Europe to Europe. 'America. Marconi has developed its working model. Much of the initial use of the radio took place in the telegraphic paradigm, and it was point-to-point, with communication in the form of 'Morse code'. The Morse code is a character encoding scheme used in telecommunications that encodes text characters as normalized sequences of two different signal durations, called dots and dashes or so-called and dahs. The Morse code is named after Samuel F. B. Morse, an inventor of the telegraph. Some of the first applications were to contact lighthouses, press articles, military communications and to contact the cargo. Towards the first part of the twentieth century, efforts were made to transmit wireless voice.

1.5 TRANSMISSION OF THE AUDIO SIGNAL THROUGH RADIO WEB

So far, morse code based radio transmission was useful for point to point communication. It saved lives in deep-sea by sending quick information to the rescue team. Now it becomes a miracle when it able to transmit sounds, such as voice. The Swedish inventor Ernst Alexanderson invented the first voice-transmitting alternator. Then Reginald Fessenden combines radio and sound waves for the long-distance transmission of a human voice.

1.5.1 Amplitude Modulation

In addition to being the first to transmit voice over radio, Reginald Fessenden has developed Amplitude Modulation (AM). AM was a better way to transmit voice and music than previous technologies, designed for Morse code. In 1906, Reginald Fessenden showed that he could broadcast the program of music and voice. He is from Massachusetts and was received as far as Virginia. The main problem with AM is that the receiver often hears a lot of noise during transmission. The noise comes from sources in the atmosphere, such as lightning. That's why it is also called static.

1.5.2 Frequency Modulation

Frequency modulation (FM) is a technique of varying the frequency of the carrier in which useful information is imposed or printed. American inventor Edwin H. Armstrong proposed this frequency modulation (FM) in 1930. FM improves the sound quality of radio

transmissions. For the moment, AM was still used by most of the radio station. However, after the invention of the transistor in 1947, the radios became more portable. Today in one radio we can have both AM and FM radios.

1.6 IMMATURE RADIO'S EARLIEST DAYS

People may think that radio was replacing the telegraph or telephone, to transmit information from one point to another, but the problem was that anyone could listen to the 'private' communications with a radio receiver. Very quickly, the lack of privacy on the radio became an advantage. Westinghouse, a company that manufactures radio receivers, decided to establish its own station in Pittsburgh, Pennsylvania, to transmit information to all. Westinghouse received the first US transmission license for its KDKA station in October 1920, and on November 2, 1920, KDKA performed its first scheduled public transmission.

1.7 WHY RADIO REGULATION WAS NECESSARY?

At the early stage, all stations were broadcasting on the same frequency. This situation was problematic because some stations desired to send stronger signals to dominant over their competitors. This problem persisted even when the stations started transmitting on separate frequencies. Since transmission requires the use of radio waves and radio waves can only carry a limited number of signals. Therefore it is clear that some form of regulation was necessary. In 1927, the Radio Act (47 U.S.C.A § 81 et seq.) Became law and the Federal Radio Commission (FRC) was created. The law introduced two important principles of broadcasting. The first was that stations must transmit 'in the interest, convenience or necessity of the public'. The second was that people were the owners of radio waves, not radio stations. In its efforts to ensure that the airwaves are well used, the government asked to transmit adequate programming for children and equitable access by minorities to transmission.

In modern society, radio is a common technology in cars and at home. In fact, in today's world, it would be difficult to find someone who has not heard, seen or used the radio in their lifetime, regardless of their age. Even after the development of radio at the end of the 19th century, it took many years before radio became widespread and became a domestic element. The history of radio is fascinating and has changed the way the world is connected and communicated from far and near.

1.8 BEFORE AND DURING WORLD WAR I

Before the 1920s, radio was mainly used to contact ships at sea. Since radio communications were not very clear, operators were generally relying on the use of Morse code messages. This has been very beneficial for personal watercraft, especially in emergency situations. With the First World War, the importance of radio became obvious and its usefulness increased considerably. During the war, the military used it almost exclusively and it became a valuable tool for sending and receiving messages to the armed forces in real-time, without the need for a physical messenger.

1.9 AFTER WORLD WAR I

In the 1920s, after the war, civilians began buying private radios. In Europe television stations such as KDKA started in Pittsburgh, Pennsylvania, and the BBC in England. In 1920, the Westinghouse Company obtained a commercial radio license for the creation of KDKA. KDKA would become the first official radio station authorized by the government. While manufactured radios reached the general public, home radio receivers were a solution for some homes. This started to create a problem for manufacturers selling prefabricated units. As a result, the agreements on Radio Corporation, RCA, were sanctioned by the government. Under RCA, some companies could create receivers, while others were allowed to manufacture transmitters. Only one company, AT & T, was able to carry tolls and transmission chains. It was in 1923 that AT & T launched the first advertisement on the radio. In the 1920s, CBS and NBC were created.

1.10 WORLD WAR II (RADIO FOR MUSIC AND NEWS)

During World War II, radio again played an important role in the United States. Radio brought information about the war to the people. It was also a source of information and the government used it as a tool to gain public support for the war. The way of use of radio was changed after World War II was changed. Radio previously acted as a source of information. After the war, it began to focus more on music and entertainment. Music and radio continued to gain popularity. FM radio stations have begun to surpass the original AM stations. Music like rock and roll emerged during this period.

1.11 THE PRESENT AND FUTURE OF RADIO

Today, radio has become much more than Bose, Tesla, Marconi could have imagined. Traditional radio and broadcasting may become a thing of the past. But radio has constantly evolved to keep up with current technology. Now satellite and Internet radio stations are gaining

popularity. FM Radios are an essential element in vehicles. In addition to music, radio talk shows have also become a popular option for many people. Now, two-way digital radios allow one-to-one communication that enhances security. Short-range radio used in workplace communications. The portable radios have become an essential part of sports, television production and airline business operations.

Did You Know?

1895 : Indian scientist J. C. Bose gave his first public demonstration of electromagnetic waves at Kolkata City Hall

The FM broadcast in India began in 1977, but grew after 2001

1936 : British Broadcasting Corporation (BBC) of Britain began the first television service of the world

1950s : Countries around the world began TV broadcasting on a wide scale

1953 :The first successful programme in colour was transmitted by CBS in USA

1.12 RADIO IN INDIA

Radio broadcasting was initiated in India by the Madras Radio Presidential Club in 1924. The club engaged in the work of broadcasting service for three years. Because of financial difficulties, it stopped its operation in 1927. In the same year (1927) the Indian Broadcasting Company established with radio stations in Mumbai and Calcutta. Indian Broadcasting Company also failed in 1930. In the year 1932 the government of Indian resumed the transmission. A separate service in the name of Indian Broadcasting Service has started. Subsequently, the service was designated as 'All India Radio' (AIR) and placed under the Ministry of Information and Broadcasting. AIR is controlled by a General Manager, assisted by several Assistant Directors and a Chief Engineer. AIR, by its size, scope and impact, is the most influential mass media in India. Its importance as a means of information and education. Radio is important in a vast and developing country like India. All India Radio also known as Akashvani.

1.12.1 AIR Network

AIR started with 6 radio stations in 1947. Now AIR has a network of 82 radio stations. The 82 radio stations, grouped into five zones, are the North Zone, the East Zone, the West Zone, the South Zone and the Kashmir Zone. In addition, there are three auxiliary study centers in Darbhanga, Vadodara, and Shantiniketan and two Vividh Bharati shopping centers, one in Chandigarh and the other in Kanpur. Until the

end of 1976, radio licenses had reached nearly 1.74 million rupees, generating revenues. 23.51 million rupees. Today, the radio network has spread to every corner of India. It brings a sense of political and cultural unity among the various traditions which enrich our country.

On October 1, 1939, AIR made its first broadcasts for the listeners outside India. AIR External Services broadcasting in 25 languages around 50 hours a day and reaches listeners in widely dispersed regions of the world.

1.12.2 Vividh Bharati

An autonomous popular entertainment service, called Vividh Bharati. It was launched in October 1957 to meet the demand for popular music. On the Bombay-Nagpur channel of Vividh-Bharati Commercial advertising was introduced in November 1967. It gradually spread to other stations like Calcutta in 1968, Delhi and Madras-Tiruchirapalli in 1969, Chandigarh-Jullundur-Bangalore, Dharwar, Ahmedabad-Rajkot, Kanpur-Lucknow-Allahabad in the year 1970, Hyderabad-Vijayawada in 1971 and Bhopal, Indore, Cuttack, Jaipur, Jodhpur, Patna, Ranchi and Trivandrum in 1975.

1.12.3 National Programme

Nation program launched in July 1952. The weekly National Music Program gives the opportunity to listen to well-known performers of Hindustani and Karnataka music. In order to improve radio programs, in the year 1975 AIR desizne the annual Akashvani Awards for plays, shows, music and youth programs. When we talk about The FM broadcast in India began in 1977, but grew after 2001. FM Radio City is the first private FM radio station in India. It began on July 3, 2001. It broadcasts on 91.1 MHz from Mumbai (in 2004), Bengaluru (in 2001), Lucknow and New Delhi (2003). It plays Hindi, English and regional songs. In the year 2018, there were more than 369 private radio stations operating across India. All India Radio has about 450 FM stations covering 52% of the Indian population.

1.13 HISTORY OF TELEVISION IN INDIA

Television was an integral part of our lives. Very few houses had a television about 40 years ago. Until the 1990s, Doordarshan was the only channel accessible to most of the Indians. Mass media like Radio, printing and cinema were already there before the television. Several inventors were working on the technology which capable to transmit both sound and images. Although many pioneers have helped to make this possible, John Baird is generally considered the father of television. The British Broadcasting Corporation of Britain launched the first television service in 1936. BBC has produced television programs from his own studios since 1932. But the beginning of his regular television show dates

back to November 2, 1936. Similarly in US President Franklin Roosevelt's opening of the New York World's Fair was broadcast live from the NBC Experimental Station in 1939. Other than these two countries started broadcasting large-scale television in or after the 1950s. However, the Second World War slowed the rapid development of this new medium. Watching television early was not like what we see today on television. It was pretty primitive.

The limitations forced actors and presenters to work with incredibly hot lights. Those TV shows were all in black and white. The first successful colour broadcast was broadcast by Columbia Broadcasting System (CBS) in the United States in the year 1953. Television became one of the major entertainment media with the arrival of several popular programs. Television has gradually matured as media over the next two decades.

DATES TO REMEMBER

1936 : The British Broadcasting Corporation (BBC) of Britain launches the first television service in the world.

1939: New York World's Fair was broadcasted live from the NBC Experimental Station .

1953 - The first successful color broadcast is broadcast by CBS in the United States.

1959 - TV makes its experimental debut in India.

1975 - The SITE program begins

1976 - Doordarshan becomes a separate department

1982 - Doordarshan begins national coverage and color transmission.

1997 - Creation of Prasar Bharati

1.14 EXPERIMENTAL TELEVISION IN INDIA

In today's world, television has become one of the most powerful means of mass communication.

Initially, TV shows started in India under the supervision of All India Radio. In India Television started on September 15, 1959, on an experimental basis. There were only two one-hour programs a week, each one hour.

The first programs of these experimental transmissions were generally educational programs for school children and farmers. Several community television stations have been set up in rural Delhi and different schools to broadcast these programs. Then in the 1970s, television centres were opened in other parts of the country. In Mumbai open television centre on October 2, 1972. In 1976, Doordarshan get

separated from AIR. Previously Doordarshan function as television section of All India Radio.

Latter television centre was set up in Srinagar (Kashmir) on January 26, 1973, and Amritsar (Punjab) on September 29, 1973. A relay centre was established in Pune (Maharashtra) on October 2, 1973. In August 1975 Calcutta (West Bengal) and Madras (Tamil Nadu) opened television centres.

1.14.1 Satellite Instructional Television

Another most important milestones in the history of Indian television is the Satellite Instructional Television Experiment (SITE). It took place between August 1975 and July 1976. As part of this program, the Indian government used the American satellite ATS-6. Several community television stations were distributed to broadcast educational programs in Indian villages. The ISRO Space Applications Center (SAC) in Ahmedabad is involved in the design and manufacture of the ground equipment to conduct this experiment. Six States were selected for this experiment. The terrestrial transmitters are configured in six locations: (1) Jaipur, (2) Raipur, (3) Muzaffarpur, (4) Sambalpur, (5) Hyderabad and (6) Gulbarga. This service cover 954 of the 2400 existing SITE villages, as well as 8950 additional villages.

1.14.2 Experiment (1975-1976)

The experiment was an important step in the field of development communication. The programs were mainly produced by Doordarshan. The transmissions take place twice a day, in the morning and in the afternoon. In addition to agricultural information, health and family planning were other important issues discussed with these programs. For entertainment, these shows included dance, music, drama and folk art.

1.15 COLOUR AND LIVE COVERAGE OF DD (1982)

The coverage of the ninth Asian Games in 1982 was a milestone in the history of Indian television. Doordarshan provided national coverage for the first time via the satellite INSAT 1A. In addition, for the first time, the transmission was in colour. Along with national broadcasting, Doordarshan has also provided content to broadcasters in many other countries. After 1982, Doordarshan dramatically expanded coverage of live sports. Doordarshan attracts a huge audience during the different international sports events.

1.16 EXPANSION OF DOORDARSHAN (1983)

In the year 1983, the government work on expansion of Doordarshan. A number of new transmitters have been installed throughout the country. By the end of the 1980s, about 75% of the population could be covered. Many Doordarshan programs such as The Sword of Tipu Sultan, Mahabharat, Ramayan, Akbar Birbal, Bahadur Shah Zafar, Mirza Ghalib, Taaraa, Bharat Ek Khoj, Vishwamitra, Luv Kush Uttar Ramayan, Buddha, Malgudi Days, Surabhi, Hum Paanch, Tiltliyan, Yeh Jo Hai Jindagi, Star Trek, Khaandaan and Nukkad, have been immensely popular. From the year 1982 to 1992 considered as a Golden Years of DD

1.17 ESTABLISHMENT OF PRASAR BHARATI (1997)

Prasar Bharati, an autonomous body, was created in 1997. Doordarshan and AIR became state-owned companies run by Prasar Bharati. The Prasar Bharati Corporation was created to serve as a public service broadcaster in the country. Prasara Bharati serves the nation through AIR and DD. It was a step towards greater autonomy for Doordarshan and AIR. Today, about 90% of the Indian population can benefit from Doordarshan programs through its network. Since its humble beginnings with All India Radio, Doordarshan has become an important television network with about 30 channels. This includes regional satellite-language channels, state-owned networks, international channels and all Indian channels such as DD National, DD News, DD Sports, DD Gyandarshan, DD Bharati, Lok Sabha Channel and DD Urdu.

1.18 THE EMERGENCE OF PRIVATE TELEVISION

Today we have many channels besides Doordarshan. With the opening of the Indian economy in the early 90s allowed the entry of private stations in India. In the early days, Doordarshan had a monopoly. It was the only channel available to the Indian television audience. Communication satellites are essential to bringing the world to our home. Channels like Star TV, Aaj Tak or Zee, etc are part of the many TV channels available for Indian viewer. These private channels have entered Indian television in recent decades. The coverage of the Gulf War by the US news channel Cable News Network (CNN) has facilitated the arrival of satellite television in India. Satellite dishes were used to pick up CNN signals and cable operators took satellite transmission immediately. STAR (Asian satellite TV region) based in Hong Kong has an agreement with an Indian company and was born Zee TV. It has become the first private Hindi satellite channel in India. The agreement between STAR and Zee did not last long. But the audience of Indian television was waiting for a change of monopoly of Doordarshan and several private channels have quickly emerged. The 1995 Supreme Court ruling that

declared airwaves are not the monopoly of the Indian government has boosted its growth. Several regional channels were also created during this period. Sun TV (Tamil), Asianet (Malayalam) and Eenadu TV are among them. In addition to regional channels, a large number of international channels such as CNN, BBC and Discovery are also available to the Indian television audience. With different categories of channels such as 24*7 news channels, religious channels, cartoons and movie channels, there's something for everyone.

1.19 CONCLUSION

Once, a television in India started as an experiment with foreign support. For more than 30 years, the broadcasting industry was fully controlled by the government agency. Now major share of the television industry is in the hand of a private organisation. Indian television is not limited to just a few communities in Delhi, its signal is now reaching the world. In India, it is a big industry. The programs are transmitted in different languages and forms. More than half of Indian households own a television.

1.20 CHECK YOUR PROGRESS

❖ MCQs

1. Television was first introduced to the general public at the 1939 Worlds Fair in:
A) Paris, France
B) Barcelona, Spain
C) Frankfurt, Germany
D) New York
2. The satellite used by Doordarshan for national coverage in 1982 is
A) ATS -6
B) Aryabhata
C) IRS 1C
D) INSAT 1A
3. Doordarshan began as a part of
A) AIR
B) Prasar Bharati
C) SITE
D) Krishi Darshan
4. Who is considered as the inventor of television?
A) Charles Babbage
B) John Logie Baird
C) Thomas Alva Edison
D) None of the above

5. What is SITE?
A) Television experiment
B) Indian satellite
C) Radio experiment
D) Entertainment experiment

Answers

1: D 2: D 3: A 4: B 5: A

❖ **Long Questions**

Q.1 What is the history of wireless communication in India? Do explain.

Q. 2 Explain the light invention of JC Bose.

Q.3 Explain the role of Radio in the First World War & Second World War.

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UNIT : 2

PRIVATE RADIO AND TELEVISION IN INDIA

STRUCTURE

2.0 Objectives

2.1 Private Radio

2.1.1 Expansion of private FM channel

2.1.2 Popular Private FM Channels

2.1.2.1 Big FM

2.1.2.2 Radio City:

2.1.2.3 Red FM 93.5

2.1.2.4 Radio One

2. 1.2.5 Radio Mirchi

2. 1.2.6 Hit 95 FM

2. 1.2.7 Fever 104 FM

2. 1.2.8 Radio Nasha

2. 1.2.9 Ishq FM

2.2 Private TV in India

2.2.1 Economical reform boost the private TV Industry

2.3 Cable TV

2.4 Satellite television

2.5 Regional TV Channel

2.6 MIB Permission for a Private channel

2.7 Check your progress

2.8 References

2.0 OBJECTIVES

After going through this unit, the student will be able to

- Describe the major developments of private radio.
- Identify the milestones of private television in India.

2.1 PRIVATE RADIO

Radio broadcasting is the process of transmission of information or messages in the form of audio through radio waves into a wider public. In the previous unit One and Two, the history of Radio and how it came to India is extensively discussed and how it radiating audio programs across the nation are also discussed. In India, initially, it was controlled and regulated by institutions of the Central Government. Now in the 21st century, the number of private organisations are actively engaged in the field of radio broadcasting. In all the major Indian cities the presence and popularity of private FM channels are highly noticeable. Private radio broadcasters are mostly showing interest over FM radio broadcasting.

FM Broadcasting in India began in 1997 as the expansion of AIR. The privatization of FM broadcasting began after 2001. Private radio broadcasting means production and dissemination radio program by a private organisation. A private organization can be a partnership, corporation, person, or agency that is not operated by a profit or a public body. It includes all businesses that are for-profit that are not government-owned or operated. The main motive of the private broadcasting owner is to gain commercial profit. There may be few private bodies those who run FM channels as part of corporate social responsibility. Private radio broadcasting setups are not owned by the government. The main aim of private radios is to make a profit through their broadcasting. Here are some common features of private broadcaster :

- Advertising
- Paid program
- Ratings

Advertising is a marketing tactic involving in paying for space in Newspaper and Time in radio and TV to promote a product, service, or cause. Promotional messages are called advertisements, or ads. The goal of advertising is to reach people most likely to be willing to pay for a company's products or services and entice them to buy. For most of the private radio, these advertisements are the source of revenue.

Paid programs are designed to fulfil the interest of the sponsor of that program. Broadcasting companies get money to broadcast these programmes. In comparison to a Radio advertisement, these paid programs take more air space. This is another source of revenue for private broadcasters. Paid programs can be considered as a long commercial. Mostly they could be 30 minutes or 60 minutes. Broadcasters sell their unused time slots like early morning, or very late night or on weekends for a paid program.

The rating means to identify hierarchy or popularity of a program. This rating is directly related to advertising or revenue of the company. Listeners of the radio programme determine the rating of a programme. It reflects the number of people who listen to a particular programme. This determines the price of advertisements with that program.

There are lots of private FM radio stations that broadcast programs 24*7 in India. The first FM radio came to India as an experiment. It started in one of the popular tourist destinations i.e. in Goa. Then it spread into metropolitan cities like Delhi, Kolkata, Mumbai and Chennai.

Some of the popular private radio stations in India are Radio Mattoli 90.4, Club FM 93.5 in Kochi, BIG FM 92.7, Radio city 91.1MHz etc. It is interesting to know that in fact private Radio broadcasting was started in India in the early 1920s. It was started by some young people with the help of their amateur radio clubs. A young group of Indian entrepreneurs established the Indian Broadcasting Company on 23rd July 1927. Due to the financial crisis and circumstantial problems these private initiatives were unable to sustain. The East India Company and Colonial Government feared the potential danger of radio broadcast. They felt that it could be used by the freedom fighters and can act as a catalyst of the Nationalist Movement. The British colonial government named it as the Indian Broadcasting Service. Government invites the BBC to develop it into a vehicle for the dissemination of its news and views.

In 1935, the British Government invited the BBC for help to develop radio broadcasting in India.

One of the senior BBC producers is credited with the change of the name of the organisation to All India Radio later known as “Akashwani” (voice from the sky) from 1957.

Zohra Chatterji, former joint secretary (broadcasting) in the Information and Broadcasting Ministry, wrote in 2015: “The growth of All India Radio over the years has been phenomenal and today, AIR’s network provides radio coverage to 97.3 per cent of the population and reaches 90 per cent of the total area.”

The monopoly of the Public Broadcaster AIR continued till 1995. In 1995 the Supreme Court gave its ruling that India's airwaves are "public property". This medium needed to be utilised to promote the public good and ventilating plurality of views, opinions and ideas. In 1995 FM broadcast by AIR and some slots were given to private producers. Then gradually FM stations of AIR grew over the years.

At the beginning of the VIIth Plan, there were only 4 AIR FM stations in the country. At the end of the VIIIth Plan, 98 FM stations were in operation. This number was further increased to 130 at the end of the SIXth Plan. At the end of the Xth Plan, it becomes 161.

2.1.1 Expansion Of Private Fm Channel

In 1999, the Government announced a liberalised policy for Expansion of FM Radio broadcasting through private agencies. In Phase I, the government allowed fully owned Indian companies to set up private FM radio stations on a licence fee basis. The main objectives of this policy were to produce quality programmes by private channels. It is expected that programs of these private FM channels have localised touch. Private channels will encourage new talent. Directly and indirectly, generate employment opportunities. This would supplement the services of All India radio. To promote the rapid expansion of the radio broadcast network in the country government allowed to private FM broadcasting. This expansion finally benefits the Indian citizen. For 40 cities In May 2000, Government auctioned 108 frequencies in the FM Spectrum for Private Agencies, but only 21 channels (20 %) could be operationalised.

Then another new policy of expansion of FM Radio initiated. The phase II Broadcasting through private agencies was notified on 13th July 2005. In this new policy provides Permission for private FM channels on the basis of One Time Entry Fee (OTEF). Then annual fees would be collected as revenue share. In the previous policy, a fixed Annual Licence fee was collected. The new policy also allowed 20 % FDI. A total of 337 channels were put on bid under the new scheme. After this 245 got permission to start the operation. Around 381 private FM channels were in operation. FM Policy Phase II has been well accepted in India. Because of phase II FM policy, huge growth is seen in the FM Radio Industry. This growth also brought employment opportunities. It has also created a demand for FM Radio in small cities and in rural areas.

After successful Phase II expansion private radio channel government came with the Phase III expansion policy. The government decided to expand FM Radio broadcasting to other cities through private agencies. In FM Policy Phase III Telecom Regulatory Authority has submitted its recommendation to allow additional channels in the same

city. It allows the broadcasting of news and current affairs. These news and current affairs content should be taken from AIR/Doordarshan, authorised news channels. As per Phase III allotment of FM, channels can be done for a district instead of a single city. It enhances the FDI limit. It gives relaxation in fee structure for areas like North-East and J&K. It allows networking of FM Radio programmes. Now auto-renewal of permission can be done at district level permission holder.

2.1.2 Popular Private FM Channels

People of all ages love listening to Radio. Whether it is FM or AM channel both use radio waves for carrying information for its listener. This radio wave technology was invented in the 18th century but it still plays a major role in the 21st century. Today in India there are many FM radio stations which are popular among the mass. Some of the popular private radio stations are Radio Today, Big FM, Radio Mirchi, Hit 95 FM, Radio One and many more. Now let us discuss some of those popular private radio stations:

2.1.2.1 Big FM

Big FM owned by the Indian Businessman Anil Ambani and the Zee entertainment enterprise. It is a popular FM radio station in India. The station broadcast at 92.7 megahertz. The FM radio station also broadcasts outside the country like Bhutan and Singapore. The Jingle of the Big FM radio station is Suno Sunao Life Banao.

2.1.2.2 Radio City

Radio City, a part of Music Broadcast Limited (MBL) is a subsidiary of Jagran Prakashan Ltd...

It is the first private FM radio broadcaster in India. It started on July 3, 2001. This FM radio broadcasts on the frequency range of 91.1 MHz. The station broadcast regional songs as well as English and Hindi songs. The channel broadcasts from Lucknow, New Delhi, Mumbai, and Bangalore. Radio City FM radio offers content that is unique, path-breaking and invokes city passion amongst listeners. Its brand philosophy is “Rag Rag Mein Daude City”. The network introduced humour and the concept of agony aunt on the radio.

2.1.2.3 Red FM 93.5

This Red FM was established by Sun Group. The FM radio broadcast at 93.5 frequency megahertz in major cities like Kolkata, Delhi, Mumbai, Surat, Indore, Jabalpur, Gwalior, and Bhopal. The radio station has a slogan which says 'Bajatey Raho'

2.1.2.4 Radio One

This radio was launched on 18 September 2007. It is owned by Next Radio Ltd. It runs on 94.3 megahertz frequency. The channel broadcasts in cities like Mumbai, Delhi, Bangalore, Kolkata, and others. It broadcasts only in English. In fact, it is the only English radio broadcasting channel that is active in Bangalore, Delhi, and Mumbai together.

2. 1.2.5 Radio Mirchi

It started in 1993. Radio Mirchi broadcast on 98.3 megahertz since 2006. It is owned by the EntertainmentNetwork India Ltd (ENIL). It is one of the subsidiaries of The Times Group. Entertainment Network of India. The slogan of Radio Mirchi is "Mirchi Sunne wale always Khush".

2. 1.2.6 Hit 95 FM

Hit 95 FM is quite popular among the urban audience. It broadcasts on the frequency is 95 megahertz. It plays English, Hindi and regional songs. The channel is known for international songs. Some of its shows are 'Classic Music Marathon,' 'No Repeat Wednesday' and 'Saturday Night Hot Mix.' The radio channel is popular for playing uninterrupted music for listeners.

2. 1.2.7 Fever 104 FM

It is known for non-stop music shows. Some of its popular programs are 'Fever Ka Thappa', '40 mins of non-stop music', 'Fever Top 10', 'Teen Gane Back to Back', 'the Fever 104 FM'. It broadcasts in Mumbai, Delhi, Bangalore, Hyderabad, Chennai, Kolkata, Lucknow, Agra etc.

2. 1.2.8 Radio Nasha

The radio Nasha is available on the frequency of 107.2 megahertz. The radio station is famous for playing old Bollywood melodies. The radio channel was launched by HT media. The RJ of this radio station was known to be voicing the shows in a classic way.

2. 1.2.9 Ishq FM

FM Ishq is available on the frequency range of 104.8 megahertz. This radio station is known as the romantic radio channel. Initially, launched as the Meow FM. This radio station is active in Delhi, Kolkata and Mumbai.

2.2 PRIVATE TV IN INDIA

Television is an audiovisual medium. In chapter one and two the history of TV is discussed. We have already discussed, how on sept: 15,1959 the TV broadcasting started in India. The main motive of Private TV broadcasting is to broadcast TV programmes to make a profit. Nowadays there are huge numbers of private TV channels active in India. Generally, all private TV channels are depending upon advertisement, sponsorships and investors. The major resources of revenue for a tv private channel are commercial advertisements. Therefore they try to attract more and more eyeballs. Therefore Private channels are emphasised over public satisfaction and fulfil their entertainment demand. India has more than 125 million homes with TV sets.

2.2.1 Economical reform boost the private TV Industry

During Prime Minister Narasimha Rao the Central Government started a number of socio-economic reforms in 1991. Due to these socio-economic reforms during the 1990s private channels exploded in India. Primarily commercial was the main driving force for these Indian private channels. Under the new policies, the government allowed FDI. Private and foreign broadcasters started their operations in India. Foreign channels like CNN, Star TV and domestic channels such as Zee TV and Sun TV started satellite broadcasts. Starting with one channel (DD) and 41 sets in 1962, but in 1991 TV covered more than 70 million homes. More than 400 million individuals started watching TV and they had options to watch any channel from more than 100 TV channels.

- Zee TV was the first privately owned Hindi cable TV channel in India.
- Star TV network is the foreign channel in India.

After this, many other foreign channels like CNN, Discovery Channel, National Geographic Channel, BBC come to India. SON TV in 1992 was the first private channel in south India. Today there are thousands of private channels runs various parts of India. As per MIB around 866 private TV channel active India.

2.3 CABLE TV

Cable TV or CATV stands for Cable Television. It is a method of providing TV services to consumers through coaxial cables or optical fibre cable. They can access to television programs as subscribers. In 1992, the government liberated markets and number of cable television started. With the name of STAR TV, five new Hong Kong-based channels started. Private channels like MTV, STAR Plus, Star Movies,

BBC, Prime Sports and STAR started broadcasting. Zee TV was the first private-owned Indian channel to broadcast over cable.

2.4 SATELLITE TELEVISION

1982 Indian National Satellite (INSAT) was launched. Satelight leads to a rise in the number of transmitters. This made possible to do Colour transmission and live telecast of Asiad games. It also inspired the private companies to increase investment in television. In satellite television is a service which delivers television programming to viewers by relaying it from a communications satellite. These satellites are orbiting the Earth and they receive the signal from the ground TV station and then sent it to the viewer's location. People can receive the signals via an outdoor satellite dish antenna. Comparison to cable TV satellite TV signals has low-noise. In 2010 more than 500 TV channels are broadcasting over satellite. When a channel transmits the signal over satellite they are called Satellite Television Channels. Along with state-owned Doordarshan private organisation like News Corporation owned STAR TV, Sony-owned Sony Entertainment Television, Sun Network and Zee TV available on satellite communication.

2.5 REGIONAL TV CHANNEL

In India English and Hindi channels more influential, but simultaneously regional channels are also growing. As India is a country of diverse languages and cultures this diversity also reflects in the TV industry. A number of the regional private player active in the regional market. The regional media player Sun TV (India) was launched in 1992. This was the first private channel in South India. Today Sun TV has around 20 channels. It is present inside India and also in abroad. The Raj Television Network was started in 1994. This is also one of the important broadcasters in South India. ETV is another influential channel across India. It has diverse channels in different regional languages.

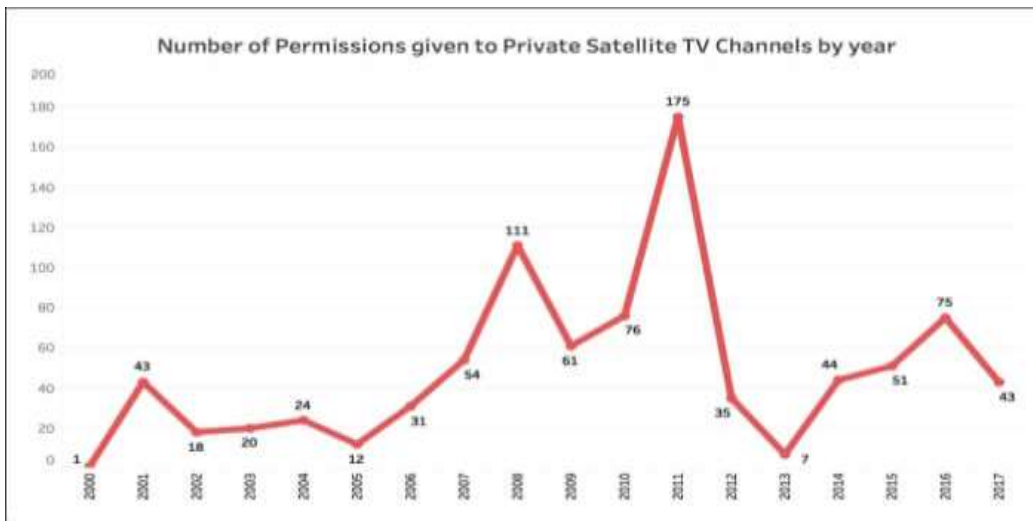
The entry of satellite television in the 1990s was the landmark in the history of television broadcasting. Satelight changed the scenario of TV broadcasting. The cable TV industry expanded in the early 1990s. Economical liberalisation opened the door for foreign players in the Indian broadcast industry. Foreign players like Rupert Murdoch's Star TV Network entered in 1991, MTV, and others broadcaster acquired space in India. In this growing market, Indian channels are also aggressively increasing their presence in India and abroad. Television channels like Zee TV, Star Plus, SET, and Colors are available in approximately 169, 70, 77, and 50 countries respectively. Keeping in mind to the diverse languages in Indian private channel produce programs for both local and national audience. Major channel for the regional population they dubb or subtitle their content and broadcast in diverse regional channels.

ZEEL (Zee Entertainment) launched its second Arabic channel, Zee Alwan, in 2012. Zee Entertainment is dubbing Indian dramas in Mandarin for Chinese television channels since 2006. ZEE first Indian channel to receive landing rights in China in 2012. Television in India is a huge industry. Regularly it produces thousands of programmes. Approximately half of all Indian households own a television. As per the FICCI Report 2013, there are 730 million TV Viewers in India and 800+ TV channels.

2.6 MIB PERMISSION FOR A PRIVATE CHANNEL

Ministry of Information and Broadcasting (MIB) Granted for Uplinking and Downlinking of TV Channels. As on 31.10.2018 Ministry of Information and Broadcasting Granted Permission to 1118 Private Satellite TV Channels. MIB cancelled permission of 252 channels. So in this time around 866 Private Satellite TV Channels having valid permission in India. Among them, 383 channels are in Current Affairs. The number of the Non-News and Current Affairs Channels is 483. TV channels Permitted to the only Downlink into India (uplinked from aboard) is 84. Out of 84 channels, 15 are News and 64 channels are Non-News. The graph shows the maximum number of channel got permission in 2011.

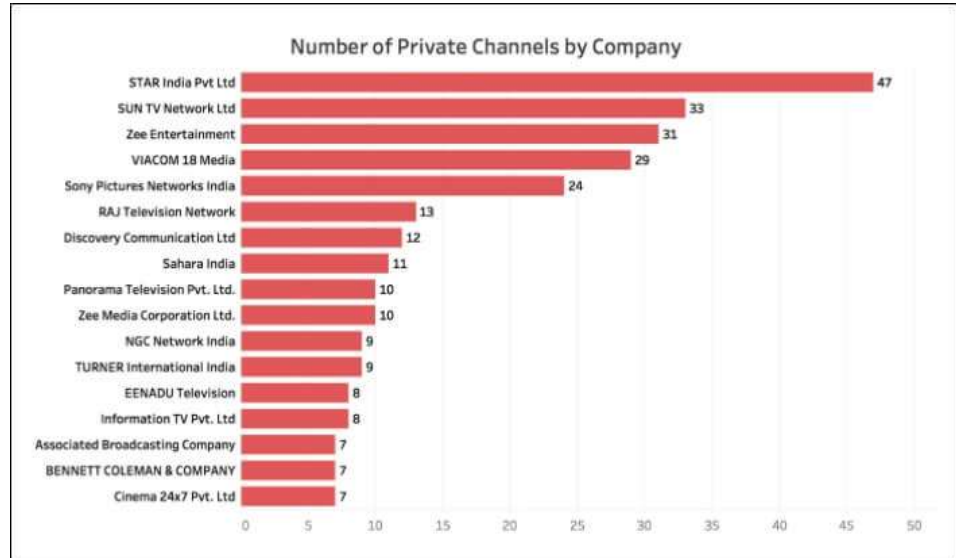
Source: factly.in



766 TV channels are Permitted for uplink from India and also to Downlink into India. All these channels are active in the domestic market. Among 766 channels 362 channels are News channels and 404 are Non-News TV.

2017 data shows among the companies those who get permission for TV channels, more than 250 of them are operating only one channel.

Sixty-four of them operate 2 channels each, 24 of them operate 3 channels each and 14 of them operate 4 channels each.



Source: factly.in

Eleven (11) companies operate 5 channels each. Rest of 22 company operates more than 5 channels each. MIB information shows these 22 companies operate more than 1/3rd of all the channels. STAR India operates highest 47 channels followed by 33 by SUN Network.

Commercial broadcasting or private broadcasting is still growing in India. Broadcasting of television programs and radio programming by privately owned corporate media is a challenging task to satisfy the audience and generate revenue in a competitive market. In the present changing scenario most these changes also show their presence of digital platforms like ‘won interactive websites’, ‘Amazon Prime’, ‘Hotstar’, ‘Voot’, ‘Netflix’ etc.. It shows the traditional mass media has adapted themselves with technological advancements and sweet ability of customers.

2.7 CHECK YOUR PROGRESS

Q. 1 What is the change in the entertainment channel after the arrival of Private FM?

Q.2 Do Explain private channels in India.

Q.3 Do Explain the satellite TV in India.

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UNIT: 3

MEDIA TECHNOLOGICAL CONVERGENCE

STRUCTURE

3.0 Objectives

3.1 Introduction

3.2 Technological Convergence

3.3 Industry Mergers and acquisitions

3.3.1 Important Mergers

- **Viacom-Paramount 1994**
- **Disney-ABC (1996)**
- **Viacom-CBS (2000)**
- **NBC-Universal (2004)**
- **Merge of America OnLine (AOL) and Time Warner (2000)**

3.4 Social Media

3.5 Transmedia Storytelling

3.6 Technological convergence in India

3.7 Pioneer Contributor in Converging Technology

3.7.1 Apple

3.7.2 Adobe:

3.7.3 Netflix:

3.7.4 Amazon

3. 7.5 IBM (International Business Machines)

3.7.6 Microsoft

3.7.7 Google

3.8 The Benefits and Challenges of Convergent Technology

3.9 Conclusion

3.10 Check your progress

3.11 References

3.0 OBJECTIVES

After going through this unit, students will be able to

- Describe technological convergent
- Technological convergence in India
- Benefits and Challenges of Convergent Technology

3.1 INTRODUCTION

The popularization of the Internet and digitization of media content provides an opportunity for media convergence. Convergence is one of the important outcomes of technological advancement. Media convergence is a phenomenon which involves the interlink of different communications technologies like the internet and traditional media which facilitate the exchange and circulation of information or media content in different levels and ways. It brings harmony among Computing, Communication, and Content. Due to convergence content of various forms like print, radio, television, films, gaming, music and cartoons all are accessible by digital devices like smartphones or laptops. Media convergence induces the existing industries, and work practices to produce a new level of content for the consumer. It brings transformation in the established media industry. Technology, Industry, Society, Text, and Politics are the five major factors of media convergence. Let's discuss this one by one.

3.2 TECHNOLOGICAL CONVERGENCE

Technological advancement provides the possibility of convergent. Digital smartphones, tablets, computers, smart TVs, and many other digital devices are capable of doing multiple tasks. With the help of the World Wide Web (WWW), digital devices are able to be interconnected. Nowadays people are able to access different media content in one device whereas previously a specific type of information was available in a particular communication media or platform. Media like newspapers, magazines, radio, television, and cinema all provide different kinds of content.

The ecosystem of media is gradually adapting to technological convergence. All content producers irrespective of the small or big organisations, they are trying to produce content which could be

accessible on all the platforms. Media organizations are giving priority to developing cross-media content. News organizations are no longer confined in providing just printed news or audiovisual television content, they are preferring to use web portals which enable media houses to provide information or news in both forms such as text, video. Not only this web portal provides space for podcasts but also its content can be linked-to other relevant resources. The podcast is a series of digital audio files that a user can download to a personal device to listen. Platforms such as iTunes, Spotify, and Google Podcasts provide a convenient, integrated way to manage a personal consumption queue across many podcast sources and playback devices. An audience can access the archive of media organisations whenever and wherever they need. Users have an opportunity to give feedback in the form of a comment on the story which is not so easy in traditional media. Advancement of communication technology acts as a bridge between common citizens and journalists. Now as a citizen-journalist anyone can report any news for the public on various platforms.

3.3 INDUSTRY MERGERS AND ACQUISITIONS

Industry mergers and acquisitions is an activity in which the ownership of a company, organization, or an operating unit gets consolidated with another establishment. Mergers and acquisition lead to any growth or scale down the nature and position of the business. Technological transformation facilitates this type of industry merger and acquisition or creates conditions for Mergers and acquisitions of industry. Impact of convergent technology seen in the communication industry. Numbers of industry convergence and consolidation seen in the last few decades and new digital media players appear as business giants. The 1990s and early 2000s saw large mergers, where the biggest media companies seeking to diversify their interests across media platforms. Some of the important Mergers are followed:

3.3.1 Important Mergers

- **Viacom-Paramount 1994**

One of the largest mergers was Viacom-Paramount. On 7th July 1994, Paramount Communications Inc. was sold to Viacom. Viacom (Video & Audio Communications) was an American media conglomerate. Paramount Pictures Corporation is also known as Paramount. It is an American film studio. It is now functioning as a subsidiary of Viacom CBS.

- **Disney-ABC (1996)**

In 1996 Disney acquired ABC. ABC (American Broadcasting Company) is an American commercial broadcast radio and television network. After 1996 it was owned by the Disney Media Networks

division of The Walt Disney Company. Walt Disney is the American multinational mass media and entertainment conglomerate. Disney was originally founded in 1923, by brothers Walt and Roy O. Disney as the Disney Brothers Cartoon Studio.

- **Viacom-CBS (2000)**

CBS (Columbia Broadcasting System) is an American English-language commercial broadcast television and radio network. It is now part of ViacomCBS. The two companies CBS Corporation and Viacom merged in 2019, leading to the operations of the ViacomCBS.

- **NBC-Universal (2004)**

NBC-Universal was formed on 2nd Aug. 2004 with the merger of General Electric's NBC with Vivendi Universal's film and television subsidiary Vivendi Universal Entertainment.

- **Merge of America OnLine (AOL) and Time Warner (2000)**

In January 2000, AOL and Time Warner announced they would merge and would form AOL Time Warner, Inc. The terms of the deal called for AOL shareholders to own 55% of the new, combined company.

It is seen that new media start-up companies are able to take over the established media players. The market shows how cross-platform media entities were greater than the sum of their component parts. Sometimes cultural differences between merged companies are facing difficulties to manage. For example, the AOL–Time Warner merger was a failure.

3.4 SOCIAL MEDIA

Social media is one of the emerging and dynamic agents in the act of media convergent. Social media is a kind of service, technological platforms which enable individuals to engage in one-to-one, one-to-many, and many-to-many types of communication. Internet helps individuals to participate both as consumers and producers. After the 2000s. Web 2.0 sites play a major role to make the internet more user-focused, decentralized. Now users could modify the content of mass media. Most engaged websites are social media, where most of its contents are coming from public or mass. Social media companies simply maintain the website and provide a user-friendly platform. Here users can post any forms (text, graphical, video and audio) of content. Some of the popular user-centric media platforms are social media like Facebook, the microblogging service like Twitter, the video-sharing website like YouTube, for blog WordPress and Blogger. All this website almost freely

provides facilities to users to create, upload and manage their content. A massive all-round growth one can notice in these social media platforms.

Facebook launched its service in Feb 2004. Now in 2020 around 2.50 billion monthly active users are with Facebook. Another video sharing platform is youtube where around 2 billion users are logged-in every month. Social media provides scope for every person to get connected in a network where they can simultaneously act as a producer, distributor, and consumer of digital content. The foundation or strength of social media is its interconnected user's network. Social media allows users to increase coordination to do any collective work. Activities like a mass campaign to create awareness on massive scales are possible due to social media. Previously this was not possible.

A significant change can be noticed due to convergence. In social media, the number of user-created content has increased and it has made passive users into an active participant. Now internet users now became both users and a creator of online content. One more important point is now tools for content creation are becoming cheaper and simpler to use. The gaps between amateurs and experts get reduced. Now it is also easy to create collaborative content and share on different social platforms. Irrespective of all these advantages of social media it is also true that it has both opportunities and challenges. Dynamic nature of social media and digital technology facilitates user autonomy, participation and increased diversity.

3.5 TRANSMEDIA STORYTELLING

To adopt in the convergent ecosystem of new media professional media organisations are engaged with transmedia storytelling. In transmedia storytelling, journalists disseminate information or stories on multiple platforms. It is observed that transmedia storytelling is not confined within different media platforms like cinema, comics, novels, television, video games but it also facilitates one story in different languages. It influences culture and commerce across the world. For example, when one story comes to the public platform, it is available in diverse mediums like film, noble, TV shows, animation story, cartoon, political agenda, promotion of a product or company. Based on one film character, the toy industry makes toys and based on a story digital game company produce new video games.

The transmedia storytelling provides scope for professional content creation organisations to expand their brand on different platforms. Company will get new audiences which directly enhance revenues and profits. Sometimes a traditional novel or story idea or a historical event which are not in the limelight ones appear in a medium like a film and then all diverse media platforms start creating content based on it then it becomes a source of revenue for all. Within a week it

becomes talks of the town. For example, if mythological characters like Krishna or Bhim appears in television as cartoon characters, then in video games, toys, t-shirts, commercials and in posters of playschools everywhere its presence can be noticed.

3.6 TECHNOLOGICAL CONVERGENCE IN INDIA

Impact of technological changes can be noticed in the Indian media and entertainment industries. In India penetration of broadband, 4G connectivity, Smart Devices, Digitization and favourable government regulations provide scope for technological convergent. Availability of smarter devices and accessibility of internet provide room for audiences to consume more content from the internet. 4G technology provides the possibility for Live Television, high definition video and audio streaming, real-time online gaming and high-speed data sharing.

In Indian mainstream media like Zee Network, Star Network provide content in different platforms. Online video viewership has significantly increased in India. The trend of online television content consumption inspires broadcasters to expand their presence in different digital platforms like online portals, video platforms, and mobile applications etc.

High-speed connectivity ensures reliable live and on-demand content on different platforms. Several leading broadcasters have launched their own or other apps to start delivery of mobile videos. Delivery platforms, such as Hotstar, Jio Cinema, Jio TV, Amazon prime etc. Google has also started YouTube Premium. It is a paid streaming subscription service that provides advertising-free streaming. One can watch exclusive original content produced by professionals.

3.7 PIONEER CONTRIBUTOR IN CONVERGING TECHNOLOGY

Several individuals, companies and organisations engage in technological advancement and make it available in the market so that people could access them. It is difficult to give credit to one individual or company for technological convergence. Some companies have contributed a lot to a particular technology or by partnership they help others to design products and distribute service to the mass. Let's discuss some of the key players in the convergent.

3.7.1 Apple

Apple is an American multinational tech. company. It is popular for innovative and advanced electronic gadgets. This company designs, develops and sells electronic devices, computer software, and online services. One of its most popular products is the iPhone. Previously phones primarily used only to do phone calls. As a pioneer iPhone made

it possible to do multiple works like listening to music, watching videos and accessing the Internet through a web browser. A feature like the multi-touch screen was first introduced by Apple. A multi-touch screen of a smartphone is able to do the work of a stylus, keyboard and mouse. Smartphones became miniature computers. These types of smart devices play a major role in convergent. Other convergent products are iPad, the Apple Watch, and iTunes.

3.7.2 Adobe

Adobe is an American multinational computer software company headquartered in San Jose, California. The company focused on the creation of multimedia and creativity software products. Adobe has developed many programs that converge technology and media. Most well-known products of Adobe are Photoshop, Illustrator, Indesign and Adobe Premiere Pro. For both print and electronic media, software of Adobe acts as a great tool to create, modify and duplicate contents.

3.7.3 Netflix

Netflix is an American media services provider and production company. It's headquartered in California. The core business of Netflix is a subscription-based streaming service. The company offers online streaming of films and television programs. Netflix is an excellent example of using media convergence. Initially, Netflix was delivering movies on the Internet and on the new DVD format. Then they provided a monthly subscription. In 2007, the company moved to provide a streaming service. In the year 2012, they started to create their own original programme.

3.7.4 Amazon

Amazon Prime: This is the video streaming service provided by Amazon. Amazon Prime started as a subscription service. Amazon Prime Video started streaming content in 2011. Its contents are primarily movies and television programs. They also offer e-books, photo storage, and streaming music, and original programs. Amazon's virtual assistant in AI is called Alexa.

3.7.5 IBM (International Business Machines)

IBM is one of the largest information technology companies. International Business Machines offers hardware, software, and services. IBM introduced cognitive computing in 2011. The cognitive computing was done through a series of algorithms and APIs called Watson. Watson is a question-answering computer system capable of answering questions in natural language. API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to

talk to each other. It is used in different interactive services provided by different apps like Facebook, Alexa. To send an instant message or check the weather or traffic on our phone, we are using an API. This technology can be used in diverse platforms: data interpretation, complex questions answer, data gathering and appropriate information sharing.

3.7.6 Microsoft

Microsoft is known for its MS Office and Windows products. Microsoft provides all kinds of services and products which helps convergent. They have smartphones, game consoles, tablets, search engines, and their virtual assistant is Cortana.

3.7.7 Google

Google has a huge contribution to convergence. Google is a leader in Internet search, virtual maps, web browsing, open-source software, advertising, and mobile platforms. Google also developed the Android OS (Operating System) which is used in most of the smartphones.

3.8 THE BENEFITS AND CHALLENGES OF CONVERGENT TECHNOLOGY

Innovation makes our lives easier, new technology allows us to do more with fewer resources and effort. As convergent is the outcome of technological advancement it must have both advantages and disadvantages. Let's point out the benefits of technology convergence. include:

- Convergent saves time and cost of services or works.
- Collective technology Improving human performance to create disseminate and consume content.
- It allows and encourages communicators to communicate in different ways.
- In media, the audience can become more active than passive.
- More information on public platforms.
- One technology or device works more efficiently because of collaboration with other technology or services.
- Infrastructures and devices became more complicated but easy to operate.
- It is possible to consume media contents on a wide range of devices.
- In the fields like video production, photography, graphics design, what was once only professionals can doing, that can be managed by a common man.

Along with appreciation, there are also some drawbacks with technology. These include the following:

- Some converged devices (high-end devices) are less reliable than the devices that perform a single task.
- With each added capability, the original device function is decreased.
- Potential data security issues are there.
- Possibilities of unnecessary investments in separate technologies which were already available.
- Increased expenses in the combination of services and products. The need for a faster network also increased.
- With the rapid growth and changes in technology, challenges to designing law and regulations are created.

3.9 CONCLUSION

The converging technology landscape is hugely varied. Here in this module, we try to cover the aspect related to communication. The things which influence the mass media industry like radio and television . Due to convergence, you don't need in-depth knowledge in all fields, but you are able to speak in multiple fields with expertise. All the information is on the fingertip. Convergences are the best places to find new opportunities in communication and content creation. In future technology like 5G, high-speed internet will influence to a greater extent the field of audiovisual communication.

3.10 CHECK YOUR PROGRESS

Q.1 What is the convergence technology? Do explain it.

Q.2 What is the new change in convergence technology, and what is its impact on TV and Radio.

Q.3 Explain the advantages and Challenges of Convergent Technology.

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UNIT: 4

RADIO FREQUENCIES: FM, AM

----- STRUCTURE -----

4.0 Objectives

4.1 Radio Frequency (RF)

4.2 Radio spectrum

4.2.1 Nature of radio signal

4.3 Mechanical and Electromagnetic Waves

4.3.1 Mechanism of radio Transmission

4.3.2 Transmission and Reception

4.4 FM and AM Modulation

4.4.1 AM Radio Waves

4.4.2 FM Radio Waves

4.4.3 Comparison between AM and FM

4.4.4 Pros and Cons of AM vs. FM

4.5 Use of Electromagnetic waves in Television

4.6 Check your progress

4.7 Reference

4.0 OBJECTIVES

After going through this unit, students will be able to.

- Describe Radiofrequency.
- Identify the difference between FM and AM.
- Introduction To Radio Waves

We all would have experience of listening to both FM radio and traditional AM Radio. In this module, we are going to discuss in detail the different aspects of FM and AM. Before going through the details

about AM and FM, let's have a basic knowledge about the radio waves. A radio wave is used as a carrier wave in radio broadcasting. Radio waves are a type of electromagnetic radiation. Wavelengths of radio waves in the electromagnetic spectrum are longer than infrared light. They can be created artificially or naturally like during thunderstorms.

4.1 RADIO FREQUENCY (RF)

Radiofrequency is a measurement of the oscillation rate of the electromagnetic radiation spectrum or electromagnetic radio waves. The range of Radio Frequencies is starting from 300 GHz to 3 kHz. The corresponding wavelengths of radiofrequency are from 1 millimetre to 100 kilometres.

Radio frequencies are invisible to the human eye. Now it is used in various wireless communication. Popularly it is used in audio transmission in radio broadcasting. With the help of antenna, transmitters and receiver radiofrequency can be used for various types of wireless communications.

The unit of Radiofrequency is hertz. During radio wave transmission Hertz represents the number of cycles per second (One hertz equals one cycle per second). The radio waves could be thousands (kilohertz), millions (megahertz) or billions (gigahertz) of cycles per second. Frequency of Microwaves is high therefore it is also called a high frequency. As the frequency is increased beyond that of the RF spectrum, electromagnetic energy takes the form of infrared (IR), visible, ultraviolet, X-rays and gamma rays.

Like all other electromagnetic waves, radio waves also travel at the speed of light. Therefore it helps to transmit audio signals at the speed of light. Naturally during lightning radio waves are generated. Artificially radio waves are used in different wireless communication. Radio wave is used for broadcasting, radar, different navigation systems, satellite communications, computer networks etc.

4.2 RADIO SPECTRUM

Different frequencies of radio waves have different nature of propagation. The long waves could cover a part of the Earth very consistently, whereas shorter waves can be reflected by the ionosphere and reaching around the world.

There are a variety of communication devices and technology like radio, phone, television, Wi-Fi, Bluetooth and satellite communication use RF technology. Apart from these communication devices things like microwave ovens, door openers operate with the help of radio

frequencies. A shorter electromagnetic wave is used in the TV remote, cordless computer keyboards and mouse.

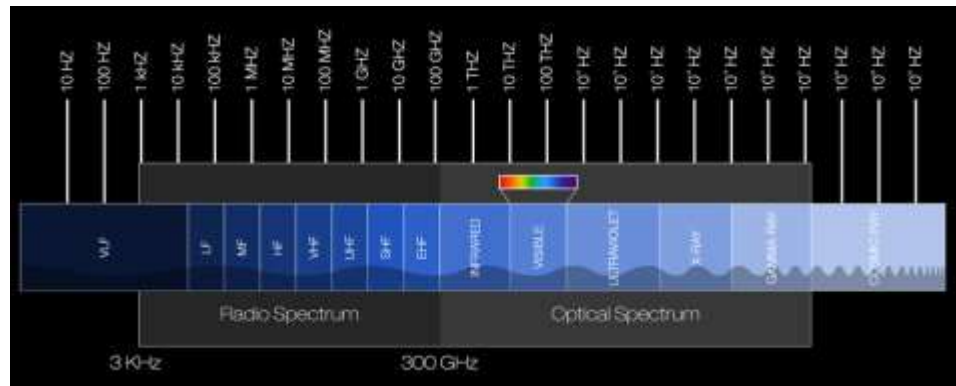


Fig: Major categories of electromagnetic waves.

The radio frequency spectrum is divided into several ranges or bands. There are numerous ways to designate different frequency bands. One of the popular ways of the designation was made by the International Telecommunications Union. This is listed below.

Table: Different bands of radiofrequency

Band name & Abbreviation	Frequency and Wavelength	Its Uses
Extremely low frequency(ELF)	3–30 Hz 100,000–10,000 km	Communication with submarines
Super low frequency(SLF)	30–300 Hz 10,000–1,000 km	Communication with submarines
Ultra-low frequency(ULF)	300–3,000 Hz 1,000–100 km	Submarine communication, communication within mines.
Very low frequency(VLF)	3–30 kHz 100–10 km	Navigation, time signals, submarine communication, wireless heart rate monitors, geophysics
Low frequency(LF)	30–300 kHz 10–1 km	Navigation, time signals, AM (Amplitude Modulation) longwave broadcasting (Europe and parts of Asia), RFID(Radio-frequency identification used in automatic identification and tracking of objects), amateur radio.

Medium frequency (MF)	300–3,000 kHz 1,000–100 m	AM (medium-wave) broadcasts, amateur radio, avalanche transceiver.
High frequency(HF)	3–30 MHz 100–10 m	Shortwave broadcasts, citizens band radio, amateur radio and over-the-horizon aviation communications, RFID, over-the-horizon radar, automatic link establishment (ALE), near-vertical incidence skywave (NVIS) radio communications, marine and mobile radiotelephony
Very high frequency (VHF)	30–300 MHz 10–1 m	FM (Frequency Modulation), television broadcasts, line-of-sight ground-to-aircraft and aircraft-to-aircraft communications, land-mobile and maritime mobile communications, amateur radio, weather radio.
Ultra-high frequency(UHF)	300–3,000 MHz 1–0.1 m	Television broadcasts, microwave oven, microwave devices/communications, radio astronomy, mobile phones, wireless LAN, Bluetooth, ZigBee(used to create personal area networks with small, low-power digital radios), GPS and two-way radios such as land mobile, Family Radio Service (FRS), General Mobile Radio Service (GMRS) radios, amateur radio, satellite radio, Remote control Systems, ADSB (Automatic dependent surveillance-broadcast)

Super high frequency(SHF)	3–30 GHz 100–10 mm	Radio astronomy, microwave devices/communications, wireless LAN, DSRC, most modern radars, communications satellites, cable and satellite television broadcasting, amateur radio, satellite radio
Extremely high frequency(EHF)	30–300 GHz 10–1 mm	Radio astronomy, high-frequency microwave radio relay, microwave remote sensing, amateur radio, directed-energy weapon, millimetre wave scanner, wireless LAN.
Terahertz or Tremendously high frequency(THz or THF)	300–3,000 GHz 1–0.1 mm	Experimental medical imaging to replace X-rays, ultrafast molecular dynamics, condensed-matter physics, terahertz time-domain spectroscopy, terahertz computing, communications, remote sensing

The super-high frequency and extremely high-frequency bands are referred to as the microwave spectrum. Only a particular range of radio waves is used for particulate wireless communication. For AM and FM radio, cellular telephones and TV have separate ranges of electromagnetic frequency. Extremely low frequency (ELF) radio waves of about 1 kHz are used for underwater communication. As it has the ability to penetrate in saltwater it uses in submarines. Further, these radio frequencies are also divided into licensed and unlicensed bands. Government issues license to different organizations to use a particular frequency. That licence permits an entity to have exclusive use of a frequency band in a given location. Unlicensed frequencies are free for public use. For radio broadcast, there are two popular methods used for encoding and decoding the radio signals. They are Amplitude Modulation (AM) and Frequency Modulation (FM).

4.2.1 Nature of radio signal

Radio signals travel as electromagnetic waves. Radio waves are part of the same spectrum as light but they are invisible to us. They are invisible because the wavelength of radio waves are longer than visible light. Our eye is incapable of capturing radio waves. They are a long-wave form of electromagnetic radiation. Its speed is as fast as the speed of light.

All the time radio waves are around us, but to detect them we need a special device. Whatever sound our ear can detect they are all mechanical sound waves. They travel through the air. Therefore to send sound waves to a long-distance receiver we need special technology like radio broadcasting.

4.3 MECHANICAL AND ELECTROMAGNETIC WAVES

Radio waves can't be "heard". It is also not related to sound waves. Sound waves are mechanical waves. They can be generated from a number of sources like from our vocal cord or strings of a guitar. These mechanical vibrations travel through air particles. As it travels through air particles, therefore the speed of sound (767 mph) is much slower than light. Radio waves are electromagnetic energy and a part of the same spectrum as light. So they travel at about 670,080,887 mph.

Mechanical waves require a medium to travel from one point to another point. Sound waves move through the air, water, and even solid surfaces. In the case of electromagnetic waves which include light, microwaves, infrared, x-rays, ultraviolet, and radio waves there is no need for a medium to travel. Therefore they can pass through deep space and through physical barriers.

4.3.1 Mechanism of radio Transmission

In the case of radio broadcasting mechanical sound waves transmitted in the form of radio waves. So before transmission mechanical sound waves converted into electromagnetic radio waves and again at receiver end radio waves converted into mechanical sound waves.

4.3.2 Transmission and Reception

Everywhere and all the time radio waves surround us. To detect radio waves we need a radio receiver. Radio transmission technology allows users to transmit and receive information over radio waves. A transmitter is a set of equipment used to generate and transmit electromagnetic waves which carry messages or signals. A receiver is a consumer electronics equipment used in the home to receive electromagnetic signals and process them to produce mechanical sound waves.

Radio communication can be one to one like walkie-talkies which could be possible with pairs of transmitters and receivers. Radio communication can be one-to-many like one-way radio broadcasts. Signals sent from a single powerful transmitter of a radio station to multiple radio receivers.

4.4 FM AND AM MODULATION

The radio station program began as a mechanical sound wave. In the studio, they are physically generated by radio announcers, singers or from musical instruments. These sound waves are captured by microphones and converted into electrical signals. Then these electronic signals are directly broadcasted as live programs or recorded to store for further use. Then these electronic signals need a carrier wave which could send the information up to the receiver. These carrier waves are electromagnetic radio waves. Before transmission electrical signals join the carrier wave, and this attachment process is called modulation. When there is no audio no electronic signal will be generated. So it will not influence or bring any change in the carrier waves. When announcers start speaking, the microphone creates an electric signal and that electric signal bring changes in the carrier wave. That modulator signal transmitted as per its pattern it could be decoded at the receiver end and again encoded into an electronic signal. Then that electrical signal again converted into a mechanical sound wave so that we could listen to the broadcasted program on our own radio. That modulation or change of carrier wave can be either AM or FM. Amplitude modulator according to electronic signals from microphone affects the amplitude or height of the carrier wave.

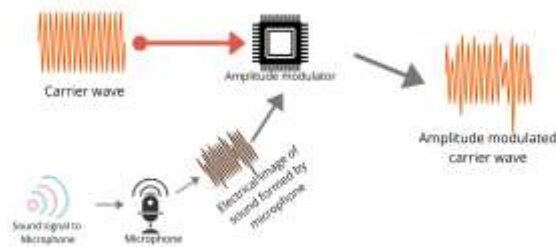


Fig of AM Transmission

Similarly, frequency modulators affect the frequency of the carrier wave can before transmission.

Then after modulation from the antenna, the signal is then broadcast as electromagnetic waves. The receiver of home radio then picks up these waves, amplifies them, and converts them into sound through the speaker. If there's no signal attached to carrier waves we will not hear anything, because the carrier waves are not modulated.

Simultaneously a number of radio waves are coming from different stations but we can receive only the sound of one station at a time. This is because different stations broadcast their program in different frequencies. We have to tune in to a specific frequency to find the right signal. The numbers on our radio dial represent frequencies used by different radio stations. If we listen to FM 104 our radio receives a signal of 104 MegaHertz (MHz).

4.4.1 AM Radio Waves

AM method of audio transmission was first successfully carried out in the mid-1870s. AM radio waves are used to carry radio signals in the frequency range from 540 to 1600 kHz. The abbreviation AM stands for amplitude modulation. Amplitude modulation is a method for placing information on electromagnetic waves. Carrier wave having the basic frequency of the radio station which is going to vary or modulate in amplitude by an audio signal. Frequency of modulated wave will remain constant and amplitude will be change according to the audio signal.

4.4.2 FM Radio Waves

FM radio was developed in the United States mainly by Edwin Armstrong in the 1930s. FM radio waves are used for commercial radio transmission. Its frequency range is 88 to 108 MHz. FM stands for frequency modulation. This is another method of carrying audio information. In the case of FM, a carrier wave having the basic frequency of the radio station. Its frequency will be modulated by the audio signal but its amplitude will remain constant.

As audible frequencies maximum range up to 20 kHz (or 0.020 MHz), so the frequency of the FM radio wave can vary from the carrier by as much as 0.020 MHz. Therefore the frequencies of two different radio stations cannot be closer than 0.020 MHz. An FM receiver is tuned to resonate at the carrier frequency. The receiver has circuitry responding to variations in frequency to reproduce the received audio information. FM radio band lies between channels 88 MHz and 174 MHz.

4.4.3 Comparison between AM and FM

Stands for	AM	FM
	AM stands for Amplitude Modulation	FM stands for Frequency Modulation
Origin	AM method of audio transmission was first successfully carried out in the mid-1870s.	FM radio was developed in the United States in the 1930s, mainly by Edwin Armstrong.
Modulating	In AM, a radio wave is	In FM, a radio wave is

differences	known as the "carrier" or "carrier wave" is modulated in amplitude by the signal that is to be transmitted. The frequency and phase remain the same.	known as the "carrier" or "carrier wave" is modulated in frequency by the signal that is to be transmitted. The amplitude and phase remain the same.
Pros and cons	AM has poorer sound quality compared with FM, but is cheaper and can be transmitted over long distances. It has a lower bandwidth so it can have more stations available in any frequency range.	FM is less prone to interference than AM. However, FM signals are impacted by physical barriers. FM has better sound quality due to higher bandwidth.
Frequency Range	AM radio ranges from 535 to 1705 kHz (OR) Up to 1200 bits per second.	FM radio ranges in a higher spectrum from 88 to 108 MHz. (OR) 1200 to 2400 bits per second.
Bandwidth Requirements	Twice the highest modulating frequency. In AM radio broadcasting, the modulating signal has a bandwidth of 15kHz, and hence the bandwidth of an amplitude-modulated signal is 30kHz.	Twice the sum of the modulating signal frequency and the frequency deviation. If the frequency deviation is 75kHz and the modulating signal frequency is 15kHz, the bandwidth required is 180kHz.
Zero crossings in modulated signal	Equidistant	Not equidistant
Complexity	Transmitter and receiver are simple but synchronization is needed in case of SSBSC AM carrier.	Transmitter and receiver are more complex as the variation of modulating signal have to be converted and detected from the corresponding variation in frequencies. (i.e. voltage to frequency and frequency to voltage conversion has to be done).

Noise	AM is more susceptible to noise because noise affects amplitude, which is where information is "stored" in an AM signal.	FM is less susceptible to noise because the information in an FM signal is transmitted through varying the frequency, and not the amplitude.
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4.4.4 Pros and Cons of AM vs. FM

As amplitudes of waves add noise, FM radio has less noise in comparison to AM radio. Thus, an AM receiver would interpret noise added onto the amplitude of its carrier wave as part of the information. An FM receiver can be fashioned to reject amplitudes other than that of the basic carrier wave and only look for variations in frequency. Thus, since noise produces a variation in amplitude, it is easier to reject noise from FM.

As the encoding of FM and AM is different therefore various differences like sound quality, performance, and broadcast range can be noticed between the two types of the station. Like FM stations sound better than AM stations because of less noise in FM. Whereas the range of AM stations is more than FM Station.

AM radio varies the amplitude of the carrier wave. As amplitude represents the strength of the signal, therefore, the power at which that signal is broadcast is also changed. Hence some receivers may not pick up low amplitude signals. Whereas FM radio always remains at constant amplitude and signal strength remains constant.

Another reason for better sound quality is FM uses a higher frequency range and a bigger bandwidth than AM. AM radio operates from 535 kHz (kiloHertz) to 1605 kHz. The gap between the two stations is 10 kHz. This means that each station has 10 kHz of bandwidth on which to broadcast. Which may cause interference between two stations. Whereas FM radio operates between 88 MHz (megahertz) and 108 MHz and the gap between two stations of 200 kHz.

Another important fact is that each FM station is allocated 150 kHz of bandwidth, which is 15 times that of an AM station. Which means FM stations can transmit 15 times much information as an AM station. This is why the sound quality of music is better on FM. Therefore FM broadcasts music and AM gives priority to talking programs.

AM stations also have their own advantages. As it is transmitted in a lower frequency band which has a larger wavelength. Therefore its broadcasting range is much longer than FM. When any important information the government wants to disseminate to all the citizens of a

large country, they will prefer to broadcast in AM Station. This is why All India Radio (AIR) acts as a lifeline disaster or in a national emergency.

Another advantage of AM because of the larger wavelength of AM also travels very well through solid objects, like mountains. Which is not so possible in Higher frequency FM radio waves.

The advantages of AM radio is it is relatively easy to detect with simple equipment. The major disadvantage of AM is that its signal is influenced by lightning, and other radiofrequency. The disadvantage of the FM signal is it cannot be transmitted over long distances. Presence of tall buildings or landmasses may limit the quality of FM. FM also requires a complicated receiver and transmitter than an AM signal.

4.5 USE OF ELECTROMAGNETIC WAVES IN TELEVISION

Electromagnetic waves also broadcast television transmission. In television broadcasting, electromagnetic waves carry more information as transmission includes both visual as well as audio information. Therefore each channel requires a larger range of frequencies than radio transmission. TV channels transmit through very high frequency (VHF) their range is 54 to 88 MHz and 174 to 222 MHz. Some TV channels use ultra-high frequency (UHF) ranges from 470 to 1000 MHz. In television video signals are transmitted in AM and the audio in FM. Satellite dishes and cable transmission of TV occurs at significantly higher frequencies. This transmission technology is rapidly evolving.

4.6 CHECK YOUR PROGRESS

Q.1 Explain about the Radio Frequency and waves.

Q.2 Explain nature and significance of the radio signal.

Q. Write a short note on Mechanism of radio Transmission.

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UNIT: 5

**TYPES OF SOUND:
NATURAL, AMBIENT, RECORDED**

STRUCTURE

5.0 Objectives

5.1 Introduction to Sound

5.1.1 Important of Sound

5.1.2 Sound simulates reality

5.1.3 Diegetic sound

5.1.4 Non-diegetic sound

5.2 Various Sounds

**5.2.1 Ambient Noise/Background Noise or Natural
Sound**

5.2.2 Walla

5.2.3 Human voice

5.2.4 Dialogue & Narration

5.3 Sound Effects (SFX)

5.3.1 Foley

5.3.2 The Foley Process

5.4 Music

5.5 Silence

5.6 Isolated Sounds

5.7 Soundtracks

5.8 Audio production professionals

5.9 Check your progress

5.10 Reference

5.0 OBJECTIVES

After going through this unit, students will be able to.

- Describe the significance of sound.
- Identify the different applications of sound in radio and TV.

5.1 INTRODUCTION TO SOUND

Sound is an important element in both radio and television production. Both the characters and story of a program become more expressive with the help sound. Without sound, production can not be completed. Sound in a radio and TV program includes music, dialogue, sound effects, ambient noise or background noise, soundtracks etc. Some sort of sound is always used in programs to enhance the experience of the audience. Audio means sound or reproduction of sound. It refers to the range of frequencies detectable by the human ear. The human ear can detect approximately 20Hz to 20kHz.

5.1.1 Important of Sound

Radio is a medium of audio transmission. Its 100% of the contents are created and distributed in the form of sound. All the necessary information or messages are to be expressed in some form of audio. Television is an audiovisual medium. We can't ignore the significance of audio. Here the sound is more important than that of a motion picture. Audiences could accept a program with poor video quality with better audio but no one is going to watch a programme with poor audio quality. A picture is less important than the sound. The audience can only look at one picture at a time. Whereas the audience can hear different sounds all at the same time.

5.1.2 Sound simulates reality

Sound creates a sense of reality. It adds additional information along with the storyline. Events like walking, the opening of doors, approaching horses became more natural when natural sounds are added. In radio, sound establishes the scene and its environment. Sound also acts as stimulation of new imagination. When natural things are not possible to add in a particular programme, then the producer creates an illusion of certain things by sound only. Sound is used to add or create something off scene which is not really there. Sound helps to create a mood. Sound can introduce important elements of the plot. Sound also intentionally

confuses or misleads the audiences. Now let's discuss different elements or terminology used in audio production.

In radio, with the help of audio-only, any picture is created in the listener's mind. To understand any audio production whether it is for radio or television, we have to keep an eye on voices, music, sound, sound effects, and silence.

Basically sound for audio-video production are of two types. They are two types such as Diegetic and non-diegetic

5.1.3 Diegetic sound

Diegetic sounds come from the subjects or objects that appear on the screen. Sound whose source is visible on the screen or whose source is by the action of the film is the diegetic sounds. These sounds can be the actors' voices, sounds of footsteps. In most productions, capturing the diegetic sound is the first and most important concern. Diegetic sound is the "actual sound" of the video production. Common diegetic sounds are :

- Dialogue and sounds from your characters or actor
- Sounds originated from the environment
- Sounds generated because of any actions or the moving of objects
- Music or sounds represented as coming from any instrument which is played by the character (an instrument being played or audio coming from a speaker in a scene.)

a commonly diegetic sound is captured with the help of boom mics, audio recorders. Diegetic sounds can also be reproduced in post-production.

5.1.4 Non-diegetic sound

The source of Non-diegetic sound is not visible on the screen and not because of any action in the scene. Things like voice-over or a soundtrack (where the music is not being performed within the film) are Non-diegetic sounds. Non-diegetic sounds are coming from outside of the frame. These sounds intensify the experience of the audience by coming from sources which are neither visible on-screen nor implied to be present in the film. Common non-diegetic sounds are commentary sounds, narration, extra sound effects, soundtrack. Non-diegetic sound is used to create scenes, connect themes and characters.

5.2 VARIOUS SOUNDS

5.2.1 Ambient Noise/Background Noise or Natural Sound

Ambient noises are background noises are the sound generated naturally in a room, a house, outside, or any given location of production. Ambient sound (ambient audio, atmosphere, background noise) means

the background sounds which are present in a scene or location. Every location has distinct sounds which are created by its environment. Ambient noises are types of sound effects. When we are silent and whatever noises we hear are ambient noises. The ambience of an older house may have more ambient noise than a newer home. Background ambience depending on the nearby happenings. The ambience of different locations has different ambient noises. Ambient noises of wildlife, wind, rain, thunder, running water, thunder, traffic, aircraft engines, machines operating, floors creaking, muffled talking, and air conditioning will be different. Background noise gives the program more real. If there were no ambient noises in a suspense story then there will be no suspense. Common ambient sounds include wind, water, birds, crowds, office noises, traffic, etc.

The term Room tone is used in radio and video production, which means the sound of an empty room, or a room in which all the artists are silent. As per an audio professional, room tone means the low-volume sounds present in every room. Usually, at the end of shooting a scene, the performer will stand silent for a few moments while the room tone is recorded. It is necessary to record the scene's exact background noise for post-production. When we again record dialogue or new audio is recorded in a separate studio then the difference in background noise will spoil the continuity. If we recorded the room tone during post-production we can add room tone under any new dialogue.

There are several types of ambient sound used in film production. Matching ambient sound is an ambient sound recorded to match the ambient sound of a scene. Wild sound is a kind of background noise with distinct sounds, it is more than ambient sound. For Example, Children playing in a playground. This low sound ambient is also called Buzz track. A buzz track is a soundtrack that contains the ambience of low background noises.

5.2.2 Walla

Walla is a background sound, which typically captures the noise of a crowd or conversation. Walla adds a foundation to films, particularly in scenes where you'd expect to hear distant ambient conversations, such as a couple dining at a busy restaurant.

The ambient sound performs a number of functions including:

- Providing audio continuity between shots in television and different events in a radio drama or programme.
- Complete silence in a natural environment looks unnatural, so as to prevent this unnatural producer can add natural sounds.
- Establishing or strengthening the mood.

5.2.3 Human voice

5.2.4 Dialogue & Narration

The most important element of any radio programme is the human voice. The voice of an announcer or newsreader on the radio is very pleasant. There are two elements of the human voice in radio and television production. There must be a well-written script to be spoken and then someone has to properly speak or read the script before the microphone.

Dialogues are spoken conversational exchanges between two or more people in a story or programme. In a radio, drama characters are talking to each other. Sometimes dialogues are monologue, when a character is alone he or she is speaking. In narration, the voice of the narrator can be heard but not seen on camera. Usually, the narrator is telling the story. A TV program or radio program may have voice-over narration. Voice-over narration is when a character is explaining what has happened in the story. Dialogue, monologue, and voice-over narration add value to complete the program. The dialogue gives the viewers an understanding of what is going on in a program like radio drama, TV documentary.

5.3 SOUND EFFECTS (SFX)

Sound effects (or audio effects) are artificially created or enhanced sounds. Any sound, other than music or speech, artificially reproduced to create an effect in a dramatic presentation like the sound of a thunderstorm or a creaking bone are the sound effects. In radio and television production, a sound effect includes sound recording and presenting to make specific storytelling in a creative way without the use of dialogue and music. An action movie became more interesting and bolder with sound effects. With sound effects, the viewer gets more involved with the movie. Sound effects are most often added during post-production. When filming a scene with multiple actions going on at the same time, like dialogue, gun fighting and several other background activities, proper sound effects are needed in post-production. Sound effects like murmurings of a crowd are added to make it effective and clear. The processes applying effects like reverberation, flanging effects in dialogues or music are often called "sound effects". Sound effects are used in animation, video games, music, or other media. Sound effects are either created artificially or by improving existing sounds.

Artificial echo:- If we are in an empty building or fort our voice will come back to us, which is called an echo. Echo is a sound effect. Echo is used in radio and television programmes. Sometimes echo chambers are used to create an echo effect. It is a box or container used to create the illusion of distance and reverberation. Reverberation is a re-

echoed sound which fades until it becomes inaudible. During post-production, audio editors can apply echo effect in a normal human voice. Sometimes sound gets filtered or distorted artificially to get desired output. When we listen to someone's voice on the phone, the voice would not sound natural. During editing, we can add phone filters over normal audio. Someone in a cave, or mine, forest, waterfall all these locations influence natural audio. Splash Tank is a container filled with water, which is used to create wet sound effects.

5.3.1 Foley

Foley effects are sound effects added to the program during post-production. They include sounds such as footsteps, clothes, paper folding, doors opening and slamming, punches, glass breaking, etc. etc. Sound recordists avoid recording some sound during the shoot. In post-production, all these necessary sounds are added to enhance the audio quality which is known as foley. These reproduced sounds, named after sound-effects artist Jack Foley. Foley sounds are used to enhance the experience of the audience. Foley also used to hide unwanted sounds captured during shooting or recording. This technique is used in both radio and television production.

5.3.2 The Foley Process

Foley stage is a place where foley artists create sound effects. In the foley production room with the help of sound production props (like different kinds of the floor, plastic, metal plate, water etc) different sounds are created. As per the necessity of a program, sound can be produced from the objects that appear in your film or from different sources.

Foley Stage has a splash tank, echo chambers, all the necessary audio recording and mixing equipment where sound engineers record and mix. The mixing console is used in foley studio. It is a device which is capable of taking in several different sounds, then mixing them at different levels to create a single, unified sound. For audiovisual production foley artists watch the film to determine which sounds need to be replaced, which need to be enhanced, and which simply need to be added. While doing this artist should take care of all the sound like dialogue and sound effects created during the actual production. Foley helps to enhance the sound of the final production. Foley replaces and covers audio imperfections.

Foley Examples

Breaking Bones

Propes: Fresh carrots and celery

Process: Break the celery of carrots in front of the microphone.

One created foley sound can be used in a variety of ways.

Punch

Propes: raw meat.

Process: To imitate a punch or slap in the face, punch over a thick piece of raw meat.

5.4 MUSIC

Music is a very important element for any audiovisual production. In radio music is its soul. Music is used in different ways on the radio. There are some programs which are completely dedicated to music. Music is the prime content for most of the FM channels in India. All India radio also has special programs on film songs and classical music. Music is used as signature tunes or themes of various radio programmes. Music adds colour and life to any spoken programme. It breaks the monotonous nature of a program. Music is used to give the desired effect or moods like happy or unhappy, fear or joy. Music conveys the audience about scenes and locations. For example, when we have to create a bright early morning situation, we can play a pleasing note on the flute along with the sound of birds. The term score is used for the background music which is used throughout a film.

5.5 SILENCE

Silence is the one that is often overlooked in production. Sensible use of silence can make or break a radio program. To know how to use silence effectively, listen to stand-up comics. Listen to radio drama. Listen to storytellers. Listen to effective speech makers. Notice how they pause just before delivering important points. Sometimes taking a few pauses in a program can enhance its impact. Silence can be used to make something dramatic. To give emphasis over something, being quieter can sometimes work better than being louder. In a world of chaos, noise, and nonstop sound, the effective use of silence can be your best selling tool.

5.6 ISOLATED SOUNDS

Isolated sounds include the sounds like doorbells, car horns and telephone rings. These are the real and specific sounds that you hear such as dogs barking, guns firing, doors slamming and car tires screeching during a car chase.

5.7 SOUNDTRACKS

The soundtrack is an audio part of any film or TV program which is developed in production or post-production phase. Within the soundtrack sound editor place the dialogue, sound effects, and music in separate tracks. For organised and smooth workflow of audio editing separate dialogue track, sound effects track, and music tracks are created.

The composite track will be developed by mixing all the tracts. The audio editor makes a composite soundtrack by mixing a variety of sounds like dialogue, sound effects, Foley and music. The cue sheet is popular among audio producers which is a list of all the necessary sound effects, along with their "cues" time code and/or film footage signals that indicate when the sound begins and ends.

5.8 AUDIO PRODUCTION PROFESSIONALS

The field of audio production is huge, with many areas of speciality. Some common areas of audio work include:
Studio Sound Engineer, Live Sound Engineer, Musician, Music Producer, DJ, Radio technician, Film/Television Sound Recordist, Field Sound Engineer, Audio Editor, Post-Production Audio Creator.

5.9 CHECK YOUR PROGRESS

Q. 1 What is importance of sound in production.

Q.2 What is difference between Diegetic sound Non-diegetic sound. Do explain?

Q.3 Explain about Foley sound and its uses.

5.10 REFERENCE

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UNIT: 6

**RADIO STUDIO SETUP,
THE EDITING SUITE & STUDIO
ACOUSTIC TREATMENT**

STRUCTURE

6.0 Objectives

6.1 Introduction

6.2 Radio Studio Setup

6.2.1 Audio console

6.2.2 Mixing Board Arrangement

6.2.3 Microphone

6.2.4 Windscreen or Pop filter

6.2.5 Microphone Stands, Mounts & Clamps

6.2.6 Shock Absorption

6.2.7 Studio Headphones

6.2.8 Monitor speakers

6.2.9 Talent panel

6.2.10 Button panel

6.2.11 Automation Software

6.2.12 On Air light

6.2.13 Talkback system

6.2.14 Intercom

6.2.15 Radio Station Microwave Receivers and

Relays

6.3 AUDIO EDITING SOFTWARE

6.3.1 Adobe Audition CC

6.3.2 Audacity

6.3.3 Ocenaudio

6.3.4 SOUND FORGE

6.3.5 Acoustica

6.3.6 SOUND ACOUSTIC TREATMENT

6.3.7 Studio Soundproofing

6.4 Other Instructions

6.5 Check your progress

6.6 Reference

6.0 OBJECTIVES

After going through this unit, students will be able to.

- Describe Radio Studio Setup.
- Studio Acoustic Treatment.

6.1 INTRODUCTION

As per the need and availability of budget different levels of radio stations are designed. Some of the small radio stations are operated in small buildings. When companies possess several radio stations in one city, all their operations are consolidated into a single building. In the case of Internet Radio Stations, it can be operated from a single room or in the corner of a room. To make a radio studio setup you need a number of things. In this chapter, we will cover major equipment or devices one needs to make a radio studio. At present most of the radio stations have switched from analogue to digital operations. Therefore most of the equipment is based on digital technology. Among various equipment few types of equipment are primary or most important equipment like audio consoles, a microphone, studio monitor speakers, headphones etc. let's discuss one by one starting from the audio console.

6.2 RADIO STUDIO SETUP

Lest discuss some of the important implements of a radio studio.

6.2.1 Audio console

The audio console is the heart of the studio. Consoles are used to control anything that the listeners hear on air. It is also called a Mixing board, mixing desk, mixing console, soundboard, audio mixer. Basically, an audio console brings together all of the different instruments and audio sources and records into one place. It helps us to change the parameters of each audio as per our need. We can change volume, frequency content,

stereo position, dynamics and effects, Using the mixing desk. We can combine all of the separate pieces of our products into one whole.

6.2.2 Mixing Board Arrangement

Broadly mixing consoles are split into two main sections. One part is the input section and another is the monitoring section. The input section is where you send the signal that's going to be recorded into the mixer. Another section is monitoring where we can listen back to what you've already recorded. According to the arrangement of hardware, there are three types of conso

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(Split console, Inline console, Hybrid console). In the split, mixing consoles have both of these sections(Input and Monitoring sections) situated in different halves of the desk. Where In-line consoles contain both the input section and the monitoring section inside the same channel strip. The Hybrid console is basically a combination of both the split console and the inline console. Hybrid consoles have one channel strip for the monitor and the channel-path but they also have subgroups with their own dedicated master faders.

6.2.3 Microphone

A microphone is a device that captures audio by converting sound waves into an electrical signal. Electric signals can be amplified as an analogue signal or may be converted to a digital signal. The microphone in the studio is used to capture the sounds in the studio. After capturing the sounds, the microphone turns them into electrical impulses. With the microphone comes a microphone arm to keep the microphone at a good height. For a radio studio proper placement or direction of microphone it is important to have microphone arms or stand.

Radio Stations have a different set of microphones. Some microphones are dedicated for voice recording and some are for on-air or to capture audio from musical instrumentals.

6.2.4 Windscreen or Pop filter

Voice Over recording microphone attached with a windscreen. The windscreen reduces excessive pressures on a microphone's element from the wind as well as popping sounds. It minimises the sound of breath blowing into the microphone. The Popping "P" Sound occurs when a person pronounces a word with a hard "P" in it. During which a pocket of air that hits the microphone, creating unwanted noise. The filter is used to reduce popping sound is known as a Pop filter.

6.2.5 Microphone Stands, Mounts & Clamps

It is important how to hold the microphone properly. Wall-mounted microphones can upgrade the audio quality. When the mic is mounted it should be correctly positioned and faced to the required direction. The stand helps make to reposition the mic if necessary. The mic must be safe, we have to be careful as it won't fall over, get knocked, get wet etc. The mic must be shielded from unwanted noise such as handling noise, vibrations, wind, etc. Cables must be secure and safe. The microphone can be mounted on a stand or clamp. There are three main variations of Microphone Stands (The straight vertical stand, the boom stand and the small table-top stand). Boom stands are very useful and versatile.

While setting up a microphone stand:

- **Always position the boom to extend directly above one of the stand legs. This prevents the stand from unbalanced.**
- **Never stand on the legs.**
- **Never over-tighten clamps.**
- **Don't try to adjust clamps while they are tightened.**

Clamps can be used in place of a dedicated mic stand. Specialised clamp takes less floor space. Clamps are useful to reach difficult positions. Clothing Clip can also be used to attach small mic like lapel mics. It helps to attach in the cloth of an anchor or guest. It is ideal for a TV interview.

6.2.6 Shock Absorption

It is important to have a shock absorption mechanism to cancel or to minimise unwanted noise. Noise is created from the vibration of the stand or mount. Foam padding or elastic suspension help to isolate the mic from the vibrations.

6.2.7 Studio Headphones

Headphones play a significant role in radio production. Radio Jockeys wear headphones to avoid feedback. Audio feedback or acoustic feedback is a special kind of loop gain which occurs when a sound loop exists between an audio input (microphone) and an audio output (loudspeaker). For example, a signal received by the microphone is passed out of the loudspeaker. Then the sound from the loudspeaker can then be received by the microphone again. To avoid these audio feedback headphones are used in the radio studio. In some studios when a microphone is turned-on monitors (speakers) get automatically mute to avoid audio feedback. In this situation, we can use headphones to hear what's going on.

Use of Headset

1. A headset is useful while the person is talking and wants to listen to the audio quality.
2. While talking one could move around with their hands-free.
3. When there is a lot of background noise, headphones help to listen to particular audio.

Headsets are ideal for stage performers, as well as sports commentators, radio announcers, etc. The headset gives consistent audio, which is important for a professional audio editor.

6.2.8 Monitor speakers

As headphones, a studio monitor speaker is essential to have in the studio. Studio monitor speakers help to monitor how the music sounds without headphones. Monitor speakers must be high-quality speakers so all the abnormal sounds can be detected. Before on-air sound quality of audio content should be checked. A studio can have multiple speakers at different parts of the radio station to avoid the risk of airing the wrong audio. Audio should be checked both in speaker and headphone. Every radio station also needs headphones.

6.2.9 Talent panel

When we want to make any program with multiple guests, the Talent Panel kit is an interface panel for talent or guests to control the microphone. It consists of a headphone amplifier, passive microphone socket and three passive buttons (On/Off/Cough buttons). It is important to have a talent panel. With the help of a talent panel, an individual (guest) can control their own headphones and mute the microphone. This option is available in front of each guest's microphone.

6.2.10 Button panel

Several times it is needed to have a controlled setting which is not available in the audio console. In consoles, there is a row of configurable buttons. In buttons of analogue audio consoles physically wired to other equipment. In digital audio consoles via software control buttons are linked to different functions. These buttons will often control studio delegation (which studio goes to air), phone systems, automation systems, or even remote triggering for networked radio stations.

6.2.11 Automation Software

Radio stations also need automation software. This computer system makes it possible to play background music, commercials, spots (ads, promos, etc.) and sweepers (the little voice-overs played between songs). The software is called automation software or playout. These programs are designed to continually play music in the background. The

heart of these programs is the log. This is a list with all the audio files that need to be played. Most of the time these programs contain hotkeys, a music database, and a lot more. All music played on a commercial radio station will be pre-programmed by the Music Director and loaded into the log. A separate person will often load all advertisements into the same log. In a studio, you also need level meters, which can show whether a channel is too loud or too quiet.

6.2.12 On Air light

To show everybody in the studio that the station is live, get yourself an On-Air light. The light is automatically turned on when you turn on your microphone. It is important to have at least one of them inside and one of them outside the studio. You will not be bothered during the show, because the lights show other people that you are on the air.

6.2.13 Talkback system

We also need a phone talkback system, this is important if you want to take phone calls while you are on air. This controller shows you every incoming phone call, on each channel. The controller allows you to send the caller to a specific audio channel or studio. Most of the time, the system allows you to chat between the studio and the producers. When we want to take a lot of calls on the air, we need a Phone Talkback/Talkshow System. This is a software program or physical controller that shows you every call coming in on each line and allows you to send this caller to a specific studio or audio channel. Most systems allow you to track callers (a phone book with history), chat between the studio and producers and “conference” multiple callers together.

6.2.14 Intercom

If you are looking for an easy way to communicate between different studios, you should get an intercom. They sometimes have a talkback or a phone system.

6.2.15 Radio Station Microwave Receivers and Relays

In radio stations, the signal is sent by the microwave to a similar microwave receptor which is on the grounds where the transmitter and the tower resides. Then the microwave communication is converted into a signal that is broadcasted to the general public. It is usually not possible for a radio station studio to be located 0, 15 or even 30 miles away from the actual transmitter and tower. A single tower can broadcast for one or more radio stations simultaneously.

Across the globe, various radio stations receive signals from a satellite feed. The received signal is then fed into the radio station's

control room where it travels through a console and is then sent to the transmitter for local audiences.

6.3 AUDIO EDITING SOFTWARE

Most radio stations employ sophisticated, professional and easy to use software to either automatically run the station when a human can't be there or to help in assisting a live DJ or a personality in running the station.

Various types of software support station operations; the display outputs directly in front of the audio console, where it can be seen clearly by the person on-air.

6.3.1 Adobe Audition CC

Adobe Audition CC is one of the powerful audio editors that continues to push industry standards forward. The app is updated every year with several new and advanced features and expanded compatibility with the latest versions of Windows and macOS.

Audition can function both as a single-track audio editor, and as a multi-track mixer for recording and layering sounds. The app can be used as a fully-fledged digital audio workstation with support for recording multiple sources at once as well as external plugins (VST, VST3, and AU). Adobe provides best-in-class audio restoration tools, allowing the user to grab a sample of "noise" in your recording, then remove that unwanted range of sound from the entire file. You can also use a variety of options like the adaptive noise reduction (which intelligently detects undesirable sound for you) and automatic or spot healing to remove pops and clicks.

6.3.2 Audacity

The best part of Audacity is that it is the most capable free audio editor. It provides its users with the full set of editing mastering tools, including - destructive waveform and multitrack editing. The editor places a library of effects which includes a compressor, noise reduction, and an automatic repair tool. There's also support for external audio effects and sound generator plugins in VST, AU, LADSPA, and LV2 format. Owing to its open-source roots, Audacity supports the import and export of a wide range of formats like OggVorbis, FLAC, and M4A. A basic and slightly clunky interface lets it down compared to some of its competitors. But one can't record multiple audio sources at once or perform non-destructive edits.

6.3.3 Ocenaudio

Ocenaudio is a free single-track editor for creating useful edits to audio files. It's a capable all-rounder with a clean and minimal interface that sets it apart from the comparatively cluttered Audacity. We can add markers to our files, make edits to specific channels, and manipulate the metadata before exporting your recording.

In addition to the basic trimming and clipboard operations, Ocenaudio also includes a number of effects and support for VST plugins (and AU plugins on a Mac). These include simple noise reduction operations, filters, a 31-band equalizer, plus time and pitch adjustment. Highlight audio to get quick access to functions like cut, copy, and delete, and to see exact timecodes.

It's a simple editor, but it's perfect for users who find Audacity's interface overwhelming and clunky. Thanks to some clever memory management, Ocenaudio is great for editing large files without performance taking a hit—something that's rare for free editors. If you don't need multi-track support or all of the effects and plugins included in Audacity, Ocenaudio is the editor for you.

6.3.4 Sound Forge

SOUND FORGE Audio Studio 12 is a moderately priced audio editor for Windows. While a version of SOUND FORGE Pro exists on the Mac, only Windows users get the cheaper Audio Studio 12. Despite the affordable price tag, Audio Studio 12 is a powerful tool for editing, mastering, and exporting audio to a variety of formats.

It's not a multi-track editor, instead of focusing on a single stereo file or recording at a time. Common tasks that the app handles confidently include cutting up files, merging recordings, cleaning up audio, and applying effects. Audio Studio 12 comes with iZotope Ozone Elements, a dedicated mastering processor which runs alongside the main app as a plugin. Ozone includes professionally-designed presets to make your recordings sound richer and punchier with minimal effort.

One of the strong points of Audio Studio 12 is Video integration. You can open a video file and see the individual frames on the timeline while making your edits. When you've improved your soundtrack, it's easy to merge—or "remix"—that audio file back into the video, without having to take the time to re-render the whole thing.

6.3.5 Acoustica

Acoustica Standard Edition provides more than an average free audio editor in a package that won't break the bank. This is a high-resolution audio editor software, which supports 32-bit audio and sample rates of up to 384 kHz. You can use Acoustica for single-track waveform

editing or multi-track mixing where you can loop, stretch, and fade clips on a timeline.

The basic effects of the software include a limiter, an equalizer, and a suite of audio restoration tools for removing hiss, pop, and hum from recordings. Acoustica also includes support for external plugins in VST, VST3, and AU format. Each of these can be chained together, saved, and deployed with a click across multiple sessions and files. Build your effects in the Processing Chain box on the main interface by clicking the + button to add equalizers, limiters, plugins, and more. Acoustica is also compliant with common broadcast standards which makes it easy for working with video soundtracks.

Acoustica's neat row of useful icons, dark colour scheme, and tab-based interface for working on multiple files should prevent you from feeling overwhelmed by the extensive feature set. If you find yourself craving more "professional" features, the Premium Edition of Acoustica offers even better audio restoration tools, multi-channel 7.1 surround sound support, and spectral editing.

6.3.6 Sound Acoustic Treatment

Acoustics can be defined as one of the branches of physics which deal with the study of all mechanical waves in liquids, gases and solids including topics such as- sound, ultrasound, infrasound and vibration. Acoustical Engineer is the one who is working in the field of acoustics technology. The application of acoustics is available in almost all aspects of modern society with the most obvious being the audio and noise control industries. For acoustically treating- a room is necessary for audio production due to the fact that very few "spaces" have the physical qualities that make for accurate monitoring or desired recording. There are several things that can be changed to space before and during construction to optimize its acoustic behaviour.

Basically, Acoustics includes 3 things- the shape of the space, its isolation, and the surface materials. Once a room is constructed already, Acoustic Treatment mostly tends to consist of treating the surfaces. There are two primary elements to consider: diffusion and absorption. Acoustic foam is well suited to alleviate flutter echo and slap, the two most common problems in rooms not specifically designed for music recording and performance. Even, foam can turn the most cavernous gymnasium or warehouse into a suitable acoustic environment. Diffusion keeps sound waves from grouping, so there are no hot spots or nulls in a room. In conjunction with absorption, diffusion can effectively turn virtually any space into one that is useful and appropriate for the purpose of recording or monitoring sound with a high degree of accuracy.

6.3.7 Studio Soundproofing

Sound Proofing is necessary to record sound without any outer noise. It helps in keeping the sound of the radio personality's voice sounding as good as possible. It takes the hollow sound out of the room. Do you know what it sounds like in your shower when you sing? That effect takes place because the sound waves bounce off of smooth surfaces, like porcelain or tile.

Soundproofing is designed to absorb the bounce of the soundwaves & voices when it hits the walls. It flattens the sound waves by creating a special texture on the radio-studio walls. Cloth and other fixtures on the wall are usually employed to flatten the sound.

6.4 OTHER INSTRUCTIONS

Before starting any radio station, having all the equipment is not enough. One has to think about the following concepts.

- Are you planning to work alone or with other collaborators?
- What kind of music do you want to play on your radio station?
- Take a look at other radio stations to get some inspiration for your own radio station.
- After that, you have to brand your radio station.
- In this process, you have to consider who your audience is going to be and the message you want to tell.
- The last step before you can get started is to check the copyright laws.
- It is important to check the music copyright laws of the country to avoid any trouble.
- If your radio station is a station with talk shows, you don't have to worry about it. The costs depend on the country you live in, so make sure you are up-to-date with all the rules.

6.5 CHECK YOUR PROGRESS

Q.1 Explain a short notes on Audio console.

Q.2 What is the Mixing Board Arrangement, Do explain?

Q.3 Write a short notes Radio Station Microwave Receivers and Relays.

Q.4 Explain the Radio studio setup through the diagram.

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UNIT: 7

RADIO JOURNALISM

STRUCTURE

7.0 Objectives

7.1 Introduction

7.2 Role of Radio in Society

7.3 The Broadcasting System Should Serve The Function

7.4 Role of Radio in Social Development

7.5 Check your Progress

7.6 References

7.0 OBJECTIVES

- To understand the change taken place due to the advent of Radio the society.
- Understanding the role of radio in societal development.
- Discuss the role of broadcasting in societal development.

7.1 INTRODUCTION

Radio is the most popular medium of mass communication, which has brought radical revolution in human consciousness through its multifarious activities. Radio is considered as a traditional medium of entertainment, education and information. In view, OD the increasing awareness, poverty alleviation and community development, the United Nations Commission on human rights look upon the information as one of the basic Human Rights. Radio carries information that is needed by the ordinary citizen to play his part in modern society. Radio serves the people by broadcasting various kind of programmes such as music, talks, interviews, discussions, newscasts, plays features, documentaries, university programmes and special audience programmes. Besides

regular programmes of entertainment, it broadcast major publicity campaigns on important socio- economic themes such as health and family welfare, agriculture and rural development, national integration, and communal harmony. It also broadcast campaigns against evasion of income tax, excise and customs duties, smuggling, drug, addiction, dowry, and terrorism and anti-national activities.

These major campaigns aimed at educating the people about different economic development schemes in the region i.e. balanced diet, small-scale industries, mobilization of national savings, awareness about civil rights, the economy in energy consumption etc. In this lesson, the growth of radio, Radio During & after Independence Movement, Commercial broadcasting, Committees on Broadcasting, Broadcasting Code, Types of Radio Broadcasting setup in India Charters, Role & reach, Strength & Weakness and Future of radio in Indian context has been discussed in detail right from its start in 1920s to the latest FM technology. The chapter highlights the importance of radio for the common person and for youth, women, and farmers as well.

7.2 ROLE OF RADIO IN SOCIETY

The birth of radio, had the same attraction as we had recently with mobile, Facebook, WhatsApp and internet. By 1924, it was estimated that over 3 million homes had radio receivers. Overall, radio changed mass media by providing the whole idea of wireless communication. It also enhanced the need for immediacy and to know information right as it happened. People were kept up to date daily on the common occurrence. Aside from that, radio was a new type of entertainment: from music, stories, or even sports. Radios were as big back then as television is today. People would gather around them to listen, as our society sometimes sits in the living room to watch the television. Radio entered India in 1923 and after that; it gradually became the medium of common people across India. The time when radio arrived in India was a period of slavery, of struggle, during this time radio, played an important role for Indian independence, development of India, upliftment of Indian society. Until 1930, radio was in the hands of private companies (Indian Broadcasting Company Ltd) and wealthy people. After this, radio gradually became available to the common person. After 1930 it was acquired by the government due to its popularity among the masses. In addition, it was called Indian State Broadcasting Service (ISBS). Then it becomes All India Radio on 8 June 1936. Its annual license fee was also waived later and radio sets were within the reach of the common person. Radio provided its services, especially for Indian farmers, women, and children. As a result, the Green Revolution and White Revolution are in front of us. Through radio, the Yuvani program, Sakhi Saheli program and BAL Sabha program entertained these special listeners of Indian society.

At the same time, by empowering the slogan of Jai Jawan Jai Kisan radio also provided amusing services for the military persons working in remote areas. With the arrival of Vividh Bharati in 1957, radio made its place in every heart from house to house through its 24-hour entertaining programs keeping in mind all aspects including Indian society, Indian culture, Indian art, and its programs. Radio felt a bit of pressure in its domination in the 1990s with the introduction of colour TV and cable media, but again in the 2000s, radio comeback through private FM, community radio, internet Today, in the journey of 100 years, radio attracted different colours of Indian society, civilization, and culture, through its programs.

Radio is one of the powerful media. Agricultural information is effectively disseminated through farm broadcast. Radio informs, persuades, educates and entertains the listeners. Farm broadcast has much credibility among farmers. The rich cultural heritage, scenic beauty of the vast country, historical and architectural richness of monuments, dresses and lifestyles, life and works of Saints and Sufis, the story of our freedom struggle and toils of the common people are all interesting subjects for television and radio programming. Such programmes will not only charm our people but will mesmerise audiences the world over with rich cultural and economic dividends for the country.

7.3 THE BROADCASTING SYSTEM SHOULD SERVE THE FUNCTION

1. Informing, educating and motivating the masses in an interesting and entertaining manner for their willing participation in the task of development and nation-building;
2. creating mass awareness about basic health and hygiene, which are undermined areas in our ignorant population;
3. facilitating the process of development to benefit all citizens-rural, tribal and semi-urban;
4. fostering national unity in an enormously diverse nation like ours;
5. firmly resisting communal forces and fissiparous tendencies through appropriate programming and regulation of broadcasting media;
6. inculcating best of our cultural values and traditions and contribute to the larger good of our society; and
7. Reflecting and serving our society and its needs ensuring continuity and enrichment of our social and cultural diversities and the pluralities of news and views.

7.4 ROLE OF RADIO IN SOCIAL DEVELOPMENT

Radio is considered as the most important source of mass communication in. Radio has played a vital role in the social

development of our society. Radio is a cheap source of communication and it provides not only national but also international news. All people are thought to be equal. Promotion of religious values is done through radio. Some other important aspects of Radio are following:

1. **Projection of Democracy:** Radio is projected democratic way of government. People are realized through Radio programmes that democratic way is the only solution to problems. Shortly it is projected that it is a better system.

2. **Projection of Education:** Education is important for social development. No society can become developed until it has majority of educated people. Education enables people to be civilized. Radio has promoted eagerness to get education among public. It has told the equal importance of education for both males and females. Adult education and other educational programmes have made it possible to develop a zeal among villagers to be educated.

3. **To Finish Harmful Rituals:** Rituals of a society have become the part of human nature. It can create hurdles the progress. Radio has made people repugnant for these effected rituals.

4. **Pleasant Environment:** It is necessary for social development that people are satisfied and happy. There should be an atmosphere of peace, comfort and tranquillity. Radio has gained attention of people. They started listening the plays, music and other entertainment programmes of radio. By doing so, Radio has replaced worries and tensions of people to light and refreshing mood.

5. **Higher Living Standard:** Radio has awarded people to think about their environment. People had realized fat poverty is not their fate but they can also enjoy the comforts of life. There should be an element of struggle for betterment in life.

6. **Information about Government Plans:** Radio informs about welfare plans of government, so that government becomes stronger and can complete its projects. Public feels satisfaction about development plans.

7. **Projection of Moral Values:** A big purpose of creation of country was to build a modern Society. However, it is a matter of sorrow that nobody has made a serious attempt for it. Because of this non-seriousness, our society has declined. Radio has played an important role to remain ethical norms and values.

8. **Excess of Population:** Due to excess of population, there is a lack of basic facilities of life. Radio with the sponsor of Ministry of Family Planing, has told disadvantages of increase in population. It has also told about the advantages of small-sized family.

9. **A Bridge between Public and Government:** It is necessary for the development of society that there should be such source present between public and government, which is worked to finish a gulf between the two. It should be a representative of government as well as of public at the same time. It is necessary to convey messages of government and the feedback of public to government officials.

10. **Religious Equality:** Radio can be worked to spread religious principles. Radio has splendid need to provide equal opportunities without discrimination of religious. It has also projected the thinking that it is necessary for women to work shoulder to shoulder with men. It is the way to success and progress of society.

11. **Prevention of Social Evils:** Negative trends and social evils are destroying the peace and satisfaction of society. Due to these cunningnesses, thinking ability of people is to be suppressed. A big drawback of such situation is that construction is replaced by destruction. Radio has tried to eliminate the society from this filth's.

12. **Projection of Civilization:** Progress of a society is hidden in the projection of civilization. It is more beneficent for a society having more and more civilized population. All the programmes of Radio are the representatives of our specific civilization

13. **Rural Development:** More than seventy percent of population is living in rural areas of our country. There are not basic facilities available in rural areas. Mostly rural population consists of laborers and farmers. Social development is impossible until the majority of population has a standard way of living. Radio is stressed to solve rural area problems.

7.5 CHECK YOUR PROGRESS

Q.1 What is the change in society after Radio emergence?

Q.2 Explain the role of social development.

Q.3 Explain the role broadcasting effects on society.

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UNIT: 8

TELEVISION JOURNALISM

----- STRUCTURE -----

8.0 Objectives

8.1 Role of Television in Society

8.2 Characteristics of Television

8.3 Strengths of television

8.4 Role of Television in Social Development in India

8.5 New Trends in the Growth of Television

8.6 Check Your Progress

8.7 References

8.0 OBJECTIVES

- This is the eighth unit module of Radio Journalism, and it lays emphasis on the characteristics of society and what can be changed in daily life.
- Identifies social changes through television.
- Identifies new trends and developments in television.

8.1 ROLE OF TELEVISION IN SOCIETY

Television plays a vital role in people's day-to-day lives. It is one of the important sources of mass media, which has the capacity to reach the enormous number of people in the shortest possible time. It can bring the entire world to our doorsteps within a second. This mass medium has made dissemination of news, information and entertainment possible on a scale unprecedented in human society. It is undoubtedly one of the most versatile audio – visual aids ever developed.

Television has more flexibility and mobility in its coverage due to the audio – visual presentation. Due to this reason, it has become a family medium. It can show what happened and how. It can show landing of man on mars, the functioning of heart or division of cell through animation. Above all, it provides entertainment also. In short, the small screen has turned out to be large enough to compress country's vast cultural diversity within itself.

Television is one of the most sophisticated and persuasive means of mass communication media. It serves the people by circulating the information in the areas of agriculture, national integration, health and hygiene, entertainment programs etc. It is an ideal medium, which attracts audiences of all age groups whether literate or illiterate. The boom in the television industry has not only affected urban masses but the rural masses are also fascinated with this media. As an instrumental device, it is being used in variety of ways such as – for direct teaching, for supplementing formal education, for developing psychomotor skills, for adult education and for diffusion of agricultural know-hows etc. It is capable of influencing people living in remote areas. Hence, television has emerged as a powerful mass medium because of its large population scattered in culturally diverse and remote areas.

8.2 CHARACTERISTICS OF TELEVISION

The characteristics of television are as follows:

1. **Audio – Visual Medium:** Television content includes both sound and visuals. A TV broadcast is conceived, produced and received in audio-visual terms. This audio – video character of television makes it a magic medium, which allows us to watch the world from our drawing rooms. It also makes the television images more memorable because eyes absorb and retain much more than the ear.
2. **Domestic Medium:** Television is generally regarded as a domestic medium. It provides entertainment and information inside our homes and has become an integral part of our everyday lives. Our family makes it a point to watch their favorite serial at a particular time and adjust the dinner timings accordingly. The domestic nature of television makes it an intimate medium. The viewer's experience a sense of closeness to the Television.
3. **Live Medium:** The important characteristic of television is that it is capable of being a live medium. The live nature of television allows it to transmit visuals and information almost instantly. This capacity of the medium makes it ideal for transmitting live visuals of news and sports events, which happen thousands of miles away.

4. **Mass Medium:** A large number of people who cannot read or write can watch television. Anyone can access the information shown on television. This makes it an ideal medium to transmit messages to a large audience. In a country like India, with a huge illiterate population, this characteristic of television makes it an ideal instrument for transmitting social messages. In short, it is truly a mass medium.
5. **A Transitory Medium:** Television programs are to be watched while they are telecast. It is practically impossible to record every program, which appears on our television screen. In other words, television has no archival facility. Therefore, television is generally identified as a transitory medium.
6. **Expensive Medium:** There is need of machinery and expertise to run a television station. We can write articles and stories and draw our own pictures. For this, all we need will be paper, pen, drawing instruments and time. However, a television program can never be made so easily. It requires lots of money, machinery and experienced people. Television, in particular, involves complex technology and organization.
7. **Conglomeration of other media:** Television has a conglomeration of several features of other media. It has borrowed movement from the stage, camera from the film and microphone from the radio and all these are integrated into one whole i.e. Television.
8. **Wide Reach:** Television has a very wide range and reach. It is a supreme medium of mass communication which has turned the world into a global village. It has widened the mental horizon of men by humanizing knowledge and making them feel as if they are citizens of the world.
9. **Glamorous Medium:** The television is a medium, which shows glittering personalities, fashion shows, rich and famous people etc., which adds to its glamour. Because of this, television has been called the 'magic box' which fascinates the millions.
10. **Democratic Medium:** Television is a democratic medium as it is available to all the people. It democratizes information, education and literature etc. by catering to the needs of all sections of society. Most of the television programs are for the common man.
11. **Medium of Advertisement:** Television is a great salesman of modern times. The businessman sells his products and services through television and it allows him to reach out to a vast number of potential and actual customers.

12. **Immediate Medium:** Television is a supreme reporter, which captures the events immediately as they happen. The visuals of any disaster in any country can reach our television sets in almost no time.
13. **High Credibility:** Television news is not just a newspaper with bonus video. The sound bites (a recorded comment from a news source, usually audio and video) of eyewitnesses and people affected by an event from the spot of the event in television news, makes it highly credible.

8.3 STRENGTHS OF TELEVISION

- a. Television is an ideal medium to transmit messages to a large audience. It has a wide output, range and reach. It is a mass medium.
- b. As a major news source, it is widely seen and accepted.
- c. Television helps us to learn more about the world and things happening around us through relay of news, geography and other TV channels.
- d. Television, being a visual medium, presents information in an effective manner. It makes things easily memorable.
- e. It is one of the great tools for entertainment as it showcases movies, reality shows and serials etc. It also helps in removing the depression of mentally suffering patients.
- f. It is one of the ways to relax and pass the time while one is at home or going for journey.
- g. It increases the popularity of Sports and other games among people.
- a. It has also become luxury tool due to availability of costly LCD, Plasma and LED TVs.
- b. Television is used by government agencies to relay vital information related to disaster, weather forecasts, and demonetization etc.
- c. Television helps in spreading awareness among people regarding health, environment and social issues because TV sets are available in both rural as well as urban areas almost in each household.
- d. Television also serves the educational purpose. The Public Broadcasting Service (PBS) is a great example of this type of educational programming.
- e. The flexibility in television programs give us ample time to go with our daily lives. Television shows and news programs coming in for 30 minutes or for an hour can easily fit in our routine lives before bed, after work or on a lazy weekend.
- f. Television is a great way to feed the creativity of people. It also inspires the people who are interested in getting into television industry in the future.

- g. Television is a primary source of entertainment for kids. The sound and colorful images on the screen appeal to children and retain their attention.
- h. Television offers diverse variety of content like news, soap operas, films, cartoons, documentaries, religious programs and reality shows etc. that cater to the needs of the people of all age groups.

8.4 ROLE OF TELEVISION IN SOCIAL DEVELOPMENT IN INDIA

The role of television in one's life is very crucial because the coming future is full of promises and prosperity due to the advent and spread of new media and media resources. The media, at present, has become more pervasive than the past. The reach of Television and Satellite is now up to every rich and poor. The internet is in every hand as the costs are getting cheaper and Smart phones can be seen in everyone's pocket. The role of television is not only restricted to its influence on its audience but it also involves creating a framework of the social, cultural, political or economic power structure of the society. The television has the potential to control the minds of the viewers but not the actions directly. So, the role of the broadcast media especially television is considered to be symbolic and persuasive.

The emergence of new technology like smart phone, internet television and palmtop etc. make it possible to carry television into everyone's life. Television serves the individuals and the society in different perspectives. The television do the several major functions for the society like *Surveillance* of the environment, *correlation* of the various parts of the society and *transmission* of social heritage from one generation to another and *mobilization* of the change and development. According to McCombs and Shaw (1972), media do not exactly tell us what to think but it invite us to, 'what to think about.' Media make us to think of the roles to be played in the sphere of development and nation building. The basic role of media in the national development lie in their capacity and capability to teach, sensitize and mobilize people through information dissemination (Nwabueze, 2005). Media promote and produce social programs such as Right to Education, Right to Information, Girl-Child Education, HIV awareness, Adult Education, Human Trafficking and Drugs Addiction as well as nationwide campaigns towards ecology and boosting agriculture food production.

Television is considered as 'the mirror' of the society as it reflects the culture and also provide the directions for the advancement of the society. Many times the broadcast media play the role of 'watch dog' of the democracy. In the last 4 – 5 decades, the role of media and its influence on society has grown exponentially with the advancement of technology. The introduction of telegraph than radio, newspaper,

magazines, television and now the internet and the new media including mobiles, palmtops etc. changed the world dramatically. Now the media and industry professionals are capable of reaching the millions of the users via their mobile phones and tapping their minds with commercials. The television industry has witnessed many changes in the recent past. Some of them are as follows:

- a. Proliferation of reality shows
- b. Production of contents in regional languages
- c. Fusion of cultures and use of hybrid language
- d. Production of low budget programs on social and concurrent issues
- e. Availability of editing software's, which make it easier to modify the content as per requirement.

In the present scenario, the shine and reach of Television is visible in various formats in our life. It has addressed many horizons of one's life like social and economic, art and culture, traditions, publicity, information, education, entertainment and political thoughts etc. Television plays a crucial role in democracies like India. It constitutes the main source of information, which provides the society with knowledge and different types of experiences. It also serves as a forum of public debate, conception and development of opinions. Television in India is actively involved in the process of nation building by contributing to it in different respects. The television in India is assisting the government and the masses in social, economic and political development. The role of television in national development is evident from the tremendous changes that have taken place in all aspects of human activities in the country. In the last two decades, the Indian families have undergone remarkable changes with regard to family system, life style and buying habits. The involvement of television is not direct but it is causing change in psychological domains like opinions, attitudes and beliefs, knowledge and values system.

The mass media like television and radio are offering educational programs for the farmers, schoolchildren, youth, women and other groups of society. The impact of Such programs is very quick due to use of social media. Nowadays the educationists and social workers are using it in classrooms and community meetings due to its multifarious approach. In short, one cannot deny the indispensable role of television in the human life, nation development and social awareness. However, it also comes under the compulsive control of commercialization like every profession. The virus of money power is overwhelming and adversely affecting the media ethics. Due to this, the effectiveness of media is reducing especially on the issues related to ethics and society.

8.5 NEW TRENDS IN THE GROWTH OF TELEVISION

Storytelling: There was a time when television revolved around a single screen. With the evolution of the omni platform environment, television storytelling can be splashed across multiple screens simultaneously. Where today's model focuses attention on a primary screen with other screens such as tablets or mobile playing a supporting role, the model of the future will see these screens working seamlessly together. This omni platform evolution will affect every system in an M&E company's value chain, from content creation and preparation, to sales and marketing, to distribution. The omni platform environment, and viewers' expectations of control, will also affect the story arc through social interaction. Viewers increasingly want to be a part of the experience. Content producers will need to convince the creative community of the merits of choice-based stories, and the IT community of making it technically scalable and cost effective.

Content mobility: As the cost of videos screens falls, the demand for content mobility will rise exponentially. With a smart phone serving as the nerve center for the screen world, content will be able to follow a consumer from device to device, location to location. Although content mobility creates a number of back-end headaches, it also creates new opportunities for ad impressions, provided they are properly targeted and calibrated for a multi-screen lifestyle.

Event-based viewing: The future of content creation will soon hinge on building a social experience around a program that enables viewers to be a part of a broader event experience that reaches well beyond the television and living room. The key will be to create event windows to drive relationships with content franchises that are DVR proof.

Content delivery optimization: The remote and channel guide experience has stayed relatively the same for more than half a century. That is about to change. Just as a learning thermostat learns a user's habits and adjusts a home's temperature accordingly, smart phones may soon be equipped to learn a viewer's habits and deliver customized programming that match the viewer's preferences. Moreover, at the same time, to make this level of customization real, M&E companies will need to cut through the content clutter using some form of content delivery optimization, similar to search engine optimization.

Binge watching: Blu-ray box sets, DVRs, digital media libraries and players and on-demand internet streaming media providers, among others, enable viewers to sit down and watch an entire series in a single day or weekend. This growing form of content consumption may make content delivery optimization more difficult. Yet, with the right content strategy, M&E companies can take advantage of the different behaviour patterns to create more customized experiences.

More participants, risks that are more creative: Original programming experiments by internet streaming video providers offers a taste of the different kinds of relationships that talent will have with distribution partners. New relationship models will allow more industry players to take greater creative risks. On the other hand, it will also place a heavier burden on the systems that track and calculate rights, profits and participations.

TV Embraces the Internet: Viewers do not continue to spend on home entertainment. This has prompted many TV manufacturers to invest in new, Internet-enabled models. Therefore, even while traditional television is being challenged by the rise of Internet video streaming, manufacturers are embracing new consumer behaviours.

For example, Sony's search-centric Google TV set allows user to search for Seinfeld, and call up air times, cast information from IMDB and information on where the content can be viewed on the web. It is a more holistic and streamlined experience.

There are several other ways to stream web content to TV, including the use of connected devices like Box. The symbiosis between Internet, apps and TV could keep the TV industry going strong.

TV Is Going Social: Social networks are also transforming the TV experience and the monetization potential of multi-screen content. The creators of the incredibly popular ABC Family teen drama "Pretty Little Liars" recently told the Wall Street Journal that viewer response to their show on social media actually influences their creative process. It is almost as a modern incarnation of "choose your own adventure," where the thoughts and wishes of the viewer can be expressed through Twitter can alter the destiny of a specific character or plot line. When a viewer is Tweeting about a specific show, advertisers can target them directly with show-related video content.

8.6 CHECK YOUR PROGRESS

Q.1 Identify the contribution of television in society.

Q. 2. What is the role of television in societal development?

Q.3 Explain the new trends and growth of television.

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UNIT: 9**REPORTING AND ANCHORING
FOR RADIO**

STRUCTURE

9.1 Learning Objectives**9.2 Characteristics Of Radio****9.3 Components Of Radio****9.4 Reporting For Radio****9.5 Anchoring For Radio****9.6 Common Points Of Anchoring In Radio/ Television****9.7 Summary****9.8 Check Your Progress****9.9 Suggested Books**

9.1 LEARNING OBJECTIVES

This unit introduces you to radio as a medium of mass communication. You will understand the various aspects of radio and how the process of reporting and anchoring is performed on this medium for the listeners.

In this section, we will discuss:

- Brief history of Radio
- Radio's characteristics and its limitations
- Reporting and Anchoring for Radio

Radio is the most popular means of mass communication across the globe today. It is exclusively a medium of the sound. It is medium where a performer cannot see his/her audience and the audience cannot see the performer. That is why it is often referred to as "blind medium".

There is ample space for imagination similar to a book. It is an intimate medium, as the announcer always address the listener in singular form as if he is talking to him alone. Listeners feel a direct connect with the broadcaster. Radio has been used as an effective medium not only to inform and educate people but has also played a very important role in the economic, political and cultural development of nations. The unique advantage of radio is being receivable through lost cost, battery operated sets and it has reach even to the remotest places of the world.

9.2 CHARACTERISTICS OF RADIO

Radio has emerged as the powerful medium of mass communication after print media. It has penetrated to very nook and corner of the country and impacted the human culture in diverse ways. While television has come up in a big way, the popularity of radio still remains contact.

Radio is a medium of the voice: You must be aware of the epic story of ‘Mahabharata.’ In that, if you recall, Sanjay had narrated in detail each and every turn/ event of the Mahabharata war to the visually impaired King Dhritarashtra. By listening to Sanjay, Dhritarashtra was able to visualize or “see in his mind” the horrors of the war.

Similarly, if you listen to the commentary or a ball-by-ball account of a cricket match on radio, you are able to create the vivid visual imagery of a cricket stadium, the excitement on field and how the game is being played. The audio narration performs on the canvas of the listener's mind and the mind can then construct any period, any place. Radio is therefore exclusively a medium of the sound and can make pictures in your mind.

Radio is a medium of immediacy: Radio can deliver messages instantly. It can be the first to report the happenings while TV crew would take some time to reach the spot. As things happen in a studio or outside, messages can be sent or broadcast live.

These messages can be picked up by anyone who has a radio set or receiver which is tuned into a radio station. Irrespective of our location, we can listen to radio in the language of our choice.

Radio does not need electric power supply: You can listen to radio using dry battery cells even if you do not have electric power supply or a generator. While people in cities spend their evenings watching television, in rural areas, where there is no electricity or erratic supply of electricity, people still prefer the radio for their entertainment.

Radio is portable: Radio can be accessed on the move. The listener need not sit in one position to listen to the radio. You can listen to it while doing your work or while driving. It can accompany you and entertain you anywhere. Hence, it is a convenient medium.

Radio is a low-cost medium: Radio is an inexpensive medium. The cost of production is low and a small radio can be bought for as low a price as say, fifty rupees. Before the advent of television, radio was the chief means of communication for people of all classes. However, not everyone owned the radio sets. Many people listened to one radio at the same time. The transistor revolution spread the ownership of radio sets in a rapid way.

Radio as a mass medium: Though radio started as a communication tool for the armed forces, it soon became popular among the masses. The best part about radio is that it reaches millions of people at the same time. The audience may comprise people from different educational, social and cultural background. The broadcaster's job is to find out the lowest common denominator to communicate well with maximum number of people. Radio has been serving not only as an effective medium not only to inform and educate people but also to promote their folk culture.

9.3 COMPONENTS OF RADIO

Radio, as we all know, is a medium of sound. Radio broadcasting consists of three major components:

- Talk
- Music
- Sound Effects

These three components reach listeners through air waves. They have to be pleasant and meaningful to appeal to listeners. Every sound broadcast in radio creates an impression on listeners. Every broadcast must leave an artistic imprint or it goes to waste.

Radio is called a medium of the voice. Artists use their talent and adopt unique styles to attract listeners. They use voice modulation on a microphone to convey to the listeners all nuances of the message. Through voice modulation, they express feelings of anger, sadness, happiness, pride, hatred, etc. Though listeners cannot see them physically, radio artists perform using their voice. This is called 'voice-acting.' While actors, on stage or in front of camera, wear elaborate costumes and make-up, radio actors only use their powerful voice to reach out to their listeners.

Radio has turned out to be an indispensable medium of mass communication today. It not only records and broadcasts news and talks, but broadcasts various programs on sports, music, drama, art, literature, culture, etc. It, hence, educates its listeners, and also is a source of entertainment for them. Before the advent of radio, people from one area could not get news from other areas in time. It took years of research in the making of the radio. Even after the invention of radio, it took a long time to broadcast programs as is being done today. The intention of this study is to gain insight into how radio was invented, when did radio broadcast begin in India, the functioning of the Government broadcast system and the advent of private organizations. Radio Broadcasting in India began in 1921.

9.4 REPORTING FOR RADIO

Radio is oldest news medium, after print media and is accessible to wider sections of the society. Even people who cannot read or who are staying remote part of the country can access radio news. It is available in villages as well as in cities. According to UNESCO It is “the mass medium that reaches the widest audience in the world”.

Compared to newspapers and television, radio is inexpensive to produce and distribute. It is also the easiest form of broadcasting to produce. Anyone with an ability to talk can take part in a radio broadcast. It can transmit on a local level, in regional language, addressing issues of importance to local listeners. It can be interactive using telephone or SMS.

However, the radio newscast is consumed sequentially. Listeners have to wait. Even if, listeners is bored by one part of the newscast, they cannot skip forward to the next segment or news. If they are interested to listen to the fifth story they have to listen the first four stories. It's like eating in a restaurant in which each dish is served in a sequence. One has to eat each course as it is presented. If one does not like a dish, he or she must wait for the next course to be served. So the stories in a radio newscast need to be chosen and made to be interesting to a significant number of listeners.

Similarly, in a radio newscast if a news report is confusing, the listeners cannot rewind and re-read the story as it happens in case of newspapers. They have to comprehend the news at once. They cannot go back. That's why, clarity in both sentence length and word choice is important in radio news reporting. Radio of course needs reporting that is for the listener's ear, rather than the reader's eye; sentences must be crisp and short. In radio, a complete story is called 'wrap' and its duration varies from 30 second to 90 seconds. It includes of the reporter's narration, also called "track," and often includes sound bites and natural

sound, sound that occurs naturally on location. The script contains less information than a print story, so the picture building is very important. The radio report with audio is an informative bulletin about current affairs and does not include opinion. The reporter speaks during the report – providing the voice-over. The addition of various pieces of recorded material (known as audio clips, cuts, or sound bites) makes the report more lively, authentic, and interesting. These additional pieces can be statements from interviewees, statements made at press conferences, or other recorded material. Unlike newspaper readers, radio news listeners are hardly attentive. Usually, people listen to radio while doing something else. The radio listeners are often driving, working, or engaged in some task other than absorbing the latest news. Hence radio news stories are told in familiar words combined into sentences, which run at comfortable lengths in a conversational style.

Guidelines suggest writing as if telling a story to a friend who is trying to catch a bus that is ready to pull away.

Unlike the readers in a print media, it is often found that the listeners of radio news hear the whole story from beginning to end. Therefore, although it is important to give key information at the beginning of the story, we can spread out facts to keep the listeners interested from the start to the end of the story. Radio news is shorter than newspaper news and hence requires comprehension and filtration of facts while writing the news.

As in case of newspaper, the lead in a radio news introduces the listeners to the broadcast item they are about to hear – whether this is a news report, interview, bulletin, or longer report. It focuses on the essence of the broadcast item to follow, avoiding too many facts and figures. The Radio lead consists of three parts. The “ear catcher” should arouse the interest and curiosity of the listener. Then there is an introduction that broadly addresses the topic that the following report will cover; this part of the lead-in will also connect the radio presenter to the report and the rest of the radio program. There are several approaches one can take to writing the lead-in. It could be written in a news style and stick to the facts. But if the broadcast item to follow is more conversational or casual, then the lead-in can be more creative – for example, it could contain metaphors, examples, comments, questions, or interesting contradictions. The presenter uses basic storytelling principles and can be freer in how they introduce the item. However, the content of the lead-in should always have relevance and appeal for the listeners and it should not double up on any of the information in the actual broadcast item. The radio news writing style includes the choice of simple words with short declarative sentences, since the listeners have no opportunity to go back and hear it again. Sentences in a radio news story generally contain just one idea and do not contain multiple clauses and internal clauses. Jargons or highly technical words are also avoided. Attribution precedes

statements as it does in normal conversation. Sentence structure is incomplete at times, such as sentences without verbs. Understanding is more important than grammar to a radio news reporter. The words should sound natural when read. Complicated figure can be told in simplified way like there will be no harm if a radio news reports like 1995429 as almost twenty lakh.

Tips for Creating the Content for Radio News:

While creating content for Radio, it has to be kept in mind that it is a completely an audio based medium. The script therefore must ensure that the idea is conveyed with appropriate bytes, voice despatches, music and sound effects. The intention of this study is to provide a comprehensive view on how reporting and anchoring in radio takes place. Each mass communication medium is unique in its own way. The reporting style for print medium varies from that of electronic medium. Similarly, programming, creating and reporting the content for the radio is different from that of the television. Therefore, a sound understanding of the medium is necessary before embarking on reporting of content. We must always remember that news on Radio is meant for listeners, not readers or viewers. The reported content should be such that a listener can grasp it after listening to it once.

Unlike newspapers which you can read and re-read, it is one-time chance for listeners to grasp the words in a bulletin on Radio. It is, hence, essential that news must be reported with clarity.

Radio bulletins are usually made up from three types of material:

- Written stories in the form of a script;
- Voice reports from journalists, either recorded or live.

Tips for Effective Radio Reporting:

- Reporting must be kept short and simple.
- The duration of a Radio news story is limited to 90 seconds.
- The script of each news story must be written within 100 words.
- Since it is an audio medium, for the script to have impact, the listener should be able to visualize each word.

- It is important to limit each sentence to five to six seconds. The interest and literacy level of listeners should be kept in mind before creating content.
- Words must be carefully chosen, so that the listeners can easily understand them.
- Every sentence must be simplified to facilitate better understanding.
- Usage of simple language attracts listeners.
- Use of ornamental language must be avoided.
- Script for Radio is written in spoken language.
- Since a sentence consisting of more than 15 words is difficult to understand, sentences must be kept as short as possible.

- Instead of one long sentence, it is better to split it into several short sentences.
- If it is necessary, names of people can be repeated in the news script.
- To simplify difficult words, synonyms which are easier to understand can be used.
- Synonyms, technical words and abbreviations should be used carefully and appropriately.
- Since Radio is neither a print nor a visual medium, exact numerical figures can be rounded off.
- To explain a comparative topic, everyday examples should be used.
- Explanatory and exploratory words should be used when necessary.
- Reporting should be in present tense.
- Reporting must be written in active voice rather than passive voice.

9.5 ANCHORING FOR RADIO

Before television sets appeared in every home, the radio was the popular medium for news consumption as well as entertainment. People used to gather around the radio sets and listen to the programmes together. Being an intimate medium, it seemed as if radio talked to them. Today, radios do not enjoy that central place. Unlike the attentive newspaper reader, the radio listener is often driving, working, or engaged in some task other than absorbing the latest news, and consequently is paying less than full attention. As a result radio news stories should be written as “conversational.” Many a times, people become fans of presenter/s, and hence, regularly tune in to Radio for this reason. Hence, a presenter plays a significant role in a Radio news bulletin.

A Radio Anchor / presenter must possess some qualities to present news effectively. They are mentioned below

- Good Voice
- Professional
- Aware of local issues
- Talent
- Personality
- Trustworthy
- Friendly Attitude

Tips for Becoming a Good Radio Anchor: You must imbibe the afore mentioned character traits to be an endearing news anchor/presenter. Take a look at more points mentioned here to become a good presenter.

- First of all you must bear in mind that you are working for an audio medium. This means that you can only be heard, not seen. Hence, your focus should be on your voice at all times.
- Gather as much information about the place and its surroundings where the station where you work is located.

- Your listeners should be able to visualize what you are saying.
- If the script of the news is long, you must take advertising breaks in between the news bulletin.
- It is extremely important that you read, understand and rehearse the news script before presenting it on air.
- You should read each news capsule and the entire script thoroughly.
- Always include the updated information if you are presenting a weather report.
- You must read and familiarize yourself with the run order before broadcasting it.
- You must forget your personal feelings such as anger, sadness, pride, etc upon entering the studio. While speaking in front of the microphone, present as if you are the listener's best friend.
- Do not blindly trust information from sources such as newspapers, television and especially, social media. Onus lies on you to cross-check data and modify them, before presenting it on the air.

9.6 COMMON POINTS OF ANCHORING IN RADIO/TELEVISION

- One should be acquitted with local language of the place of working.
- Better knowledge in language can improve pronunciation.
- Proficiency in language solves many bottleneck in presentation.
- Presentation should be with confidence and clarity.
- Sometimes, the story of the news requires change of voice and lucidity.
- Which are the words to be stressed in news should come by practice.
- The meaning of a particular word should be understood properly which determines how it will be pronounced.
- A good presenter, every word and sentence is important and clarity and purity in pronunciation of same word with different meanings.
- One should avoid colloquial pronunciation and adopt to language in general practice which improves the credibility of the channel.
- News should not be read as “news reading” it should be like normal talking.

9.7 SUMMARY

In this section, you learnt about the process of reporting and anchoring for Radio. Since radio is for the ears alone, the reporting must be kept short and simple. It should be so impactful that the listener should be able to visualize each word.

We discussed in detail the characteristics of radio, components of radio, about reporting and anchoring for radio bulletin. Radio reporting and anchoring is compiled piecing together political, educational, sports, culture, entertainment, crime and other stories. It is sorted according to the requirement and interest of regional, state, national and international listeners.

The segment also discussed the factors that one must keep in mind while editing programmes for radio. Keeping high quality sounds and removing harsh and poor audio is done in Radio editing, Presenting Radio News was also dwelt at length in this segment. In order to become a good reporter/ anchor, a person must be aware of local issues, possess a good voice, be professional in his or her attitude etc.

9.8 CHECK YOUR PROGRESS

1. What is the history of Radio journalism?

2. What is impact on radio journalism when comes anchoring?

3. What is the process of Radio anchoring?

4. What is the evaluation of Radio anchoring?

5. Explain the features of radio anchoring.

9.9 REFERENCES

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UNIT: 10**REPORTING AND ANCHORING
FOR TELEVISION**

STRUCTURE

10.1 Learning Objectives**10.2 Introduction****10.3 Reporting For Television News****10.4 Anchoring/ Presentation For Television News****10.5 Style Of Presentation Of An Anchor****10.6 Summary****10.7 Keywords****10.8 Check your progress****10.9 References**

10.1 LEARNING OBJECTIVES

The unit will provide an insight into different facets and important aspects of Television reporting and anchoring. Therefore, to get a general understanding of Television there is need to know some aspects:

- A Brief Introduction to Television
- Reporting, Presentation/ Anchoring for Television
- Pronunciation of Anchoring

10.2 INTRODUCTION

Television is a miracle in development of human civilization. It is deeply ingrained with Arts, Science and Commerce. Initially common man used to look at the Television or TV as a magic box. Television is a system for converting visual images (with sound) into electrical signals, transmitting them and displaying them electronically on a screen. Television has become an intrinsic part of our life and established an important place in our lives. Since, the ancient times human beings have communicated in various ways with each other. Today, Television is one of the most popular medium of education and mass entertainment. It is a combination of both visual and audio medium. It has been popular among consumers. TV plays an important role in mass communication. TV has become the integral part in our lives like food and beverage. That is the most popular mode of mass communication. This can bring home the events happening in any part of the world. It is popular in all sections of the people whether educated or otherwise. Simultaneously, it enhances knowledge along with giving pleasure.

Brief History of Television:

USA is the first country in the world to start TV programme in 1920. As a gradual development India started its TV programme in 1950 with the help of UNESCO, in New Delhi. Gradually, Indian viewers appreciated the programme more and more. Television was introduced in India with the objective to study the potential of satellite technology in mass communication in developing countries. To encourage national development in India by encouraging economic, social and technological aspects. To train the rural viewers in communal harmony, family planning, agriculture etc.

10.3 REPORTING FOR TELEVISION NEWS

Television uses both audio and video to communicate the message. It is important that the words and pictures match and that they don't give different messages. It is similar to radio news reporting, added with video. Like radio news, television viewer has no control over the pace of reporting. They cannot go back to the story to see or listen it again. As said by former CBS (U.S. TV network) News editor Ed Bliss, "The words are spoken and, once spoken, are irretrievable".

Lack of editing, in comparison to print media, demands short, sharp, succinct language of a more conversational tone in television news reporting. The format for the story always may not be inverted pyramid style; important facts are still reported in the first paragraph. It ends decisively and do not trail off as do print news stories. Like Radio, the most of the viewers watch the news till its end. The average television news story is one minute and 30 seconds long. Read at a pace of 180

words per minute these lengths equate to 90 and 270 words respectively for radio and television news stories.

A television report begins with a general, simple sentence signalling the beginning of a story. It consists of reporter's narration or voice over and video, which may include graphics, either static or animated. Each story has a lead or intro, which captures the essence of the broadcast item to follow. The lead contains important information the viewers will need in order to understand the news item to follow. It can come in various shapes and formats depending on the context and content of the news item. A lead-in can be very news oriented, limiting itself to facts. But, if the broadcast item to follow is more conversational or casual then the lead-in can be more creative. The reporting follows the basic storytelling principles. The lead may not always include 5 Ws and 1H as it would make it too long and too hard to follow. The two or three most significant points may be selected and used in the lead. Rest can follow the lead.

Sentences in a TV news story should contain just one idea and avoid multiple clauses and internal clauses to make easier for the anchor to read and for the viewer to understand. Shorter sentence are used so it can be read aloud without running out of breath. Reporters for radio and television must be attuned to the sound of the words they use. It is also important to spell correctly for TV news coverage.

Misspellings may result in stumbles or mispronunciations on the air. The writing is more conversational than that in print. It is written in the way the audience speak. To maintain a conversational tone, TV news reports don't need to use complete names and titles in news stories. Generally speaking, middle initials are not used on the air unless the initial is an essential part of the name. Attribution can come first. Immediacy is a key feature of television news.

The bites used in television reporting are equivalent to the quotes used by newspaper reporters. This must be carefully selected. It should be clear enough to understand. In addition to sound bites, stories on television can include 'natural' or 'wild' sound, which is captured while reporting a story. Using this sound in telling the story allows listeners or viewers to experience a place or situation for them, instead of the reporter telling them about it.

Video is an essential part of television news reporting. It is combined with words to make the story powerful. The visuals tell the 'what' of the story, whereas the words tell the 'why'. It is said that 'seeing may be believing but it isn't understanding'. The writing should be synchronised with the video. It is found that viewers understand and remember stories much better when the words and video match. When the video and words do not match, they surely fight each other for the viewer's attention, making it difficult for the viewer to understand the story. Also matching the video and word does not mean that reporters

should simply describe what the viewer can see. Instead, the audio track should offer information that adds context and meaning to the picture. Usually, news for television is written after viewing the unedited video tape. This helps in logically arranging words and visuals. All of the fresh information is given in the words, but it is the pictures that carry the impact for the viewers. For some stories like economy, in which fresh video is not available, file tape and graphics are chosen to explain the story. Numbers can be presented by using graphics such as graphs, pie charts or other visual aids.

Tips for Creating Content for Television News:

Television is not print media like newspaper or auditory media like Radio. It is mainly hearing and visual media. Preparation of reporting for TV is done with proper planning and proper thought which time is taking. The visuals and sound collection from the site of incident are carefully mixed and final form is evolved. Purpose of this study is to give a concrete idea of this. The television news is presented nicely by a telecaster/ presenter/anchor. The anchor first reads the most important part of the news. Subsequently he follows the story prepared in relation to the news. The anchor may have a very high standard of presentation skill and style. But if the script of the news has no matrix, the bulletin cannot attract the viewers. Hence anchor has to prepare the script in an attractive manner.

- The lead story is presented first
- Lead is meant to attract the viewer towards story
- Lead contains gist of story.
- A good lead can attract the viewers towards story.

Points to be kept in Mind while Preparing a TV News Script:

- The story given by reporters should not be in the voice –over.
- Last part of the lead should contain words and sentences in such a way that it takes you to the story.
- Script should be prepared after going through the entire story.
- Viewers should get different leads for different parts of the story.
- The visuals can be lined up as per development of the story.
- The viewers are attracted more towards the lead rather than full story.
- Lead should contain a bit of human anxiety as far as possible
- The impact on viewers though the lead should be guessed.
- If the story is on a person, he should be given more importance.
- If a personal story is prepared and transmitted it should be seen that there is no blot over his prestige and reputation.
- The viewer should not be allowed to guess for more time. The lead should be compiled in 3-4 sentences.
- Important to note that lead should not be longer than 30 seconds.
- Lead should answer the who, what, why, where, when and How.
- A nice lead should be written in simple sentences.

- All materials in lead should be limited to 15 words.
- Lead should contain why the story is presented.
- Lead may contain the reporter's name and place of reporting along with name of event, celebration etc.
- The gist of the story should be available with the lead.
- Lead should not be broken sentence like headlines. If possible all full sentences should be used.
- Maximum 2-3 sentences may be used for a lead.
- Lead should not be elaborate

10.4 ANCHORING/ PRESENTATION FOR TELEVISION NEWS

As per saying of popular writer SurendraMohanty, "One can walk if he has legs, but all people having hands cannot write." Similarly, man with vocal power can speak but all spoken words are not nice to hear. The beauty and miracle of a word comes from how best it is spoken. In the contemporary world, TV is the most powerful media. It transmits news long with other meaningful programmes. Every important information is announced through the anchor. An attractive announcement can bind the viewers and keep them anxious. It is the style of speech which enchants the viewers. Presentation style, and the anchors' qualification etc are discussed in this chapter along with what aspects are to be taken care to make more effective presentation.

It is said, "A good hair does beautifies the head, and speaking style makes words beautiful." Everyone can speak but everybody's talk is not appealing. It is the way speaking make the words more beautiful. In the past some people used to roam to village and tell stories. They were called "GalpaSagar", or "Ocean of stories". The villagers used to pay some remunerations for their nice words. In the present-day society, the presenters in the media are like the older day storyteller. A presenter is a speaker, actor, recite and linker in a row. A person with this multiple art can be a successful anchor. We will discuss who can master this special art to establish himself as a popular anchor.

The chapter can give basic knowledge about what makes good anchoring and how it is done. The viewers and listeners are attached to good anchoring art. Viewers enjoy programmes for hours together because of artistic and musical anchoring. That is the reason; presentation is called "face" of television. How should be this "face" is discussed here:

- The anchor should at least be a graduate.
- Graduation in English or Journalism preferred.
- Intellectually alert, presence of mind etc are additional qualities of an anchor.

- He or she should be informed, alert and watchful regarding daily news generation in whole word and timely update, such as recent events, local news and related facts.
- Utilising physical strength and mental faculties, one has to practice the art till perfection.
- Should have enough patience and tolerance to face challenges in adverse circumstances.
- Food choice should be such that it can give maximum energy but should keep one fit enough to appear before camera.
- Appealing face, tasteful dressing is assets.

10.5 STYLE OF PRESENTATION OF AN ANCHOR

To become a good presenter, it is not the good voice or good figure that matters, a good style of presentation is also very important. Some more tips about style of presentation is given here.

- A presenter should have good self-confidence.
- He/she should feel as a face above the crowd.
- The script prepared for presentation is to be read in own style.
- Repetition, dullness be avoided and matters with lighter vein and novel ideas be applied for good presentation.
- Good tasteful dress with hairstyle is essential for a presenter.
- Presentation should be face to face with camera.
- Script reading or repeated viewing of the script should be avoided.
- Presentation will be affected if the presenter thinks about what other might be thinking. Hence work should be with full concentration.
- The attention should be to attract the viewers.
- The prepared script should be read repeatedly before presentation to remember.
- If any part of the script is forgotten, it should be made over with some relevant words in mind.
- If four things are to be told they should be told one by one, rather than all at once. One should be prepared to speak something all the time
- Full knowledge over history, culture and politics is essential.
- While one is in front of camera, any untoward incident like power failure, teleprompter failure, delay in receiving Breaking news item, feeling thirsty or instrumental failure are faced many a times. One should have the patience to face this.
- One should be ready to learn some new thing always.
- Some type of news is required to be learnt by changed voice, to appeal to the viewers.
- For different types of occasions and programmes, one should wear dress befitting to the situation and occasions. Like in festival days it

may be Sherwani Panjabi, other days suit and blazer. In lifestyle programme jeans/top/ shirt etc.

- The dress and other apparels should match the background of the studio.
- One should sit steady/straight in front of the camera to read news.
- While, presenting weather report, one should move from end to end to another along with the green screen.
- In the outdoor programme, the presenter should have in hand some relevant articles, like food in a food festival, ball or racket, in a sports event, which makes the programme lively.
- Presenter should follow the rules of his own channel.
- Since the viewers are familiar with the type of telecast, it should be simple and relevant.
- Presenter should have a natural smile in his/her face.
- Head movement and hand movement should be as per requirement which are enjoyed by viewers.
- The unwanted movements of body parts during presentation, may damage entertainment element and detract viewers.
- See script only when required, otherwise look towards camera only.
- The co-presenter should also be given equal chance to participate to develop good relationship.
- News presentation requires different gestures and postures as per the gravity of news.
- One should engage to prepare bulletin and write script if required to be done.
- Script prepared should be corrected with the help of others.
- One should reach the studio at least 15 minutes before programme to do the makeup etc.
- “Practice makes a man perfect”, should be the motto.
- News programme should be concluded at least 30 secs before end time.

10.6 SUMMARY

Anchoring is an independent art. Anchoring is not as easy as it generally seems on the screen. There are various methods or ways for anchoring. To be a successful anchor the person should work on his or her voice modulation. As television is a visual medium and he or she will be visible onscreen they should be presentable. Sometimes by using one's brain and presence of mind one can make the anchoring interesting. But it is not possible to improvise every time. Therefore, well before the programme a script is prepared beforehand. Anchoring is not only speaking, it is an attempt to grab and retain attention. The anchor joins the different speakers and news together in a common string like creating a garland. Therefore, anchoring should be done in a chronological and planned manner. The speech and pronunciation of the anchor should be

clear. Each and every word should be clearly legible and audible to the audience. To be able to speak in a fluent and clear manner the anchor should do a lot of practice. The anchor should be able to present himself or herself acclimatize himself inside the studio as well as out in an unknown place.

10.7 KEYWORDS

- Anchor: A person who presents and coordinates a live television or radio news broadcast.
- Script: written-out version of a news story, the text of which is read on the air; a newscast is made up of a collection of scripts read by an anchor.
- Studio: A television studio, also called a television production studio, is an installation room in which video productions take place, either for the recording of live television to video tape, or for the acquisition of raw footage for postproduction.
- Studio background:
- 54th blue or grey curtain at the background of the anchor.
- Teleprompter: an electronic device that makes it possible for people speaking on a television programme
- Anchor Lead: The first important topics to be read by the anchor in the script.
- Newsroom: Newsroom is the central place where journalists—reporters, editors, and producers, along with other staffs—work to gather news to be published in a newspaper or broadcast on radio, television.
- Bite: Also known as sound bite is a brief recorded statement, as by a public figure, broadcast especially on a television news program.

10.8 CHECK YOUR PROGRESS

1. What is history of TV anchoring?

2. What is process of TV anchoring?

3. Explain the as quality of as a presentation?

4. What is the process of script for News anchor?

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UNIT 11

BREAKING NEWS IN TELEVISION JOURNALISM

----- STRUCTURE -----

11.0 Objectives

11.1 Introduction

11.2 Definition of Breaking News

11.3 Characteristics of Breaking News

11.4 Importance or Benefits of Breaking News

11.5 Guidelines for Covering Breaking News

11.6 Copywriting of Breaking News

11.7 Keywords

11.8 Check your Progress

14.9 References

11.0 OBJECTIVES

This unit briefly discusses –

- Understanding the concept of Breaking News
- Role, importance and benefits of Breaking News
- Characteristics of Breaking News
- How to cover Breaking News
- How to write and present the Breaking News
- Copywriting of Breaking News

11.1 INTRODUCTION

Breaking News is like a lifeline for electronic media as especially for TV news channels. The breaking news gets a lot of attention when it comes on the screen of television. Many people never miss breaking news, for them they can stay updated with the latest breaking news. We

can say that without breaking news TV news channels may be become boring for common people.

Anything may happen at any point in time, so it is very important for the media person to stay alert to cover the incidents if it happens then. Gone are the days when we had to wait till morning to know the latest news of happenings around us. Nowadays, the news can easily be accessed through television and smart phones. TV provides round the clock news to us. Electronic media such as Television and Radio have the capacity to broadcast news within minutes. That's why they are called NOW media.

As we know TV News has revolutionized the whole news world and in recent time, due to 24X7 TV news channels, we can watch news in live mode. After revolution of information technology any accident happens in anywhere in the world we can seen it from anywhere in the world within minutes.

Distance does not matter for electronic media. You will get the news within minutes with its visuals on TV. As soon as the news comes in, it is delivered through graphic plates of 'Breaking News'. And later visuals are inserted either 'live' or recorded.

The breaking news may be related to any incidents or the latest discovery around the world. Main topics or subjects for Breaking News are as under;

- Election Results
- Political event
- Top official getting fired / quitting
- Important decision / Judgment
- Big arrest
- Death of celebrity
- High-profile court cases
- Big Accidents
- Attacks, Explosions
- Fire
- Structure Collapses

11.2 DEFINITION OF BREAKING NEWS

Breaking news the very first thing that you hear when you switch on the news channel on your television, but what exactly is the meaning of breaking news? Well, breaking news is news that creates a difference in the things happening in the world. The news that can affect your work or the news that is causing some immediate change in the environment is the breaking news of the time.

Breaking news used to be news stories that were occurring as they were being reported. There are many definitions of Breaking News. Let's discuss some of the important definitions:

As per definition of **Collins online Dictionary** Breaking News means

'The News of events that have taken place very recently or are in the process of taking place.'

We can find a simple definition of breaking news from **Online Dictionary of Cambridge** that 'Breaking News means Information that is being received and broadcast about an event that has just happened or just begun.'

MacMillan's online dictionary defines Breaking News as 'New information about a news event that is still happening.'

Breaking news, meaning a report on something that has just occurred, is a quick way to provide context for that report. It means, 'This could be important and/or exciting, but because it's happening right now we don't have a lot of information or analysis yet. We're on the story, so come back to us as we update it.' It is separate from more run-of-the-mill news reporting.

News that is important enough to interrupt a channel's broadcast of scheduled programs can be termed as Breaking News. It may even be called a News Flash or Special Report, and gives major details of the latest occurrence that is currently unfolding. All details of events covered here may not have emerged, due to which newer developments will constantly be added to complete the report.

Breaking news refers to events that are currently developing, or 'breaking.' Breaking news usually refers to events that are unexpected, such as a plane crash or building fire.

Breaking news implies that something urgent, important and newsworthy happened, assuming that viewers will be more curious about this event. As the mass media have continued to develop, the form of breaking news also keeps on changing. Today, the internet plays a primary role as a platform of breaking news. With online news services providing a plethora of real-time breaking news to audiences, there is a concern that online breaking news has little news value. Some scholars warned that the increase in the number of breaking news would finally impoverish the quality of journalism.

11.3 CHARACTERISTICS OF BREAKING NEWS

When there is some current issue going on and an update on that specific topic, the news channels keep showing it. People expect latest news or breaking news from electronic media. Every TV news channels

try hard to break the news early than other channels. Here are some characteristics of breaking news:

- 0 An event that is ongoing or dramatic, happening now
- 0 News that immediately advances an on-going story
- 0 The need to convey information immediately to the public
- 0 The story's significance to a wide group of people
- 0 News of such interest that it cannot or should not hold because of its potential consequences.
- 0 Speed is the key here

With knowledge of characteristics we should learn that there are many things that combine to form breaking news on a national or international level. Have a look over some of them:

- **Importance of the news:** the news that people want to see as their breaking should have some importance in their life. It is not like you can call each and everything as breaking news.
- **Timing of the news:** The time at which the news is broadcasted also share importance to notice. The news is something that needs to be broadcasted live on the time that it has happened if it is important. No news will carry the same value if it is delayed to be press released.
- **Relation of the news:** The news that is being broadcasted should have some sort of relation with the people who are watching it. This is of great importance as people can relate themselves to the news; otherwise, it will feel like a useless waste of time.
- **Immediate change:** Anything that can cause an immediate change in your life is something that can be perfect news material. Things that can bring some changes in your life can be related to anything like a storm, change in politics, or something else that can be news perfectly made for you.

11.4 IMPORTANCE OR BENEFITS OF BREAKING NEWS

In various countries and at various news outlets, terms such as '(late)breaking', 'urgent', 'flash', 'bulletin', and 'alert' may accompany breaking news reports. The purpose of Breaking News is to report something which is more important than everything else being reported at a particular time.

With today's informational technology and relationships between national and local news gathering organizations, news travels at the speed of light. In the current age of digital journalism, latest Breaking News today has become very important. Putting out such news items has become a matter of urgency for reporters all over the world.

You found the news first, you reported it first, you win at journalism! It means you're ahead of everybody else, or saw connections between events that nobody else did, and you informed the public in the timeliest manner you could. Breaking a story is similar to what they call a 'scoop' in the newspaper. No need to say that there's a bit of journalistic pride involved.

Breaking news is also important for TRP as well as business. TV news is like any other program—it relies on ratings and advertising money, and that means it needs your eyeballs glued to that channel and not somebody else's. If you can grab the viewers' attention and hold it by saying you're on the scene as something big develops, you are getting those eyeballs and justifying that ad spends. It's even better if you're the only major channel reporting it, because then you can claim exclusivity—anybody who cares about this news has to come to you.

11.5 GUIDELINES FOR COVERING BREAKING NEWS

Lots of media outlets are covering the same thing, so there's fierce competition to get the story first. But you also have to get it right. The problem is, breaking news stories are typically the most chaotic and confusing to cover. And too often, media outlets in a rush to be first end up reporting things that turn out to be wrong. Here are guidelines for cover and writing breaking news:

- **Breaking News Plan:** Every organization should have a breaking news plan. When breaking news occurs, the team will be better prepared as leaders to provide the community with accurate information across all platforms to keep the community safe.
- **Truth and accuracy above all:** Reporting information accurately and completely may be particularly challenging during breaking news situations. So, we have to confirm eyewitness accounts with authorities. In the dramatic situation as well as in chaos ensure about reliable sources of information. When in doubt, don't go live with a telephone call from someone who claims to have urgent information in a breaking news event. If you are not sure about the authenticity of the caller, get the information, return telephone number and ask questions that could help verify the telephone caller's proximity to the breaking news. Find someone in the newsroom who can further research the validity of the news sources.
- **Never Copy other media:** We should not copy news headline of other media for breaking news. We must cross-check the news and related facts. First confirm news and then broadcast it. It is advisable that do your own first hand reporting.

- **Never make assumptions:** If you see someone who is critically injured it's easy to assume they've died. But for reporters, assumptions always follow Murphy's Law: The one time you assume you know something will invariably be the one time that assumption is wrong.
- **Never speculate:** News must be based on facts not on speculations. Common people have the luxury of speculating about news events. Journalists don't, because we have a larger responsibility: To report the truth.
- **Understand the story:** Journalists should understand the story. What do you know? How do you know it? Has the information been confirmed and/or vetted? Who confirmed the story? How is it affecting the community? Evaluate the story from a broad perspective to ensure the team is providing the most relevant content with context.
- **Determine criteria:** Determine your criteria for running the breaking news on social media, online and on air. What does the community need to know? Is there a public safety issue or risk? Who are the stakeholders involved? What is the standard for interrupting programming? Does it change from one time period to another?
- **Don't spread panic:** Determine how your coverage can inform and alert the public without causing panic or unnecessary alarm. Be factual and resist speculation. When using social media, it is important to remind your team not to say anything they would not say on air. Anchors and reporters should remain calm on air and online.
- **Expert advice:** One of the greatest challenges is providing context during the opening moments of a breaking story. Prepare names and contact information for experts in a number of fields who can be placed on the air quickly to discuss emergencies.

11.6 COPYWRITING OF BREAKING NEWS

Breaking news, interchangeably termed late-breaking news and also known as a special report or special coverage or news flash, is a current issue that broadcasters feel warrants the interruption of scheduled programming or current news in order to report its details. Its use is also assigned to the most significant story of the moment or a story that is being covered live. It could be a story that is simply of wide interest to viewers and has little impact otherwise.

Generally, copywriting of breaking news is as similar to writing headlines. So we can get ideas to write breaking news from some rule of writing headlines. Let's discuss some rules for writing headlines as well as breaking news. KISS (Keep it Short and Simple) formula can be applied for writing of breaking news.

Journalists use many different styles of leads for breaking news, depending on the situation. Most common style of breaking news is the straight news. Actually news casters don't have much time to think more about headline, they have to just present the fact in the straightway. Below are some rules for writing good straight news leads. Following these rules will help you write a good lead every time. So will breaking one or more of them, but only if you do it intentionally and for a specific purpose.

- A straight news headline should be a single sentence, should contain no more than 10 words, and should summarize, at minimum, the most newsworthy WHAT, WHERE and WHEN of the story.
- The breaking news's first verb should express the main WHAT of the story and should be placed among the lead's first three words.
- The breaking news's first verb — the same one that expresses the main 'what' of the story — should be active voice, not passive voice.
- If there's a 'who' involved in the story, the lead of breaking news should give some indication of who the 'who' is.
- The headlines for breaking news should summarize the 'why' and 'how' of the story, but only if there's room.
- If what's in the breaking news needs to be attributed, place the attribution at the end of the lead.

Yes, it's true that people want to know the facts faster than ever before. Yes, they want to make the most of available time when they are either travelling or doing something else. However, that does not mean that unverified facts should be displayed to them in the garb of Breaking News. This is where responsible journalism from well-known media houses comes into the frame.

The news channels need to know the consequences of showing false news. If the channel shows any false news, the users boycott that channel and keep away from such channels. It is also a reason why people have started using Google to know current news that is going on in their surroundings.

11.7 KEYWORDS

Breaking News: Breaking News means Information that is being received and broadcast about an event that has just happened or just begun.

11.8 CHECK YOUR PROGRESS

1. What is the concept of Breaking News?

2. What are the characteristics of Breaking News?

3. Elaborate the Role and Importance of Breaking News.

4. Which are the benefits of Breaking News?

5. How to cover Breaking News?

6. Elaborate the guidelines for Breaking News.

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UNIT: 12**COMMUNITY RADIO**

STRUCTURE

12.0 Objectives**12.1 Introduction to Community Radio****12.2 Definitions and Understanding of Community Radio****12.3 Advantages of Community Radio as a Medium of Communication****12.4 Limitations and challenges for Community Radio****12.5 History and development of Community Radio in India****12.6 Functions and Role of Community Radio in Development****12.7 Keywords****12.8 Check your Progress****12.9 References**

12.0 OBJECTIVES

This unit briefly discusses –

- Understanding Community Radio as a medium of Communication
- Brief history of Community Radio in India
- Advantages and Limitations of Community Radio
- Students will be familiar with the role and importance of Community Radio in rural development

12.1 INTRODUCTION TO COMMUNITY RADIO

As we know that reach of Radio is incomparable. Broadcasting of Radio started in India in 1927 with two private transmitters in Bombay and Calcutta. All India Radio was established in 1936. Now Radio covers almost the entire population of India. All India Radio reaching nearly 92% of the country's area and almost 99.20 % of the total population. Radio can play pivotal role for inform and educate people of the country,

especially poor and rural population. About 40 percent of people in India are below the poverty line. Many are able to afford only radio set or a transistor. With help of Community Radio we can reach up to communities live in interior areas of our country.

Since India's Supreme Court cleared the way for commercial broadcasting in 1995, radio has emerged as the country's second most accessed media platform, outpacing social networking and behind only television, according to Nielsen, a market research company. Broadcast radio on the AM band reaches 99% of the population, while FM radio reaches 65%, according to a 2019 report by Ernst & Young and the Federation of Indian Chambers of Commerce & Industry. In addition, radio is highly interactive and free to audiences, unlike TV and print.

According to Steve Buckley, radio is still the most appropriate medium for Community access to the means of communication which is regarded as a vital component of democracy. Radio can be divided into three types on the basis of its purposes: 1) The commercial broadcast model 2) The public service broadcast model 3) The Community Radio. But, here in our study the discussion will be centred on the Community Radio.

In India, where radio is the supreme form of communication, there are more than a dozen official languages and the same number of official radio networks. As per the official data of 2007 All India Radio AIR covers 24 languages and 146 dialects in home services. In external services, it covers 27 languages; 17 national and 10 foreign languages. As per Prasar Bharati data there was only 2,75,955 receiving sets in 1947, but now (2002) there are about 12.5 crore (7.1 crore FM sets) radio sets in about 11.7 crore radio households in the country with the number of average actual listeners of AIR on any day in radio homes all over India estimated at 30.4 crore.

The most popular medium of mass communication in tribal India where the majority of inhabitants are illiterate is radio. The view electronic media have their own problem of elitism of access, infrastructure, skills and education. The radio should be better suited to the role of disseminating information to flourish in an open and free manner. It can help shape public attitudes and can challenge government's support and voice public demands.

People can find themselves cut off from the mass media for many reasons: gender, sexuality, race, disability, political allegiance, religious belief- the list could go on. A group may be too small to attract attention, or too controversial to gain editorial approval. Community media/ Alternative media offer these audiences a way to communicate with each other, to provide information and support where it is needed, and to get involved in creating media that serves their own needs. When these

projects take on an activist nature, they can bring the views of marginalized groups to the wider public, making media products that are advocates of and actors for change.

Community Radio is a medium for the people, of the people and by the people. It is a medium owned by a community to solve the problem they are facing in their day to day lives and attain betterment towards it gradually. This media is a platform of expression and a medium to find a solution to their local issues. It has a catalyst role in the process of development.

As per the foreword published in 'Compendium-2014' by Ministry of Information and Broadcasting [MIB], Engaging communities in communication would help to bridge the digital divide. It will also go a long way in ensuring the participation of rural and urban communities in decision making so that they can become informed citizens and participate equally in development programmes. If we have to move towards social inclusion and removal of inequality, we have to move towards providing access to information to people and empower communities. Though we have made a huge progress in several areas in our country, we still face formidable challenges in human development indicators. Poverty, hunger, lack of primary education, gender inequality, high child and maternal mortality cannot be challenged and tackled unless we bring effective partnerships with the local community for social change. It is here that Community Radios become an instrument of positive social change. The communities in our rural areas hold a wealth of indigenous knowledge and traditional cultural resources, which may be lost with the advent of modern technology. Culture and history also play an important role in social development of the country; therefore, we need to preserve it. For generations, our communities have been preserving their local culture, knowledge, history and customs. The wealth of songs, stories and folk music in our country could be very well preserved through Community Radios.

12.2 DEFINITIONS AND UNDERSTANDING OF COMMUNITY RADIO

As per the website of UN Women elaborate that, Community radio usually is a short-range, not-for-profit radio station or channel that caters for the information needs of people living in a particular locality, in the languages and formats that are most adapted to the local context. Community Radio has been defined as a radio that is owned by the community and broadcasts programmes are designed, produced and transmitted to meet its development needs. It is significant departure from the primarily centralized radio broadcasting paradigm that India has been following for decades. Philosophically there are two distinct approaches to Community Radio. Services or community model: This model focuses on what the radio station can do for the community. The Community

Radio serves the people as per their requirement. Another is Access or participatory model. This model stresses direct involvement and participation of the local community. The participation of community members in producing content is seen as a good in itself. There is also a third approach which believes in providing locally specialised and dynamic information. The Community Radio caters to the interests of certain areas a broadcast material that is popular among local audience

A particularly philosophical definition of Community Radio as provided by José Ignacio Lopez Vigil: “When radio fosters the participation of citizens and defends their interests; when it reflects the tastes of the majority; when it truly informs; when it helps resolve the thousand and one problems of daily life; when all ideas are debated in its programs and all opinions are respected; when cultural diversity is stimulated over commercial homogeneity; when women are main players in communication and not simply a pretty voice; when no type of dictatorship is tolerated; when everyone’s words fly without discrimination or censorship; that is Community Radio.”

As per another definition Community radio is when local people produce and broadcast their own programs and participate in operating the station. It is community space for people to meet and collaborate. It is extraordinarily fun and often life-changing. It typically leads to individual creativity and self-empowerment. Participants find it extraordinarily satisfying, not just to make radio in this unique fashion, but to also help transform community life.

Carlos A. Arnaldo defines that “Community radio is a social process or event in which members of the community associate together to design programmes and produce and air them, thus taking on the primary role of actors in their own destiny, whether this be for something as common as mending fences in the neighbourhood, or a community-wide campaign on how to use clean water and keep it clean, or agitation for the election of new leaders. The emphasis is on the ownership of democratic and development efforts by the members of the community themselves and the use of media, in this case radio, to achieve it. In every sense, this is participatory communication (not programmes made about them by somebody else!). It is above all a process, not a technology, not merely a means, because the people are part of that means, and so are the message and the audience. Community radio is most relevant to a group of people, who live and act as a community, and this could be several families, several neighbourhoods, or even several villages or communities, but the important thing is that they interact. That is why I think of community radio as the community speaking to each other and acting together for common goals.”

12.3 ADVANTAGES OF COMMUNITY RADIO AS A MEDIUM OF COMMUNICATION

Before discuss the advantages of Community Radio, let's understand the three distinguished principles of Community Radio:

1. Non profit making
2. Community ownership and management
3. Community participation

Community Radio places a priority on providing for the social and cultural needs of a defined community, usually in opposition to mainstream media.

A manual named 'Community Radio: Learning the skills a complete manual for Community Radio trainers' published by UNICEF in 2014 stated that the real power of radio as a tool of self-expression of the poor is realized only when it is operating in a micro mode. It may be a part of the big network but functionally it should be thoroughly independent and a complete entity by itself. This nature is found in a Community Radio however, Community Radio cannot be bestowed on the people by an outside agency including Government. Community Radio originates from the community itself. It is only than becomes truly a medium of empowerment, helping the poor and marginalized to find and use their voices.

This manual further stated that Community Radio is useful to the groups especially whose members are traditionally oppressed and marginalized, radio can lend voice to the under privilege such as those BPL (below the poverty line), women, tribal etc. Who are deprived of literacy and education? For the first time they get the feeling that they can also understand something that so far was the prerogative of the educated. Moreover this gives them the confidence to express themselves. The awareness that they are heard by 1000s makes them feel important and self-esteem is vital to the process of empowering people.

Now let's discuss the advantages of Community Radio point by point:

• **People's Participation:** It is a unique model of Communication where in the communication process allows the receiver to become sender. Community Radio gives voice to people from marginalized sections of society to express their views on development. It promotes participatory decision-making through healthy discussion on local issues.

• **Local Identity, Character and Culture:** Community Radio provides programming that is characteristic of the identity and character of the locale and Community from where it broadcasts. This naturally leads to programming content that is massively localized in nature. Outside news and events become relevant to the Community Radio only as far as they impinge upon the special interests of the audience. It also focuses on local culture. Community culture is also artistic expression through local music, dance, poetry, theatre, storytelling and so on, and these are

featured strongly by most Community Radios. Local performers are encouraged on the Community Radio so that the radio station can remain true to its ideal of representing the expressions of the local people on a global platform. Community Radio provides a forum for local culture expression. It enhances artistic and intellectual culture and showcases local talent. It gives opportunity to local artists to get wider exposure, training and experience. Culture is also language. Local languages and expressions are the raw material that feeds Community Radios.

- **Vocal for Local issues:** Community Radio takes up local issues affecting the community members. Community Radio improves people's access to information in local languages/ dialects. While public service broadcasters cater to the needs of majority of audience, it is not possible for them to take up issues affecting small communities.

- **Information for All:** A Community Radio station is a radio service by the people, close to the people and for the people. The Community Radio serves the interest of the community by dissemination and exchange of the most relevant information- including educational and developmental. The members of the community get an opportunity to express themselves socially, politically and culturally.

- **Open Dialogue and Democratic process:** It is a function of Community Radio to provide an independent platform for interactive discussion about matters and decisions of importance to its community. This is in keeping with the decentralization processes now being implemented in many countries. A purpose of which is to bring democratic decision making closure to the people concern.

- **Community Development:** Community Radio encourages community development, harnessing locally available resources and innovation in community development. It encourage community to do something for own development. It gives a platform to people for discussions regarding their developmental problems as well as opportunities.

- **Catalyst of change:** Community Radio speeds up the process of informing the community and therefore acts as a catalyst of change. It serves as a watchdog on civic authorities / power holders, providing a forum for active relationship between leaders and citizens. Community Radio can change the behaviour of its communities for the good. Study shown that effective educational radio programs can change listener's behaviour and lead to the growth of knowledge in the community.

- **Educate People:** Community Radio can have very high educational success rate. The educational programs based on characters with members of community can identify are the most effective. The audience is willing to trust the presenters they know. The station is accessible and people can either phone or just walk in if they need more information

about any programs. Community Radio stations adapt programs to local needs and language requirements.

- **Low cost:** Lack of access to information in remote and inaccessible regions can be tackled with the Community Radio. Print media cannot be used due to prevalence of large scale illiteracy and remoteness of such regions. Television and video are ruled out due to absence / unstable supply of electricity coupled with high cost of receiver sets and distribution costs. Radio receiver sets are inexpensive and rugged and can operate on batteries.

- **Down to Earth approach:** What distinguishes the Local Radio from the regional network is its down to earth, intimate approach. The programmers of the local radio are area specific. They are flexible and spontaneous enough to enable the station to function as the mouthpiece of the local community.

12.4 LIMITATIONS AND CHALLENGES FOR COMMUNITY RADIO

The limitations of Community Radio can be understood in detail as below points:

- **Limited reach:** FM broadcast technology and government regulation limit the transmit power of Community Radio stations to a meagre 100 Watts, which can cover an area of 15 to 20 Kms. While this encourages discussion of locally relevant issues, which is in the line with the principle of Community Radio, the limited reach limits the number of people that can benefit from access to a Community Radio station.

- **Limited Participation:** FM is essentially a low cost broadcast technology, which allows a station to reach a large number of people. However, the principles of Community Radio demand that the broadcast content be relevant to the target community and preferably carry their own voice; the relevance of content is ensured by making sure that the staff itself belongs to the community and by building processes to collect feedback and inputs from the community about program content. However, putting community's voices on air in a sustained manner has turned out to be an expensive exercise. Staffs often go to the community and collect audio recordings for programs but the effort is significant. Many stations now use telephony and increase community voices on air by either putting calls live on air or by recording the phone calls and putting them on air at a later stage.

- **Limitations in accessibility:** The FM broadcast technology requires that listeners use radio sets, car radios, or phones with FM receivers to access the broadcast. This limits accessibility of the broadcast to some extent. With penetration of modern technologies, demographics like university students and urban middle / upper class are more likely to have

access to smart phones and computers than FM receivers. Many smart phones today do not come with FM receivers. Thus if the target listeners of a station belong to those segments, then FM may not be the best what to reach them.

- **Spectrum limitations :** The FM spectrum band is limited to about 20MHz in most countries, ranging from 87.5 MHz to 108 MHz, While technically, one can broadcast on a frequency outside this range, but most FM receivers will be not be able to receive the signal defeating the purpose of broadcast itself. The limited spectrum availability implies that at a given location, there can be only a limited number of stations broadcasting. The exact number of stations depends on minimum frequency gap mandated by the government between two stations. In the Indian context, the minimum frequency gap is 800 KHz, meaning the maximum number of stations possible in a locality is 25. For cities like Delhi and Bangalore in India, this number is very small; shortage of available spectrum has already constrained organizations from setting up Community Radio stations in these cities.

- **Government Regulations:** Since FM spectrum (frequency range 87.5 MHz to 108 MHz) is limited, governments typically regulate the use of this spectrum. This means that to broadcast in the FM band, any entity needs to obtain a license from the government. The conditions on who is permitted to get a license to operate a Community Radio station (broadcasting over FM) vary across countries. In the Indian context, for example, only societies registered for more than three years and educational institutions are allowed to obtain a Community Radio license. Government regulation also constrains the types of content that a Community Radio station can broadcast. Of most relevance are the limitations the government places on news, advertisements, and sponsored programs. In the Indian context, only locally relevant information is allowed to be broadcast on Community Radio stations; national news is not permitted. Most countries also place a cap on the number of minutes of advertisements allowed per hour and in some countries, like in India, sponsored programmes are not permitted.

As compared to all other media sectors, radio is under heavy pressure of regulations. Setting up a radio station requires a license whereas no such license is required for a newspaper. For FM radio only 20% FDI is permitted, whereas this limit is 26% for news paper. In Television 100% FDI is permitted in entertainment TV and 26% FDI permitted in TV news. In cable TV and DTH, FDI limit is 49% whereas in terrestrial radio it is only 20%. In Print and Television no distinction is made between news and non-news publications/broadcasting as far as regulations are concerned. But in Radio this distinction is loud and clear.

12.5 HISTORY AND DEVELOPMENT OF COMMUNITY RADIO IN INDIA

12.5.1 The Evolution of Community Radio in World

'Community Radio Handbook' is published by UNESCO. This handbook covers the chapter of the 'evolution of Community Radio'. Some important milestones of the history of Community Radio are as under:

The pioneering experiences from which today's community radio has evolved began some 50 years ago in Latin America. Poverty and social injustice were the stimulus for those first experiences, one beginning in Bolivia in 1947 and known as the Miners' radios and another in Colombia in the same year, known as Radio Sutatenza/ Acción Cultural Popular. These experiences in Bolivia and Colombia set a trend, even if today's concept of community radio has evolved considerably. For example, the Miners' radios in Bolivia were working in the decades of ideological clash between Marxism and capitalism. Thus, their principal focus was to unite the community of miners to battle for better and fairer working conditions. They were generally considered to be trade union radios, even if the miners provided much of the finance for the purchase of equipment and running costs. Radio Sutatenza/ACPO in Colombia, although inspired by the aim of supporting the community of peasants, was not owned or directly managed by them. There was much feedback from peasants - some 50,000 letters a year - and these certainly ensured the integration of the peasants' desires and needs into the radio's programming. But it was not truly 'radio by the people for the people', which is today's aim.

Even so, this first systematic effort by Radio Sutatenza to educate by radio created a movement that "...spread and was later consolidated through ALER, the Latin American Educational Radio Broadcasting Association. This inter-linkage of radio and education is basic to the idea of public service and marked the birth of community media in Latin America."

However, even if the ground breaking work was in Latin America, it was in Europe that community radio first became a vital phenomenon, an alternative to - or a critique of - mainstream broadcast media. The first challenges to state public-service broadcasting were in the 1960s-70s when "swashbuckling entrepreneurs boarded the airwaves illegally and seized as much of the audience as they could carry away from the treasure chest monopoly controlled by the state." In the West, these pirate stations proved a catalyst in motivating governments and national broadcasting systems to introduce legitimate local radio. In Africa, the establishment of community radio became, in abroad sense, a social movement after the demise of the apartheid regime in South Africa. This was followed by democratization, decentralization, and to some extent structural adjustment, elsewhere in that continent. The pressure groups that have instigated community radio in many parts of the world (e.g. miners, pirate radio operators, missionaries and

democracy movements) have been less present in Asia. In their place, international agencies such as UNESCO and other external donors have often taken initiatives to help get community radio off the ground. And in some cases, it has been the national broadcasting organization that has itself started community radio services.

12.5.2 Community Radio in India

All India Radio came up with the concept of local broadcasting in 1984; it was considered a big step towards 'decentralized' broadcasting. In this kind of broadcasting local issues were dominating and local talent was being used, but the main function was conceiving and producing the programmes was in the hands of the authorities posted at that local radio station. And these authorities were getting directions from the AIR headquarter. The messages were still travelling from top to bottom and people remained confined to a large extent to receiving the information. Faced with little success of local radio stations, the government was looking for some model of 'alternate broadcasting'. Incidentally, the movement for Community Radio has started by that time and many communities had set up their radio stations in backward and remote areas of the country. This caught the attention of the government and it decided to formalize the Community Radio by prescribing a policy for the purpose. Thus, Community Radio policy was announced in 2002, and educational institutions were allowed to set up radio stations on their campus. In 2006 the policy was revised and even non-profit organizations were allowed to run Community Radio Stations. Though both the policies have failed in yielding desired results, the community paradigm has made headway.

Community Radio is considered an extension of local radio station, yet the communication process differs. In Community Radio the broadcasting is done by the community for the community. This kind of participatory approach makes the Community Radio distinct from local radio station. The policy makers have also taken care of this aspect and this makes the community paradigm of broadcasting significant. One of the article-extract from Vinod Pavarala and Kanchan K. Malik's book 'Other Voices: The Struggle for Community Radio in India' by Sage Publications, 2007, records that a historic judgment delivered by Justice Jeevan Reddy of Supreme Court of India in February 1995 ruled that, "airwaves constitute public property and must be utilized for advancing public good." The judgment further declared that broadcasting media as a whole should promote freedom of expression and speech and, therefore, should be able to enjoy freedom from Government monopoly and control subject to regulation by a public body. Following this judgement, campaigners for Community Radio in India struggled through the good part of a decade for the creation of a new tier of not-for profit radio stations, owned and run by local people, typically in rural areas, which would enable marginalized communities to use the medium to

create opportunities for social change, cohesion and inclusion as well as for creative and cultural expression. De-monopolisation of Airwaves: Radio broadcasting in India shifted from being a government monopoly to a highly commercialised broadcasting after the Ministry of Information and Broadcasting (MIB), Government of India, announced the Phase I of auctioning of licences in November 1999. The Phase II of the private FM radio licensing policy announced in July 2005 made access to the airwaves a whole lot simpler and feasible for the commercial players. Radio entertainment in India witnessed a revival of sorts, as the airwaves broke free from government control. However, the long-standing demands for a third tier of independent, not-for-profit broadcasting in the country yielded only a confined 'campus' avatar of Community Radio in the form of 'Guidelines' issued in the first quarter of 2003. That allowed 'well-established' educational institutions to set up FM transmitters and run radio stations on their campuses. This decision diluted somewhat the hegemony of the state and market over radio. But to open up the broadcasting sector for an urban, educated, elite coterie in areas that are already well-served by media violates the fundamental philosophy behind Community Radio. It was mere tokenism to say that campus radio would provide space for development and change-oriented content. If radio did not enable the marginalised, rural or poor populace to disseminate their own messages, and to challenge the mainstream understanding of social issues, the whole purpose would be lost. Radio, designated by several as a medium of the poor, seemed to have been hijacked by the elites. The Government of India for a long time resisted the demands for opening up this sector, under misplaced apprehensions that secessionists, militants or subversive elements would misuse the medium.

Several non-governmental organisations and media-activist groups campaigned for nearly a decade for the right to set up local radio broadcasting facilities to support their community development work. They also networked to further the cause of Community Radio in the country. This network, soon after the announcement of the Community Radio policy, came together in January 2007 to constitute the Community Radio Forum (CRF) of India.

In India, the campaign to legitimize Community Radio began in mid-1990s soon after the supreme court of India ruled in its judgment of February 1995; however the first policy on Community Radio in 2002 allowed only educational institutions to apply for Community Radio licenses. On 16, November 2006 the Govt. of India notifies new Community Radio station guidelines which permitted the NGOs and other civil society organization to own and operate Community Radio Station. August 2012, ten years after the first Community Radio policy was unveiled. The first Community Radio station licensed to an NGO was launched on 15th October, 2008, when - Sangham radio in Pastapur village, Medak district of Andhra Pradesh state was switch on. Sangham Radio which broadcast on 90.4 MHz is licensed to Deccan Development

Society (DDS) and NGO that works with women's group in about 75 villages of Andhra Pradesh. Activists and community workers from across the country have come together and two organizations are currently operating in a country a member driven networks of Community Radio Station.

The Community Radio Forum of India (CRFI) was registered on 26th February 2008, the forum advocates for supporting policies and provides support to organizations applying for and running Community Radio Station. Community Radio Association of India (CRAI) was found in 2011, an aims to provide support to Community Radio stations. Membership is open to all broadcasting stations in India and GOPA holders. The information and broadcasting ministry is supporting Community Radio fair. That assists NGOs with their application process. Radio broadcasting has been the monopoly of AIR till the year 2000 (this year only private FM radio and satellite came). In another 2 year time, 2 more developments took place – in 2001, Gyanwani was launched by IGNOU, and in 2002 Community Radio emerge on the scene. The monopoly of AIR was broken by IGNOU in 1992, firstly with the help of AIR only and then as an independent broadcaster. AIR entered in to an agreement with IGNOU for the broadcast of educational programs of the latter. In 2001, IGNOU launched its own radio station, i.e GYANWANI for educational broadcast With the increasing importance of educational broadcasting, a new 4 tier broadcasting system has emerged on the broadcasting scenario. This 4 tier system comprises the following segments of broadcasting. First tier - Public service broadcasting represented by All India Radio. Second tier-Private FM radio broadcasting that has been undertaken by private companies in cities. Third tier -Educational broadcasting by GYANWANI, the educational channel of IGNOU. Fourth tier -Community broadcasting as reflected in campus radio and the radio stations set up by non-profit organizations. As per the data published by Ministry of Information and Broadcasting on 8 February, 2021, currently India has 316 Community Radio stations serving Students, Farmer, Tribal, Coastal communities, ethnic minorities and special interests

**Number of operational Community Radio Stations in the country
(State/UT wise)**

Sr. No.	State/UT	No. of operational Community Radio Stations
1.	Andhra Pradesh	7
2.	Arunachal Pradesh	1
3.	Assam	4
4.	Bihar	9

5.	Chhattisgarh	6
6.	Gujarat	10
7.	Haryana	20
8.	Himachal Pradesh	4
9.	Jharkhand	3
10.	Karnataka	22
11.	Kerala	12
12.	Madhya Pradesh	24
13.	Maharashtra	30
14.	Manipur	4
15.	Odisha	19
16.	Punjab	6
17.	Rajasthan	15
18.	Sikkim	1
19.	Tamil Nadu	38
20.	Telangana	11
21.	Tripura	1
22.	Uttar Pradesh	38
23.	Uttarakhand	10
24.	West Bengal	6
25.	Chandigarh	4
26.	Delhi	6
27.	Jammu & Kashmir	2
28.	Puducherry	3
	Total	316

12.5.3 Future of Community Radio in India

The potential of radio is even less exploited. Technology hasn't come to its rescue and so the government is able to retain a stranglehold over the medium. A few years ago, I attended a seminar on radio in Kathmandu and was shocked to find that in India, South Asia's most stable democracy, radio was more restricted than in any of its neighbours. There has been slow progress since then, particularly in Community Radio, but the government still does not allow radio stations to broadcast news and current affairs, one of the staples of that medium.

The provision of information and skills has gained popularity in the quest to empower communities with Community Radio as a unique and effective tool. Chapman et al (2003) reported that the growth of rural radio stations reflects both the improvements in information technologies and the shifting of development paradigm towards a more participatory style of information and knowledge transfer.

12.6 FUNCTIONS AND ROLE OF COMMUNITY RADIO IN DEVELOPMENT

Community Radio responds to the needs of the community it serves, contributing to its development within progressive perspectives in favour of social change. Community Radio strives to democratize communication through community participation in different forms in accordance with each specific social context.

Community radio can play a significant role at the grass roots level for rural development. For instance, issues of poverty, agriculture, gender inequality, education, social problems among others could be the focus for programming. Rural radio is effective in improving the sharing of agricultural information by remote rural farming communities. Radio in this regard provides a set of participatory communication techniques that support agricultural extension efforts by using local languages to communicate directly with farmers and listeners' groups.

As per the guideline from UNESCO main functions of Community Radio as radio stations should:

- Promote and reflect local culture, character and identity;
- Assist in creating a diversity of voices and opinions and encourage individual expression;
- Increase access to a diversity of voices on air;
- Assist in creating diversity in broadcasting ownership;
- Be responsive to the needs of their community;
- Contribute to human resources development for broadcasting and where appropriate to job creation;
- Encourage members of the relevant community to participate in programming and production matters;
- Encourage innovation and experimentation in programming.
- Encourage Open Dialogue and Democratic Process
- Promote Development and Social Change
- Promote Civil Society
- Promote Good Governance
- Encourage Participation, Sharing of Information and Innovation
- Give Voices to the Voiceless

12.7 KEYWORDS

Community Radio: Community Radio is a medium for the people, of the people and by the people. It is a medium owned by a community to solve the problem they are facing in their day to day lives and attain betterment towards it gradually. This media is a platform of expression and a medium to find a solution to their local issues. It has a catalyst role in the process of development.

Development: The word 'development' is widely used to refer to a specified state of advancement or growth. It could also be used to describe a new and advanced idea or product; or an event that constitutes a new stage under changing circumstances. Generally, the term development describes good change.

12.8 CHECK YOUR PROGRESS

1. What is Community Radio?

2. Elaborate History of Community Radio.

3. Discuss advantages and limitations of Community Radio.

4. Describe the Functions of Community Radio.

5. Write about role of Community radio in development.

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UNIT 13

HAM RADIO : A MEDIUM FOR EMERGENCY/DISASTER COMMUNICATION

----- STRUCTURE -----

13.0 Objectives

13.1 Introduction to HAM Radio

13.1.1 What is HAM Radio?

13.1.2 Why it called HAM?

13.1.3 Key Points to remember about HAM Radio

13.2 Short History of HAM Radio

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13.6 Role of HAM Radio in the time of Disasters

13.6.1 Advantages of Ham Radio in a Disaster

13.7 Keywords

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13.0 OBJECTIVES

This unit briefly discusses –

- Understanding HAM Radio as a medium of Communication
- Brief history of HAM Radio in India as well as world
- Advantages and Limitations of HAM Radio

- Students will be familiar with the Role of HAM Radio in the time of Disasters.

13.1 INTRODUCTION TO HAM RADIO

As we all know that the era of telecommunication was started with the invention of Radio, but we rarely know that HAM radio is considered as a first social media platform in the world! HAM radio offers a great way for users to make friends with people around the world. HAM Radio is more than an exciting hobby that brings people around the world together. In fact, they are the most powerful wireless communication tools that are available to ordinary people, and they can even help connect users with astronauts in space.

Amateur radio is popularly known as HAM Radio. Amateur Radio (HAM radio) is a popular hobby and service that brings people, electronics and communication together. People use ham radio to talk across town, around the world, or even into space, all without the Internet or cell phones. It's fun, social, educational, and can be a lifeline during times of emergency. HAM Radio plays an important role in the time of calamity or disaster. As per our assumption HAM radios are mostly used for personal communication, but there are communities of HAMs who use their radios to provide important information in their localities, such as emergency and disaster alerts. It is a lifeline during emergency events. Amateur Radio operators (Who are popularly known as HAMs) come from all walks of life - kids, students, doctors, politicians, social workers, truck drivers, movie stars, missionaries and even your average neighbor next door. They are of all ages, sexes, income levels and nationalities. Whether through Morse Code on an old brass telegraph key, voice communication on a hand-held radio or computerized messages transmitted via satellite, all HAMs use radio to reach out to the people and the world.

13.1.1 What is HAM Radio?

Amateur radio operators are also known as radio amateurs or HAMs. An amateur radio operator is an individual who typically uses equipment at an amateur radio station to engage in two-way personal communications with other similar individuals, on radio frequencies assigned to the amateur radio service by the Local Government and the International Telecommunication Union worldwide.

For those interested in wireless technology and tinkering, HAM radio provides a solid introduction to radio communications knowledge as well as basic electronics theories. Once you are fully equipped with the needed equipment, the world is yours to communicate and connect. You can communicate with other HAMs; interface a radio with your computer or smart phone to send data, text or images, or Morse code, which

remains incredibly popular. You can even talk to astronauts aboard the International Space Station or even at moon! You can communicate from your home or car, from the top of a mountain or mid of ocean, all without relying on the Internet or a cell phone network. You can take radio wherever you go!

13.1.2 Why it called HAM?

Amateur Radio is popularly known as HAM radio and its operators are called HAMs. The exact reason why an amateur radio operator is called a 'HAM' is not known. Some relate these three letters (HAM) to the names of three great radio experimenters. They are- Hertz (who practically demonstrated the existence of electromagnetic waves in 1888), Armstrong (who developed a resonant oscillator circuit for radio frequency work) and Marconi (the 1909 Nobel laureate in Physics, who in the year 1901 established the first transatlantic radio contact). While others have their own version; according to them during the earlier days of radio communication, government stepped in to conquer short-waves and allowed the radio amateurs to operate only on certain frequencies; thus the frequencies of amateur radio stations were sandwiched like a 'ham sandwich' and so amateur radio operator came to be called a 'HAM'.

Some people believe that when the young and inexperienced radio enthusiasts began to venture on air with crude spark transmitters based on vehicle ignition coils, their virtual Morse code transmission must have been pretty poor and professionals dismissed them as 'ham fisted'! Another speculation is that the word 'HAM' stands for 'Help All Mankind' as reflected in its service towards people in distress during natural calamities, disasters and civil emergencies!

One of the stories related to this was published in an American magazine, Florida Skip Magazine in 1959. As per this story: The word 'HAM' as applied to 1908 was the station CALL of the first amateur wireless station operated by some amateurs of the Harvard Radio Club. They were Albert S. Hyman, Bob Almy and Pogie Murray. At first they called their station 'HYMAN- ALMY-MURRAY'. Tapping out such a long name in code soon became tiresome and called for a revision. They changed it to 'HY-AL-MY', using the first two letters of each of their names. Early in 1901 some confusion resulted between signal from amateur wireless station 'HY-ALMU' and a Mexican ship named 'HYALMO'. They then decided to use only the first letter of each name and the station CALL became 'HAM'.

In the early pioneer days of unregulated radio amateur operators picked their own frequency and call letters. Then more now, some amateurs had better signals than commercial stations. The resulting interference came to the attention of congressional committees in

Washington and Congress gave much time to proposed legislation designed to critically limit amateur radio activity. In 1911, Albert Hyman chose the controversial Wireless Regulation Bill as the topic for the Thesis at Harvard. His instructor insisted that a copy be sent to Senator David L. Walsh, a member of one of the committees hearing the Bill. The Senator was so impressed with the Thesis that he asked Hyman to appear before the committee. Albert Hyman took the stand and described how the little station was built and almost cried when he told the crowded committee room that if the Bill went through they would have to close down the station because they could not afford the license fee and all the other requirements which the Bill imposed on amateur stations. Congressional debate began on the Wireless Regulation Bill and little station 'HAM' became the symbol for all the little amateur stations in the country crying to be saved from the menace and greed of the big commercial stations who didn't want them around. The Bill finally got to the floor of Congress and every speaker talked about the "...poor little station HAM." That's how it all started. You can find the whole story in the Congressional Record. Nation-wide publicity associated station HAM with amateur radio operators. From that day to this, and probably until the end of time in radio; and amateur is a 'HAM.'

Some sources suggest that actually the term 'HAM' as a pejorative nickname for amateur radio operators was first heard in 1909 by operators in commercial and professional radio communities. "Ham: a poor operator. A 'plug'." That's the definition of the word given in G. M. Dodge's 'The Telegraph Instructor' even before radio. The definition has never changed in wire telegraphy. Amateurs, possibly unfamiliar with the real meaning of the term, picked it up and applied it to themselves with pride. As the years advanced, the original meaning has completely disappeared.

13.1.3 Key Points to remember about HAM Radio

- Amateur radio, also called HAM radio, is a noncommercial two-way radio communications. They use many frequency bands across the radio spectrum.
- HAM radio is a real-time communication network. This is much like wireless communication which is quick and transparent.
- There are more than 30 Lakhs HAMs in the world.
- Amateur Radio operators set up and operate organized communication networks locally for governmental and emergency officials, as well as non-commercial communication for private citizens affected by the disaster.
- Amateur Radio operators are most likely to be active after disasters that damage regular lines of communications due to power outages and destruction of telephone, cellular and other infrastructure-dependent systems.

- In almost all countries, governments allocate portions of the radio spectrum for non-commercial use by the citizenry after individuals demonstrate the ability to use the spectrum properly. The regulations of most countries around the world provide for this opportunity through Amateur Radio.

13.2 SHORT HISTORY OF HAM

Naturally, history of Amateur radio (HAM) is as old as Radio. As we all know the valuable contribution of James Clerk Maxwell, Heinrich Hertz, Jagdish Chandra Bose and Guglielmo Marconi in the invention and development of Radio. In 1896 Marconi managed to communicate over a distance of 2 miles without wires and started golden era of telecommunication. As the 20th century began, commercial development of radio gained speed. Marconi spanned the Atlantic with wireless in 1901, using high power and giant antennas. Amateurs continued to tinker and experiment with their modest installations.

Jim Maxwell has written a detailed article - ‘Amateur Radio : 100 Years of Discovery’ on the occasion of 100 year of Amateur Radio. He stated: Who was the first Amateur Radio operator? We’ll probably never know. Some would say it was Marconi. Marconi had a great fondness for Amateur Radio throughout his life, and considered himself as an amateur at heart, but the Englishman Leslie Miller is surely a leading contender for that honor. Leslie Miller has a solid place in amateur history as the first person to have published a description of a simple-to-build transmitter and receiver for an amateur (and he used that word) audience. His article appeared in the January 1898 issue of ‘The Model Engineer and Amateur Electrician’, published in London. People attracted to the new means of communication and set up their own radio station. HAMs played an important role In World War I. As per the data some 4000 HAMs eventually wound up in the service of the nation (USA). It has been estimated that approximately 25,000 HAMs served in the armed forces during World War II in USA.

As we know, Jim Maxwell, Director of Pacific division of ARRL wrote the short history of HAM Radio. He wrote that: Perhaps the most important lesson is that Amateur Radio’s history over the past century has been one of adversity and change, inevitably followed by struggle, success and growth... We have survived the technological challenges of the past by understanding new technologies and embracing those portions that would lead Amateur Radio forward.’

Further he added that ‘When Amateur Radio began there was only one way for a HAM to get started: learn Morse code, build a receiver and a spark transmitter, string up an antenna, and start tapping on the key. Today we have a multifaceted Amateur Radio. We’re on CW and phone; SSB and FM; packet and TV; PACTOR, PSK31 and RTTY, as well as

other modes, bouncing signals off the ground, off the ionosphere, and off the moon, enthusiastically working bands from almost dc to daylight. We have rag chewers and testers, public service communicators and experimenters, QRPers and more. HAMS are active in nearly every country of the world, and at ages ranging from less than 10 years to more than 100.'

It reflects that with the change of time and technologies HAM radios adapted all the changes and survive till today. HAM radio operators have led the advancement of the science of radio communications for over a century. Today, we take for granted radio, television, satellite communications, cell phones, broadband, digital communications and many other innovations first explored and pioneered by HAM radio hobbyists. Today, radio amateurs are exploring voice and data communications in ever higher frequencies allocated for experimentation and exploration – extending all the way to 275 gigahertz (GHz) and even beyond, nearly to the spectrum of light.

13.2.1 HAM Radio introduced in India

The hobby of Amateur Radio operation was introduced in India by some officers of the Signal Corps who were issued the Amateur licenses and an Amateur Radio club was also started by them at Mhow, Madhya Pradesh which is the head quarters for the Signal Corps of the Indian Army. In the 1920's and 1930's, Government of India gave Amateur Radio licenses mostly to persons from the Indian Army. A few civilians also managed to get licenses in the 30's. In 1942 some of the civilian Amateur Radio operators took part in the Quit India movement and their licenses were cancelled. After independence a few defense personnel and civilians managed to get an amateur radio licenses and the hobby started growing.

The first Indian amateur radio operator in India was Amarendra Chandra Gooptu (callsign 2JK), licensed in 1921. Later that year, Mukul Bose (2HQ) became the second HAM operator, thereby introducing the first two-way HAM radio communication in the country. By 1923, there were twenty British HAMS operating in India. In 1929, the call sign prefix VU came into effect in India, replacing three letter call signs.

Avinash Mishra, VU2EM wrote an article on 'Brief History of Amateur Radio in Calcutta' in HamFest India '96 Souvenir. As per Avinash Mishra, "The history of HAM radio began in India as early as 1921. The first Indian HAM late Amarendra Chandra Gooptu, started his transmission in the year 1921 with a callsign 2JK. He was the lone HAM at that time and so his radio transmission was a one way traffic. Those having the receiving equipments could listen to his broadcast. 2JK was followed by 2HQ, Mukul Bose (changed to VU2HP) in 1922 and VU2AG, Loken Bose in 1924. Two way HAM radio communications

among Indians started from 1922 onwards. However, during the 1920s 20 British HAMS were operating from India. India's first short wave public broadcasting station belonged to Dr. Matcalfe, VU2KH, a leading radio amateur and who was the Vice-Chancellor of Mysore University. He and his group of radio amateurs established an entertainment public broadcasting station VU6AH in the year 1935 and had listeners all over India. Amateur Radio licensing was closed and HAM radio equipments were taken away by the authorities when the World War II broke in 1939. At the end of World War II, the authorities started issuing temporary amateur radio operators licenses from 1946. By the beginning of 1948, there were hardly fifty odd licensed HAMS of which a dozen or so were active.

On May 15, 1948, Amateur Radio Club of India (ARCI) was inaugurated in the School of Signals at Mhow with Major B.M. Chakravarti, VU2BU at the helm. In May 15, 1954, Amateur Radio Society of India (ARSI) was born at New Delhi taking over the ARCI which by then had moved from Mhow to Bombay and finally to Delhi.

13.3 ADVANTAGES OF HAM RADIO

Following are the advantages or Benefits or of HAM Radio:

- Very easy to operate
- Adequate for long-distance communication
- Ham Radio is one of the original social networks. HAM was the first social networking and has become a unique tool in promoting global friendship.
- Ham radio operator can talk to other operators with transmit power of about 10 Watts or less.
- Modification is not difficult.
- It can be used for experiments with easy configurations anywhere and can be interfaced with computers for data transmission/reception.
- Use in case of emergencies. It provides long hours of communication during emergency situations and easy to setup.
- It helps in communication when other systems (cellular, internet etc.) are down due to some failure or disaster.
- HAM or amateur radio operators can communicate with astronauts in space station.
- Supports the need for a wide frequency range, which brings about improved communication

13.4 LIMITATIONS OF HAM RADIO

Followings are the Limitations or disadvantages of HAM Radio:

- HAM radio requires skilled operators.
- You can't operate a HAM radio without a license.

- HAM radio requires power source for its operations which is required to be carried along with radio equipments.
- HAM radio operations can be affected due to weather and terrain conditions as it operates using radio frequency waves.
- You can't use HAM radio for commercial gains

13.5 HAM RADIO IN INDIA

The 2021 was the centenary year for the Amateur Radio (HAM) in India. There are more than 30 lakh people all over the world who are engage with HAM radio, in India we have around 15000 amateur radio operators.

HAM radio service is managed across the globe by ITU. Moreover its technical/operational characteristics are examined by national governments before issuing licenses with individual call signs. Operators use call signs on the air to identify other operators/stations. Call sign structures are usually prescribed by ITU. For this purpose, ITU has categorized all the countries into three regions. Example: India falls under ITU region-3 and it has been assigned call sign blocks such as 8TA to 8YZ, VUA to VWZ and ATA to AWZ. The call sign prefix VU came into effect in India from 1929.

India, too, has an enthusiastic community of HAMs, most of them are based in South India. Bengaluru, the amateur radio capital of India, has about 5,000 amateur radio operators, with 1,200 enthusiasts taking to the platform in the last five years. The credit for developing the HAM radio culture in Bengaluru goes to Dr. S. Sathyapal (VU2FI). Dr. S. Sathyapal is an avid ham radio operator. He has trained thousands of youngsters to operate the device and the Q codes used to communicate, he is also the moving force behind the Indian Institute of Hams (IIH). Indian HAM community organizes 'Hamfest India' regularly. Indian HAMs have been always active in the time of disasters and help people to save their lives.

Any citizen of India who is above 12 years of age can become a HAM by qualifying in the Amateurs Station Operators' examination (ASO) and obtaining a valid Amateur wireless telegraph station license. According to the Indian Wireless Telegraphs (Amateur Service) Amendment Rules, 1984, 'Amateur service' means a service of self training intercommunications and technical investigation carried on by Amateurs that is, by persons duly authorized under these rules interested in radio technique solely with a personal aim and without pecuniary interest.

13.6 ROLE OF HAM RADIO IN THE TIME OF DISASTERS

A wireless communication network through Amateur Radio is one of the most effective and alternate medium of communication and can play a significant role in providing reliable communications when other normal communications fail. The skills of the trained amateur radio operator can be used for public service in times of need and emergencies. One of the most vital uses of HAM radio is to serve as a reliable communication system when disaster strikes. During times of crisis, when our fragile cellular networks and power grids limp along, HAM radio keeps on running. This wireless technology is relied on as the sole method of communications during emergency situations, and you'll find volunteer-based emergency groups that offer their HAM radio expertise to coordinate aid and relief assistance for those in their community.

In times of disaster, when regular communications channels fail, HAMs can swing into action assisting emergency communications efforts and working with public service agencies. Because of HAMs' technical training, they have the ability to use their share of the radio spectrum more efficiently. As a result, the Ham bands don't get overloaded the way other communication systems do.

HAMs and amateur radio stations act as the 'SECOND LINE' of communication when existing public or government communication links fail to act. In numerous occasions, under extreme circumstances, very efficient amateur radio communication and humanitarian assistance was provided by HAMs. We can understand the role and important of HAM radio with the help of some examples:

- The Amateur Radio Service kept New York City agencies in touch with each other after their command center was destroyed during the 9/11 tragedy.
- Ham radio also came to the rescue during Hurricane Katrina, where all other communications failed, and the devastating flooding in Colorado in 2013.
- In India during Uttarkhand Floods 2012, Aila cyclone-2009, Krishna floods-2009, Indian Ocean Tunami-2004, Gujarat Earthquake-2001, Orissa Super Cyclone-1999 and many other natural /man-made calamities in the country HAMs played important role and saved many lives. Ham operators in India have played a vital role in organising on-the-air emergency medical traffic, establishing emergency communication networks, coordinating and organising relief operations, and arranging medicines, food, and clothing for the affected people.
- In August 1979, during the flash floods at Morbi due to the Machhu dam burst in Gujarat, more than a dozen amateur radio stations of western India activated emergency radio stations to

pro-relief agencies, government officials and victims of the disaster in the cities of Rajkot, Baroda, Ahmedabad and Mumbai.

- You might recollect the earthquakes in Uttar-Kashi and more recently at Latur in Maharashtra and adjoining areas where ham radio operators provided the essential communication network for coordinating and organising relief operations, arranging medicines, food and clothing for the affected people.
- Ham Radio has reestablished its importance during the recent Orissa disaster (the devastating cyclone), when all the communication facilities broke down. A ham radio station set up at the Orissa Chief Minister's residence maintained contact with the nation's capital for nearly a month.
- And the humble ham radio and its amateur operators have played a part during the pandemic too. Recently HAM (amateur) radio operators have volunteered to help a special task force that has been constituted in Bengaluru to ensure that citizens placed under home quarantine follow the protocol for it.

13.6.1 Advantages of Ham Radio in a Disaster

This specialized technical sports or hobby is very much a national asset like any other non-governmental public service organisation (e.g. the Red Cross). Governments around the world wasted no time in adding Ham radio into their disaster management SOPs and emergency contact lists. Let's understand what are the advantages of ham radio during a disaster?

- HAM radio doesn't rely on pre-established communication grids and massive info-structure to communicate.
- Ham radio allows great advantages in equipment, the range of devices and its flexibility in ways to use.
- HAM has more power – handheld units are between 5-8 watts and base stations can go up to 1500 watts.
- You can use high frequency bands which have a much longer range. A much wider range of frequencies is available to you using HAM- other types of radio can get overcrowded.
- You only need 3 things to make a ham radio work power – you can source from batteries or from a generator a HAM radio device accessible antennae HAM radio spectrum is huge with millions of channels to tune in to HAM radio can be portable, not limiting you to stay in one location to communicate
- Amateur Radio, or HAM radio is a noncommercial but licensed radio service which uses allocated frequencies which are not being used by things like AM and FM radio.
- It allows radio enthusiasts to provide emergency communications, improve their technical skills and even broaden their horizons by having discussions across national country borders. However, it perhaps doesn't have the coolest reputation when it comes to hobbies.

- With all of these benefits of HAM Radio, the cost of both time and money is minimal. You can buy HAM radio for about Rs. 3000.

HAM radios have existed as a mode of communication for decades. In spite of some obstacles, HAM operators continue to risk their lives and volunteer their services to help their people, their countries, and humanity as a whole. And until more advanced technology—like satellite communication, for instance—is introduced and implemented widely in disaster communication, HAM operators will continue to be the not-so-silent guardians that relay their voices and communicate vital information in times of greatest need.

Public service is an underlying reason that the Amateur Radio Service exists. During conflicts such as World War II, HAMs provided the military with a pre-trained pool of experienced communicators and technicians. During peacetime, HAMs have communicated all over the world, spreading goodwill and making friends in other parts of the globe. HAM radio has been used in classrooms to get children interested in science. And, importantly, many HAMs have volunteered their time, equipment and knowledge to support local, regional and international response. Amateur radio operators volunteer countless hours of community service in providing emergency communications during natural and man-made disasters, as well as public service communications in support of special events such as marathons, bike races, and public events. Amateur radio stations come into action during the major sports event like the ASIAD, the Himalayan Car Rally to assist the sports officials as well as the rally operators. The Himalayan Expedition teams are getting assistance from the HAM radio operators.

13.7 KEYWORDS

HAM Radio

The HAM Radio is the station which operates using different radio frequencies as per applications and geographical locations. It is also known as amateur radio. It consists of radio transmitters, radio receivers, antenna, computer and other components as shown in the figure.

HAMs (Amateur radio operators)

Amateur radio operators are also known as radio amateurs or HAMs. HAMs are authorized only for non-commercial use of their frequencies and equipment. Hundreds of thousands of ordinary people of all ages and from all walks of life and all educational backgrounds have obtained their Ham licenses.

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13.8 CHECK YOUR PROGRESS

1. What is HAM Radio?

2. How HAM Radio is different from commercial or FM radio?

3. Who called HAMs? Explain short history of this term.

4. Explain short history of HAM radio in India.

5. Who is considered as a first Indian HAM Operator?

6. What are the benefits of HAM Radio?

7. Which are the limitations of HAM Radio?

8. Explain the HAM Radio as a medium of Communication

9. Elaborate the Role of HAM Radio in the time of Disasters.

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UNIT : 14**ADVERTISEMENT FOR RADIO AND TV**

STRUCTURE

14.1 Objectives**14.2 Introduction****14.3 Advantages and disadvantages of Radio advertisement****14.4 Advantages and disadvantages of TV advertisement****14.5 Copywriting for Radio and TV****14.6 Keywords****14.7 Check your Progress****14.8 References**

14.1 OBJECTIVES

In this unit we shall

- Discuss about Radio and TV Advertisement
- Discuss about advantages and disadvantages of Radio and TV Ads
- Discuss about Copywriting for Radio and TV

14.2 INTRODUCTION

Electronic media like Radio and Television are close to people's heart. With the changes of times Radio and Television became popular among people from the all over the world. Any popular medium attracts advertisers. After News paper and magazine now Radio and Television is new destinations for advertisers. Although, digital media are growing fast

and made space in the society Radio and TV are still popular media and attractive platforms for advertisements.

As we know a successful advertising campaign will spread the word about any product and service, attract customers and generate sales. Whether you are trying to encourage new customers to buy an existing product or launching a new service, there are many options to choose from.

The most suitable advertising option for your business will depend on your target audience and what is the most cost effective way to reach as many of them as possible, as many times as possible. The advertising option chosen should also reflect the right environment for your product or service. For example, if you know that your target market reads a particular magazine, you should advertise in that publication.

Let's check the options for advertising and its types.

1. Print Advertising (Newspaper, Magazine)
2. Direct Mail Advertising (Catalogue, Leaflets)
3. Radio Advertising
4. Television Advertising
5. Mobile Advertising
6. Podcast Advertising
7. Social Media Advertising
8. Paid Search Advertising
9. Native Advertising (Online Advt.)
10. Display Advertising (Digital Advt.)
11. Outdoor Advertising
12. Guerrilla Advertising
13. Product placement Advertising
14. Public Service Advertising

Here we will discuss about Radio and Television Advertising. Radio and television advertising are two of the most effective lead generation tools available. This has been true for decades and shows no signs of stopping. They reign supreme for direct response advertising. Both radio and TV continually develop new ways to reach their audience.

Radio advertising:

Radio advertising is very popular these days. The advertisements are broadcasted from different stations of All India Radio or Private (FM) Radio. Radio advertising can be explained as 'word of mouth advertising on a wholesale scale'. The advertising messages can be in different regional languages.

The most important advantage derived from radio advertising is that it covers every type of listener whether illiterate or educated. It is a very effective medium for popularising on mass scale various consumer

articles. The coverage of this medium is wider extending to a large number of listeners. It ensures quicker repetition.

Radio advertising suffers from shorter life, limited memory and short messages. Cost of advertising is higher. The message may not be listened properly by the listener. There is no secrecy. This is useful for those who possess radio sets. There is lesser flexibility and lack of personal touch.

Despite of the above mentioned drawbacks, this method of advertising is gaining rapid coverage and immense popularity among the masses.

Television Advertising:

This is the latest and the fast developing medium of advertising and is getting increased popularity these days. It is more effective as compared to radio as it has the advantages of sound and images. On account of pictorial presentation, it is more effective and impressive and leaves ever lasting impression on the mind of the viewer. It is one of the most expensive forms of advertising, but on the other hand it reaches a very wide audience. Advertisers buy time from TV stations to broadcast their commercials.

It is a very costly medium which can be employed by big concerns only; it has a shorter life span and limited coverage. Back reference to the advertisement cannot be made after its presentation. The duration of the advertisement is very limited.

14.3 ADVANTAGES AND DISADVANTAGES OF RADIO ADVERTISEMENT

An advantage of radio is that people listen to programs while doing other things. In some cases radios are on the whole day. Commercials last about 20-30 seconds.

14.3.1 Advantages of Radio advertisement

Advantages of Radio Advertising are as below:

- 1. Widest coverage:** Of the various media of advertising, radio has the widest coverage. As per data of AIR it covers almost 99.20% population of our country. It can reach any household.
- 2. Reach to illiterate and rural community:** Radio advertisement can reach even illiterate people. Radio has reach up to rural and interior areas of country too. Even Radio is most popular medium for blind persons too.
- 3. Benefit of popularity:** The advertisement appears in the midst of an interesting programme. Therefore, those who listen to the programme also listen to the advertisement.
- 4. Memory value:** As the advertisement matter can be presented as a song or as a short story or in some other interesting form, it enhances the memory value.
- 5. Broadcast at all levels:** The advertisement can be broadcast at the regional, national or international levels.
- 6. Availability of Specific Audience:** You can target your advertising to a specific audience. Different radio stations have different formats, from news/talk to oldies to rock. Decide who you are trying to reach

(teenagers, families, urban men, suburban moms), and then choose the radio format that reaches your audience.

7. Less Expensive than TV: A 20 second advertisement on radio is often less expensive than a 20-second TV ad and easier to produce.

8. Easy and Quick production: Radio ads can be produced very quickly, unlike television ads. And unlike magazine print ads, you do not have to wait for the next issue to come out.

14.3.2 Disadvantages of Radio advertisement

Disadvantages of Radio Advertising are as below:

- Television has now taken the place of radio. Radio has become a less sought after medium.
- The advertisement has to be brief. Therefore, all the relevant information cannot be given.
- Products requiring technical knowledge cannot be advertised successfully through radio.
- As visual effects are totally absent, the advertiser cannot expect the desired impact.
- Often too many advertisements are broadcast at a time. Therefore, it is doubtful whether each one can leave a lasting impression on the listener.
- While a reader can cut out your print ad and save it for later use, a radio ad is very ephemeral, playing over the radio for a minute or less.
- Morning and evening commutes are key times when many businesses want their ads to run, and there are only so many spots to go around. This can drive up the cost for those choice time slots.
- Radio can often be background noise. You will need to run your ad more than a few times in order for it to make an impact.

14.4 ADVANTAGES AND DISADVANTAGES OF TV ADVERTISEMENT

Despite the internet's popularity in today's modern world, television remains a dominant medium in most Indian households, both live TV and streaming services. And television advertising still remains one of the most effective forms of advertising.

14.4.1 Advantages of TV advertisement

Some Advantages of Radio Advertising are as below:

1. **Influence consumers' purchasing behaviour:** Advertising on television allows you to showcase your business, product, or service with a wide audience. You can show viewers how your product or service works and how it's packaged so prospective customers will know what to look for at the point of sale. In advertising, it often takes multiple touch points to effectively influence consumers' purchasing behaviour.
2. **Targeted Markets:** Television advertising has been a popular medium for large retailers ever since the TV first began to appear in living rooms. With the arrival of cable television came lowered

production costs and the opportunity to reach smaller, more targeted markets, making it a viable option for small to medium-size businesses as well.

3. **Larger Audience:** TV reaches a much larger audience than local newspapers and radio stations, and it does so during a short period of time. Like radio, television also provides a wider coverage. These days television is a common household item.
4. **Reach:** It reaches viewers when they're the most attentive.
5. **Sound and Motion picture:** It allows you to convey your message with sight, sound, and motion, which can give your business, product, or service instant credibility.
6. It gives you an opportunity to be creative and attach a personality to your business, which can be particularly effective for small businesses that rely on repeat customers.
7. Both audio as well as visual effects can be created through television. Therefore, the advertiser can create the best impact on the viewers.
8. The advertiser can select the programme in which he wants to advertise. He can also select the channel and advertise so as to create the best possible impact on the people.
9. It is also possible for the advertiser to sponsor a popular programme. As a result, his product will come to be identified with the programme. This, indeed, is beneficial for the advertiser.

14.4.2 Disadvantages of TV advertisement

For all its advantages, advertising your business on TV does have some disadvantages as some elaborate here below:

- Television is most expensive advertising medium. No other advertising medium is as likely to eat up your budget as quickly as TV will. Producing the advertisements, which can include hiring script writers, actors, film editors, or an advertising agency, is only the first step. You must also pay for air time, and because studies have shown that TV ads are most effective with repetition, you'll almost certainly want to run your piece a number of times. Because of this, most television stations structure their pricing to make it more attractive for you to purchase advertising in chunks.
- As television advertisement is expensive, it has to be brief. So, all of relevant information about the product cannot be given.
- It can also be difficult to effectively target your core audience with television advertising, although there are a few best practices that can help. For starters, consider who your audience is before structuring your advertisement and purchasing airtime. Is a large portion of your clientele Hindi speaking? If so, you'd do well to purchase airtime on Hindi-language channels such as Zee, Colors, Star, Sony, etc. And if you're in the baby stroller business, you're probably better off purchasing time slots during the day when stay-at-home moms are most likely to see your ad.

- Another disadvantage is how difficult it can be to make changes. Whereas with newspaper advertising, updating sale pricing or a special offer is often as simple as swapping out a coupon, with television advertising it means updating your script and reshooting the entire ad, which costs additional money.
- Every satellite TV channel is flooded not only with interesting programmes but also with numerous advertisements by Indian as well as international companies.
- Advertisements in the midst of interesting programmes only irritate the viewers. Using the remote, they either switch off the TV or change the channel during advertisements.
- Too many advertisements at a time may not give prominence for any one.
- There is also a criticism that the audio-visual effects are used to glorify a not so good product.

14.5 COPYWRITING FOR RADIO AND TV

14.5.1 What is copywriting?

Copywriting is text that sells or promotes brands. Copywriters create brand names as part of their copywriting duties. Slogans are also copywriting. Apple, for example, once used the slogan, “Think Different.” That slogan was likely created by a copywriter. Good slogans feature good copywriting. They capture the essence of a brand or a customer problem or a unique product benefit in a few words. Copywriting can feature the written word and the spoken word. Promotional messages in a newspaper ad or an online ad are there to be read. Promotional messages in a radio commercial or television commercial are there to be heard. But those promotional messages, whether read or heard, are copywriting in action. There are five main types of copywriting: print, outdoor, online, broadcast and branding. Here we discuss only about copywriting for Radio and TV.

We can simply say Copywriting is the act of writing text for the purpose of advertising or other forms of marketing. The product, called copy, is written content that aims to increase brand awareness and ultimately persuade a person or group to take a particular action.

To define copywriting as “text that advertises a product, service or brand” is not to limit that text to advertisements only. Copywriting is any text in any medium that is designed to sell something. Radio commercials, for example, involve copywriting. A copywriter writes the words that the announcer reads out loud over the air. Same goes for television commercials. Radio and television commercials are written by copywriters.

Any message designed to sell something or market something features copywriting. These messages include: Newspaper and Magazine advertisements, Brochures, Catalogs, Online ads, Sales letters, Promotional postcards, Television Commercials, Radio commercials, Billboard advertisements, Bus shelter advertisements, Product Packaging, Mobile advertisements, Facebook and Twitter advertisements, YouTube commercials, promotional messages on the sides of commercial vehicles, Slogans, Product Names, Company Names, Radio and TV Jingles

14.5.2 Tips for Copywriting for Radio and TV

Copywriters first need to understand radio and TV as a medium. Radio provides entertainment or news to listeners who are busy doing something else – driving, washing dishes, reading the newspaper or even studying. To be heard, an advertising message must be catchy, interesting and unforgettable. Radio listeners usually decide within 5 to 8 seconds if they are going to pay attention. To attract and hold the attention of listeners, radio copy must be intrusive. Television is audio-visual medium. You have to create advertisements with keeping all these elements in your mind.

Here some points are given to keep in your mind for effective copywriting:

- 1. Create something emotional:** Emotions and desires are powerful. Bring out an attractive and appealing aspect and emphasize the positive and emotional benefits of that.
- 2. Attractive Language:** Language of advertisement must simple and attractive. You have to reach up to your target audience with your words. Choose words with the sense of local culture and traditions.
- 3. Advertising language of rhyme:** Rhyming lines and trendy vocabulary is most useful for advertisement of Radio and TV. It will create emotions in the heart of people. Slogans or tagline are as important as the company name and logo.
- 4. 'AIDA' criteria:** When it comes to creating an advert, it can be useful to check that text and visual elements fulfill the four 'AIDA' criteria: Grab Attention, Impart Information, Promote Desire and Prompt Action.
- 5. Hierarchy of information:** It is most important thing to keep in your mind that what information is to be conveyed to the reader or viewer. Most important information should be given the priority in the copy.
- 6. Creative ideas:** Idea is the key for advertising. Brilliant idea cans makeover the brand. Creativity attracts to people and its increase effectiveness of advertisements.
- 7. Avoiding cliches:** Make it sound interesting. Try and avoid cliches and over-used phrases. Don't copy idea or phrases used by other companies.
- 8. Humour, Pun and Wordplay:** Humour adds positivity and creates joyful atmosphere. Audience feel relax and can enjoy advertisement in happy mood. Good puns and clever wordplay add depth, interest and style to the advert.

9. Richness of Music and visual: An advertisement for Radio must be musical rich and for TV it must have attractive visuals. Music and visual appeal customers mind.

10. Timing is everything: One important thing which needs to be kept in mind while writing Radio or TV is seconds. Radio and TV charges are on per second basis. If the commercial is required in 30 second duration, script must be written keeping this in mind. Writer must sum up the commercial as per the instructed duration.

11. Branding is the Goal: We have to make space for the brand in the mind of customers. So, ideally you should mention the name of your client or product at least two or three times in a Radio or TV commercial.

12. Keep content simple and natural: Client's requirements are different as per the product and service, but the thumb rule is keeping the content of advertisement simple and natural, so common people can easily understand about the product.

13. Know Your Brand : When making a commercial, you need to be aware of the product and the brand that you're representing. If it's a product or brand with a solid reputation, look to previous commercials that keep a similar tone. If the customer wants a new approach to their brand, find out what they're looking for and how best to achieve that vision.

14.6 KEYWORDS

Radio: Radio, sound communication by radio waves, usually through the transmission of music, news, and other types of programs from single broadcast stations to multitudes of individual listeners equipped with radio receivers.

Television: It is an electronic system of transmitting transient images of fixed or moving objects together with sound over a wire or through space by apparatus that converts light and sound into electrical waves and reconverts them into visible light rays and audible sound

Copywriting: To define copywriting as "text that advertises a product, service or brand" is not to limit that text to advertisements only. Copywriting is any text in any medium that is designed to sell something. Radio commercials, for example, involve copywriting. A copywriter writes the words that the announcer reads out loud over the air. Same goes for television commercials. Radio and television commercials are written by copywriters.

Brand and Branding: As per American Marketing Association, "A brand is a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers". While Branding is the process of giving a meaning to specific organization, company, products or services by creating and shaping a brand in consumers' minds. It is a strategy designed by organizations to help people to quickly identify and experience their brand, and give them a

reason to choose their products over the competition's, by clarifying what this particular brand is and is not.

14.7 CHECK YOUR PROGRESS

1. What is Advertisement?

2. What are the advantages and disadvantages of Radio Advertisement?

3. What are the advantages and disadvantages of TV Advertisement?

4. What is Copywriting?

5. How can we write effective copy for Radio and TV?

14.8 REFERENCES

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યુનિવર્સિટી ગીત

સ્વાધ્યાય: પરમં તપ:

સ્વાધ્યાય: પરમં તપ:

સ્વાધ્યાય: પરમં તપ:

શિક્ષણ, સંસ્કૃતિ, સદ્ભાવ, દિવ્યબોધનું ધામ
ડૉ. બાબાસાહેબ આંબેડકર ઓપન યુનિવર્સિટી નામ;
સૌને સૌની પાંખ મળે, ને સૌને સૌનું આભ,
દશે દિશામાં સ્મિત વહે હો દશે દિશે શુભ-લાભ.

અભણ રહી અજ્ઞાનના શાને, અંધકારને પીવો ?
કહે બુદ્ધ આંબેડકર કહે, તું થા તારો દીવો;
શારદીય અજવાળા પહોંચ્યાં ગુર્જર ગામે ગામ
ધ્રુવ તારકની જેમ ઝળહળે એકલવ્યની શાન.

સરસ્વતીના મયૂર તમારે ફળિયે આવી ગહેકે
અંધકારને હડસેલીને ઉજાસના ફૂલ મહેંકે;
બંધન નહીં કો સ્થાન સમયના જવું ન ઘરથી દૂર
ઘર આવી મા હરે શારદા દૈન્ય તિમિરના પૂર.

સંસ્કારોની સુગંધ મહેંકે, મન મંદિરને ધામે
સુખની ટપાલ પહોંચે સૌને પોતાને સરનામે;
સમાજ કેરે દરિયે હાંકી શિક્ષણ કેરું વહાણ,
આવો કરીયે આપણ સૌ
ભવ્ય રાષ્ટ્ર નિર્માણ...
દિવ્ય રાષ્ટ્ર નિર્માણ...
ભવ્ય રાષ્ટ્ર નિર્માણ