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Reference Material for Three Years

Bachelor of Arts Journalism & Mass Comm.

Code: 024

Semester – III

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DEVELOPMENT COMMUNCATION (201)

Unit-I [Concept and Indicators of Development

Topic 1: Definition, meaning and process of development

"Development does not start with goods. It starts with people and their education, organization and discipline. With these three, all resources remain latent, untapped potential. Development comprises the elements of change and growth. Growth includes the increased or created capacity to invest in the productive activities, regeneration of resources and capital formation and adopting new modes of production. Change involves both mental attitudes and the technological base. Brandt commission observed that development "carries with it not only the idea of economic betterment but also of greater human dignity, security, justice and equity". The seventies of the 20th century observed a paradigm shift in the conceptualization of development. It was felt that economic growth is a necessary condition for reducing poverty but not a sufficient condition. Denis Gaulet provides a list of components of development: clean environment, growth plus equity, food, shelter, education, medical facilities, meaningful relationships and living with harmony with culture and change among others.

Amartya Sen played a key role in exposing the hazards of measuring development solely in terms of growth and of the neglect of human development. The alternative development order thus initiated came to recognize Gross National Welfare (GNW) as a major indictor of development. Various objectives of GNW include a shift in emphasis to larger collectives, encompassing the poor majority, satisfaction of human needs and improvement in quality of life. Formulation of indicators to evaluate social progress and creating an ethos in which to question the existing social formation. The concepts of 'Quality of Life' and human needs strike a balance between the physical material requirements of living and psychic cultural needs of man and society. So, development is a process of overall change and welfare of the society and the community which lives there. The ingredients of overall development can be tracked by the factors involved in its process-

Development as an economic process

Development is a continuous process, a process of movement from a state of dissatisfaction to satisfaction. It is a dynamic and not a static process. Various theories and models conceptualize different definitions of development including various indicators from different angles.-

- National Income
- Employment
- Industrialization
- Standard of living
- Literacy
- Credit Cards
- Industrial de licensing
- Foreign Investment
- Foreign Trade

Development as a political process

In a particular nation, the political system and the people in the system contribute to the process of development. For example, policy being made by the central government to empower the youth can help people to participate in the process.

Development as a social process

Man is a social animal. Without the involvement of people, the process of development cannot be achieved. The social process of Development includes the communication and cultural exchanges between different states. The social infrastructure of a particular nation depends upon its people's participation & representation. The participation of people in any movement for justice is an example of this.

Development as a cultural process

By making some more efforts to keep our culture alive, a nation can develop at a very rapid pace. Infrastructure that has been built by rulers and colonialists has become culture. The art, culture, mythologies, fairs, festivals, languages etc. are part of a particular development process. By conserving our culture, we can make a nation strong. The transportation, style of

roads, villages and their different dialects and traditions contribute to the process of development.

Topic 2: Theories and paradigms of development – unilinear and non-unilinear

Group of unilinear theories contains those theories that conceptualize development as a form of modernization. Until 1960's, modernization model was adopted by India and other countries, following the experience of richer countries like North America, Europe etc. Development, according to this model, comes through modernization, and therefore many industries and dams were constructed to bring modernization, followed by development of employment and economic activities, and development of people. It consists if Capitalist Model of Development, but for many countries like India, it resulted in the loss of resources, destruction of nature and no benefit to the needy and poor sections of development in facts.

Thus, the paradigm shifted to non-unilinear theories which, instead of top-down approach or trickle-down theory, focus on bottom-up approach by involving the participation of the people in development plans, policies and decisions. This group of theories, that takes community development and gandhian model of development into focus, sees development as a two-way participatory process that contributes not only quantitatively, but qualitatively also to the development of the nation. It focuses on the real happiness of the people- their basic needs of cloth-shelter-food, their education, health , clean environment, employment based on the optimal utilization of resources by the people themselves according to their needs and requirements.

Topic 3: Ingredients (5Ms) of development and money generation, MNCs and foreign aid

Ingredients (5Ms) of development

Manpower

It is a total supply of personnel available or engaged for a specific task or job. Building and enhancement of human resources through formal education and training is required for development. It is therefore an important pre-requisite for national development

Machine

Sustainable development can be achieved through developed, modern and efficient machinery. With the advancement of machineries and by its proper utilization, desired development can be achieved

Money

It can be defined as a generally acceptable means of payment or of settling debts, which fulfils three main functions –

a. As a medium of exchange between buyers and sellers
b. As a unit of account involving no exchange
c. As a store of value or of purchasing power

Man Hours

It is the amount of work performed by an average worker in one hour. Proper utilization of man-hours is required for development.

Materials

Resource utilization has always been a great challenge before various countries. Proper utilization of available limited resources is important for development. For example, Nigeria, despite having a vast oil and natural gas resources, is suffering from energy crises. 100 million Nigerians (70 %) have no access to electricity.

MULTI NATIONAL CORPORATIONS

A multinational corporation (MNC) or transnational corporation (TNC), also called multinational enterprise (MNE), is a corporation or an enterprise that manages production or delivers services in more than one country. It can also be referred to as an ***international corporation***. The International Labour Organization (ILO) has defined an MNC as a corporation that has its management headquarters in one country, known as the ***Home country***, and operates in several other countries, known as ***Host countries***.

The first modern multinational corporation is generally thought to be the East India Company. Many corporations have offices, branches or manufacturing plants in different countries from where their original and main headquarters is located. Some multinational corporations are very big, with budgets that exceed some nations' GDPs. Multinational corporations can have a powerful influence in local economies, and even the world economy, and play an important role in international relations and globalization.

DIFFERENT STRUCTURAL MODELS OF MNCs

The exact model for an MNC may vary slightly. One common model is for the multinational corporation is the positioning of the executive headquarters in one nation, while production facilities are located in one or more other countries. This model often allows the company to take advantage of benefits of incorporating in a given locality, while also being able to produce goods and services in areas where the cost of production is lower. Another structural model for a multinational organization or MNO is to base the parent company in one nation and operate subsidiaries in other countries around the world. With this model, just about all the functions of the parent are based in the country of origin. The subsidiaries more or less function independently, outside of a few basic ties to the parent.

A third approach to the setup of an MNC involves the establishment of a headquarters in one country that oversees a diverse conglomeration that stretches to many different countries and industries. With this model, the MNC includes affiliates, subsidiaries and possibly even some facilities that report directly to the headquarters.

HISTORY OF MNCs

The Dutch East India Company (*Vereenigde Oost-Indische Compagnie* or VOC in Dutch, literally "United East Indian Company") was a chartered company established in 1602, when the States-General of the Netherlands granted it a 21-year monopoly to carry out colonial activities in Asia. It was the first multinational corporation in the world and the first company to issue stock.[1] It was also arguably the world's first mega corporation, possessing quasi-governmental powers, including the ability to wage war, negotiate treaties, coin money, and establish colonies.

Statistically, the VOC eclipsed all of its rivals in the Asia trade. Between 1602 and 1796 the VOC sent almost a million Europeans to work in the Asia trade on 4,785 ships, and netted for their efforts more than 2.5 million tons of Asian trade goods. By contrast, the rest of Europe combined sent only 882,412 people from 1500 to 1795, and the fleet of the English (later British) East India Company, the VOC's nearest competitor, was a distant second to its total traffic with 2,690 ships and a mere one-fifth the tonnage of goods carried by the VOC. The VOC enjoyed huge profits from its spice monopoly through most of the 1600s.

The Dutch East India Company remained an important trading concern for almost two centuries, paying an 18% annual dividend for almost 200 years. In its declining years in the late 18th century it was referred to as *Vergaan Onder Corruptie* (referring to the acronym VOC) which translates as 'Perished by Corruption'. The VOC became bankrupt and was formally dissolved in 1800, its possessions and the debt being taken over by the government of the Dutch Batavian Republic. The VOC's territories became the Dutch East Indies and were expanded over the course of the 19th century to include the whole of the Indonesian archipelago, and in the 20th century would form Indonesia.

MNCs in INDIA

The multinational companies in India represent a diversified portfolio of companies from different countries. Though the American companies - the majority of the MNC in India, account for about 37% of the turnover of the top 20 firms operating in India, but the scenario has changed a lot off late. More enterprises from European Union like Britain, France, Netherlands, Italy, Germany, Belgium and Finland have come to India or have outsourced their works to this country. Finnish mobile giant Nokia has their second largest base in this country. There are also MNCs like British Petroleum and Vodafone that represent Britain. India has a huge market for automobiles and hence a number of automobile giants have stepped in to this country to reap the market. One can easily find the showrooms of the multinational automobile companies like Fiat, Piaggio, and Ford Motors in India. French Heavy Engineering major Alstom and Pharma major Sanofi Aventis have also started their operations in this country. The later one is in fact one of the earliest entrants in the list of multinational companies in India, which is currently growing at a very enviable rate. There are also a number of oil companies and infrastructure builders from Middle East. Electronics giants like Samsung and LG Electronics from South Korea have already made a substantial impact on the Indian electronics market. Hyundai Motors has also done well in mid-segment car market in India.

LISTS OF MNCs IN INDIA

The list of multinational companies in India is ever-growing as a number of MNCs are coming down to this country now and then. Following are some of the major multinational companies operating their businesses in India:

- British Petroleum
- Vodafone
- Ford Motors
- LG
- Samsung
- Hyundai
- Accenture
- Reebok
- Skoda Motors
- ABN Amro Bank

Benefits of Multinational Corporations

- Create wealth and jobs around the world.
- Their size enables them to Benefit from Economies of scale enabling lower costs and prices for consumers.
- Large Profits can be used for research & Development. For example, oil exploration is costly and risky which could only be taken out because they make high profits.
- Ensure minimum standards. The success of multinationals is often because consumers like to buy goods and services where they can rely on minimum standards. i.e. if you visit any country you know that the Starbucks coffee shop will give something you are fairly familiar with. It may not be the best coffee in the district, but, it won't be the worst. People like the security of knowing what to expect.

Criticisms of Multinational Corporations

- Companies interested in profit at the expense of the consumer. Multinational companies often have monopoly power which enables them to make excess profit. For example, Shell made profits of £14bn last year
- Their market dominance makes it difficult for local small firms to thrive. For example, it is argued that big supermarkets are squeezing the margins of local corner shops leading to less diversity.
- In the pursuit of profit, Multinational companies often contribute to pollution and use of non renewable resources which is putting the environment under threat.

- MNCs have been criticised for using 'slave labour' workers who are paid a pittance by Western standards

Evaluation

- Some criticisms of MNCs may be due to other issues. For example, the fact MNCs pollute is perhaps a failure of government regulation. Also, small firms can pollute just as much.
- MNCs may pay low wages by western standards but, this is better than the alternatives of not having a job at all.

FOREIGN AID

The international transfer of capital, goods, or services from a country or international organization for the benefit of the recipient country or its population. Aid can be economic, military, or emergency humanitarian (e.g., aid given following natural disasters).

TYPES AND PURPOSES

Foreign aid can involve a transfer of financial resources or commodities (e.g., food or military equipment) or technical advice and training. The resources can take the form of grants or concessional credits (e.g., export credits). The most common type of foreign aid is official development assistance (ODA), which is assistance given to promote development and to combat poverty. The primary source of ODA—which for some countries represents only a small portion of their assistance—is bilateral grants from one country to another, though some of the aid is in the form of loans, and sometimes the aid is channeled through international organizations and nongovernmental organizations (NGOs). For example, the International Monetary Fund (IMF), the World Bank, and the United Nations Children's Fund (UNICEF) have provided significant amounts of aid to countries and to NGOs involved in assistance activities.

Countries often provide foreign aid to enhance their own security. Thus, economic assistance may be used to prevent friendly governments from falling under the influence of unfriendly ones or as payment for the right to establish or use military bases on foreign soil. Foreign aid also may be used to achieve a country's diplomatic goals, enabling it to gain diplomatic recognition, to garner support for its positions in international organizations, or to increase its diplomats' access to foreign officials. Other purposes of foreign aid include promoting a country's exports (e.g.,

through programs that require the recipient country to use the aid to purchase the donor country's agricultural products or manufactured goods) and spreading its language, culture, or religion. Countries also provide aid to relieve suffering caused by natural or man-made disasters such as famine, disease, and war, to promote economic development, to help establish or strengthen political institutions, and to address a variety of transnational problems including disease, terrorism and other crimes, and destruction of the environment. Because most foreign aid programs are designed to serve several of these purposes simultaneously, it is difficult to identify any one of them as most important.

HISTORY OF FOREIGN AIDS

The earliest form of foreign aid was military assistance designed to help warring parties that were in some way considered strategically important. Its use in the modern era began in the 18th century, when Prussia subsidized some of its allies. European powers in the 19th and 20th centuries provided large amounts of money to their colonies, typically to improve infrastructure with the ultimate goal of increasing the colony's economic output. The structure and scope of foreign aid today can be traced to two major developments following World War II: (1) the implementation of the Marshall Plan, a U.S.-sponsored package to rehabilitate the economies of 17 western and southern European countries, and (2) the founding of significant international organizations, including the United Nations, IMF, and World Bank. These international organizations have played a major role in allocating international funds, determining the qualifications for the receipt of aid, and assessing the impact of foreign aid. Contemporary foreign aid is distinguished not only because it is sometimes humanitarian (with little or no self-interest by the donor country) but also by its size, amounting to trillions of dollars since the end of World War II, by the large number of governments providing it, and by the transparent nature of the transfers. The level of foreign aid expenditures following World War II dwarfed prewar assistance. The postwar programs of the United Kingdom, France, and other European former colonial powers grew out of the assistance they had provided to their colonial possessions. More importantly, however, the United States and Soviet Union and their allies during the Cold War used foreign aid as a diplomatic tool to foster political alliances and strategic advantages; it was withheld to punish states that seemed too close to the other side. In addition to the Marshall Plan, in 1947 the United States provided assistance to Greece and Turkey to help those countries resist the spread of communism, and, following the death of Soviet leader Joseph Stalin in 1953,

communist-bloc countries donated increasing amounts of foreign aid to less-developed countries and to close allies as a means of gaining influence as well as promoting economic development.

Several non-European governments also implemented their own aid programs after World War II. For example, Japan developed an extensive foreign aid program—an outgrowth of its reparations payments made following the war—that provided assistance primarily to Asian countries. Much of Japan's aid came through procurement from Japanese companies, which helped fuel economic development in Japan. By the late 20th century, Japan had become one of the world's two leading donor countries, and its aid programs had extended to non-Asian countries, though much of the country's assistance was still directed toward Asia.

The vast majority of ODA comes from the countries of the Organization for Economic Cooperation and Development (OECD), specifically the nearly two dozen countries that make up the OECD's Development Assistance Committee (DAC). The DAC includes western European countries, the United States, Canada, Japan, Australia, and New Zealand. Other providers of significant assistance include Brazil, China, Iceland, India, Kuwait, Poland, Qatar, Saudi Arabia, South Korea, Taiwan, Turkey, and the United Arab Emirates. In the 1970s the international community, through the United Nations, set 0.7 percent of a country's gross national income (GNI) as the benchmark for foreign aid. However, only a small number of countries (Denmark, Luxembourg, The Netherlands, Norway, and Sweden) reached that mark. Although the United States and Japan have been the world's two largest donors, their levels of foreign aid have fallen significantly short of the UN's goal. Since the end of the Cold War, the United States has furnished foreign aid as part of peacemaking or peacekeeping initiatives in the Balkans, Northern Ireland, and parts of Africa. Foreign aid also has been used to promote smooth transitions to democracy and capitalism in former communist countries, most notably Russia.

Foreign assistance is still used to promote economic development. Although significant development occurred in much of Asia and Latin America during the second half of the 20th century, many countries in Africa remained severely underdeveloped despite receiving relatively large amounts of foreign aid for long periods. Beginning in the late 20th century, humanitarian assistance to African countries was provided in increasing amounts to alleviate suffering from natural disasters, the HIV/AIDS epidemic, and destructive civil wars. Major initiatives to combat HIV/AIDS focused on the hardest-hit countries, most of which are in sub-Saharan Africa.

Foreign aid has been used, particularly in poorer countries, to fund or to monitor elections, to facilitate judicial reforms, and to assist the activities of human rights organizations and labour groups. In the post-Cold War era, when funding anticommunist governments became a less important criteria for the United States and its allies, promoting democracy was elevated as a criterion in foreign aid programs. Aid was provided to some countries as an incentive for initiating democratic reforms and was withheld from others as a punishment for resisting such reforms.

Foreign aid is also used to address transnational problems such as the production and export of illegal drugs and the battle against HIV/AIDS. For example, the International Narcotics Control program allocates U.S. funds to countries to battle drug production, and the Anti-Drug Abuse Acts of 1986 and 1988 make foreign aid and access to U.S. markets conditional upon recipient countries' actively combating drug production and trafficking. Since the 1990s many foreign aid sources, notably the IMF, have made aid conditional on market-oriented economic reforms, such as lowering trade barriers and privatization. Thus, foreign aid has been used as a tool by some institutions and countries to encourage the spread of capitalism.

In the last decade of the 20th century, private capital flows and remittances from migrant workers became the two largest sources of "aid" from wealthy countries to poor ones, surpassing the amount of ODA provided by those countries. However, this form of aid is heavily stratified; most direct foreign investment has gone to developing countries pursuing policies of trade and economic liberalization and those with large markets (e.g., Brazil, China, and India).

CRITICISM

Significant criticisms have been leveled at both the donors and the recipients of foreign aid. Some groups in recipient countries have viewed foreign aid suspiciously as nothing more than a tool of influence of donor countries. For example, critics of the IMF allege that the required structural adjustments are too politically difficult and too rigorous and that the debts incurred through IMF loans help to create poverty, as capital that could have been invested instead was channeled into debt repayment. The World Bank, which critics claimed in the 1970s and '80s was insensitive to local needs and often approved projects that did more harm than good, altered many of its policies and has generally endured less criticism. In general, opponents of the way that foreign aid programs have operated charge that foreign aid has been dominated by corporate

interests, has created an unreasonable debt burden on developing countries, and has forced countries to avoid using strategies that might protect their economies from the open market. In addition, many critics of U.S. aid illustrate the continued importance of political considerations over developmental ones, citing for example the increase in aid to countries allied with the United States in the fight against terrorism following the September 11 attacks in 2001, regardless of their commitment to democracy and human rights.

Meanwhile, some groups in donor countries have criticized foreign aid as ineffective and wasteful. In the United States, for example, public opinion polls consistently show that most Americans believe that foreign aid consumes 20 percent of the country's budget—the actual figure is less than 1 percent—and that most recipients of foreign aid do not deserve it or do not use it wisely. Such criticisms have been bolstered by the generally disappointing results of foreign aid programs in sub-Saharan Africa, where many countries remain mired in poverty, corruption, and civil war despite the disbursement of significant foreign aid. With efforts to rebuild Iraq and Afghanistan, curtail drug production and trafficking, and battle HIV/AIDS, ODA—which had declined throughout the 1990s—increased in the early 21st century.

Topic 4: Basic needs model by Bariloche Foundation

It is a simple description of a system, used for explaining how something works. The Bariloche Foundation in Argentina (1972) first developed a world model to show the possibility of meeting the basic needs of people all over the world based on certain assumptions.

Important points of BNM:

Development must reach to the poorest of the poor and satisfy their basic minimum needs e.g. food, clothes, shelter, education, healthcare etc. by providing employment and income. It was an attempt to deal directly with the world poverty by meeting the basic needs of the lowest 40% income groups. The model advocated for the satisfaction of non-material needs for quality of life once the material needs are satisfied.

In this model, the emphasis shifted from measuring income per capita as a growth indicator to measuring the physical quality of life (PQLI) as the indicator of welfare. PQLI is measured by life expectancy, infant mortality rate (IMR is the number of deaths of infants under one year old in a given year per 1,000 live births in the same year. India=55, Sierra Leone=160.3, USA=6.3,

World=49.4 IMR as per 2006 United Nations Population Division report) and literacy. In this model there is increased emphasis on the importance of equitable distribution of rewards, quality of life and meeting basic human needs. The model points out a few causes of underdevelopment as given below:
Poor organization of the poor. Organization of the poor serves three purposes: first to participate in community life; second, to overcome the mere survival strategy; and third, to break a pattern of powerlessness, exploitation, permanent indebtedness, and a state of dependency bordering slavery. Lack of proper policy framework for development. It should have multiple growth goals: a commitment to development from bottom-up; local self-reliance; grass-root organizations participating in planning, decision making and implementing in areas affecting communities; substantial allocation of national funds for health, education and housing in favour of the lowest 40% income. There is information poverty among the 'have-nots' and communication gap with the 'have'.

Communication Model in BNM:

Decentralization (to give some of the power of a central government, organization, etc. to smaller parts or organizations around the country) of communication networks and democratization of their control would be essential pre-condition for the success of BNM. Decentralization and rural integrated development in this model suggest two-way communication, both top-down and bottom-up in the development infrastructure. The top-down communication is from the govt. to the masses for awareness of the basic amenities provided. A bottom-up communication from the people to the development planners for need based programs.

Role of communication in BNM:

In BNM, the emphasis is on inter-personal communication channels, which are used to inform, educate, motivate and persuade the masses with support from the mass media. The govt. should provide community TV, radio sets and newspapers etc. and make use of satellites and other improved methods of broadcasting, such as short-wave, to the poor who have low physical accessibility to mass media because of low purchasing power or living in areas where reach of the media is low. Along with physical access, it is necessary to have access to the operation of community media. This will safeguard against information blockage to the have-

nots. The efforts to meet the basic needs and to affect the required attitudinal changes require unprecedented inflow of information into the village capable of reaching the poorest of the villagers as well. Therefore, it is necessary to develop programs designed to transform the village from the traditional society into and Information Community of a new kind.

Conclusion: Though the BNM is not yet considered as a replacement for development strategy but it has contributed a lot in shaping the policy of many developing countries.

5: Economic and social indicators of development

(i) GDP/GNP

GDP is one of the main measures of economic activity. 'gross' indicates that it is calculated without subtracting any allowance for capital consumption,' domestic' means that it measures activities located in the country regardless of their ownership. It, thus includes the activities carried by foreign entrepreneurs in the country and excludes the activities by firms owned by residents but operated abroad. 'Product' indicates that it measures real output produced rather than output absorbed by the residents. GDP is reported at both current and constant prices.

GNP stands for Gross National Product. It is different from GDP as the term' National' indicates that it includes residents' incomes from economic activities carrie on abroad as well as at home, and excludes income produced at home but belonging to non-residents.

(ii) Human Development Index

Human Development Index is the most recent index of development. It is in use since 1990's and developed by UNDP.

Three factors are included in it-

a. Longevity (life expectancy at birth)
b. Educational Attainment
c. Standard of Living (PCI)

Educational Attainment- It includes adult literacy as well as combined primary, secondary and tertiary enrolment ratio Standard of Living- It is a proxy measure of satisfaction derived from a bundle of basic goods and services. It is assumed to reflect employment levels of people. HDI ranks countries in relation to each other. To rank them, current minimum and maximum values are used. So, Index is the distance travelled from minimum to maximum (progress) and the distance travelled in each case is the basis of combining three indices which acts further as a common denominator to rank countries on a uniform scale.

As per the report of UNDP (released in Oct '11), HDI of India improved through the last decade. It increased by 21% from 0.387in 1999-2000 to 0.467 in 2007-08. Also, the difference and inequality between different states reduced. It indicates towards improvement in education but a downfall in nutrition & sanitation. Gujarat ranks highest in Per Capita Income as well as child malnutrition. Overall, India ranks 134 out of 187 countries on HDI in 2011 as compared to 119th rank out of 169 countries in 2010.

Physical Quality of Life Index

The Physical Quality of Life Index (PQLI) is an attempt to measure the quality of life or well-being of a country. The value is the average of three statistics: basic literacy rate, infant mortality, and life expectancy at age one, all equally weighted on a 0 to 100 scale. It was developed for the Overseas Development Council in the mid-1970s by Morris David Morris, as one of a number of measures created due to dissatisfaction with the use of GNP as an indicator of development. PQLI might be regarded as an improvement but shares the general problems of measuring quality of life in a quantitative way. It has also been criticized because there is considerable overlap between infant mortality and life expectancy.

The UN Human Development Index is a more widely used means of measuring well-being.

Steps to Calculate Physical Quality of Life:

1) Find percentage of the population that is literate (literacy rate).

2) Find the infant mortality rate. (Out of 1000 births) INDEXED Infant Mortality Rate = (166 - infant mortality) × 0.625

3) Find the Life Expectancy. INDEXED Life Expectancy = (Life expectancy - 42) × 2.7

4) Physical Quality of Life =

Topic 6: Other indicators

(i) Communication as an indicator

A country can never attain modernity without the infusion of Mass Media. Wilbur Schramm refers Mass Media as magic multipliers, as they multiply the information. A country with lesser infrastructure of communication has lesser chances of development compared to the one having more communication technologies. The communication made by the government to its people is also very significant for the process of development of a particular country. For example, 5-yr plans have different mandate through which they seek development. Other international bodies like UNICEF, UNESCO are also making efforts to reduce communication gap.

(ii) Democracy as an indicator

Democracy means "of the people, for the people, by the people". Democracy is very essential for the development of a nation as the development starts at the level of people. The most important entity of a nation is its people. If people have no say or no opportunity and facility for participation in any event pertaining to their nation, then the nation gets low on the chances to develop effectively. And this might be the reason why most f the developing countries adopt democratic system of government. But there is need of actually implementing the meaning of democracy in the field of development, i.e. development of the people, for the people and by the people – it means the communities of people should get chance to put forward their problems and needs to their representatives and a chance to participate in the decision-making and policy-making process of the nation.

Though at times wrong policies are being framed in a democratic set up but the solution lies in the same system as well. Right to Information, Right to communication, right to publish and inform, Decentralization policy, Bottom-up approach of development are various characteristics and tools to develop a society wholly. Different regulatory frameworks also affect the process of development. So, establishing democracy in real sense can make a development effort participatory, acceptable, voluntary and willing among people.

(iii) Human Rights as an indicator

Human Rights such as Right to freedom of speech, freedom to practice any religion, right to education, right to food, right to maternal health and few other rights are known as human rights In few societies, land acquisition is also an eatable topic. Land rights are not properly addressed. Gender Rights in the form of freedom, equality should also be maintained in a society. As in Islam, women property rights, child labor rights are also given. Human Rights are the real indicators of development of human Beings- their food, life, safe water, sanitation, employment, peaceful environment etc. By following these rights properly, poverty can also be alleviated.

(iv) Social Relations (inequality) as an indicator

Inequality always creates a divide, for example, inequality of income makes rich in a society richer and poor poorer. Similarly, gender inequality also determines the relationship between various male and female community in the nation. The most frequent consequences of inequality among castes and classes have resulted in disintegration of societies with witnessing failures of one of the biggest democracies. The problem of naxalism and Maoism being faced by India is a set example of discrimination and ignorance of many tribal and rural communities over rich corporate that has become one of the biggest challenges for India today.

(v) Happiness index

The assessment of **gross national happiness** was designed in an attempt to define an indicator that measures quality of life or social progress in more holistic and psychological terms than only the economic indicator of gross domestic product (GDP). The term "gross national happiness" was coined in 1972 by Bhutan's fourth Dragon King, Jigme Singye Wangchuck, who has opened Bhutan to the age of modernization soon after the demise of his father, Jigme Dorji Wangchuk

There is no exact quantitative definition of GNH, but elements that contribute to GNH are subject to quantitative measurement. Low rates of infant mortality, for instance, correlate positively with subjective expressions of well-being or happiness within a country. The practice of social science has long been directed toward transforming subjective expression of large numbers of people into meaningful quantitative data; there is no major difference between asking people "how confident are you in the economy?" and "how satisfied are you with your job?"

A second-generation GNH concept, treating happiness as a socioeconomic development metric, was proposed in 2006 by Med Jones, the President of International Institute of Management. The metric measures socioeconomic development by tracking seven development areas including the nation's mental and emotional health GNH value is proposed to be an index function of the total average per capita of the following measures:

1. Economic Wellness: Indicated via direct survey and statistical measurement of economic metrics such as consumer debt, average income to consumer price index ratio and income distribution
2. Environmental Wellness: Indicated via direct survey and statistical measurement of environmental metrics such as pollution, noise and traffic
3. Physical Wellness: Indicated via statistical measurement of physical health metrics such as severe illnesses
4. Mental Wellness: Indicated via direct survey and statistical measurement of mental health metrics such as usage of antidepressants and rise or decline of psychotherapy patients
5. Workplace Wellness: Indicated via direct survey and statistical measurement of labor metrics such as jobless claims, job change, workplace complaints and lawsuits
6. Social Wellness: Indicated via direct survey and statistical measurement of social metrics such as discrimination, safety, divorce rates, complaints of domestic conflicts and family lawsuits, public lawsuits, crime rates
7. Political Wellness: Indicated via direct survey and statistical measurement of political metrics such as the quality of local democracy, individual freedom, and foreign conflicts.

The above seven metrics were incorporated into the first Global GNH Survey.

Topic 7: MILLENIUM DEVELOPMENT GOALS

The **Millennium Development Goals** (**MDGs**) are eight international development goals that were officially established following the Millennium Summit of the United Nations in 2000, following the adoption of the United Nations Millennium Declaration. All 189 United Nations member states and at least 23 international organizations have agreed to achieve these goals by the year 2015. The goals are:

1. Eradicating extreme poverty and hunger,
2. Achieving universal primary education,
3. Promoting gender equality and empowering women,
4. Reducing child mortality rates,
5. Improving maternal health,
6. Combating HIV/AIDS, malaria, and other diseases,
7. Ensuring environmental sustainability, and
8. Developing a global partnership for development.

Each of the goals has specific stated targets and dates for achieving those targets. To accelerate progress, the G8 Finance Ministers agreed in June 2005 to provide enough funds to the World Bank, the International Monetary Fund (IMF), and the African Development Bank (AFDB) to cancel an additional $40 to $55 billion in debt owed by members of the Heavily Indebted Poor Countries (HIPC) to allow impoverished countries to re-channel the resources saved from the forgiven debt to social programs for improving health and education and for alleviating poverty.

Debate has surrounded adoption of the MDGs, focusing on lack of analysis and justification behind the chosen objectives, the difficulty or lack of measurements for some of the goals, and uneven progress towards reaching the goals, among other criticisms. Although developed countries' aid for achieving the MDGs has been rising over recent years, more than half the aid is towards debt relief owed by poor countries, with much of the remaining aid money going towards natural disaster relief and military aid which do not further development

UNIT –II [Development Communication - Concept and Theories]

Topic 1: Definition and Concept

The concept of development communication came into being due to the interplay of three factors, namely, rethinking in the concept of modernization, growth and expansion of mass media, and redefinition of the role of communication to development. The term “development communication” was coined in agricultural journalism to enlarge the scope of agricultural communication to include under it, apart from agriculture, other areas of national development, such ads population, nutrition, health, education, housing and employment etc.

Development comprises the elements of change and growth. Growth includes the increased or created capacity to invest in the productive activities, regeneration of resources and capital formation and adopting new modes of production. Change involves both mental attitudes and the technological base. Introduction of new technology gives rise to a number of associated changes which are manifested in the attitudes, beliefs, social relationships, emergence of a new group of specialists and generally speaking, a new power structure. Various communication systems help communities to function as cohesive units, at the same time these may become factors for resistance to change.

Brandt commission observed that development "carries with it not only the idea of economic betterment but also of greater human dignity, security, justice and equity". The seventies of the 20th century observed a paradigm shift in the conceptualization of development. It was felt that economic growth is a necessary condition for reducing poverty but not a sufficient condition. Denis Gaulet provides a list of components of development: clean environment, growth plus equity, food, shelter, education, medical facilities, meaningful relationships and living with harmony with culture and change among others. Amartya Sen played a key role in exposing the hazards of measuring development solely in terms of growth and of the neglect of human development.

The alternative development order thus initiated came to recognize Gross National Welfare (GNW) as a major indictor of development. Various objectives of GNW include a shift in emphasis to larger collectives, encompassing the poor majority, satisfaction of human needs and improvement in quality of life, formulation of indicators to evaluate social progress and creating an ethos in which to question the existing social formation. The concepts of 'Quality of Life' and human needs strike a balance between the physical material requirements of living and psychic cultural needs of man and society.

Topic 2: Approaches:

i. Diffusion of Innovation
ii. Magic Multiplier
iii. Localized Approach

Diffusion of Innovation

Diffusion of Innovations is a theory that seeks to explain how, why, and at what rate new ideas and technology spread through cultures. Everett Rogers, a professor of rural sociology, popularized the theory in his 1962 book Diffusion of Innovations. He said diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. The origins of the diffusion of innovations theory are varied and span multiple disciplines. Rogers (1962) espoused the theory that there are four main elements that influence the spread of a new idea: the innovation, communication channels, time, and a social system. This process relies heavily on human capital. The innovation must be widely adopted in order to self-sustain. Within the rate of adoption, there is a point at which an innovation reaches critical mass. The categories of adopters are: innovators, early adopters, early majority, late majority, and laggards. Diffusion of Innovations manifests itself in different ways in various cultures and fields and is highly subjective to the type of adopters and innovation-decision process.

The key elements in diffusion research are:

Element	**Definition**
Innovation	Rogers defines an innovation as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption".
Communication channels	A communication channel is "the means by which messages get from one individual to another".
Time	"The innovation-decision period is the length of time required to pass through the innovation-decision process". "Rate of adoption is the relative speed with which an innovation is adopted by members of a social system"
Social system	"A social system is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal"

Process

Diffusion of an innovation occurs through a five–step process. This process is a type of decision-making. It occurs through a series of communication channels over a period of time among the

members of a similar social system. Ryan and Gross first indicated the identification of adoption as a process in 1943. Rogers has given the following five stages (steps):

Knowledge

Persuasion

Decision

Implementation

Confirmation

Five stages of the adoption process	
Stage	**Definition**
Knowledge	In this stage the individual is first exposed to an innovation but lacks information about the innovation. During this stage of the process the individual has not been inspired to find more information about the innovation.
Persuasion	In this stage the individual is interested in the innovation and actively seeks information/detail about the innovation.
Decision	In this stage the individual takes the concept of the change and weighs the advantages/disadvantages of using the innovation and decides whether to adopt or reject the innovation. Due to the individualistic nature of this stage Rogers notes that it is the most difficult stage to acquire empirical evidence

Implementation	In this stage the individual employs the innovation to a varying degree depending on the situation. During this stage the individual determines the usefulness of the innovation and may search for further information about it.
Confirmation	In this stage the individual finalizes his/her decision to continue using the innovation. This stage is both intrapersonal and interpersonal, confirmation the group has made the right decision

Rate of Adoption

The rate of adoption is defined as the relative speed in which members of a social system adopt an innovation. Rate is usually measured by the length of time required for a certain percentage of the members of a social system to adopt an innovation The rates of adoption for innovations are determined by an individual's adopter category. In general, individuals who first adopt an innovation require a shorter adoption period (adoption process) when compared to late adopters

Adopter categories

Rogers defines an adopter category as a classification of individuals within a social system on the basis of innovativeness. In the book Diffusion of Innovations, Rogers suggests a total of five categories of adopters in order to standardize the usage of adopter categories in diffusion research. The adoption of an innovation follows an S curve when plotted over a length of time.

The categories of adopters are:

Innovators, early adopters, **early majority**, **late majority**, and **laggards**.

In addition to the gatekeepers and opinion leaders who exist within a given community, there are change agents from outside the community. Change agents essentially bring innovations to new communities– first through the gatekeepers, then through the opinion leaders, and so on through the community.

Adopter category	**Definition**

Innovators	Innovators are the first individuals to adopt an innovation. Innovators are willing to take risks, youngest in age, have the highest social class, have great financial liquidity, are very social and have closest contact to scientific sources and interaction with other innovators. Risk tolerance has them adopting technologies which may ultimately fail. Financial resources help absorb these failures.
Early adopters	This is the second fastest category of individuals who adopt an innovation. These individuals have the highest degree of opinion leadership among the other adopter categories. Early adopters are typically younger in age, have a higher social status, have more financial lucidity, advanced education, and are more socially forward than late adopters. More discrete in adoption choices than innovators. Realize judicious choice of adoption will help them maintain central communication position
Early Majority	Individuals in this category adopt an innovation after a varying degree of time. This time of adoption is significantly longer than the innovators and early adopters. Early Majority tend to be slower in the adoption process, have above average social status, contact with early adopters, and seldom hold positions of opinion leadership in a system
Late Majority	Individuals in this category will adopt an innovation after the average member of the society. These individuals approach an innovation with a high degree of skepticism and after the majority of society has adopted the innovation. Late Majority are typically skeptical about an innovation, have below average social status, very little financial lucidity, in contact with others in late majority and early majority, very little opinion leadership.
Laggards	Individuals in this category are the last to adopt an innovation. Unlike some of the previous categories, individuals in this category show little to no opinion leadership. These individuals typically have an aversion to change-agents and tend to be advanced in age. Laggards typically tend to be focused on "traditions", likely to have lowest social status, lowest financial fluidity, be oldest of all other adopters, in contact with only family and close friends

Factors affecting the rate of adoption of innovations:

1. Cultural incompatibility and mismatch is considered to be the biggest inhibiting factors in the process of diffusion of innovations.
2. Ex: Many studies have substantiated that the new crop varieties, which give higher yields and better incomes, have been rejected on the ground of taste, fear of ill-health, and unacceptability as food.
3. Relative advantage of innovation.
4. Perceived impact of the adoption on social relations.
5. Complexities involved in the acceptance of the innovation on a sustained basis.
6. Scope for reversibility in case the innovation is to be rejected.

'Diffusion of innovation' studies the communication of new ideas from external sources and their acceptance by peasants and others at the village level and documents the impact of communication (inter-personal and mass media) on the change from a traditional to a modern way of life.

Magic Multiplier

Mass Media is called the magic multiplier as it can multiply the messages and reach a number of people very fast. Wilbur Schramm (1964), in his book Mass Media and National Development, argued that each person would have requirement of information of the work he would undertake. And there be millions of workers would require information of various types. The conventional channel of communication would never be able to meet this demand. Therefore, modern communication technologies would be of great use to meet this demand by multiplying the messages and reaching each and every worker simultaneously.

Arguments for magic multiplier:

We need magic multiplier for the following reasons:

1. For social change of great magnitude, people must be informed, educated, motivated and persuaded. Information must flow, not only to them but also from them, so that their needs can be known and they might participate in the acts and decisions of the nation-building.
2. As the required amount of information and learning is vast and so as the targeted population.
3. The available channels of communication like inter-personal, group-communication, traditional media are incapable to undertake this task. As this will require a lot of time and resources. For a developing country, it's difficult to gather a large pool of resources and wait for such a long period. Mass media with its magical reach can do this job in less time and resources.

Audit of magic multiplier:

1. The audit finds out that the mass media succeeded in reaching a vast majority of population in less time and resources, but it failed in achieving its basic objectives for which it became a Magic Multiplier.

2. Mass media as a magic multiplier did a commendable job in spreading awareness but it could not give expected results in persuading and educating the targeted population.
3. It was found that persuasion, motivation and education for/on something is best achieved by close interactions which is possible in inter-personal, group-communications etc.

Localised Approach

The approach which advocates that information transmitted through media must be locally and functionally relevant to the audience is called localised approach.
The relationship between communication and development can be broadly divided into two types:

Macro societal level

Micro societal level

Macro societal level studies (by Wilbur Scramm, Daniel Lerner etc.) give direct support to the view that a modern mass media system is an important requirement for development. Micro societal level studies argue that information of certain kind generates appetite for new things and new ways of doing things, which ultimately sets the process of development. Other scholars have expressed that mere availability of any kind of mass media is not likely to be useful for innovative changes. The information transmitted should be locally and functionally relevant, useful, applicable, timely and specific in a given situation.

Why localized approach:

1. As the needs of people vary widely in different regions and sub-regions.
2. In a large developing country like India, there is diversity of cultures and languages.

Benefits of localized approach:

1. Localised approach would enable the communicators to design messages which will be relevant in terms of utility, timeliness, applicability, specificity etc.
2. The approach would tailor message for local conditions.
3. The approach can overcome infrastructural difficulties.
4. Such an approach will allow greater involvement and participation of the audience in the communication process.

Dos and Don'ts of localized approach:

1. There should be proper need-assessment of the local population.
2. The socio-economic condition of the local people should be kept in mind before designing the message.
3. The geographical and political conditions of a local area bear a lot of significance for message designing and delivery.
4. Preferences should be given to local media and local resource persons for the execution of communication tasks.

Topic 3: Development Support Communication - Extension Approach

i. Health and Family Welfare
ii. Women Empowerment
iii. Literacy & Education

iv. Water Harvesting & Management

Development Support Communication - Extension Approach

Extension = Ex + Tension (Latin roots)

Ex = out, Tension = Stretching

Extension = Stretching out/ reaching out

Extension Education: Extension is that type of education which is stretched out to people in the rural areas far and near, beyond the reach of educational institutions to which the formal type of education is usually confined.

Example: Village Level Workers (VLWs), extension workers of different departments educating the villagers on different issues.

Need For Extension Education

1. Arises out of the fact that the condition of the rural people in general, and the farmers in particular, has got to be improved. There is a gap between what is—the actual situation and what ought to be--- the desirable situation. This gap has to be narrowed down mainly by the application of science and technology in their enterprises and bringing appropriate changes in their behavior.

2. It is practically not possible for the researchers/scientists to visit the villages and persuade the villagers to adopt scientific methods for their developments and understand their problems.

3. It has been found to be inconvenient to the farmers to visit research institutes to get first hand information.

Thus there is need for an agency to intermediate.

Objectives of Extension Education

The fundamental objective of extension is to develop the rural people economically, socially and culturally by means of education.

The general objectives of extension are

1. To assist people to discover and analyze their problems and identify the felt needs. 2. To disseminate research information of economic and practical importance in a way people would be able to understand and use.

3. To assist people in mobilizing and utilizing the resources which they have and which they need from outside.

4. To collect and transmit feedback information for solving management problems.

5. To develop leadership among people and help them in organizing groups to solve their problems.

Origin of Development Support Communication

In the 50's of the last century, many developing countries used agricultural extension education to improve agricultural production. As in developing countries, even though, a large part of population is engaged in agriculture, the small and marginal farmers are not able to produce adequate food because of the unscientific method of farming (the traditional way of tilling the soil and dependence on the monsoon). It was therefore, considered necessary to help these farmers to change their agricultural practices, through extension methods. This approach of spreading/diffusing innovation, new ideas, practices, and technologies in agriculture to the farmers became very popular as agricultural extension during 1950's. In view of heavy reliance of agriculture extension on communication techniques and methodologies, in due course communication applied to agriculture extension came to be known as Agricultural Communication. By and by, extension approach was used to transfer knowledge to the rural mass on health, hygiene, nutrition, sanitation etc. Hence, it came to be known as Rural Communication. Later on, the slums of the urban areas were also included to help the poorer sections living in them. Thus, communication theory and practice applied to help stimulate the development process in general branched off as the Development Support Communication (DSC).

In DSC, the emphasis is on greater participation of the beneficiaries in the development process in general, and in message development in particular.

Example: Pulse polio fiasco in pockets of U.P and Bihar.

DSC Links Agencies

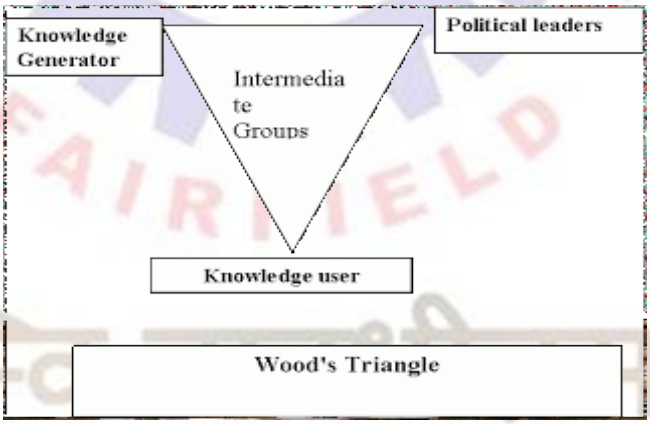
DSC was a concept popularized by the UNDP, FAO, UNICEF etc. It links all agencies involved in the planned development work such as political executives, policy planners, development administrators, subject specialists, field workers, opinion leaders, the media representatives, the researchers and beneficiaries who constitute the final delivery points and consumers of information.

Route of Communication in DSC

The route of communication envisaged are not only vertical from top to bottom and bottom-upwards, but also horizontal between the institutions and personnel connected with the process of development.

Wood's Triangle:

John L. Woods (1976) conceived a triangular nexus with three points: Knowledge generators, political leaders and development knowledge users, called Wood's Triangle.



According to Woods, the role of DSC, is to link all three elements in the development linkage triangle along with all the intermediate user groups. His emphasis is not only on pushing the information towards the target groups, but also on taking into account the information seeking pattern of the target audience and integrating them into the development planning process.

(i) Health and Family Welfare

Improvement in the healthcare system is essential for social and economic development. Moreover, unless people have healthy living, they cannot enjoy the other benefits of life. These are the reasons why activities attempting to improve health and socio-economic situations should be regarded as mutually complementary to each other rather than competitive. Health is an essentially productive factor contributing to the overall development.

Example: The control of certain communicable diseases often helps to promote development in general. Proper nutrition and reduction of sickness increases the productivity of work. Breaking the vicious circle of malnutrition and infection leads to improvement of physical and mental development of the child. Vaccinating an entire child population against diseases brings reduction in child mortality, which can induce a feeling to have a small family.

Limitations of traditional health communication

• Unlike other areas, the influence of mass media in changing the health behaviors of an individual is limited.

• Opinion leaders are comparatively less effective in changing the health behaviour of an individual. For example: The big land lords were the first to accept changes in the agricultural process and production but not in health (e.g. family planning).

• Not all opinion leaders can influence everyone. They generally specialize in some fields. For example: A progressive farmer might succeed in disseminating new innovations in the field of agriculture but may fail in the sector of health.

DSC Strategy:

In the context of the complexity of health behaviour, DSC assumes greater significance. Some of the important points of DSC strategy are:

• In health communication, word-of-mouth and personal communication form a trusted source and is significantly more effective than mass communication from a remote source.
• In a country like India, a DSC strategy needs to be developed in a manner that can cater to the needs of the diverse groups based on social and cultural background.

• The Govt. of India's National Rural Health Mission (NRHM), which envisages a key role of Panchayati Raj institutions in the implementation of health programmes. This programme is in line with DSC

•The mission relates health to determinants of good health viz. sanitation, nutrition and safe drinking water; optimization of health manpower including Ayurveda, Unani, Siddha and Homeopathy (AYUSH) among others.

•The goal of achieving health behaviour change should be a central point of the DSC strategy. This needs to be operated in that spirit. The health communicator, should, therefore pursue the following activities if he aims to achieve behavioural change.

1. Assess the needs of the community or different target groups.

2. Assess the local resources available to meet these needs.

3. Assess the likes and dislikes of people towards the different types of communication.

4. Convince the stakeholders on the need of the programme.

5. Provide scientific, specific and basic information to the policy-makers and decision-makers.

Family Welfare

India continues to record high levels of morbidity , especially among infants, children, elderly and women. The burden of this morbidity falls on vulnerable sections of the population including wage laborers, minorities and low-income groups. There is a need of radical reform in both health care and medical education systems to ensure that the advancement made in medicine and infrastructure development can be made accessible to the masses at affordable rates. Community media an various interpersonal communication media are used to tell people, especially women in rural areas about the basics of using proper toilets, safe drinking water, importance of hand cleaning for children , free ambulance and pregnancy services and help lines provided by the government in various areas. The media not only make people aware about various policies and options of family planning available in the market an at various medical stores by the government and various agencies working in the field of health and medicines.

The Pulse Polio campaign run by the Government of India is an ideal example by using various favorite stars like Amitabh Bachchan to communicate the date , centre and age of the child to get

polio drops that eradicated polio almost 100 percent from the country. By ensuring participation of people and persuading them in the right direction, various communication strategies made to reach people at local level is a very good medium to bring change at the level of mindset of people and to point out various loopholes in the quality of Health Care services and Public Health infrastructure. Similarly, nutrition-related problems like micro-nutrient deficiency such as Anemia also need attention . There should be emphasis on more production of coarse grains to meet the need of BPL families through public distribution Systems.

(ii) Women Empowerment

It has been realized that economic and social betterment of women cannot be achieved without social transformation involving structural changes, awareness about how to take benefit of various policies and schemes meant for the community thereby causing change in outlook, motivation and attitudes. This change can be achieved through greater participation of women by electing them to the grass-level institutions. Various Community Radio Stations working in Banglore, Gujrat being used by ministries as well as NGOs to create awareness and information about self-employment schemes, sanitation and importance of education to women. Their right to vote, right of girl child to life, right to participate in elections get promote by various success stories , dramas and programmes in folk and local languages. Though the mainstream media has played an important role in promoting equality , rights and interests of women, but community ,media is used by local police, panchayats and other village development authorities because it is more close to the hearts of various communities due to its use of local folk culture. This is the reason why Song and Drama division of GOI utilizes the folk forms by the tribal artists from Madhya Pradesh , Bihar and Orissa to promote development plans .Throgh interpersonal communication, various group leaders in the communities can be reached and convinced about the changes needed in the attitudes.

Media have consistently been highlighting the women's issues to awaken social managers of the anguish and suffering women are subjected to. The media not only awakens the public but also forwards solutions to problems by involving their participation in eradicating ignorance, superstition and hypocricy. The exploitation of women-labour, low wages paid to them , lack of sanitation facilities in the rural environments, high rural-girl dropouts, flesh trade, rape ,lack of maternity and health care, high mortality rate among girls dowry deaths etc. are highlighted through various columns and discussion programs by Media.

(iii) Literacy & Education

Literacy has traditionally been described as the ability to read and write. it is a concept claimed and defined by a range of different theoretical fields. The UNESCO dfines literacy as the " ability to identify , understand, interpret , create ,communicate, compute and use printed an written materials associated with various contexts. It involves a continuum of learning to enable individuals to achieve their goals, develop their knowledge and potential, and to participate fully in their community. Eduaction in the largest sense is any act or experience that has a formative effect on the mind, character or physical ability of an individual. It is the process by which society deliberately transmits its knowledge skills an knowledge from one generation to another. Communication for development purposes should be distinguished from communication for the sake of entertainment, such as chitrahar , or commercial advertising of soap and toothpaste or news dissemination , news bulletins etc. The case for uses of communication for education has been convincingly argued on the following grounds:

- Communication helps to enlarge mental horizons
- It can be used to raise levels of aspiration
- Through communication, attention can be focused on problems having bearing on the contemporary developmental and educational context
- It can be effectively employed to build on new economic and cultural goals
- Through communication, experimentation can be encouraged and knowledge about their success/failure can be disseminated widely.
- It can be utilized to teach specific skills and techniques.

iv) Water Harvesting & Management

Rainwater harvesting is the accumulating and storing, of rainwater. It has been used to provide drinking water, water for livestock, water for irrigation or to refill aquifers in a process called groundwater recharge. Rainwater collected from the roofs of houses, tents and local institutions, or from specially prepared areas of ground, can make an important contribution to drinking water. In some cases, rainwater may be the only available, or economical, water source. Rainwater systems are simple to construct from inexpensive local materials, and are potentially successful in most habitable locations. Roof rainwater can be of good quality and may not require treatment before consumption. Although some rooftop materials may produce rainwater

that is harmful to human health, it can be useful in flushing toilets, washing clothes, watering the garden and washing cars; these uses alone halve the amount of mains water used by a typical home. There are a number of types of systems to harvest rainwater ranging from very simple to the complex industrial systems. Generally, rainwater is either harvested from the ground or from a roof. The rate at which water can be collected from either system is dependent on the plan area of the system, its efficiency, and the intensity of rainfall.

UNIT-III [Media and Development]

Topic 3: Development message design and communication

The effectiveness of development message is of the foremost importance in development communication. The message selection has to be based on the holy view of the development project objectives as message selection forms one of the important factors affecting the success of the overall project.

Points should be kept in mind while designing the message:

1. Usefulness of the content: People should see the advantage in the message conveyed to them.
2. Timeliness: Messages should be coordinated with the timing of the activities they have intended to influence, to increase the implementation potential of the content.
3. Appropriateness: Development messages should include the reason or logic for suggesting any new idea apart from the process to be followed in putting the idea into action. This can help people to decide what is appropriate for their individual conditions.
4. Simplicity: Simple messages are easy to communicate and understand.
5. Needs assessment of the target groups: Various methods like community study, observations, contacting key persons or leaders of the community, referring the reports, if any, can be used to find out the needs of the people.

Important steps in message designing:

1. Priority: Determining the priority issues and define them. For example: Whether health nutrition, women's issues and so on.

2. Media: Communication channels to be used should be decided keeping in mind the:

a. Literacy level of the target group

b. Channel access

c. Channel availability

d. Purpose of communicating.

3. Local resources: Incorporating local resources in planning the communication strategy.
4. Different content for different channel: If TV is to be used, the script should be written. If drama or behaviour format is to be used in the strategy, script writing will have to be done accordingly.
5. Pre-testing: Pre-testing the strategy with a sample of your target group to avoid any loss or wastage in communication.

6. Proper delivery system: Transmission of the message has to be done step by step, if a number of the media have to be used in a sequence or order of occurrence and importance under the controlled condition and observation of the communication.

7. Evaluation: Evaluation of the communication strategy should be carried out in terms of its objectives.

Factors for loss of meaning of messages:

• Production team related factors

• Content related factors

• Media related factors

• Audience related factors

• Context/environment related factors

Messages conveyed through media have an impact on behaviour and hence, its usage for development. The type of influence and the extent of impact of these message would be determined by the content, its presentation, creditability of the media and the source, audience characteristics such as their education level and exposure to other messages or sources etc.

Topic 2: Role and performance of mass media in development:

Print, Radio, TV, Outdoor publicity and traditional media - music, drama, dance, puppetry, street play, fairs, festivals and their role in development. The regional press with its grassroots contacts through a network of correspondents in district , towns, touches upon local issues and topical

subjects relevant to the common man, concerning his everyday life and written in a style close to his head and heart .

A list of farm journals reveals the functions-

- Bengal Agricultural Gazette
- Plantation News
- Harijan
- Krishi sudhaar
- Zameen Dyot
- Gaon
- Vasundhara
- Phal Phool
- Shetkari and many more are disseminating relevant messages to the target audience.

Radio-

Radio enjoys primary importance in dissemination of development messages through ads, programmes etc. It is reaching out to people with relevant messages an usable information, to encourage their participation through an open forum.

Development oriented programmes –

- Farm and Home programmes
- Kisaanvaani
- Community Radio
- Radio Rural Forums
- School –on-the-air

TV-

The significance of communication for human life cannot be overestimated. This is true because beyond the physical requirements of food and shelter man needs to communicate with his/her fellow human beings. This urge for communication is a primal one and in our contemporary civilisation a necessity for survival. That is to say without communication no society can exist, much less develop and survive. For the existence as well as the organisation of every society

communication is a fundamental and vital process. A free press is not a luxury. It is at the core of equitable development. The media can expose corruption. They can keep a check on public policy by throwing a spotlight on government action. They let people voice diverse opinions on governance and reform, and help build public consensus to bring about change. Such media help markets work better. They can facilitate trade, transmitting ideas and innovation across boundaries. The media are also important for human, development, bringing health and education information to remote villages in countries from Uganda to Nicaragua. But as experience has shown, the independence of the media can be fragile and easily compromised. It is clear that to support development, media need the right environment in terms of freedoms, capacities, and checks and balances. The World Development Report 2002, "Building Institutions for Markets" devoted a article to the role of the media in development. This volume is an extension of that work. It discusses how media affects development outcomes under different circumstances and presents evidence on what policy environment is needed to enable the media to support economic and political markets and to provide a voice for the disenfranchised. To this end, it draws together the views of academics as well as perspectives from those on the front line-journalists themselves. The success of agricultural development programmes in developing countries largely depends on the nature and extent of use of mass media in mobilisation of people for development. The planners in developing countries realise that the development of agriculture could be hastened with the effective use of mass media. Radio, Television has been acclaimed to be the most effective media for diffusing the scientific knowledge to the masses.

In a country like India, where literacy level is low, the choice of communication media is of vital importance. In this regard the television and radio are significant, as they transfer modern agricultural technology to literate and illiterate farmers alike even in interior areas, within short time. In India farm and home broadcast with agricultural thrust were introduced in 1966, to enlighten farmers on the use of various technologies to boost agricultural development. At present, there are about 50 such radio units all over the country. With the main stream of Indian population engaged actively in agriculture, television could serve as a suitable medium of dissemination of farm information and latest technical know – how. The farmers can easily understand the operations, technology and instruction through television.

Among the several mass media, newspaper and farm magazine are commonly used. They have a vital role to play in the communication of agricultural information among the literate farmers. Increasing rate of literacy in the country offers new promises and prospects for utilising print medium as a means of mass communication. The print media widened the scope of communication. It is cheap and people can afford to buy and read them at their convenience. It is a permanent medium in that the message are imprinted permanently with high storage value which makes them suitable for reference and research. Agricultural journalism is of recent origin in India. It came into existence just five decades ago. It is now gaining importance, particularly after the establishment of agricultural university in India technical information needs to be provided to the farmers at the right time and in the right way, so that the productivity can be increased.

In the view of increase in literacy level to 52.11 per cent during 1991, print media has acquired a greater role in dissemination of information on improved agricultural practices to the farming community and also to inform the public in general. India has farm magazines in every state, published mostly in local languages. Agricultural department also encourages the publishing of such farm magazines particularly through farmers association. The coverage of different subject matter by radio, television, newspaper and farm magazine are almost similar with regard to agriculture, horticulture, animal husbandry, agricultural marketing, agricultural engineering and cooperatives. In this paper, an attempt is made to deal about the importance of radio, television, newspaper and farm magazines and their effect in the field of agriculture through sound communication.

Traditional media-

Traditional media has greatest appeal to the masses and have qualities of touching the deepest emotions of the illiterate millions. Among these puppetry is believed to be the oldest form of popular theater in India. It is important for communicating technology to the farmers in the village life, its problems and solutions. Folk theatre form like Tamasha, Nautani, Keertana or Harikatha attract the rural audiences most, so people can be educated through the mediums to bring about desirable changes in their behavior. Street play is not like theater but it attracts a large number of people. Thevillagers have a great fascination for their folk dances and folk songs. Melas or country fairs are synonymous with joy and gaiety and in the rural areas where life follows a hard routine; nothing is more welcome to the people than the prospect of a festival

and mela. Story telling has been one of the best and most commonly used method of instruction in informal education, religious propagation, rural development etc. Riddle is also an educational device through which elders sued to communicate knowledge. Proverbs which predominate in oral civilization represent the essence of rural wisdom and knowledge. Bioscope is also a popular folk medium sued for entertainment and forpropagation of information on education, agriculture etc.

The traditional media should be an integral part of nay rural development programme, Wherever possible, it should be integrated with the modern mass media, but in all cases integration with the ongoing extension work is vital. There is big gap between the modern scientific knowledge and the knowledge possessed by the common masses. This gap is to be bridged by communicating effectively the developmental information to the rural masses. The messages communicated through the traditional media gain access to the mind through audio and video effects. The use of the eyes and the mind produces a sense of richness in meaning on the individuals. This mental reaction is both intellectual and emotional. They create a high degree of interest and make learning more permanent. The poorest man had access to his culture, expressed either in story, poem, play, song, custom, rituals or a variety of other forms of characteristics of folk culture. As these are face to face interaction between the conveyor and the recipient, there is scope for clarification of doubts and acquisition of full information. The influence on the recipient is lasting. The employment of traditional media for effectively conveying rural developmental messages in a language and style that will be comprehended and lied by the rural people leads to spectacular results.

Topic 3: Cyber media and development: e-governance, digital democracy & e-chaupal

The communication landscape in the country has been undergoing major changes largely due to technological developments during the last two decades. Use of computers has revolutionized the process of collection and dissemination of information. Internet is widely used by corporate houses, educational organizations, inter-governmental organizations, non-governmental organizations and voluntary bodies. The new technology, in fact is being increasingly used for governance (Electronic governance) and during emergencies.

E-Governance: At the most basic level, it's about putting services online and making it easier for people to access them. On a broader definition, it involves an effort by the government to lead society from an industrial to an information age.

Benefits of E-governance: e-Governance sees the people in government, business and citizens working together for the benefit of all. If properly implemented, the benefits of e-Governance are enormous. Some of its obvious benefits are:

Integrated Information: e-Governance targets to use a government-wide electronic information infrastructure to simplify service delivery, reduce duplication, and improve the level and speed of service to clients at a lower cost. It recommends creating, managing, and prudently sharing information electronically among the various government departments and the different services offered by them.

Integrated Services: Different types of services offered by different government departments like collecting taxes, granting licenses, administering regulations, paying grants and benefits, can be availed at one place.

Anywhere Services: Provision of fully interactive on-line services by e-Governance gives public access to government services with quicker responses at convenient times. This on-line accessibility of stored information from remote locations allows government officials to serve any citizen from a government office located in any part of the state or country. Anywhere, Anytime Information: Delivery of services may require interaction between government officials and citizens, but delivery of public-domain information to citizens can be done without any such interaction. Citizens can obtain information related to government processes and procedures through an on-line system without interacting with any government official. There is no pressure on individuals to physically visit a Government Office.

Improved Overall Productivity: e-Governance will significantly contribute to improved overall productivity of both the government officials and the citizens, as it ensures faster interaction among them by electronic mail instead of moving paper files and letters, and in streamlining the workflow of internal government administrative processes. On the other hand, improved productivity of citizens results because of the facility of anytime, anywhere services and information.

Better Decision Making and Planning: The integrated information base of e-Governance helps planners and decision makers to perform extensive analysis of stored data to provide answers to the queries of the administrative cadre. This facilitates taking well informed policy decisions for citizen. This in turn helps them to formulate more effective strategies and policies for citizen facilitation.

Better Security and Protection of Information: E-Governance uses the integrated information approach for keeping all information at one place in electronic form. Thus, keeping the information secure against theft or leakage. Proper backup mechanisms also help in protecting the valuable information from getting lost due to natural calamities such as fires, earthquakes, and floods.

Successful E-governance projects in states:

BHOOMI of Karnataka: The first e-governance project of on Land Records Computerization System.

WARANA of Maharashtra: 'Wired Village' concept at Warana cooperative complex in Kolhapur and Sangli districts in Maharashtra.

RASI (Rural Access to Services through Internet) of Tamil Nadu: Rural IT infrastructure in Tamil Nadu.

E-SEVA of Andhra Pradesh: Provides services relating to payment of Utility Bills, Certificates, Permits / licenses, reservation etc.

CARD of A.P: System of registration through electronic delivery of all the registration services.

Tax Administration: Better, faster, easier: In order to ensure that tax administration, including that of VAT, is faster and easier, the Empowered Committee of State Finance Ministers has flagged off an initiative called the National Tax Information Exchange System (TINXSYS) project across the country.

IT for Railways: Railway Reservation Systems and online delivery of tickets. **Community Benefits**: Community centres with IT: The Government of India has set up Community Information Centres (CICs) in the North East and Sikkim. These CICs provide broadband Internet access at each block.They provide services such as birth and death registration, and act as e-Suvidha service facilitation centres for marriage and SC/ST certificates. They also provide information about agricultural prices and related matters, and educational and employment opportunities.

Computerising the Police: Connecting the cops: The Kolkata Police has built a WAN that connects the police headquarters and important bureaus with more than 400 police stations across the state of West Bengal. This network is in its final stage of implementation. The older special messenger system has been abolished, and all information is sent over the new network. Sukhmani: The government of Punjab commissioned a project called Sukhmani as the citizen gateway for over 120 services provided by the government.

E-Governance is also referred to as SMART Governance because it aims at using IT to the processes of Government functioning to bring about Simple, Moral, Accountable, Responsive and Transparent Governance.

Emergencies: During/after natural disasters, it is difficult to install radio communication stations for establishing contacts with the outside world. However, much easier to communicate through cyber media. During the 2001, Bhuj (Gujrat) earthquake, cyber media played an important role in establishing contact, treatment of the injured and other relief and rehabilitation operations.

Digital democracy

Digital democracy here refers to the use of digital communication technologies to enhance the democratic process by, among other things, making the process more accessible, increasing and enhancing citizen participation in public policy decision making, and increasing government transparency and accountability.

In recent years, we have seen a broad disenchantment among people with civic engagement and representative democracy. In the mid-1990s, however, the growth of the Internet revitalized the democratic imagination:

1. The Internet promised to revive the civic sphere and extend community life by providing broad, diverse forums for discussions.

2. The Internet enabled many-to-many citizen interaction that invited online political debate, deliberation, consultation, decision-making, administration, and scrutiny as well as online mobilizing, organizing, petitioning, and protesting.

3. The Internet made polling, plebiscites, and elections relatively cheap and accessible. Conceivably, the voice of the people could be expressed regularly and loudly, expanding popular decision-making and closing the gap between citizens and their representatives.

Ideally, netizens online, disciplined deliberations will produce sober, wise recommendations for policy-maker and law-maker consideration. In effect, deliberation will make the demos safe for democracy.

EXAMPLE:

There is a new game on the Web, sometimes of dubious significance. But its real significance lies beyond what it shows right now. I am talking about "trending." Last week, while the country was absorbed watching the verdict in the Ayodhya dispute between Hindu and Muslim groups, Twitter, the micro-blogging site, was abuzz with some Indians celebrating the verdict's online glory, when Ayodhya became the top trending topic during the course of the day. For the uninitiated, "trending" is a reference to the number of times a topic is discussed on Twitter: a score of its importance and popularity. You can also find the Yahoo home page (www.yahoo.com) capturing the latest Web trends. Yahoo also has its Buzz (buzz.yahoo.com) that measures popular stories and topics.

While on Twitter, this is about what is being discussed by tweeters or stories viewed and shared, in Google Trends (www.google.com/trends), you can compare search volume patterns across specific regions, languages, and time periods. The Twitter trending is better called "hot topics" while "hot searches" in Google Trends reflect popular searches (other than routine things like weather) as an indicator of popularity. For Indian tweeters (still mostly in English), it was a parochial victory when their favourite topic surged ahead of US-dominated topics. Now, consider a future in which Internet-enabled tablets and smartphones, highly affordable in fast-growing Asian economies, generate more and more searches and tweets. What happened with Ayodhya is the result of both global interest and the surging use of Twitter in India.

The rise of a connected world is going to even out cultural biases inherent in the current digital penetration levels led by the US. As the Idea Cellular commercial (with the memorable slogan, "What an Idea, sirjee") showed, the social use of SMS voting, tweets and searches will help policymakers, officials, leaders and companies view social trends and adapt their behavior suitably. In a connected world, twe-ets and searches have become live, real-time symbols of democracy at work — and it is no longer about the affluent because connections and devi-ces are ever more affordable. Social media trends mark a new frontier in the Internet revolution — through the rise of digital democracy

e-Choupal is an initiative of ITC Limited, a conglomerate in India, to link directly with rural farmers via the Internet for procurement of agricultural and aquaculture products like soybeans, wheat, coffee, and prawns. e-Choupal tackles the challenges posed by Indian agriculture, characterized by fragmented farms, weak infrastructure and the involvement of intermediaries. The programme installs computers with Internet access in rural areas of India to offer farmers up-to-date marketing and agricultural information.

Problems addressed prior to the introduction of E-Choupal

Traditionally, commodities were procured in mandis (major agricultural marketing centres in rural areas of India), where the middleman used to make most of the profit. These middlemen used unscientific and sometimes outright unfair means to judge the quality of the product to set the price. The difference in price between good quality and inferior quality was little, and therefore there was no incentive for the farmers to invest and produce good quality output. With e-Choupal, the farmers have a choice and the exploitative power of the middleman is neutralised.

Statement of a farmer who is a member of E-choupal: "Before ITC introduced us to e-Choupal, we were restricted to selling our produce in the local mandi. We had to go through middlemen and prices were low. ITC trained me to manage the Internet kiosk and I became the e-Choupal Sanchalak in my village. Today we are a community of e-farmers with access to daily prices of a variety of crops in India and abroad – this helps us to get the best price. We can also find out about many other important things – weather forecasts, the latest farming techniques, crop insurance, etc. e-Choupal has not only changed the quality of our lives, but our entire outlook.

ITC Limited has provided computers and Internet access in rural areas across several agricultural regions of the country, where the farmers can directly negotiate the sale of their produce with ITC Limited. Online access enables farmers to obtain information on mandi prices, and good farming practices, and to place orders for agricultural inputs like seeds and fertilizers. This helps farmers improve the quality of their products, and helps in obtaining a better price. Each ITC Limited kiosk having Internet access is run by a sanchalak — a trained farmer. The computer is housed in the sanchalak's house and is linked to the Internet via phone lines or by a VSAT connection. Each installation serves an average of 600 farmers in the surrounding ten villages within about a 5 km radius. The sanchalak bears some operating cost but in return earns a service fee for the e-transactions done through his e-Choupal. The warehouse hub is managed by the same traditional middle-men, now called samyojaks, but with no exploitative power due to the reorganisation. These middlemen make up for the lack of infrastructure and fulfill critical jobs like cash disbursement, quantity aggregation and transportantion.

Since the introduction of e-Choupal services, farmers have seen a rise in their income levels because of a rise in yields, improvement in quality of output, and a fall in transaction costs. Even small farmers have gained from the initiative. Farmers can get real-time information despite their physical distance from the mandis. The system saves procurement costs for ITC Limited. The farmers do not pay for the information and knowledge they get from e-Choupals; the principle is to inform, empower and compete E-market place for spot transactions and support services to futures exchange. There are 6,500 e-Choupals in operation. ITC Limited plans to scale up to 20,000 e-Choupals by 2012 covering 100,000 villages in 15 states, servicing 15 million farmers.

Topic 4: ICT & Development

New media technologies promise profound changes in how global citizens obtain news and feature programming as well as how we communicate among ourselves and contribute to the emerging de-centralized, many-to-many media system. By becoming aware of how mass media is controlled and biased by a few corporations, by choosing alternative media sources and by taking action to publish news and original content with digital production tools, the internet and independent media-vehicles – the public can create a true revolution in the control and presentation of media.

Continued dramatic improvements in computer memory and processing speed per unit of cost led to steady increase in affordability and ubiquity of computers. Combined with breakthroughs in storage technology, this made it increasingly possible and desirable to capture and store information, entertainment and other forms of valuable information and content in digital form. This digitization, in turn, made it easier to reuse, repurpose, manipulate and combine this content, anywhere at any time, for the specific purposes of the user, through a variety of electronic means, often in combination. At the same time, steady and substantial increases in telecommunications bandwidth, fuelled by the widespread deployment of fiber optic cables, satellites and wireless technologies, made it easier and cheaper to share information globally and to communicate instantaneously at long distances. These new technologies and the optimism they engendered about their economic and social potential, led to an extraordinarily dynamic period of innovation, investment and growth in the mid-to-late 1990"s.

„Convergence" is the label most often used for the integration of communication mediums that the digital revolution has made possible. This may prove to create as radical a change in the relationship between people and the institutions of society as did the invention of movable type – the Gutenberg Revolution. With the digital revolution, we no longer can say "freedom of the press belongs to those who can afford one." No longer is it just the major institutions of society that are able to disseminate information now, virtually anyone with a computer can. But, as with the Gutenberg Revolution, far greater responsibilities descend upon the public. Several optimistic projections emerged about the potential of these new technologies and global networks to create economic opportunity in developing countries and in poor neighbourhood in rich countries, give voice and power to the poor, make their governments more responsive and transparent and make the world"s best knowledge on any subject available anytime, anywhere to those who needed it to improve their lives. Of course, the conviction that information and communication technologies could be powerful tools to combat poverty did not originate with the Internet and World Wide Web. The history of international development over the past several decades is full of efforts to harness a wide range of technologies (computers, telephone, radio and television, as well as sector-specific technologies in areas as diverse as health, agriculture and environmental management) to combat poverty and disease, build human capacity and improve the functioning and efficiency of government ministries, markets and other economic and social institutions in developing countries. New media technologies promise

profound changes in how global citizens obtain news and feature programming as well as how we communicate among ourselves and contribute to the emerging de-centralized, many-to-many media system. By becoming aware of how mass media is controlled and biased by a few corporations, by choosing alternative media sources and by taking action to publish news and original content with digital production tools, the internet and independent media-vehicles – the public can create a true revolution in the control and presentation of media. Continued dramatic improvements in computer memory and processing speed per unit of cost led to steady increase in affordability and ubiquity of computers. Combined with breakthroughs in storage technology, this made it increasingly possible and desirable to capture and store information, entertainment and other forms of valuable information and content in digital form. This digitization, in turn, made it easier to reuse, repurpose, manipulate and combine this content, anywhere at any time, for the specific purposes of the user, through a variety of electronic means, often in combination.

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The history of international development over the past several decades is full of efforts to harness a wide range of technologies (computers, telephone, radio and television, as well as sector-specific technologies in areas as diverse as health, agriculture and environmental management) to combat poverty and disease, build human capacity and improve the functioning and efficiency of government ministries, markets and other economic and social institutions in developing countries. At the same time, just-in-time access to global sources of information and knowledge would provide unprecedented opportunities to tackle the intractable problems that compounded and perpetuated poverty, such as disease, famine and environmental stress. Hospitals in Africa that rarely ever received a medical or scientific journal could now, many hoped, have access to the full range of global scientific and medical research. Agricultural extension agents could now be armed with the best of what the world knew about plant, seeds, pests, fertilizers and soil management. Policy-makers would be better able to manage natural resources and respond to environmental problems, both because they could monitor them better and because they would have at their disposal the world‟s knowledge about these challenges.

The rise of more sophisticated communication and information technologies, such as satellites or the Internet, has opened new horizons and opportunities. The potential of the new technologies has not only increased the penetration of mass media, for instance, through satellites, but it has also created new opportunities to enhance communication at the local level utilizing technologies such as the Internet or mobile telephones. The establishment of "telecenters" in rural areas is spreading in many countries as a way to support local development in the social and economic dimension. Communication technologies are still looked upon by some with suspicion, probably because of past experiences when media were often used to "spin" arguments and impose change on people. The effectiveness and value of ICTs and other new communication technologies are determined by the way they are selected and utilized. Even if technologies are not the panacea for every communication problem, they are valuable tools to address specific needs, especially when used in a way compatible with and relevant to specific local needs.

Even if the internet, satellite, mobile phones and wireless computers appear to constitute the new frontiers in communication, there are some critical factors to consider before adopting them. These factors can be divided in three basic categories: economic, technological and cultural. From an economic point of view, there are high costs associated with the software and the

hardware components of ICTs for individuals in developing countries, placing these commodities outside the reach of most people. In the case of the internet, there are also access and connectivity costs to consider. Other costs related to ICTs include the establishment and maintenance of reliable infrastructure for telecommunications. It should also be noted that the wave of liberation and privatization taking place in this sector in many developing countries can be a limiting factor for marginalized sectors of society.

From a technological point of view, it is difficult to ensure the proper operation of such technologies in places where there are no phone or electric lines. Even where those services are guaranteed, regular maintenance and updates and issues of compatibility among different standards, become major issues. Technical support is a necessity for individuals in richer countries and would be even more necessary in countries where people are less technology-literate. In many countries, users need basic training in computer use and prior to that, literacy skills to communicate effectively on the Internet.

From a cultural point of view, there are also a number of constraints. The language in which most of the information is available on the Internet can pose a barrier. Additionally, given the high illiteracy rate of many areas of developing countries, many potential users are excluded from the start. Even when language barriers are overcome, often cultural issues remain crucial in gaining fundamental knowledge and the needed frame of mind in order to take full advantage of the power of these technologies. Despite such shortcomings, ICT can do and play a major role in development communication. In addition to the widely used information dissemination functions, technologies such as the Internet also have the potential to support the horizontal processes of communication. With their quantifiable and fast exchange transmission flows of information and their capacity for overcoming time and space, there is no doubt that ICTs can have a stronger appeal than participatory processes, which appear more complex to manage and require longer and closer interactions. In fact communication technologies are more effective when used within proper cultural frameworks and in processes that engage stakeholders in the selection of the objectives, key issues and appropriate channels. ICTs and media can certainly play a key role in development communication, but they are not a panacea capable of solving all problems and of filling all gaps related .At the same time, just-in-time access to global sources of information and knowledge would provide unprecedented opportunities to tackle the intractable

problems that compounded and perpetuated poverty, such as disease, famine and environmental stress. Hospitals in Africa that rarely ever received a medical or scientific journal could now, many hoped, have access to the full range of global scientific and medical research. Agricultural extension agents could now be armed with the best of what the world knew about plant, seeds, pests, fertilizers and soil management. Policy-makers would be better able to manage natural resources and respond to environmental problems, both because they could monitor them better and because they would have at their disposal the world‟s knowledge about these challenges.

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Topic 5: Case Studies

SITE Experiment

Satellite television can be defined as television broadcasting using satellite technology. Television came to India in 1959 and satellite television in form of Satellite Instructional Television Experiment in 1975. After 1982 when Indian National Satellite (INSAT) was launched there came a sharp rise in number of transmitters, began colour television and telecast of Asiad games increased private investment in television sets. In early nineties new face of satellite television entered Indian households in the name of Cable & Satellite television (C&S

TV) and transnational content entered Indian households. Today one third of Indian television households have access to C&S TV.

Beginning of Satellite Television in India was marked by world first techno-social experiment SITE- Satellite Instructional Television Experiment- for education & development purposes. That followed number of other experiments like SITE Continuity, School Television, UGC Country Wide Class Room, Jhabua Development Communication Project, Indira Gandhi National Open University transmission and lately channels like Training and Development Communication Channel and Gyan Darshan for educational and social development purposes.
Technologies per se provide the scope of democratization at the same time creates issues related to control and access for others who do not own it. The paper examines the notion of 'satellite television' as democratizing force and concept of community television sets as one important component of all development communication experiments in India. The paper examines various projects and how the technology 'reached' 'the poorest of poor' and the divides of 'rich-poor', 'men-women' 'urban-rural' were somewhere brought into main text. At the same time it reports that satellite television in India has come a long way since 1975- SITE days but one thing is common over the years that it invariably has remained with people who 'had' and 'have' other technologies.

Community-based water harvesting by Rajendra Singh in Rajasthan

Rajendra Singh, popularly known as 'Jal Purush' or Waterman of Rajasthan is an inspirational figure who has transformed the life of people in more than 1000 villages in Aravalli Hills or known water conservationist from Alwar district, Rajasthan in India. He won the Ramon Magsaysay Award for community leadership in 2001 in water harvesting and water management. He runs a NGO. The NGO has been instrumental in fighting the slow bureaucracy, mining lobby and has helped villagers take charge of water management. He is the member of the National Ganga River Basin Authority (NGRBA) under Ministry of Environment, Govt. of India, which was set up in 2009, as an empowered planning, financing, monitoring and coordinating authority for the Ganges (Ganga).

After completing his studies, he joined government service in 1980, and started his career as a National Service Volunteer for education in Jaipur. Meanwhile, he joined Tarun Bharat Sangha (Young India Association) or TBS, an organization formed by officer and students of Jaipur

University to aid victims of a campus fire. After three years when he became the General Secretary of organisation. However he was feeling increasingly frustrated by the apathy of his superiors towards developmental issues and his own inability to have a larger impact, he left his job in 1984. And went into interior of Rajasthan, along with him were four friends. he started a small Ayurvedic medicine practice in nearby village and promote education in the villages.

Alwar district, which once had a grain market, was at the time largely dry and barren, as years of deforestation and mining had led to a dwindling water table, minimal rainfall followed by floods. Another reason was the slow abandoning of traditional water conservation techniques, like building check dams, or johad, instead villagers started relying on "modern" bore wells, which simply sucked the groundwater up. At this point he met a village elder, Mangu Lal Patel, who argued "water was a bigger issue to address in rural Rajasthan than education". He chided him work with his hands rather than behaving like "educated" city folks who came, studied and then went back; later encouraged him to work on a johad(rainwater storage tank), earthen check dams, which have been traditionally used to store rainwater and recharge groundwater, a technique which had been abandoned in previous decades. As a result, the area had no ground water since previous five years and was officially declared a "dark zone". Though Rajendra wanted to learn the traditional techniques from local farmers about water conservation, his other city friends were reluctant to work manually and parted ways. Eventually when the monsoon arrived that year, the johad filled up and soon wells which had been dry for years had water.

Villagers pitched in and in the next three years, it made it 15 feet deep. These facilitated a rise in the groundwater levels and helped turn the area into a "white zone". So much so that the Forest Department invited the NGO to take an active part in the park's management.

For collecting rainwater in 850 villages in 11 districts of Rajasthan, and he was awarded the Magsaysay Award for Community Leadership in the same year. Reforestation has been taken up by numerous village communities, and Gram sabha have been set up especially to look after community resources. A notable example is the Bhairondev Lok Vanyajeev Abhyaranya (people's sanctuary), spread over 12 km2 near Bhanota-Kolyala village at the head of Arvari. He has also been organizing Pani Pachayat or Water Parliament in distant villages in Rajasthan to make people aware of the traditional water conservation wisdom, the urgency of groundwater recharge for maintaining underground aquifers and advocating community control over natural resources.

Topic 6: Role of NGOs in Social Development

New trends emerge in NGOs activities from 1950 to 1960 when it start to work in field of development. Similarly, the concept of people's participation does not have a long history. It reflects partly the failure of the" trickle down" model of economic development advocated after World War II .In 1980,s NGOs become a major phenomenon in the field of development. Tvedt analyzed NGOs "as an outcome of complicated processes where factors like international ideological trends, donor policies and agenda interacts with national historical and cultural conditions in a complex way. On the whole these organizations are commanding growing attention as possible alternative to government in addressing the needs of vast of population. So, we can summarize NGOs development in three stages-

- Social and cultural in early stage.
- Community services and development in intermediate stage.
- More recently target oriented activist groups.
- Social and cultural in early stage.
- Community services and development in intermediate stage.
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- Social and cultural in early stage.
- Community services and development in intermediate stage.
- More recently target oriented activist groups.

The major development roles ascribed to NGOs are to act as:

- Planner and implementer of development programmers
- Mobiliser of local resources and initiative,
- Catalyst, enabler and innovator,
- Builder of self reliant sustainable society,
- Mediator of people and government,
- Supporter and partner of government programme in activating delivery system implementing rural development programmes, etc.,
- Agents of information,
- Factor of improvement of the poor, and
- Facilitator of development education, training, professionalization, etc

Unit - IV [Communication in different Indian perspectives]

1. Communication for rural development

i. Strengthening of Panchayati Raj

ii. Advancement in farming and alternative employment

iv. Conservation of rural culture – traditional Communication for rural development

Communication for rural development

i) Strengthening of Panchayati Raj

Acknowledging that India's attempts to devolve power to local self-government units have not been successful Prime Minister Manmohan Singh urged the effective decentralization of administrative powers to ensure inclusive growth. "Decentralization is essential to get inclusive growth in a large and diverse country like India...the purpose of panchayati raj is decentralization under which people get the right to run administration themselves. We have to make efforts so that this does not remain a slogan but becomes a reality in our lifetime, For this we will have to give responsibilities and powers to the elected representatives in real terms. Keeping in view the transfer of power to elected representatives, panchayats, block and district councils in rural areas and the municipalities and corporations in urban areas, the problem can be identified that the bureaucrats don't want to share power were commonplace and this mindset needed to change. India currently has 250,000 panchayats with 3.2 million representatives, 1.2 million of whom are women.

Local governments could play a key role in development but their success depended on factors such as the capacity of the elected representatives and the decentralization of power. Under the central government's 12th Five-Year Plan, we have earmarked Rs.6,437 crore to strengthen panchayati raj institutions.

ii) Advancement in farming and alternative employment

There is a lot of innovation in the mobile/IT and energy spaces that have the potential to make a huge impact on the farm. For example, smart power systems, precision agriculture tools, farm management software, and affordable sensors are all within reach of even the smallest farmers today. From Nairobi to San Francisco and from Tallin to Sydney, entrepreneurs are taking advantage of new technology that makes these products possible. We see potential in radio

frequency technologies (RFID, NFC, Bluetooth), the Internet of Things and the big data that comes along with it, as well as in clean technology advances from ambient energy, to waste-to-energy, to renewable sources.

Ultimately, we think that all of these technologies, when deployed effectively, will work towards achieving the following long-term objectives.

LONG-TERM OBJECTIVES

Efficient farm management and resource efficiency – As mentioned earlier, a declining percentage of farmers in the world have to produce more for a growing population. Fortunately, advances in technology can have significant impact, as did irrigation systems, tractors, and other mechanical innovations in the 19th and 20th Centuries. Further, a "whole farm approach" optimizes the farmer's efficiency, including use of water, waste, soil, energy, and most importantly, time. Precision agriculture technologies, for example, can optimize fertilizer applications, saving time and money by creating a more productive field.

Traceability – You've heard of the horse meat scandal and countless other food recalls. People want and need to know what's in their food and where it comes from. This requires tools and processes that manage and monitor the flow of inputs. This would improve efficiency, product differentiation, food safety, and product quality. Further, traceability and transparency in the food supply benefits the farmer in the long run, by opening up opportunities to access credit and markets.

Supply chain efficiency – A third of the food produced annually is wasted. In the U.S., most of our food is wasted at the consumption stage. In Sub-Saharan Africa, food is wasted before it even reaches the consumer.

We're keeping our eyes open for opportunities in the age tech space. We're looking for startups offering technologies that can:

- Increase farmer profitability, productivity, and efficiency.
- Improve farmer, animal, and consumer livelihood with better work environments, food safety, and food security
- Protect the planet and its finite resources.

iii) Conservation of rural culture - tradition

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Local governments could play a key role in development but their success depended on factors such as the capacity of the elected representatives and the decentralization of power. Under the central government's 12th Five-Year Plan, we have earmarked Rs.6,437 crore to strengthen panchayati raj institutions. According to Planning Commission- Rural development implies both the economic development of people as well as greater social transformation. Increased participation of the people in the rural development process, decentralization of planning, better enforcement of land reforms and greater access to credit with better prospects for economic development. Improvement in health, education, drinking water, energy supply, sanitation and housing coupled with attitudinal changes also facilitates their social development.

The concept of rural communication was coined out of various communication efforts used to educate and create awareness among rural masses regarding health, hygiene, education, faming , family , nutrition, sanitation etc. Initially in the 1950s, many small and marginal farmers, due to their lack of knowledge about latest skills, practices, ideas and scientific methods in farming, were not able to produce adequate food. S, I was considered necessary to change these habits though extension methods. This approach of spreading/ diffusing innovation, new ideas, practices and technologies in agriculture to the farmers became very popular as agricultural extension during 1950's. since this process relued heavily on communication techniques and methodologies, in due course communication applied to agriculture extension came to be known as Agricultural Communication. And in the continuation of same process, extension approach

was used to transfer knowledge to the rural mass on health, hygiene, nutrition, sanitation etc. And it came to be known as Rural Communication. Later on , slums of the urban areas were also included to help the poorer sections living in them. There is renewed emphasis on people's participation in development programs. Involvement of the local people in development programs. Involvement of local people in schemes of rural development is expected to result in better planning and decision-making because they themselves have better understanding and awareness about their ground conditiond, problems , need and situations, and fuller information aboput possibilities of their areas. Many development thinkers and agencies are becoming increasingly determined to facilitate this kind of participation. Media strategies for rural development focus on gearing to the ethos and relevance of those people for whom the development is meant for , and thus, the localness of the approach and user friendly technology has become important.

The Jhabua project, SITE project has at times proved the effectiveness of various skills and technology like satellites/ production techniques / Television and Radio etc. in communication for rural development. The media has from time-to –time spread awareness about RTI and various employment , farming schemes of the government. An important role in this context has been played by Community Radio by various NGOs and agencies like MAHAVELI CR in Sri Lanka, VOICES in India etc. Various farm and home programs on this medium create awareness about latest scientific technologies and skills for better productivity of land according to various geographical conditions.

Along with this, the rural press has worked to reinforce literacy and giving voice to their problems. Farm journals like Bengal Agricultural Gazette, Plantation News etc. disseminate relevant development messages to the rural audience. Being ancient forms of art, the folk media is very close to the hearts of the people. Traditional media holds universal appeal. Its understanding is direct and at the personal level. Traditional folk performances are uniformly popular, irrespective of the educational, social and financial standing of any community. Various researchers have established the importance of traditional folk media in development communication. Traditionally, folk media were primarily used for entertainment, social communication and persuasive communication. Now, there are efforts to involve folk media for conveying development messages. In the past few decades traditional folk media have been

increasingly recognized as viable tools to impart development messages, both as live performances and also in a form integrated with electronic mass media.

Here are some of the characteristics of traditional folk media :
1. They have sustained the onslaught of time

2. They have sustained by changing with the changing times

3. Any person is always a participant in the performance, never an audience.

4. It is spontaneous.

5. It is flexible.

6. It is cost effective and therefore has enhanced repeatability.

7. It is has immediate feedback and increased attentiveness.

8. It is performed in a common language promoting intelligibility.

9. It is direct and personal.

Now let us glance over the advantages of these forms of media over the conventional mass media. Intimacy with the masses: We know that every community or ethnic group of society has its own folk and traditional media which are close to their hearts. This is because it is in their person or simply speaking it runs in their blood. Hence, whenever it is performed or enacted by anyone in a society or place most of the masses feel like joining it and closely enjoy it to the maximum. It is physically very close to the people: You must have seen that most of the folk and traditional media are performed in close proximity of the public gathering. Those of you from Assam and others who live here will know that bihu dances are performed in close proximity with the peoples' gathering.

Thus its effects on the masses are much greater than that of mass media. These are personal media: While reading about the characteristics of communication as well as mass communication you must have found that the latter is a highly 'impersonal' medium. This is because the communicator is communicating with the masses through a mechanical device or medium. That is why the effects of the personal warmth which is found in folk and traditional media are

lacking in mass media. This is true for TV, radio, newspaper or a magazine etc. That personal charisma which can move the masses is absent in mass media.

Scope for repeat performances: In these two types of media there is ample scope for repeating a performance if the masses watching it like it. And the audiences can also take part in it by becoming themselves a part of the performing team. This scope is not there in mass media where programmes are broadcast only once and simultaneously. In other words it means that in folk and traditional media programmes and events can be repeatedly performed if people liked them. But in case of mass media this is not possible as programmes are broadcast at the same time for a wide variety of people across a huge area. Regional / local level variations are important: We can see that folk and traditional media performances can be carried out with adequate scope for some amount of regional or local variations in different places of the country. For example, bihu performances in some areas of Sivasagar district will be somewhat different from the performances in maybe Dibrugarh or Golaghat or Jorhat districts. Same is the case with other forms of folk and traditional media also. However, in case of mass media the same kind of performance has to be watched or listened to by the people everywhere with hardly any scope for regional or local variations at all. Scope for using body language or non verbal language is adequately available in folk and traditional media: You must have realized the importance of non verbal language in the field of communication. In folk and traditional media non verbal or body language plays a vitally-important role in enhancing the meaning of the messages being exchanged among the participants. So, the scope for using voice modulations, facial gestures, overall body movement etc. all these aspects make these two types of media much more effective than mass media where this scope is far less. Of course, you can say that TV, films and documentaries do have this scope in a good measure. But this can't be equal to that of a live performance by any person in regard to effectiveness. Besides, you can realize on your own that compared to this aspect, print media is a highly stale one in case of sending across the meanings of its information and messages. That is, even though exclamation signs are used in written languages, yet it does not carry the same kind of emotional strength and effect which one can get in case of radio and TV due to voice modulation.

Use of local language, costumes etc: Every type of folk and traditional media has to be essentially based upon the local ethos, culture and other aspects. Thus the costumes, language used and the settings and background etc. must invariably bear the stamp of that locality and

general culture of the area. Otherwise it will not be able to carry the same effects and meanings for the masses. **I**t is dynamic. That means it changes with the times embracing new elements from time to time. This is why its contents change in different eras of time. Similarly, its dynamic nature is also reflected in the fact that most of the folk and traditional media are responsive to the major events and happenings in the society. For example, if you will look at Bihu songs over the years you will find that they also contain or address popular and major issues of the different periods of time. Such as – some of the songs depict stories about our freedom struggle against the colonial rulers, some of them depict things about the famous anti-foreigners' agitation of the 1980s, floods and many other socio-economic problems.

Again, maybe all of you are familiar with the folk culture of Ojapali of Assam. Interestingly, this form of folk culture is basically aimed at creating awareness among the masses through a judiciously-combined dance and scriptures sequences. It is active even today and is carrying on its duties properly for creating awareness about various social issues among the masses in the respective areas where they are performed. In some parts of lower Assam, there is a folk tradition called 'mohoho' festival or the mosquito-repelling festival as moh in Assamese means mosquito. In this folk culture, people of the village form a group and visit all the families of the village for the purpose of alerting the family members about the need for mosquito-repelling. However, this activity also doubles up as a visit of the families for delivering the blessings of the villages elders to the families and reliving the touch of the residents of the villages amongst themselves. Thus we can see that most of the forms of folk and traditional culture in our society can be transformed into carriers of our developmental communication messages aimed at the masses at grassroots level in each and every nook and corner of the country. This will ensure a much higher scale of success to our efforts in this particular field of communication aimed at the rural underprivileged and illiterate masses.

Topic 2: Communication for urban development

i. Urban sanitation
ii. Consumer awareness
iii. Slum development

Urban Sanitation

Despite significant investments over the last 20 years, India still faces the most daunting sanitation challenge than any other country in South Asia. According to an estimate, India stands second among the worst places in the world for sanitation after China. Government figures claim that India is all set to achieve MDG 7 target 10, but still a vast majority of poor rural inhabitants remains among the unserved population. The rapid urbanization is putting a strain on already stressed urban sanitation systems in India. Slums are very rarely connected to cities' sanitation infrastructure and the sanitation situation is deplorable. So what is ailing India's sanitation sector?

This article tries to answer this question through experience in working with 50 civil society organizations across 9 states in India over the issue of increasing access to drinking water supply and sanitation. Effective implementation of sanitation schemes, increased civil society's participation, enhancing financial allocation, monitoring progress and effective targeting seem to be crucial to achieving total sanitation in India.

Sanitation is the most neglected and most off-track of the UN MDG targets. WaterAid's studies show that sanitation is vital for poverty reduction and represents a driver for development. There is compelling evidence that sanitation brings the greatest public health returns on investment of all development interventions. With the pace at which sanitation coverage is increasing, as claimed by the government, it's likely that India will meet the sanitation target. The MDG 7, Target 10, explicitly states that it is aiming to halve by 2015, from 1990 levels, the proportion of people without sustainable access to safe drinking water and adequate sanitation. However, even if MDGs' targets are met, a huge absolute number of India's population will still remain uncovered, and that would still count more than 500 million people! This is simply an observation about the ground realities in India.

Urban versus Rural Sanitation

The official coverage for rural sanitation is 26% and for urban - 83.2% (Source: 2005-06 NFHS data). The overall sanitation coverage as recently announced by the government is 48%. These figures are those of infrastructure and do not provide us information about the access and use of latrines by individuals\families. Independent assessments of latrines' use show a much lower coverage. Given a large population of slum dwelling excluded from formal urban sanitation and sewerage systems – we believe the coverage status is about the same for both urban and rural

India. With less than 50% population having access to effective sanitation, the situation is grim for both rural and urban India. The sheer concentration of population in towns, coupled with poor drainage and the impact of poor sewerage affecting safe drinking water - urban sanitation is emerging as a major challenge for India. Usage and not coverage is a challenge in rural areas, given the subsidy regime in India and the way the government subsidies are being rolled out. Government's Scheme and its effectiveness Given the federal character of India and the large number of states, no single central or state government scheme can be credited with boosting coverage. Household private investments in septic tanks and pit latrines in urban areas are substantial and have been the major contributor to increased sanitation coverage in urban areas. The recent Nirmal Gram Puraskar Yojana, a central government scheme for rewards and incentives and recognition from the President of India, is seen as a promising scheme to increase sanitation coverage in rural areas.

What kind of strategy should the country adopt?

There is an urgent need to integration of water and sanitation access in the rural areas as experiences show that availability of water is one of the major drivers of safe sanitation apart from issues of behavior change. The strategy should be multi pronged for pooling in resources from all quarters: they may include supporting local groups, clubs, SHGs and NGOs to take up the promotion of hygiene and sanitation behavior change which is needed in place of an infrastructure driven toile coverage promotion in rural areas. For urban areas, more public toilets in commercial areas and integrated community managed infrastructure (bathing and washing complexes plus toilets) are needed on a very large scale for a hot tropical country like India. The trend to privatize and contract out public infrastructure in slums and even in mixed areas (commercial and slums), needs to be curtailed. Community owned and managed infrastructure with subsidized electricity and free water is needed for urban slums.

Consumer Awareness

Intelligent and smart people walk out of the strategies before embarking on certain activities. Many others, however, are undisciplined and will haphazardly encounter the challenges. Those in the first category will mostly emerge successful. On the contrary, those in the latter category will get mixed result. Before planning, it is essential to learn and how to know about the programme one intends to undertake. This is also very true in case of consumerism.

An enlightened consumer is an empowered consumer. An aware consumer not only protects himself from exploitation but induces efficiency, transparency and accountability in the entire manufacturing and services sector. Realizing the importance of consumer awareness, Government has accorded top priority to Consumer Education, Consumer Protection and Consumer Awareness. The slogan 'Jago Grahak Jago' has now become a household name as a result of publicity campaign undertaken in the last 3 years. Through the increased thrust on consumer awareness in the XI Five Year Plan, the Government has endeavoured to inform the common man of his rights as a consumer. As part of the consumer awareness scheme, the rural and remote areas have been given top priority. In a big country like India, given the scenario of economic disparity and level of education and ignorance, educating the consumers remains a gigantic task. Government has taken up number of activities and schemes in creating consumer awareness in the country as part of this Consumer Awareness Scheme. Planning Commission has time and again stressed on the need to undertake evaluation and monitoring studies on the publicity campaign undertaken by the Department. To ensure meeting this objective various steps have been taken as underlined.

a) Monitoring by the Multi-Media Committee - Regular meetings of the Multi-Media Committee are organised, which analysis the various proposals relating to consumer awareness. The Committee has representation of Ministry of Information and Broadcasting, DAVP, Doordarshan, All India Radio and VCOs to suggest the various mechanisms for undertaking publicity campaign for consumer awareness.

b) Feedback from NCH - Suitable note is kept of the feed-back that is received through National Consumer Helpline and suitable adjustments are made in the publicity plan keeping in view the same.

c) Findings of IIMC Survey - A comprehensive IIMC survey was undertaken that covered 12 States and 144 districts in the country. The survey has come out with an encouraging picture regarding the impact of the publicity campaign carried out by Department of Consumer Affairs. The survey brought out the fact that electronic media emerged as a preferred source of information by respondents both in the urban and rural areas. The survey has brought out that about 62.56% respondents from both rural and urban areas were found to be aware of the publicity campaign run by the Department. Findings of the IIMC survey have been duly

considered and incorporated while finalising the Media Plan for undertaking consumer awareness activities.

d) Concurrent Evaluation of the Plan Scheme - To assess the effectiveness of the campaign, a concurrent evaluation has also been undertaken. Under this evaluation questionnaires were sent to more than 12,000 persons on various aspects of the 'Jago Grahak Jago' campaign. The survey had brought out that more than 73% respondents had confirmed the efficacy and effectiveness of 'Jago Grahak Jago' campaign. More than half the respondents confirmed that they had started checking in various provisions relating to Weights & Measures, MRP, receipts for purchase etc on account of the message received through this campaign.

Advertisements have been released through DAVP in national dailies as well as regional newspapers in local languages in accordance with the new advertisement policy of the DAVP. Each advertisement has been released through a network of more than 400 newspapers throughout the length and breadth of the country.

The Department has got produced video spots of 30 seconds duration on various consumer related issues such as Short Measurement of petrol, Grievance Redressal system, MRP, ISI and Hall-Mark, Financial Literacy, Medicines, Travel Services, Education, Consumer Protection Act, Agmark, Food Adulteration, Food Safety etc.which are being telecast through Doordarshan and Satellite channels

The Department in consultation with Department of Post has disseminated consumer awareness messages through Meghdoot Post cards to reach far-flung rural areas including North East States. The Department has entered into a tie with Department of Post under which posters carrying messages pertaining to consumer awareness have been displayed in 1.55 lakh Post Offices in the country. The Department also used the vast network of Post Offices in the country through display of posters carrying messages on consumer awareness through the network of more than 25,000 urban post offices.

The Department has printed a folder entitled 'Jago Grahak Jago' containing the salient features of Consumer Protection Act 1986, provisions of Weights and Measures Act, information about standardisation such as ISI, Hallmarking, Education Services etc. for distribution during various events such as IITF, Nukkad Nataks and also through the State Governments at grass root level. The publicity material relating to consumer awareness has also been translated in regional

languages and is being disseminated to various State Governments.

In order to reach maximum number of consumers, the Department has telecast video spots containing consumer related information during the popular sports events particularly the Cricket Series where the audience interest in maximum. The youngsters are using the internet in a big way for various purposes and also happen to be major consumers. Realizing this, a major initiative is being taken to spread consumer awareness through the internet medium. The Department of Consumer Affairs provided publicity material such as posters, audio, video, folders, calendars, and magazines etc. to the State Governments/ UTs for distribution through panchayats in the rural areas. Grant-in-Aid has been given to the States/UTs for carrying out consumer awareness activities in the local media using the local language and emphasis has been made on involving Panchayati Raj institutions in the consumer awareness campaign.

Suggestions:

There are still a good number of illiterates in the State. Printed literatures and pamphlets are of no use to them. So these segments of population need special trainings on consumer affairs. With regard to the general population, however, more awareness programmes are to be conducted at frequent intervals

Slum Development

Developing countries like India presently suffer to the enormous growth of urbanization. And the urbanized area similarly carried the problem of slum. Presently, Indian Population is 1/6th of the world population. Accelerating urbanization is forcefully effecting the transformation of Indian society. Slightly more than 28 percent of the country's population is urbanized, but unfortunately 21.68 percent (61.8 million) of the urban population live in slum area. As per Last NBO report total housing shortage was 19.4 million units. In urban are the shortage is 6.6 million unit and 90% of these shortage hits poor and LIG people. It’s become a very common urban scenario that thousands of dwellings made of straw, mud, tin, and cardboard are squeezed into areas of a small city block. In these cramped dwellings, often only an arm-span in width, entire families live without running water, electricity. Few have beds; they sleep on scraps of cloth padding on the dirty floor. Rapid growth of industrialization creates enormous employment opportunity. It attracts the lower income peoples and the unskilled labours from the rural area. The high rate of

migration from rural area to the urban sector formulated slum area, because these men are unskilled labours to industries.

Role of communication in slum development can be assessed by the following case study of Nairobi-

Since late 2006, several small media projects have emerged in the slums of Nairobi with the aim to counterbalance the ignorance from mainstream media, provide the slums residents with news, information and an opportunity to voice their needs and discuss relevant issues. These media are best labelled community media, since their main concern is to serve the interests of the community, in this context the slums. Community media and community radio in particular played an import role in the local youth's identity construction. By promoting a "slum identity" and ascribing to it positive connotations they help the youth strengthening a sense of pride in who they are and where they come from. Moreover, community media and especially community broadcasting provide the audience with information and a platform for debate where the community can interact directly or indirectly with civil society group, local power holders and experts whether in health, law and finance. This can improve the living situations of the audience but also their engagement as citizens. On a macro level, community media's biggest contribution to social change is their proactive work to combat tribalism by encouraging their audiences to perceive themselves as Kenyans rather than clinging on to identities based on tribal belonging, which is further reflected in their use of Swahili. The political economy of community media is the biggest challenge that prevents the media projects from fully fulfilling their objectives and being a progressive force for social change. The weak financial situation not only affects their output negatively, it makes them dependent on external funding and misuse youth as unpaid labour.

Topic 3: Communication for Tribal development

- ✓ Wild life and forest conservation
- ✓ Joint forest management
- ✓ Forest based cottage industries

National Environment Awareness Campaign

The Ministry of Environment and Forests has been conducting National Environment Awareness Campaigns (NEAC) every year since 1986 to create environmental awareness among the general masses. A central theme is selected for the campaign every year and the activities focus on this theme. Minor deviations to address the local issues are, however, permitted. Upto the year 1992-93, the campaign had been coordinated at the national level by an NGO - Central Coordinating Agency - with the help of organizations at regional level - Regional Resource Agencies (RRAs). From 1993-94, the whole mechanism of conducting campaigns was decentralized and the programmes are being conducted through RRAs without involving a Central Coordinating Agency. The campaign is being conducted with the help and active participation of non-governmental organisation, education and training institutions, professional associations, scientific bodies, community organisations, and also a whole range of official agencies. These bodies singularly or in partnership with other organisations, will organize programmes for creating environmental awareness of the local, regional and national level. Individuals and unregistered socities / Trusts are not eligible to apply for the financial assistance.

Activities under NEAC

Seminar/Workshop/training course/camp

Public meeting/rally/jathra/padayatra

Lecture/film show/AV show

Drama/street theatre/other folk media

Competition/exhibition/demonstration

Advertisement/poster/banner campaign

- Preparation and use/distribution of resource material (publication, educational kits, posters, audio-visuals, etc)

Other

In addition to the above mentioned awareness campaigns, the selected organisation should also conduct a programme called as "Action Component" connected with the theme proposed by Ministry. The Ministry will specify the items of action component.

Along with such initiatives of communication by the government, there are some outstanding journals and magazines dealing with environment-

CENTRES FOR SCIENCE AND RESEARCH: Down to Earth

CSE researches the underlying processes of change and events and pushes for sustainable policies in the area of natural resource management. Through its informational products, CSE has provided advance warnings, perceptive analyses and intellectual leadership in the field of environmental management and helped to build an informed public opinion.

Down To Earth

Down To Earth, the magazine that CSE produces in partnership with its sister organisation, the Society for Environmental Communication, is today an established medium, respected and read. For instance, the issue on arsenic contamination in Uttar Pradesh catalysed debate and thinking on the issue on water management among policymakers, water and heath experts, development agencies and bureaucrats. The story on TRIPS, sent to parliamentarians helped them to understand the issues and raise questions during parliamentary debate. The story of tigers, the first one to print narratives from villagers in the core area, led to the formation of the Tiger Task Force.

The magazine gets a large number of letters, which shows that people take it seriously. In addition, many write asking to report on their work in Down To Earth so that it can make a difference. Therefore, Down To Earth has become a way to drive change not in the sense of the campaign which is an issue driven single minded approach to push for change but in a way in which the information which is credible and forceful can push people to make the change in different areas in different ways.

Joint forest management

In this respect, the two traditional roles of media i.e creating 'awareness' and 'watch dog' role become important. The people, living in both rural as well as urban areas are to be motivated to actively participate in the development process. They should be made to realize that though the government is responsible for the implementation programs, in order to make them truly need

satisfying, transparent and equitable in benefit distribution, their active involvement in all the stages of implementation is essential. Above all, people's participation in the development program creates a sense of ownership, necessary for monitoring the progress and sustaining its implementation. This is not mere assumption, but the realization based on many successful experiences with in the country, particularly in the areas of forest and watershed management. At the same time these experiences in the form of success stories of community participation, have to be spread all over through media so that people become habituated to voluntarily participate in the implementation of development / service oriented programs / schemes meant for their development.

Media is also responsible to ensure that 'participation' should not merely remain a buzzword, but become the functional element of any development scheme in the country. In the democratic society like ours, media's 'watch dog' is considered as an essential function in order to ensue various institutional systems to follow democratic traditions and function in a transparent manner so that all sections of the society is served equitably and efficiently. The lacunas and mal-practices in the systems and their functions have to be brought out by the media to the notice of not only the concerned people for immediate rectification, but also the society at large so that it acts as pressure -group on these systems / institutions of their own. Particularly in Indian context where the participatory resource management process is in its initial stages, the 'watch dog' role of media, apart from ensuring transparency in the system, should also assume the additional dimension of 'providing guidance' to the local / community level executives in the participatory managerial process.

Forest based cottage industries

Cottage Industry is a concentrated form of small scale industry where the productivity of the goods takes place in the houses of the laborers and the workforce include the members of the family. The equipments used to generate products are not the hi-tech ones but generally those which are used at homes. Cottage industry is generally unorganized in character and falls under the category of small scale industry. They produce consumable products through the use of conventional methods. These types of industries originate in the country sides where unemployment and under-employment are widespread. In this way, cottage industries help the economy by engrossing a massive amount of remaining workforce of the rural areas. But on the

flip side Cottage Industry cannot be considered as the mass producer of products. It faces major risks from medium or large industries which demand huge amount of capital investment for all types of hi-end technologies.

Problems faced by cottage industries in India Cottage industries in India face dearth of capital and large quantity of labor, which force them to buy capital-saving techniques. Hence, there is an urgent need for implementation of techniques which not only enhances productivity but develops skills of the laborers and meets the requirements of the local market. Endeavors should be directed towards the development of technology so that labors can enjoy a decent lifestyle. Government should also provide subsidiaries for the growth of cottage industries especially in the preliminary stages. The laborers of cottage industry often find themselves fighting against all odds at every stage of their business, be it buying the raw materials or promoting their products, arranging for capital or access to insurance covers, etc. To his utter misfortune he is exploited by all. Hence, it is important to ensure that the benefit of value added services reaches the worker on time. Cottage industries are the victims when it comes to attracting the attention of modern industry. This calls for preservation and promotion of cottage industries through formulation of public policies directed at improving the industry both in context of income of laborers and technological aspects. Organizations working for the benefit of cottage industry in India

The well-known organization like Khadi and Village Industries Commission (KVIC) is working towards the development and endorsement of cottage industries in India. Other premier organizations are Central Silk Board, Coir Board, All India Handloom Board and All India Handicrafts Board, and organizations like Forest Corporations and National Small Industries Corporation are also playing an active role in the meaningful expansion of cottage industries in India.

Despite several attempts by these organizations, the Cottage Industry still face threat of extinction and will be surrounded by such threats if they continue receiving inadequate monetary and technological support from government.

BASIC OF RADIO PROGRAMMING (203)

UNIT-1

Radio as a Medium of Mass Communication

Radio is widely used mass communication medium and has a great potentiality in dissemination of information as radio signals cover almost entire population. More than 177 radio stations are there across the country. About 97 percent of the population is reached by the radio. Radio being a convenient form of entertainment caters to a large audience. With the advent of transistors this medium hrs reached the common man in urban and rural areas of India, though the utilization of radio is more among rural elites. It has advantages over the other mass media like television and newspapers in terms of being handy, portable, easily accessible and cheap. It is the most portable of the broadcast media, being accessible at home, in the office, in the car, on the street or beach, virtually everywhere at any time. Radio is effective not only in informing the people but also in creating awareness regarding many social issues and need for social reformation, developing interest and initiating action.

For example, in creating awareness regarding new policies, developmental projects and programs, new ideas etc. It can help in creating a positive climate for growth and development. It widens the horizons of the people and enlightens them, thereby gradually changing their outlook towards life. Research has shown that radio is an effective medium for education when it is followed up with group discussion and question- answer session. In India, radio with its penetration to the rural areas is becoming a powerful medium for advertisers. It gets 3 percent of the national advertising budget. Radio is still the cheap alternative to television, but is no longer the poor medium in advertising terms. Because radio listening is so widespread, it has prospered as an advertising medium for reaching local audiences. Moreover, radio serves small highly targeted audiences, which makes it an excellent advertising medium for many kinds of specialized products and services. As far as commercials are concerned, no one is able to tune out commercials easily as is possible with remote control devices and VCRs. It is thought that radio's ability to attract local advertisers hurts mainly newspapers, since television is less attractive to the small, local advertiser.

As far as audience is concerned radio does not hamper persons mobility. As a vehicle of information for masses it is still the fastest. For instance, it would take less time for a news reporter for radio to arrive on the spot with a microphone and recorder than the same for TV along with a shooting team and equipment. Another important feature of radio as mass medium is that it caters to a large rural population which has no access to TV and where there is no power supply. In such places, All India Radio's programmes continue to be the only source of information and entertainment. Moreover, AIR broadcasts programmes in 24 languages and 140 dialects. "Radio should be treated akin to newspapers in view of the fact that it is local, inexpensive, linked to communities, has limited band width and operates through simple technology".

The economics of radio does allow tailoring programme content to the needs of small and diverse audiences. Thus it is economically viable to recast a programme for broadcast to audiences in different sub regional, cultural and linguistic context. This enhances the value of radio as a medium in networking developmental programmes. Thus, it offers many possibilities in networking, from locally or regionally co-ordinated broadcasts and interactive exchange of queries and data. It can serve as a standalone medium of information dissemination or a support medium for curricular learning, jointly with print material or with fieldwork. Kapoor, Director general of AIR (1995) said, " Radio is far more interactive and stimulating medium than TV where the viewer is spoon-fed. Radio allows you to think, to use your imagination. That is why nobody ever called it the idiot box".

Characteristics of Radio

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

2. **The speed of radio:** Radio is the fastest medium. It is instant. As things happen in a studio or outside, messages can be sent or broadcast. These messages can be picked up by anyone who has a radio set or receiver which is tuned into a radio station. If you have a television set and cable or satellite connection you may be using a remote to get your favourite

channel. These days if you have a satellite connection, you can also receive radio signals of various AIR stations. Otherwise your normal radio set gives the meter or frequency on which various radio stations operate.

3. You are tuned into that station and liste to news that happened a few minutes earlier. On the other hand, a newspaper gives you the previous days' news. Of course television can also cover events instantly. But television is a more complex medium where you need light and cameras for any coverage.

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

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

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

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

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

9. For a majority of Indians in the rural areas, radio is the only source of news and entertainment. Radio news can be heard anywhere using an inexpensive receiver. Even the most economically backward sections can afford to use the medium of radio. Radio is the best medium of entertainment. It provides healthy entertainment to the listeners. There is plenty of music of different types available to people. The popular types of music are classical, light classical, light, devotional, folk and film music.

Limitations of Radio

1. **A one chance medium:** When you read a newspaper, you can keep it with you and read it again. You have the printed word there and unless the paper is destroyed it will remain with you. Suppose when you read a news item, you do not understand the meaning of certain words. You can refer to a dictionary or ask someone who knows to find out the meaning. Now think of radio. Suppose you are listening to a news bulletin in English and you hear words that you don't understand. Can you refer to a dictionary or ask someone else for the meaning? If you stop to do that, you will miss the rest of the news. You have to understand what is being said on radio as you listen.

You have only one chance to listen. What is said on radio does not exist any longer; unless you record it. The words have momentary life. After it is spoken, it disappears unlike a newspaper or a printed book. So that is one of the greatest limitations or weaknesses of radio. It's momentary nature or to put it differently – radio is a one chance medium. A listener has just one chance to receive the message and understand it.

2. **Radio has no visual images:** Let us consider a news item on radio and the same item on television. For example, the news about the devastating cyclone Nargis that hit Myanmar in May 2008. Radio news talked about the intensity of the cyclone, the number of deaths, details about property destroyed etc. However in the case of television, it showed the actual cyclone hitting the country, visuals of properties destroyed, rescue operations and many more details which could be seen. Now compare the two. A natural disaster like a cyclone when seen on television is more effective than what you hear on radio. It is said that "a picture is worth a thousand words". It is also said that ''seeing is believing''. So when you see something, it is more believable than what you hear. So having no visuals is a major limitation of radio.

3. **Messages on radio are easily forgotten:** The problem of not having visuals leads to another limitation of radio. What is seen is often remembered and may remain with us. For example if you have seen the fine visuals of the Taj Mahal in Agra, it will remain in your memory. But what you hear is normally forgotten fast. Probably you may remember what you have heard in a class room if you found it interesting. But can you recall all the headlines of a news bulletin you heard on radio? Normally, you don't. So this is another limitation of radio. Messages heard on radio are easily forgotten.

4. **Poor performance on the part of announcers:** Presenters or participants in a radio programme can be boring or uninteresting that it can result in listeners switching off their radio

sets. So listeners' interest depends up on how information or messages are presented.

5. **Radio broadcasts are** of no use to people who have no sense of hearing especially those with hearing disabilities.

Three Modes of Transmission

Shortwave radio is a type of long-range radio transmission that bounces signals off a layer of the atmosphere to be received in another part of the world. The shortwave radio spectrum is made of groups of frequencies between about 3 and 30 megahertz (mHz).

Shortwave radio depends largely on special layer of the Earth's atmosphere called the ionosphere. The ionosphere, located about 100 miles (160 km) over the earth's surface, has the unique ability of being able to reflect certain radio frequencies. Unlike AM and FM radio, shortwave radio frequencies can bounce off of the ionosphere and be heard many thousands of miles away. This allows users to be able to hear shortwave radio broadcasters from other countries throughout the world. The ionosphere typically bounces the widest variety of shortwave radio frequencies at night, especially within a few hours of sunset and sunrise. The unique ability of shortwave radio transmissions to travel large distances have led to many uses. Radio broadcasters in almost every country worldwide transmit on shortwave frequencies. Some famous broadcasters, such as the Voice of America in the US and the BBCin the UK, broadcast news in many languages, allowing listeners to hear news that might not be broadcast at home. Other listeners prefer to learn more about certain countries or pick up a new language through classes broadcast on some stations. Shortwave radio has also attracted a number of hobbyists who listen to shortwave radio for fun. Many of them will attempt to listen to stations in as many countries as possible.

Another use of the shortwave radio spectrum is amateur, or "ham" radio. Amateur radio hobbyists transmit and receive messages from hobbyists in other countries. Unlike shortwave radio listeners, who only listen to stations, amateur radio operators must typically pass a government-run licensing examination and follow certain rules to ensure safety and orderly use of the radio spectrum. In addition to being a hobby, amateur radio operators regularly assist in disasters when other forms of communication are unavailable. A wide variety of shortwave radios are on the market today for almost any budget. Radios range from battery-powered portable models to desktop versions. Costs vary as well, ranging from under $100 to

more than $1000. More expensive models tend to have more features, including electronic displays and preset memory settings. While a typical telescopic antenna on a portable model is sufficient to receive many of the popular shortwave stations, some hobbyists construct more elaborate antenna systems to receive weaker transmissions from areas farther away.

AM and FM are two very popular and very different methods of sending information over the airwaves. AM is amplitude modulation while FM is frequency modulation. But what is modulation? It is the act of modifying a certain aspect of the carrier frequency in accordance to the information being sent. It is then clear that AM modifies the amplitude of the carrier frequency while FM modifies its frequency. AM is the older an easier of the two technologies to implement. The receiver detects the changes in the carrier frequency's amplitude and amplifies it to drive a speaker. The simplicity of the technology made it easy to build radio receivers in great quantities. The main problem associated with AM broadcasting is the fact that it is very susceptible to various weather conditions that deteriorate and distort the signal. The simplicity of the design also limits the broadcast to a single audio channel, making it inadequate for stereo sound.

FM is a development over AM broadcasting and it provides a lot of substantial benefits thus it is much more complex compared to AM. The first and most substantial benefit is its ability to send out two channels of information at the same time with the use of advanced algorithms. This allows the station to broadcast left and right audio channels for full stereo sound. Since most environmental factors that distort radio waves only affect its amplitude and not the frequency where FM stores the actual voice signal, the data in the FM signal doesn't degrade as easily as AM. This also means that FM signal quality doesn't degrade linearly as you get further from the transmitting station. Range wise, AM takes the cake with its much greater distance travelled. FM signals usually drop of at around 50 miles from the station, but AM waves can be refracted in the atmosphere resulting in greater range. The range is also one of the reasons why talk radio prefers AM even if the sound quality is not very high.

The advancement in technology also meant that the degree in complexity and price between AM and FM receivers have become moot. Most manufacturers can even manage to place the whole circuitry for both AM and FM inside a single chip, turning them into a package instead of

competing against each other.

Summary:

1. AM broadcasting is simpler than FM but the difference in complexity and price are very marginal at present.
2. AM is more prone to signal distortion and degradation compared toFM. 3.FM doesn't degrade linearly with distance.
4. AM usually broadcasts in mono which makes it sufficient for talk radio.
5. FM can transmit in stereo making it ideal for music.
6. AM has a longer range than FM.

Different Types of Radio Stations

AIR has a three-tier system of broadcasting, namely, **national**, **regional** and **local**. **The National** channel of All India Radio started functioning on May 18, 1988. It caters to the information, education and entertainment needs of the people, through its transmitters at Nagpur, Mogra and Delhi beaming from dusk to dawn. It transmits centrally originated news bulletins in Hindi and English, plays, sports, music, newsreel, spoken word and other topical programmes, to nearly 76% of the country's population fully reflecting the broad spectrum of national life. The languages of broadcast are Hindi, English and Urdu apart from some music from other Indian languages. The **Regional** Stations in different States form the middle tier of broadcasting. This also includes the North-eastern service at Shillong which disseminates the vibrant and radiant cultural heritage of the north-eastern region of the country.

Local Radio is comparatively a new concept of broadcasting in India.

Each of these local radio stations serving a small area provides utility services and reaches right into the heart of the community, What distinguishes local radio from the regional network is its down to earth, intimate and uninhibited approach. The programmes of the local radio are area specific. They are flexible and spontaneous enough to enable the station to function as the mouth piece of the local community.

FM Channels

FM stands for Frequency Modulation which is a broadcasting technology or method in radio.

You may have all listened to one or more FM channels. The FM service of AIR has two channels

FM Rainbow and FM Gold.

There are 12 FM Rainbow channels and 4 FM Gold Channels. The programme content of these channels is mainly popular Indian and Western music, presented in a style which is highly popular with the urban youth. News bulletins and current affairs programmes are also broadcast from these channels. There are also other AIR stations on the F.M. mode. There are several private FM channels which can be heard all over the country.

Private radio stations (FM channels)

Radio Mirchi, Radio Mango, Big FM, Times FM ……The list is becoming longer.

These are private or commercial radio stations which have been given a license to broadcast programmes on radio. Most of them cater to the younger generation by providing a mix of music and fun.

Community Radio is a type of radio service that caters to the interests of a limited area or a community which is homogenous. It broadcasts programmes that are popular and relevant to the local audience. A community radio license is required to operate a community radio station. These stations are expected to produce programmes as far as possible in the local language or dialect. Although the stress is on developmental programmes, entertainment is not banned on these radio stations. Anna FM is India's first campus community radio operating from Anna University in Chennai, Tamilnadu. This was launched on 1 February 2004.

NIT-2

What are Formats

When you read a popular magazine, you will come across various things. There will be an attractive cover, advertisements of different products, stories or articles on issues ranging from politics to sports and cinema, interviews and other features. Similarly, a radio station also

broadcasts programmes of different types.

Think of the different types of programmes you have heard on radio. You would probably remember film songs, phone in programmes, talks, discussions, news, cricket commentaries etc. These different types of programmes are called formats.

Simple Announcements

You may have heard the names of radio stations, from where the programmes are broadcast. Many of you would remember Vividh Bharati, AIR FM Gold or some private commercial station. You may also remember the time being mentioned and what programme you are going to listen to. These are called **announcements**. Announcements have been traditionally made by people who are known as **announcers**. The commercial radio channels may call them Radio Jockeys (RJs) or anchor persons. Before you learn about the different radio formats, you must know the ingredients of a radio format.

As we know most of what is spoken on radio is written down. As you have already learnt that what is written for radio is heard and is referred to as 'spoken word' as against the 'written word'. But the spoken words on radio are written down or what is generally called 'scripted'. A Radio format can be split into three parts: They are:-

(a) Spoken Word or Human Voice

(b) Music

(c) Sound Effects

All radio formats have the above three ingredients. So let us first classify the spoken word format.

Radio Talks, commentaries and comments

1. **Radio talk:** The radio talk probably is the oldest format on radio. There has been a tradition in India and Britain to invite experts or prominent persons to speak for 10 or 15 minutes on a specific topic. These talks have to go through a process of being changed into radio's spoken word style. Over the years, these long radio talks have become unpopular. Instead, today, shorter duration talks are broadcast. Of course, you can listen to these talks only on public service broadcasting stations.

2. **Commentaries:** If you can't go to see a football or cricket match in a stadium, you may watch it on television.

But for that you have to be at home or at some place where there is a television. But if you are travelling or outside, then you may listen to radio for a running commentary of the match. A commentator would give you all the details of the match such as the number of players, the score, position of the players in the field etc. So by listening to the running commentary, you get a feeling of being in the stadium and watching the match. The commentator needs good communication skills, a good voice and knowledge about what is going on. Running commentaries on radio can be on various sports events or on ceremonial occasions like the Republic Day Parade or events like festivals, melas, rath yatras, swearing in ceremony of ministers, last journey (funeral procession) of national leaders etc. Today radio running commentaries especially of cricket and other sports can be heard on your mobile phones.

3. Announcements: These are specifically written clear messages to inform. They can be of different types. For example station/programme identification. These mention the station you are tuned into, the frequency, the time and the programme/song you are going to listen to. As mentioned already you find in today's commercial radio channels, these announcements have become informal and resemble ordinary conversation. There can be more than one presenter in some programmes like magazines.

Radio interviews: Have you ever interviewed anyone? Probably yes. In the media, be it the newspaper, magazine, radio or television, journalists use this technique of asking questions to get information. There can be different types of interviews in terms of their duration, content and purpose. Firstly, there are full fledged interview programmes. The duration of these may vary from 10 minutes to 30 minutes or even 60 minutes depending up on the topic, and the person being interviewed. Most of such interviews are personality based. You might have heard of long interviews with well known people in the field of public life, literature, science, sports, films etc. Secondly, there are interviews which are used in various radio programmes like documentaries. Here the interviews are short, questions specific and not many. The purpose is to get a very brief, to the point answer. Thirdly there are a lot of interviews or interview based programmes in news and current affairs programmes. Have you heard such interviews on radio? With phone-in-programmes becoming popular, you might have heard live interviews with listeners. These interviews have been made interactive. There is another type of interview based programme. Here generally just one or two questions are put across to ordinary people or people with knowledge on some current topic to measure public opinion.

For example when the general budget or the railway budget is presented in the parliament, people representing radio go out and ask the general public about their opinion. Their names and identity may not be asked. Such programmes are called 'vox pop' which is a Latin phrase meaning' voice of people'. You have to be very inquisitive and hard working to be a radio interviewer with good general awareness and communication skills.

Radio discussions: - When you have a problem in your family or with your friends, don't you say "let us discuss?" Yes we do. Through a discussion we can find out a solution to problems. In any discussion there are more than 2 or 3 people and then ideas can be pooled to come to some conclusion. In radio, this technique is used to let people have different points of view on matters of public concern. Radio discussions are produced when there are social or economic issues which may be controversial. So when different experts meet and discuss such issues, people understand various points of view. Generally, these discussions on radio are of longer duration- say 15 to 30 minutes. Two or three people who are known for their views and a well informed senior person or journalist who acts as a moderator take part and discuss a particular topic for about 30 minutes. The moderator conducts the discussion, introduces the topic and the participants and ensures that everyone gets enough time to speak and all issues are discussed.

Radio documentaries/features: If you see a film in a movie hall, it is generally a feature film, which is story based and not real. But there are also documentary films which are based on real people and issues. A lot of programmes you see on television are educational and public service documentaries. Radio also has this format. Unlike documentary films, radio documentaries have only sound – i.e. the human voice, music and sound effects. So a radio documentary is a programme based on real sounds and real people and their views and experiences. Radio documentaries are based on facts presented in an attractive manner or dramatically. Radio documentaries are radio's own creative format. The producer of a documentary needs to be very creative to use human voice, script, music and sound effects very effectively. Radio documentaries are also called **radio features.**

Radio Play: A Radio drama or a radio play is like any other play staged in a theatre or a hall. The only difference is that while a stage play has actors, stage, sets, curtains, properties

movement and live action, a radio play has only 3 components. They are the human voice, music and sound effects. Radio of course uses its greatest strength for producing radio plays and that is the power of imagination and suggestively. For example, if you want to have a scene in a radio play of a north Indian marriage, you don't have all physical arrangements made. All that you have to do is to use a bright tune on the shehnai and excited voices of people to create in a listeners' imagination, a wedding scene. The voice of the actors, music and sound effects can create any situation in a radio play.

Running commentaries: If you can't go to see a football or cricket match in a stadium, you may watch it on television. But for that you have to be at home or at some place where there is a television. But if you are travelling or outside, then you may listen to radio for a running commentary of the match. A commentator would give you all the details of the match such as the number of players, the score, position of the players in the field etc. So by listening to the running commentary, you get a feeling of being in the stadium and watching the match. The commentator needs good communication skills, a good voice and knowledge about what is going on. Running commentaries on radio can be on various sports events or on ceremonial occasions like the Republic Day Parade or events like festivals, melas, rath yatras, swearing in ceremony of ministers, last journey (funeral procession) of national leaders etc. Today radio running commentaries especially of cricket and other sports can be heard on your mobile phones.

Radio Advertising

Radio is an affordable ad medium that can reach a mass audience. These five keys help increase your chances of having a successful radio ad campaign.

Frequency of Ads

A radio commercial needs to air multiple times before it sinks in with the listener. Running your commercial once a week for a month isn't going to be enough.

Frequency refers to how many times your ad airs in a short amount of time. A commercial that airs multiple times in a day has a better chance of reaching the listener than a commercial that only airs a few times in a week.

Target Audience

Just like with every ad you create, you must know your target audience. Advertising your western gear store on a country station makes sense. Advertising a teen clothing store on the same station doesn't. Make a list of the radio stations in your market. Listen to each one to help

identify your own target audience. What kind of listeners will be tuning in and are they a potential customer for your product or service? Radio stations also offer programs you'll want to know more about before you buy. You won't want to advertise your Christian book store during a program that uses a raunchy sense of humor.

Producing Your Commercial

Unlike television commercials, production is more simple for a radio commercial. You need a script and voice talent. However, that doesn't mean you should just slap something together. Your copy isn't relying on any visuals so it's vital you capture the listener's attention from the start. The copy needs to be crystal clear and not muddied by trying to be cutesy in your pitch. Voice talent can be as simple to find as calling the radio station. Most stations have a complete list of voice talent in your area. You send the script, they voice it.

Remember, frequency is the key so make sure your ad hits the mark and will get the consumer's attention the first time. Research shows it takes a few times before the consumer actually gets what your company is all about. It's vital your ad stands out and conveys your message repeatedly.

Rates

Take advantage of the low ad rates for radio. Ad rates are on the rise but the costs are still more affordable than visual mediums like television.

Use your negotiating skills to get a good deal on an ad bundle. The more ads you buy, the better rates you'll be able to get.

Timing Your Spending

Ad rates are generally less expensive in the first and third quarters. Radio commercials in these time frames are easier to negotiate and cheaper for you to advertise. Before you take the plunge into radio advertising, find out if you're Ready for Radio. And if you're ready to hit the airwaves, this radio commercial script can show you how to deliver strong copy that will reach your listeners every time.

PHONES-INS

Phone in programme – In this age of technological development, phone-in is the most important format. This is called interactive programming where the listener and the presenter talk to each other.

Their talk goes on air instantly. The listener has the satisfaction that his voice is being listened to

and replied immediately. Other listeners also listen to him. Such presentations need advance publicity so that the listeners get ready to air their grievances/queries or requests. They dial up the announced telephone number at a stipulated time and get their problems discussed with experts in the studio. Initially this format was introduced for playing the listeners' request based film songs. Now it is being used for health related programmes, rural broadcasts, complaints against the government/ administrative machinery etc.

Radio Bridges

Radio bridge : Radio bridge means connecting different stations throughout the length and breadth of the country. In this technique, for example, an expert sitting at Chennai can interact with the common man in the studio in Delhi. This format was first used by All India Radio during elections.

Music on Radio

MUSIC : When we say radio, the first thing that comes to our mind is music. So music is the main stay in radio. There is no radio without music. Music is used in different ways on radio. There are programmes of music and music is also used in different programmes. These include signature tunes, music used as effects in radio plays and features. India has a great heritage of music and radio in India reflects that. Let us understand the different types of music.

Classical Music

There are 3 types of classical music in India. They are:-

1. Hindustani classical
2. Carnatic classical
3. Western classical

While there are film songs in different languages, the one with a national appeal and popularity is Hindi film songs. On most radio stations, be it public service or commercial, Hindi films songs are heard everywhere. Light western and pop music are also popular among some groups of listeners and there is a large section of young people listening to western pop music.

Radio News

NEWS: Among all the spoken word formats on radio, news is the most popular. News bulletins and news programmes are broadcast every hour by radio stations. In India, only All India Radio is allowed to broadcast news. Duration of news bulletins vary from 5 minute to 30

minutes. The longer news bulletins have interviews, features, reviews and comments from experts.

Main characteristics of Radio News as against news in other media

Comparisons Across Media:

Newspaper	Radio	Television
A summary lead is best if it tells readers the most important of the 5W's and H: who was involved, what happened, where, when, why and how did it happen. However, if including all 5W's and H will clutter the lead sentence, the less important elements are reserved for the following sentences. An ideal length is 35 words or less. The dateline, which identifies location, precedes the lead sentence. Local stories do not carry a dateline. The lead of a local story usually identifies the where: citywide, in a particular neighborhood or suburb, or at a street address.	35 words are unusually long. A lead sentence half that length is better. It is more likely that only part of the 5W's and H will be heard. The why and how will be left for a later paragraph, or not included in a short item. Unless the time is significant, it is likely to be dropped on the understanding that today's newscast will present	Like radio.
The lead describes the event in the context of an Ongoing situation. The lead begins to put the current event in its historical framework. The body of the text will include a fuller historical perspective:	The lead usually contains the fewest details that will clearly relate the most significant element of the events being reported. History or any other context is likely to be left for the following paragraphs in order to keep the lead short and simple:	Like Radio

The dateline, which identifies location, precedes the lead sentence. Local stories do not carry a dateline. The lead of a local story usually identifies the where: citywide, in a particular neighborhood or suburb, or at a street address	The lead sometimes begins with the location as a transition device, a way of redirecting the listener's attention away from the last story onto this new item:	The lead, especially in network newscasts, may begin with location.
4. Question leads are not found in hard news stories.	Question leads are rare. They sound like commercials.	Question leads are rare.
Occasionally used in light feature stories, they immediately involve readers		

UNIT-3

Writing for Ear

First of all, when it comes to radio, you listen to a person who is not seen. The person speaks from a script written down earlier. You feel that the person is talking to you. The person sounds friendly and you have no problem in understanding what is being said.

You can call the language or the words used in a radio script as the spoken word as against the written word or the printed word used in the print media. Unlike the printed word which is written for the eye, the spoken word is written for the ear.

Characteristics of the spoken word.

- Let us list out the main characteristics of the spoken word.
- Though it is written, it is spoken
- It is written for the ear not the eye.
- It is heard only once. The listener normally does not get a second chance to listen.
- It is conversational and should therefore sound like one and have the following qualities:
- It should be simply worded without any difficult or unfamiliar words.
- The sentences should be short and simple and not complex.
- There should be only one idea in a sentence and not many ideas.

- Though there are thousands of listeners, what is written should be meant for just one listener. At the listening end, there are generally only one or two persons and not a crowd. So it should be speaking to one person.
- The words chosen should denote the exact meaning and not be vague or abstract.
- The words should make pictures in the minds of the listeners.
- Abbreviations or short forms should be avoided. If an abbreviation is used then its full form should be given.
- If the script consists of big numbers it can be rounded off to the nearest whole number.
- While referring to more than one person, avoid using 'he' or 'she'. It can confuse the listeners.

Knowing your audience

Program Directors, or program decision-makers are your first-line audience. It is difficult to 'maintain' or build a listening (not PDs) audience for specials and limited series, since the time on-air is short compared to on-going programs. You need to catch the attention of your first-line audience immediately, and help them promote the program to their audience.

KNOW YOUR AUDIENCE

System Trends Within the current public radio marketplace, there are some trends that influence programming decisions:

Stations are becoming more format focused in an effort to increase core listenership. Although this trend toward more focused formats may limit carriage for particular programs, such as specials and limited series, there is an opportunity to target messages to program decision-makers more effectively. Public Radio News Listeners are coveted. Many public radio program directors have been and continue to be interested in attracting the younger news audience. Programs that can demonstrate appeal and affinity to this group are of great interest. Social documentaries also carry a strong appeal to baby boomers, the main public radio audience. Underwriting possibilities are becoming increasingly important as government grants decrease and other sources of funding are more competitive. Programs that provide excellent opportunities for stations to seek and gain underwriting will be attractive to stations.

WHAT TO CONSIDER WHEN DEVELOPING YOUR PROGRAM

Produce a high quality program: I agree with Sheila. Some of the programs I listen to are wonderfully produced. Others are not. You can have the best idea for a program, but in this day

and age with so many listening choices, if the quality is not good you will lose your audience. Besides being a good idea, it needs to be radio phonic.

1. Consider: Clean sound
2. Compelling host; inviting, intelligent radio voices
3. Draw audience in within the first minute
4. Excellent editing
5. Well-written scripts
6. Good use of transitional and background music

We need know your audience - what they want, the demographics, etc. Also look at:

1. Unique perspective
2. Good story
3. Push the envelope
4. Niche programming

Meet station scheduling/technical needs Again, the program idea and quality can be fantastic, but if a station won't take it because of the length, you lose your audience (example: if a station schedules only block programming - which most do - a 16:30 minute will not be of interest to them).

- Consider: Format
- Length
- Ease of use
- Reason for breaking format (holiday programs work well here)
- Music/talk ratio

Budget wisely: Make sure your budget will produce the program you envision. Marketing of the program is vital - budget for it! Plan ahead. Then, the difficult part - find the funding. Promotional/Underwriting/press value for stations. This area is very important for stations - anything to help them promote your program, both to potential underwriters and listening audience, will increase their interest.

- Consider: Photos
- Additional written information that can be sent electronically
- Press releases
- Outreach possibilities
- Ancillary product possibilities

Developing your style

Think of the village or town in which you live. You find people belonging to all communities men and women, rich and poor. Radio plays very important role inthe lives of the people of India. Though there are plenty of rich people and highly developed cities, a majority of our people are poor and a large number of them cannot read or write. So the only medium that can really reach them to inform, educate and entertain is the radio. Radio stations especially those run by the government perform a public service duty.

The requirements of listeners of radio stations are not the same. To serve them, we need to know many facts about them.

Let us make a list of what we should know about the audience:

- Number of people — i.e. the total population of the area.
- Number of men and women — Sex ratio
- Literate people/Illiterate people

Dramatizing Messages

Step 1 Outline your radio commercial. You have a very short time to sell your product. Write a strong opening hook. Starting the ad with a question is an effective way of capturing the audience's attention, such as "Are you tired of high gas prices?" This immediately engages your audience. Note key selling points in your outline, and include them in the finished script. Include contact information at least twice in a 60-second radio spot.

Step 2 Write your script in the proper format. The name of the client should be written at the top of the script, along with the name of the commercial spot and the running time. Format your script into two columns. The left column will be the source column (speaking characters primarily), and the right will be the dialogue, action and sound effects.

Step 3 Understand radio ad conventions. SFX stands for sound effects. Write this in the column in all capitals and underline it any time you have a sound you want in your ad. Write the sound in the column of your script. Use ANNCR any time the announcer is narrating. Use a double dash any time you want a slight pause. Capitalize speaking characters in the left column, and write their dialogue in the right column

Step 4 Focus your radio script to include a strong hook that attracts your audience's attention, engage the listeners with an entertaining presentation and leave them excited enough to go out and buy what you're selling.

UNIT-4

Radio Production

Whatever we do, there has to be a clear plan. In the case of radio production also, there is a well accepted process of production which is carried out in three stages.

Let us list them out.

a) Pre-production

b) Production and

c) Post-production

a) Pre-production

As the title suggests, this is the first stage before the actual production.

i) An idea is born: This phase includes how a programme is born as an idea and its conceptualization. The topic or subject matter is decided.

ii) Plan of action: After the topic is decided, a plan of action is worked out. Here the format of the progamme is determined i.e whether the programme is a talk, discussion, interview, drama, documentary etc.

iii) Once that is clear, the right person for writing the script and the performers are decided. The plan of action would also determine the equipment for outside recordings that are required. The time and venue of the recording are also worked out.

iv) The script is examined to make it suitable for broadcast. It is examined according to the principles of writing for radio or in other words 'for the ear'. We will discuss this is detail in the next section.

v) Paper work : If people who are not working in the radio station are involved for writing or providing voice for the programmes, they have to be invited with an agreement to accept the job or assignment. This type of agreement is referred to as a contract. Similarly, permission is often required to interview certain people if the programme is based on such interviews. Therefore, as you can see, there is a lot of paper work at the pre- production stage.

Elements of Radio Production

The various elements of radio production flow from the above ingredients of a radio format. So let us look at the main elements of radio production.

(i) Studio : In the previous lesson, you have learnt that the radio studio is a room where radio programmes are recorded. For producing a radio programme, you need a 'sound proof'

studio where human voice can be recorded or broadcast in the best manner.

(ii) Microphones: For our voice to be recorded in a studio, we use a microphone. You might have used or at least seen microphones. They amplify or in other words, increase the volume of your voice. When you speak before a microphone, you don't have to shout.

(iii) You speak normally and it will be made louder if you use a loudspeaker to listen to. When we think of radio, the microphone is the most important element using which you present your programme. There are basically three types of microphones and they are known by their directivity. As you go through the following text, you will understand the term 'directivity'.

(a) Uni-directional microphone : As the name suggests, this microphone picks up sound from one direction. As you speak in front of it, your voice is picked up. If you speak from the other side of the microphone, your voice will not be picked up properly. In a radio studio, the announcers, presenters and newsreaders use this type of a microphone.

A microphone is very sensitive and you need to use it carefully. You should be at the right distance from it when you speak. Otherwise, your voice will not sound good. Even if you turn a paper or breathe heavily, the microphone will pick up that sound and your programme or your voice will be affected.

(b) Bi-directional microphone:- Here again as the name (bi) suggests, the voice or sound is picked up from two directions. If you are recording an interview in a radio studio, you may use this type of a microphone.

(c) Omni-directional microphone: You may be familiar with the word omni. We say god is omnipresent, which means 'present everywhere'. In the case of an omni-directional microphone, it picks up sound from all directions. This type of microphone is used when a number of voices are used in a single programme like a radio discussion or a radio drama

There are many other types of microphones which come in different sizes and lengths. If you watch television programmes, you may find a small microphone clipped on the collar. This is called a **lapel microphone** which is actually a uni-directional microphone. These microphones are not normally used in radio. Then there are long microphones called **gun microphones** used in sports production. These microphones are often omni directional ones. There are also **cordless microphones.**

You might have seen them being used in stage shows. They do not have any cables or wires attached to them. They have a small transmitter in them which can send the sounds to an amplifier.

(iv) Sound effects : Sound effects in a radio programme give meaning and sense of location. It adds realism to a programme and helps a listener to use imagination. Think of a crowded market or temple. If you are creating that scene in a radio programme, you do not have to go to a crowded market or temple to record. Well, you can record those sounds and use them. But in most cases, you use sound effects which are already recorded. Sound effects can be used in two ways:

(a) spot effects or effects that are created as we speak and

(b) Recorded sound effects.

If you are recording a radio programme in which someone knocks at the door, you can make a knocking sound either on a door or a wooden partition. Or you want to show that someone is pouring water from a bottle into a glass; here again you can use the actual sounds produced on the spot. But if you want a lion roaring or a dog barking, you probably cannot bring a lion or a dog to the studios! Here we use recorded sounds which are kept on tapes or discs. Almost all sounds are available on CDs which you can try and use. There are also certain types of computer software available for this. You can also create sound effects. You can use two coconut shells to produce the sound effects of the sounds of horses' hooves. Take a piece of cellophine paper or aluminum wrapper and crush them in front of a microphone. Record the sound and hear. It will sound as if fire is raging. You can think and create many such sound effects.

(v) Music: Music is the soul of radio. It is used in different ways on radio as already discussed in the earlier lesson. Film songs and classical music programmes are independent programmes on radio. Music is also used as signature tunes or theme music of various radio programmes.

Let us see what music does to any programme.

a. Music adds colour and life to any spoken word programme.

b. Music can break monotony.

c. Music is used to give the desired effect of happy or unhappy situations, fear or joy.

d. Music can suggest scenes and locations. For example, you have to create a bright early morning situation. This can be done by playing a pleasing note on the flute along with the sound of chirping birds.

(vi) Artificial echo:- If you enter an empty building or fort and shout, your voice will come back to you. This is called on echo. An echo is used in radio programmes. This is a technical input.

(vii) Filter or distort: If you listen to someone speaking to you on phone, the voice would not sound normal. This sort of effect called distort is produced using technology. Some times distort is used along with echo. Think of someone speaking from a mine 100 feet below the earth. To make it realisitic, distort and echo are used.

(viii) Human voice: The main stay in any radio programme is the human voice. Think of the voice of an announcer or newsreader on radio. You often find them very pleasant and nice to listen to. That is because of the quality of their voice and the proper use of it. There are two aspects of the use of human voice in radio production. Firstly, there has to be a well written script to be spoken and then someone has to speak or read it before a microphone in a studio.

Sound perspective

Sound perspective refers to the apparent distance of a sound. Clues to the distance of the source include the volume of the sound and the **balance** with other sounds, the **frequency range** (high frequencies may be lost at a distance), and the amount of echo and **reverberation**.

Acoustics

Acoustics is the interdisciplinary science that deals with the study of all mechanical wavesin gases, liquids, and solids including vibration, sound, ultrasound and infrasound. A scientist who works in the field of **acoustics** is an acoustician while someone working in the field of acoustics technology may be called an acoustical engineer. The application of acoustics can be seen in almost all aspects of modern society with the most obvious being the audio and noise control industries. Hearing is one of the most crucial means of survival in the animal world, and speech is one of the most distinctive characteristics of human development and culture. Accordingly, the science of acoustics spreads across many facets of human society—music, medicine, architecture, industrial production, warfare and more. Art, craft, science and technology have provoked one another to advance the whole, as in many other fields of knowledge. Robert Bruce Lindsay's 'Wheel of Acoustics' is a well accepted overview of the various fields in acoustics.

Sound Effect

Sound effects (or audio effects) are artificially created or enhanced sounds, or sound processes used to emphasize artistic or other content of films, television shows, live performance,

animation, video games, music, or other media. In motion picture and television production, a sound effect is a sound recorded and presented to make a specific storytelling or creative point without the use of dialogue or music. The term often refers to a process applied to a recording, without necessarily referring to the recording itself. In professional motion picture and television production, dialogue, music, and sound effects recordings are treated as separate elements.

Dialogue and music recordings are never referred to as sound effects, even though the processes applied to them, such as reverberation or flanging effects, often are called "sound effects".

Music

Music is the soul of radio. Film songs and classical music programmes are independent programmes on radio. Music is also used as signature tunes or theme music of various radio programmes.

Filter or distort

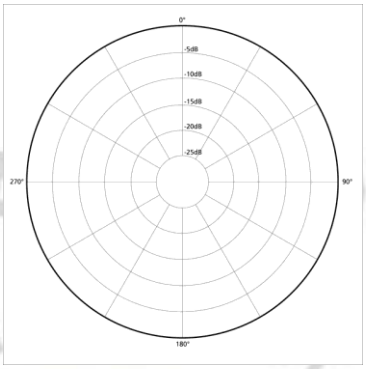
If you listen to someone speaking to you on phone, the voice would not sound normal. This sort of effect called distort is produced using technology. Sometimes distort is used along with echo. Think of someone speaking from a mine 100 feet below the earth. To make it realistic, distort and echoes are used.

Different types of microphone

A polar pattern is a circular graph that shows how sensitive a microphone is in different directions. Each “circular” division represents 5dB of sensitivity, so you can see where the microphone picks up the strongest to the weakest sounds at different points. On the graph below, 0 degrees shows the direction the microphone is facing. 90 and 270 degrees are the sides of the microphone and 180 degrees the microphone’s back. The polar pattern below shows the solid line as a 1KHz signal. From 0 degrees the sensitivity drops more than 1 division (or more than 5dB) by the time it reaches 90 degrees. This means the side of the microphone is more than 5dBs less sensitive than the front of the microphone. Note - 6dB is equal to half the microphone’s volume, so sound from the side will be half the volume of sound from the front of the microphone.

The helpful guide below explains the different types of polar patterns you can find in the Audio-Technica microphone range. Omnidirectional - 360 degrees pick-up Figure of Eight -

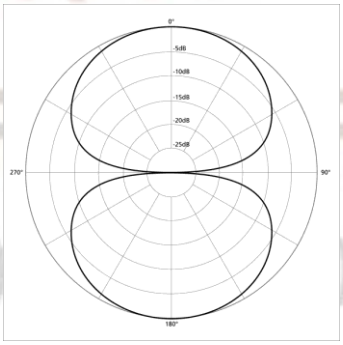
front and back pick-up Cardioid - 120 degrees pick-up Hypercardioid - 100 degrees pick-up Line and Gradient (Shotgun) - extremely tight pick-up for long distances



Omnidirectional Microphones

An omnidirectional polar pattern covers all directions and picks up all sound in a 360 degree radius. These are ideal for natural, ambient recordings and for tie clip microphones - as moving your head to one side will not change the volume. They also make ideal headset microphones, as they sound very natural when close to the mouth.

Omni directional microphones are pressure sensitive so they are not as affected by wind noise or by the "proximity" effect (the bass boost when you are close to a directional microphone). They are also less susceptible to popping caused by "plosives" (when you say "P" or "B" close to the microphone). Omni directional capsules exist independently of any special housing or cavities to alter the polar pattern. This makes a very neutral sounding microphone with very little colouration. The physical body of the microphone can block some high frequencies, making sound 'duller' from the back.



Bi-directional microphones pick up sound from the front and rear while rejecting sound from the sides. You can see on the diagram above that it does not change for different frequencies. This is due to the fact that the capsule exists naturally without any alteration - like

omnidirectional microphones which are very neutral sounding. Figure of Eight microphones are used for their natural sound quality in some headsets, studio and broadcast microphones. There are also used in "Mid/Side" stereo recording techniques and in stereo microphones like the BP4027 and the BP4029. All ribbon microphones are naturally Figure of Eight.

Cardioid Microphones

Cardioid microphones pick up sound within 120 degrees of the direction they are facing and take their name from the heart shape of their polar pattern. They help to reduce feedback and can be used to capture a particular sound in a loud environment. They are affected by wind noise, "proximity" effect and are susceptible to popping caused by "plosives". The original cardioids design uses a combination of an omni directional and a figure of eight element working together in harmony.

Sound coming to the front of the microphone is added together from both the omni directional element and the figure of eight element. Sound from the sides will only be picked up by the omni directional element which will be half the volume of the front sound as only one capsule 'hears' the sound. Sound from the rear will have a positive signal on the omni directional element which is cancelled out by a negative signal from the figure of eight making the sound for the rear inaudible. Most current cardioid microphones use external openings and internal passages in the microphone housing that allows sound arriving from the front of the microphone to aid diaphragm motion, while sound arriving from the side or rear will cancel diaphragm motion.

Hypercardioid Microphones

Hypercardioid microphones are very similar to cardioids but have a tighter 100 degree pick-up. They have better side rejection than cardioid microphones but also pick-up a little sound from the rear. Hypercardioids are even better than cardioid microphones for reducing feedback and therefore are the best choice for a quiet singer, or to capture a particular sound in a loud environment.

Line and Gradient (Shotgun) Microphones

Line and Gradient or Shotgun microphones use a complex design that makes their polar pattern highly directional. The capsule is placed behind an interference tube with small slits along the side. The tube eliminates sound from the sides due to phase cancellation. The longer the

interference tube, the tighter the polar pattern, making the

microphone better at rejecting sound from the side and more focused in the direction it is pointing.Shotgun microphones are excellent for film and theatre work to pick up sound while keeping the microphone out of the camera's view. As well as the standard broadcast shotgun microphones, Audio-Technica also makes miniature shotgun capsules for gooseneck and hanging applications. The Unipoint range uses the UniLine capsule and the Engineered Sound range uses the Microline capsule.

You can find the polar pattern of your microphone on the product page under resources or on the microphone's specification sheet.

Recording

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interviews. Therefore, as you can see, there is a lot of paper work at the pre- production stage.

v) **Rehearsing** the voices of speakers is also part of this stage.

b) **Production :** This is the actual process of recording and editing a radio programme. Proper studios, microphones and computers are required to record and edit the programme.

c) **Post production :** Writing to inform people involved in the production is a major activity during this phase. The progamme has to be given publicity both on radio and in other media.

d) This is done to ensure that people know about the programmes and also listen to them. The announcements for the presentation of the programme are also written and provided for the actual broadcast of the programme.

Editing Editing Ethics

The fact that listeners generally don't think about how what they hear was edited, combined with how easy it is to change sound bites, means we all have the obligation to think about the ethics of editing. Here's what the Corporation for Public Broadcasting's ethics guide for public radio, Independence and Integrity II has to say about it: "Audio editing must be faithful to the news event in question while advancing our understanding of the story. Consider, for example, whether eliminating a pause within a sound bite, or making an internal edit, would alter the listener's perception. Ask yourself whether sources would recognize themselves in their sound bites. Be consistent in your editing."

Some General Hints and Tips

1. **Listen as you edit!** Headphones are great for picking up details, but remember that most people listen to the radio while they're driving or cooking dinner. So listen through speakers too. Also, if you're editing digitally, remember that it doesn't matter what the sound waves look like, it matters what they sound like.
2. **Breaths: Breathing is good.** If you edit out all the breaths, or don't maintain a natural rhythm to the breathing, it won't sound right. Most people breathe between sentences or ideas. Keep in mind that you can switch breaths around substituting a shorter breath for a longer one, for example, to keep the pace of the actuality. Or a quieter one in place of a really noisy, distracting breath.
3. **Pauses:** Pauses are natural too, and they can also help with pacing. But too many pauses and the listener gets bogged down. Remember to use room tone instead of blank space

(or virgin tape, if you're editing analog) when you create pauses. Also, when you mix your story, make sure there's a little room between your actualities and your tracks – but not too much — otherwise your story will sound too rushed

4. **Ums/ahs/likes, etc:** Filler words and noises are part of everyone's speech. But if they're too abundant, they can become annoying and slow the story down. Unless they convey something important — say you're editing a politician who's waffling in response to a tough question — it's usually best to take them out where you can in short news pieces. **Smoothing ambience/using room tone** If your actualities are hissy or there's a lot of room tone, your story will sound jumpy, especially if there are studio-recorded (or closet-recorded) tracks in between. It's important to smooth out the beginning and ending of every cut by adding room tone on to either end and fading in and out. Same goes for loud ambience – if there are cars driving by, or a jackhammer in the background, you can either hold the ambience under your tracks or fade into the ambience rather than starting it at full volume.
5. **Levels:** It's important to make sure that your levels match – especially when you're making internal edits. If a person is quiet at the beginning of a sentence and loud or enthusiastic at the end, it will be hard to take the middle phrase out and still make it sound natural. Also: the tracks and acts should be at around the same volume so listeners don't have to constantly adjust their radios.

BASICS OF CAMERA LIGHTS & SOUND (205)

BASICS OF CAMERA, LIGHTS & SOUND

CAMERA

A video camera is a camera used for electronic motion picture acquisition, initially developed by the television industry but now common in other applications as well. Video cameras are used primarily in two modes. The first, characteristic of much early television, is what might be called a **live broadcast**, where the camera feeds real time images directly to a screen for immediate observation; in addition to live television production, such usage is characteristics of security, military/ tactical, and industrial operations where surreptitious or remote viewing is required. The second is to have the images recorded to a storage device for archiving or further processing; for many years, videotape has been the primary format used for this purpose, but optical disc media, hard disk, and flash memory are all increasingly used. Recorded video is used not only in television and film production, but also surveillance and monitoring tasks where unattended recording of a situation is required for later analysis.

It is also interesting to see the emergence of pocket video camera using flash memory; they could become the iPod of digital cameras.

Modern video cameras have numerous designs and uses, not all of which resemble the early television cameras

- Professional video cameras, such as those used in television and sometimes film production; these may be studio-based or mobile. Such cameras generally offer extremely fine-grained manual control for the camera operator, often to the exclusion of automated operation.

- Camcorders, which combine a camera and a VCR or other recording device in one unit; these are mobile, and are widely used for television production, home movies, electronic news gathering including citizen journalism, and similar applications.
- Closed-circuit television cameras, generally used for security, surveillance, and/or monitoring purposes. Such cameras are designed to be small, easily hidden, and able to operate unattended; those used in industrial or scientific settings are often meant for use in environments that are normally inaccessible or uncomfortable for humans, and are therefore hardened for such hostile environments e.g. radiation, high heat, or toxic chemical exposure). Webcams can be considered a type of CCTV camera.
- Digital cameras which convert the signal directly to a digital output; such cameras are often extremely small, even smaller than CCTV security cameras, and are often used as webcams or optimized for still-camera use. These cameras are sometimes incorporated directly into computer or communications hardware, particularly mobile phones, PDAs, and some models of laptop computer.
- Larger video cameras especially camcorders and CCTV cameras can also be used as webcams or for other digital input, though such units may need to pass their output through an analog-to-digital converter in order to store the output or send it to a wider network.
- Special systems, like those used for scientific research, e.g. on board a satellite or a space probe, or in artificial intelligence and robotics research. Such cameras are often tuned for non-visible light such as infrared for night vision and heat sensing or X-ray for medical and astronomical use).

Thing to look into while using a video camera: Recording format

One of your major decisions before buying a video camera is to decide what kind of record format you want. In other words, does the video get recorded on tapes or an internal hard drive? If it is tape, what kind of tape? Cameras today also record on memory sticks, memory cards or removable discs. All of these record formats have their pros and cons. Some slide easily into video editing programs and some don't. If you want to edit the video you take you might want to stick with the sort of old-fashioned mini-DV tape format. However if you do not want to edit your video, it is certainly more convenient to pop a disc out and play it in your DVD player than to get it converted or plug your camera into the side of your TV so you can watch a mini DV tape.

Image Sensors

The quality of the picture a video camera gets is largely determined by the quality of the image sensors. They are what capture the light and turn it into a video image. Video cameras come with either one image sensor chip or three. Three is better. With three, there is an individual chip for the three primary colors of light, red, green and blue. With one-chip camera, all of that is squished onto one chip. Chip size also matters. A 1/3 inch chip would be considered large. 1/6 inch is a common size for less expensive cameras.

Audio Input

Inexpensive video cameras do not have any way for you to use a supplemental microphone. You have the on-board microphone, but no way to plug in a hand held or lavaliere mic for better sound quality. High quality sound is probably more important for many videos than high quality video. If people cannot hear what you are saying, they will not bother to watch your video. If people talking on camera will be important to your productions and that's most videos look for a camera with an audio input. Audio inputs will either be small stereo plugs for less expensive models or XLR inputs on higher- end models. Make sure you buy a microphone with a plug that matches your camera's input.

Manual or Automatic

Higher-end cameras have full manual control. Manual focus control, manual exposure control, manual white balance, manual audio level control and so forth. These cameras can also be set to automatic control if you are in a run-and-gun situation, but manual control is preferred by serious videographers. Manual control however, would drive some people bonkers. Automatic control makes operating the camera much easier so if you are into easy, you can rest assured that part of what people are paying for with the more expensive cameras is the "luxury" of manual control.

TYPES OF VIDEO CAMERA

There are two types of video cameras. There is the portable camera and the larger studio model camera. The studio camera is always mounted on a tripod and dolly for rolling, where as the smaller portable united can be hand-held or mounted on tripod if needed. The main purpose of a video camera is to change the scene viewed through the lens into an electronic signal to be transmitted to the VCR. This conversion takes place in the camera tube or in semi-conductor chips in newer cameras. The video camera has certain features. For instants a focus ring is used to create a sharp image. The zoom feature allows you

to move closer or further from an object while standing still. The aperture setting or iris, allows you to adjust the size of the lens opening for various light conditions. There is also a viewfinder that allows you to see what the lens is seeing. Many newer cameras have auto focus as well as automatic aperture. A tripod is a separate attachment. This is used if your video camera is too heavy and if your picture doesn't come out very clear. A dolly is a tripod with wheels, which enables you to move with the object. The formats of video cameras include, VHS, VHS-C, 8mm, Hi8, Mini Digital Video Mini DV, DVD and Digital 8.

VHS

The Video Home System better known by its abbreviation VHS is a consumer - level video standard developed by Japanese company JVC and launched in 1976. A VHS cassette holds a maximum of about 430 m of tape at the lowest acceptable tape thickness, giving a maximum playing time of about 3.5 hours for NTSC and 5 hours for PAL at "standard" SP) quality. Other speeds include LP and EP/SLP which double and triple the recording time, for NTSC regions. These speed reductions cause a slight reduction in video quality from 250 lines to 230 analog lines horizontal; also, tapes recorded at the lower speed often exhibit poor playback performance on recorders other than the one they were produced on. Because of this, commercial prerecorded tapes were almost always recorded in SP mode. The VHS format is the oldest type of camcorder. This type of video camcorder is fast becoming outdated, because you can only play back the video on a VHS VCR system. VHS camcorders are not nearly as clear as digital video camcorders that offer clear video with 540 lines of resolution.VHS video cameras only offer 240 lines of resolution. They also weigh more and are much more bulky, that DV camcorders. You cannot find these video camera being used because their technology is now outdated.

VHS-C

The VHS-C format offer 240 lines of resolution, just like VHS. These analog camcorders come in a smaller size that the VHS camcorder models, but use the same technology. The video tapes used in VHS-C camcorders are much smaller in size than VHS, just in a smaller camcorder design. VHS-C is considered old technology and not used today in newer models.

8mm. If you are looking to record more than 1 hour, then 8mm camcorders are perfect. These video cameras can record up to 5 hours of footage and they offer better video quality those VHS cameras. In order to view video from your 8mm video camcorder, you need to connect the camcorder to input jacks on your TV or your VCR system.

Mini DV

Mini DV, short for mini Digital Video off the clearest and most vivid colors out of all the types of camcorders on the market, and they're small in size only 4 inches in width and height. Mini DV camcorders can fit in the palm of your hand, making them very easy to handle and transport. And if you like editing your video footage you can connect DV camcorders to your computer system. Transferring the video is a snap with the FireWire connection. Once the footage is in your computer's hard drive you can burn it to DVD, add it to your web site or email small clips to friends and family.

Digital8

Digital8 camcorders offer the best of both worlds, Hi8 and DV. You can use 8mm and hi8 videotapes combined with the best image quality found in digital camcorder formats. Digital8 camcorders are larger and heavier than Mini DV camcorders, but they are also cheaper in price. The Digital8 system offers 540 lines of crystal clear resolution.

DVD Camcorders

The newest form of digital video cameras is DVD camcorders. These camcorders are small in size, just like Digital8 and Mini DV camcorders. The big difference compared to other camcorder systems is that DVD camcorders use record able DVD discs such as DVD-R or DVD-RW. The big benefit to DVD video cameras is that they can be played on your home DVD player, and of course the quality is the best you can find.Most machine vision cameras use charge-coupled device CCD image sensors. Charge from each line of pixels is transferred down the line, pixel-by-pixel and row-by-row, to an amplifier where the video signal is formed. CCD cameras are available in a wide variety of formats, resolutions, and sensitivities. They provide the best performance for most applications. Complementary metal-oxide semiconductor CMOS) sensors are becoming

available for some applications. Because they are made using the same processes used to fabricate computer chips, they can be produced very inexpensively. Low-cost CMOS cameras are already used in toys and in web cams. Unlike CCD sensors, which must be read out one full line at a time, CMOS sensors can be read pixel by pixel, in any order. This is useful for time-critical applications where only part of the image is of interest. At present, the noise performance of CMOS sensors is inferior to CCDs.

Interfaces

There are two types of camera interfaces in use, analog and digital. In an analog camera, the signal from the sensor is turned into an analog voltage and sent to the frame-grabber board in the vision-system computer. EIA, RS-170, NTSC, CCIR and PAL are all common analog interface standards. Analog cameras are inexpensive, but subject to noise and timing problems. Most new machine vision cameras use a digital interface. The camera digitizes the signal from each pixel and the data sent in digital form directly to the computer. Camera Link and Firewire are two popular digital interface standards. The digital signal is not subject to noise and there is a perfect correspondence between each pixel on the sensor and in the image. Digital cameras support a wide variety of image resolutions and frame rates. Since the signal is already digitized, a simple interface board replaces the frame-grabber.

Color Cameras

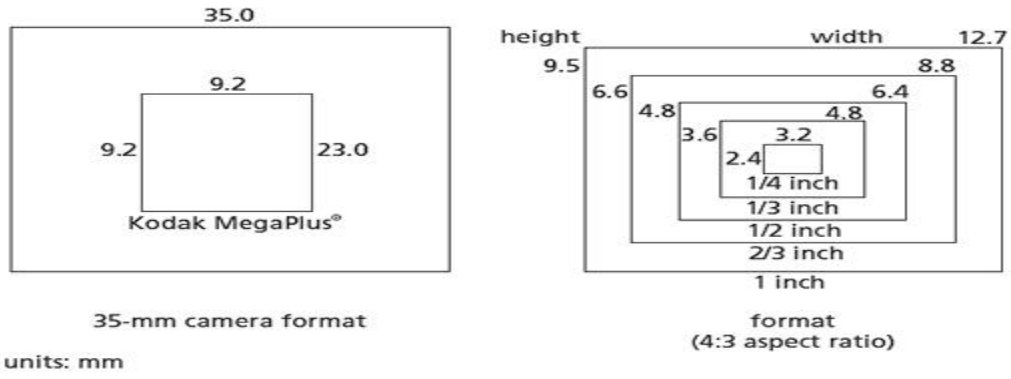
Most color CCD cameras use a single sensor with an array of color filters printed over their pixels. Adjacent pixels sense different colors, so the resolution at each color is lower than for a similar monochrome sensor. Some high-performance cameras use a color-separation prism to send light to three separate CCDs. These cameras provide full resolution at each color. Lenses for these "3-chip" cameras must have sufficient back working distance to allow room for the prism.

Line-scan Cameras

Line-scan cameras have a single row of pixels, 1k, 2k, 4k or more pixels long. They record images one row at a time. Often the object moves past the camera to provide the second dimension e.g., a web of paper being inspected during manufacture). Line-scan cameras provide high-resolution images at very high data rates. Long live-scan sensors require large-format lenses to cover their length. In addition, because each line of pixels is exposed only for a very short time, line-scan cameras require intense lighting and large aperture lenses.

Camera Formats

The size of an image sensor is called its format. The name of a format does not correspond to any dimension. Historically, a one-half inch format is the size of the sensing area of a Vidicon tube, which is one-half inch in diameter. It is important to choose a lens that covers the camera format. For a given field of view FOV, the camera format determines the required magnification.



Lenses for High-Resolution Cameras

To improve sensitivity, many high-resolution CCD sensors include micro-lens arrays on their surfaces. These arrays make the active area of the pixels appear larger, so that the active-area fraction fill factor) appears to be near 100%. Unfortunately, this is only true for light that is nearly normal to the sensor surface. Light reaching the sensor at greater angles e.g., >5 deg misses the active area and is lost. This means that lenses used with these sensors must have a long exit-pupil distance and should not have a very small f-number. If not, the edges of the image appear dark.

SHOT TYPES

There is a convention in the video, film and television industries, which assigns names and guidelines to common types of shots, framing and picture composition. The list below briefly describes the most common shot types. Extreme Wide Shot EWS) In the extreme wide shot, the view is so far from the subject that she isn't even visible. The point of this shot is to show the subject's surroundings. The EWS is often used as an "establishing shot" - the first shot of a new scene, designed to show the audience where the action is taking place.

Very Wide Shot VWS

The very wide shot is much closer to the subject than an extreme wide shot, but still much further away than a wide shot. The subject is just visible here, but the emphasis is very much on placing her in her environment. This often works as an establishing shot, in which the audience is shown the whole setting so they can orient themselves.

The VWS also a Wide Shot WS

In the wide shot, the subject takes up the full frame. Obviously the subject doesn't take up the whole width and height of the frame, since this is as close as we can get without losing any part of her. The small amount of room above and below the subject can be thought of as safety room — you don't want to be cutting the top of the head off. It would also look uncomfortable if the feet and head were exactly at the top and bottom of frame allows plenty of room for action to take place, or for multiple subjects to appear on screen.

As with most shot types, the wide shot means different things to different people. However the wide shot seems to suffer more from varying interpretations than other types. Many people take the WS to mean something much wider than our example, i.e. what we would call a very wide shot.

Mid Shot MS

The mid shot shows some part of the subject in more detail, whilst still showing enough for the audience to feel as if they were looking at the whole subject. In fact, this is an approximation of how you would see a person "in the flesh" if you were having a casual

conversation. You wouldn't be paying any attention to their lower body, so that part of the picture is unnecessary. The MS is appropriate when the subject is speaking without too much emotion or intense concentration. It also works well when the intent is to deliver information, which is why television news presenters frequently use it. You will often see a story begin with a MS of the reporter providing information, followed by closer shots of interview subjects providing reactions and emotion. As well as being a comfortable, emotionally neutral shot, the mid shot allows room for hand gestures and a bit of movement.

Medium Close Up MCU

The medium close up is half way between a mid shot and a close up. This shot shows the face more clearly, without getting uncomfortably close.

Close-up CU

In the close up shot, a certain feature or part of the subject takes up most of the frame. A close up of a person usually means a close up of their face unless specified otherwise).

Close-ups are obviously useful for showing details and can also be used as a cut-in. a close-up of a person emphasizes their emotional state. Whereas a mid-shot or wide-shot is more appropriate for delivering facts and general information, a close-up exaggerates facial expressions which convey emotion. The viewer is drawn into the subject's personal space and shares their feelings.

Extreme Close Up ECU

The ECU gets right in and shows extreme detail. You would normally need a specific reason to get this close. It is too close to show general reactions or emotion except in very dramatic scenes.

Cutaway CA

A cutaway is a shot that's usually of something other than the current action. It could be a different subject, a close up of a different part of the subject e.g. the subject's hands, or just

about anything else. The cutaway is used as a "buffer" between shots to help the editing process, or to add interest/information.

Cut-In CI

Like a cutaway, but specifically refers to showing some part of the subject in detail. Can be used purely as an edit point, or to emphasize emotion etc. For example, hand movements can show enthusiasm, agitation, nervousness, etc.

Two Shot

There are a few variations on this one, but the basic idea is to have a comfortable shot of two people. Often used in interviews, or when two presenters are hosting a show.A "One-Shot" could be a mid-shot of either of these subjects. A "Three-Shot", unsurprisingly, contains three people. Two-shots are good for establishing a relationship between subjects. If you see two sports presenters standing side by side facing the camera, you get the idea that these people are going to be the show's co-hosts. As they have equal prominence in the frame, the implication is that they will provide equal input. A two-shot could also involve movement or action. It is a good way to follow the interaction between two people without getting distracted by their surroundings.

Over the Shoulder Shot OSS

Looking from behind a person at the subject, cutting off the frame just behind the ear. The person facing the subject should occupy about 1/3 of the frame. This shot helps to establish the positions of each person, and get the feel of looking at one person from the other's point of view. A variation of this shot can be a bit wider and include the shoulder of the person facing the subject.

Noddy Shot

Common in interviews, this is a shot of the person listening and reacting to the subject. In fact, when shooting interviews with one camera, the usual routine is to shoot the subject using OSS and one-shots for the entire interview, and then shoot some noddies of the interviewer once the interview is finished. The noddies are edited into the interview later.

Point-of-View Shot POV

Shows a view from the subject's perspective. This shot is usually edited in such a way that it is obvious whose POV it is.

Weather Shot

The subject is the fine day. The sky takes up at least 2/3 of the frame. This type of shot is common in television programs where the weather is of particular interest, e.g. Sports shows. Although the usual purpose of this shot is to show the weather, it is also useful as an establishing shot, for setting the general mood or for overlaying graphics.

CAMERA ANGLES

Camera angles and movements combine to create a sequence of images, just as words, word order and punctuation combine to make the meaning of a sentence. You need a straightforward set of key terms to describe them.

Describing Shots

When describing camera angles, or creating them yourself, you have to think about three important factors

— The FRAMING or the LENGTH of shot — The ANGLE of the shot

— If there is any MOVEMENT involved

When describing different cinematic shots, different terms are used to indicate the amount of subject matter contained within a frame, how far away the camera is from the subject, and the perspective of the viewer. Each different shot has a different purpose and effect. A change between two different shots is called a CUT.

Framing or Shot Length

1. **Extreme long shot:**

This can be taken from as much as a quarter of a mile away, and is generally used as a scene-setting, establishing shot. It normally shows an EXTERIOR,e.g. the outside of a building, or a landscape, and is often used to show scenes of thrilling action e.g. in a war film or disaster movie. There will be very little detail visible in the shot, it's meant to give a general impression rather than specific information.

2. **Long shot:**

This is the most difficult to categories precisely, but is generally one which shows the image as approximately “life” size i.e. corresponding to the real distance between the audience and the screen in a cinema the figure of a man would appear as six feet tall. This category includes the FULL SHOT showing the entire human body, with the head near the top of the frame and the feet near the bottom. While the focus is on characters, plenty of background detail still

emerges: we can tell the coffins of the right are in a Western-style setting, for instance.

3. **Medium Shot:**

Contains a figure from the knees/waist up and is normally used for dialogue scenes, or to show some detail of action. Variations on this include the TWO SHOT containing two figures from the waist up and THREE SHOT contains 3 figures. NB. Any more than three figures and the shot tend to become a long shot. Background detail is minimal, probably because location has been established earlier in the scene – the audience already knows where they are and now wants to focus on dialogue and character interaction. Another variation in this category is the OVER-THE-SHOULDER-SHOT, which positions the camera behind one figure, revealing the other figure, and part of the first figure’s back, head and shoulder.

4. **Close-UP:**

This shows very little background, and concentrates on either a face, or a specific detail of mise en scene. Everything else is just a blur in the background. This shot magnifies the object

think of how big it looks on a cinema screen and shows the importance of things, be it words written on paper, or the expression on someone's face. The close-up takes us into the mind of a character. In reality, we only let people that we really trust get THAT close to our face- mothers, children and lovers, usually – so a close up of a face is a very intimate shot. A film-maker may use this to make us feel extra comfortable or extremely uncomfortable about a character, and usually uses a zoom lens in order to get the required framing.

5. **Extreme Close-Up:**

As its name suggests, an extreme version of the close up, generally magnifying beyond what the human eye would experience in reality. An extreme close-up of a face, for instance would show only the mouth or eyes, with no background detail whatsoever. This is a very artificial shot, and can be used for dramatic effect. The tight focus required means that extra care must be taken when setting up and lighting the shot- the slightest camera shake or error in focal length is very noticeable.

The relationship between the camera and the object being photographed i.e. the ANGLE gives emotional information to an audience, and guides their judgment about the character or object in shot. The more extreme the angle i.e. the further away it is from eye left, the more symbolic and heavily -loaded the shot.

1. **The Bird's-Eye view**

A Cameraman, raised above the action, gets a high angle shot

This shows a scene from directly overhead, a very unnatural and strange angle. Familiar objects viewed from this angle might seem totally not recognizable at first umbrellas in a crowd, dancers' legs. This shot does, however, put the audience in a godlike position, looking down on the action. People can be made to look insignificant, ant-like, part of a wider scheme of things.

2. **High Angle**

Not so extreme as a bird's eye view. The camera is elevated above the action using a crane to give a general overview. High angles make the object photographed seem smaller, and less significant or scary. The object or character often gets swallowed up by their setting - they become part of a wider picture.

3. **Eye Level**

A fairly neutral shot; the camera is positioned as though it is a human actually observing a scene, so that e.g. actors' heads are on a level with the focus. The camera will be placed approximately five to six feet from the ground.

4. **Low Angle**

These increase height useful for short actors like Tom Cruise or James McAvoy and give a sense of speeded motion. Low angles help give a sense of confusion to a viewer, of powerlessness within the action of a scene. The background of a low angle shot will tend to be just sky or ceiling, the lack of detail about the setting adding to the disorientation of the viewer. The added height of the object may make it inspire fear and insecurity in the viewer, who is psychologically dominated by the figure on the screen.

5. **Oblique/Canted Angle**

Sometimes the camera is tilted i.e. is not placed horizontal to floor level, to suggest imbalance, transition and instability very popular in horror movies. This

technique is used to suggest POINT-OF-View shots i.e. when the camera becomes the 'eyes' of one particular character, seeing what they see — a hand held camera is often used for this.

CAMERA MOVEMENT

A director may choose to move action along by telling the story as a series of cuts, going from one shot to another, or they may decide to move the camera with the action. Moving the camera often takes a great deal of time, and makes the action seem slower, as it takes several second for a moving camera shot to be effective, when the same information may be placed on screen in a series of fast cuts. Not only must the style of movement be chosen, but the method of actually moving the camera must be selected too.

There are seven basic methods:

Pans

A movement which scans a scene horizontally. The camera is placed on a tripod, which operates as a stationary axis point as the camera is turned, often to follow a moving object which is kept in the middle of the frame.

Tilts

A movement which scans a scene vertically, otherwise similar to a pan.

Dolly Shots

Sometimes called TRUCKING or TRACKING shots. The camera is placed on a moving vehicle and moves alongside the action, generally following a moving figure or object. Complicated dolly shots will involve a track being laid on set for the camera to follow, hence the name. The camera might be mounted on a car, a plane, or even a shopping trolley good method for independent film -makers

looking to save a few dollars. A dolly shot may be a good way of portraying movement, the journey of a character for instance, or for moving from a long shot to a close-up, gradually focusing the audience on a particular object or character.

Hand-held shots

The hand-held movie camera first saw widespread use during World War II, when news reporters took their windup Arriflexes and Eyemos into the heat of battle, producing some of the most arresting footage of the twentieth century. After the war, it took a while for commercially produced movies to catch up, and documentary makers led the way, demanding the production of smaller, lighter cameras that could be moved in and out of a scene with speed, producing a "fly-on-the-wall" effect. This aesthetic took a while to catch on with mainstream Hollywood, as it gives a jerky, ragged effect, totally at odds with the organized smoothness of a dolly shot. The Steadicam a heavy contraption which is attached a camera to an operator by a harness. The camera is stabilized so it moves independently was debuted in Marathon Man 1976, bringing a new smoothness to hand held camera movement and has been used to great effect in movies and TV shows ever since. No "walk and talk" sequence would be complete without one. Hand held cameras denote a certain kind of gritty realism, and they can make the audience feel as though they are part of a scene, rather than viewing it from a detached, frozen position.

Crane Shots

Basically, dolly-shots-in-air. A crane or jib, is a large, heavy piece of equipment, but is a useful way of moving a camera- it can move up, down, left, right, swooping in on action or moving diagonally out of it. The camera operator and camera are counter-balanced by a heavy weight, and trust their safety to a skilled crane/jib operator.

Zoom Lenses

A zoom lens contains a mechanism that changes the magnification of an image. On a still camera, this means that the photographer can get a 'close up' shot while still being some distance from the subject. A video zoom lens can change the position of the audience, either very quickly a smash zoom or slowly, without moving the camera an inch, thus saving a lot of time and trouble. The drawbacks to zoom use include the fact that while a dolly shot involves a steady movement similar to the focusing change in the human eye, the zoom lens tends to be jerky unless use very slowly and to distort an image, making objects appear closer together than they really are. Zoom lenses are also drastically over-used by many directors including those holding palmcorders, who try to give the impression of movement and excitement in a scene where it does not exist. Use with caution - and a tripod!

The Aerial Shot

An exciting variation of a crane shot, usually taken from a helicopter. This is often used at the beginning of a film, in order to establish setting and movement. A helicopter is like a particularly flexible sort of crane - it can go anywhere, keep up with anything, move in and out of a scene, and convey real drama and exhilaration — so long as you don't need to get too close to your actors or use location sound with the shots.

Some basic camera movements Mounted Camera Pan

Mounting the camera on a tripod, simply move the camera horizontally from left to right. Pan shots are used to show the viewer more of the scenery. This technique is also often used to show views from high places, such as overlooks. Pan shots should begin with a still shot, then pan, then finish with a still shot. You should practice panning at various speeds until you find the speed that works best for you.

Mounted Camera Tilt

A tilt done with a mounted camera is quite simple. You just move the camera up or down, without lowering or raising the position of the camera. This is just like panning, only it is done vertically. This video camera technique is used to follow

the subject that you are photographing, or to show the viewer a large object from top of bottom or from bottom to top. You should note that when you tilt from bottom to top, the object looks larger or thicker. When you tilt from top to bottom, the object looks smaller or thinner. As with panning, you should begin with a still shot, tilt, then stop on a still shot. Again, practice this technique at various speeds until you find what works for you.

Mounted Camera Pedestal

This video camera technique is pretty much the opposite of the tilt technique. You do not tilt the camera, but you either raise or lower the position of the camera. This technique is simply used to get the proper view that you are looking for. If you wanted to shot pictures of a baby, you would want to lower the camera. If you wanted to shot a tall person, you would raise the height of the camera. The purpose would be to make it appear that the subject is 'eye to eye' with the viewer.

Moving Camera Dolly

This video camera movement technique involves the use of a camera dolly, like the camera dolly's you might see on a movie set. You can make your own dolly with a wheelchair, a scooter, a skateboard, a rolling cart, or many other devices that have wheels. This video camera movement technique is used to follow your subject. The use of a dolly opens up many possibilities, especially when used in conjunction with other techniques. Remember that you will want to be able to roll backwards as well as forward. Practice using this technique, and once you have it down, try mixing it with other techniques.

Moving Camera Floating Stabilizer

Floating stabilizer devices are used to follow a subject around twists and turns. The stabilizer is strapped to the photographer, and the camera is mounted to the stabilizer with metal jointed which are controlled by gyroscopes. This video camera movement technique is a step up from the dolly technique. The movement of a dolly is limited, floating stabilizer devices remove those limitations. As with

the dolly technique, you should learn the video camera movement fundamentals of this technique, then try mixing it with other techniques to get different effects.

Moving Camera Boom

A camera boom is a smaller version of the cranes that are used for construction. A camera boom is used to get a view of subjects or scenes from above. These are commonly used in filming movies, and the boom moves up, down, and around.

Moving Camera Handheld

Using this technique, the photographer simply holds the video camera, and moves wherever, and however, he needs to move to get the shot that he wants. When using this technique, you should avoid using the zoom feature on your camera. Zooming while using the handheld technique will make your shot appear to be shaky. Instead of zooming, move closer to the object you are shooting.

Camera Lens Zoom

You can get many different effects when using the zoom feature on your camera. This works well when combined with other video camera movement techniques. You should practice zooming at different speeds, as different situations will call for different speeds of zooming. Zooming can create many different illusions, which can affect the viewers' perception of size and distance. Alternately, zooming can be used to more adequately portray the size or distance to a viewer. It is recommended that you use a tripod when using the zoom technique.

Camera Lens Rack Focus

This is an interesting video camera movement technique, which can give your shots more impact. This technique calls for focusing the camera on one object in a close up shot, causing everything in the background to be out of focus, and then causing the object itself to become out of focus while the background becomes in focus. This is done by changing the focal length so that one object will go out of focus while another comes into focus. The two objects must be at a correct distance

away from each other for this technique to work, and you will want to use a tripod for this type of shot.

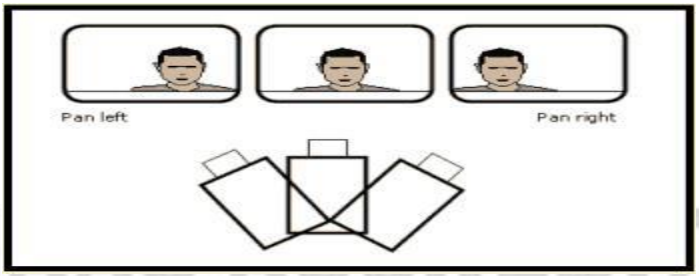
Learn how to use all of the features on your camera, and then combine the use of those features with different movements to get the most out of your shots. Video camera movement techniques can really spice up your home movies, and give them the style and flair that you see in Hollywood movies!

Three notes about shot movement:

1. A note about photographer responsibility - you owe it to your viewers not to make them motion sick, unless, of course, that is your goal! Rapid pans, tilts, repeated zooms can make a person feel woozy, and may also prevent them from clearly seeing the video you collected.
2. The standard rule with moving shots is this: whenever possible, start your sequence stationary on a subject, then pan/tilt/zoom/reverse zoom, then hold stationary again. This helps enormously for editing purposes. For example, if you want to move your camera from one end of a mountain range to another, start focused on one side of the mountain range and hold that shot for three seconds stationary position, then pan to the other side slowly enough so the video won't be a blur), then stay focused on the other end of the mountain range for three seconds stationary position. If you edit or cut away in the middle of a pan/zoom/tilt/reverse zoom, you may make your viewer disoriented.
3. In general, use shots with movement sparingly. Try to put a still shot no pan, tilt, or zooming in between two pans/tilts/zooms. This gives the viewer a moment to get their bearings.

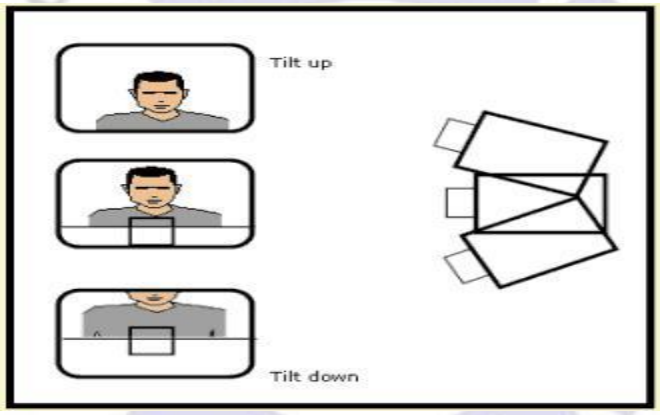
Panning

Panning and tilting are performed with a camcorder resting on the head of a tripod. Panning is moving the camera laterally. Two basic kinds of panning are the following pan and the surveying pan. In the following pan, the camera operator pans to follow a character, such as into the scene or from one spot to another. The surveying pan looks for a character or an object; for example, the character is already in a scene, and the camera pans to meet him or her.



Tilting

Tilting is often done simply as a matter of course, such as tilting down to follow an action. However, you can also tilt to achieve a particular effect, such as tilting up or down to denote height or depth.

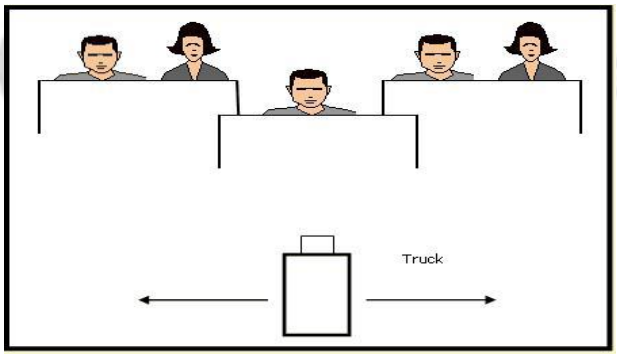


Dolly

Dollying refers to moving the camera forward or backward in a scene. Although, at first glance, dollying may seem similar to zooming, the two are different in terms of how and why you use them. You dolly by moving the camera, whereas you zoom in and out by adjusting the lens.

1.2.3. Truck

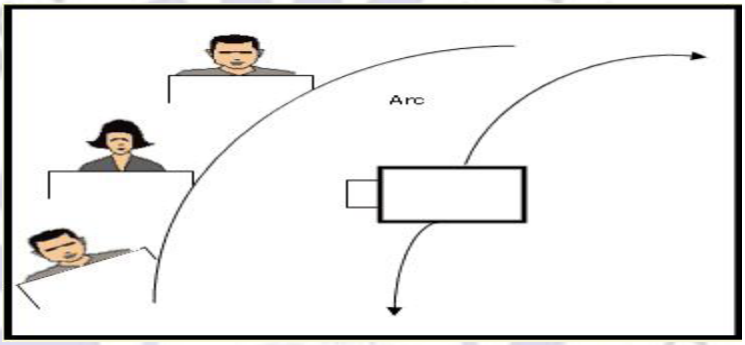
A truck is a lateral, sideways, travel shot, with the entire camera and tripod being



moved right or left. The truck shot differs from a pan in that the depth of field in a truck shot is maintained as the whole unit, the tripod and camera - moves past the objects.

Arc

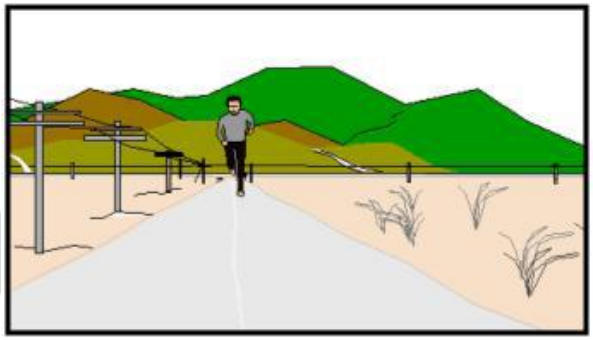
An Arc is a move that incorporates trucking and panning at the same time. The camera moves out from the subject, simultaneously making a circular move, an arc, while panning and, sometimes, tilting to keep the subject in frame. This movement is used in musical and dramatic presentations.



ZOOM

All camcorders are equipped with a zoom lens with a servo button marked T for tight and W for wide). Zooming in and out changes the focal length and, therefore the size of the image with varying speeds while the camera is stationary. Be careful not to zoom too quickly on your subjects and use sparingly.

Zoom In Example



CAMERA USE

A camera whether it is video or still, digital or film, attached to a computer or a phone - is basically a box designed for trapping light. It can be as simple as a cardboard box with a pinhole punched in it or as elaborate as those on a space telescope. Whatever the design, its purpose is to record patterns of light and shadow and colour, for future reference. When you use a camera you are trapping images. There are many similarities between the language used for hunting and the language of photography - shoot, stalk, line-of-sight, capture, pin etc. A camera can be a very powerful weapon - especially in war time. Is it a coincidence that Princess Diana named after the goddess of hunting was chased to her death by paparazzi?

Selecting your shot

Subject

Always consider the purpose of a shot before you start to set it up. Fair enough, you've found your subject, but what do you want to show about it/them? If your subject is human - are they wearing the right clothes? Are they in the right mood? Are they doing the right thing in the right place? If your subject is inanimate, think about what it represents, and whether you best communicate that by showing part of it or all of it.

Background

Unless you are using a close up or plan to crop your photograph very tightly you need to consider the background of your photograph. Does it match your subject- think colours and textures? Does your subject show up against the background? If there is a mismatch between the two is this for a very specific reason? Does the background give additional information about the subject? What mise-en-scene will be included in your image?

By carefully considering the relationship between background and subject you can make your images much more powerful.

Light

Light creates your image - use it wisely. As a general rule, the light should be behind you NOT behind your subject i.e. never stand your subject in front of a window. Remember that light has two purposes - to reveal and to create shadows, which hide. Make sure that whatever you want to show is bathed in plenty of bright light. The time of day and the weather conditions when you are filming/photographing will have an effect on your images. Whilst most digital cameras video and still cope reasonably well in low lighting conditions your images will still turn out rather dull. The most interesting times of day to capture an image are early morning and late afternoon - the angle of sunlight creates some very interesting shadows and the light if it is not too polluted has a soft quality. If you have a choice, always try to photograph an outdoor subject at these times.

Also remember that artificial i.e. indoor) light will give your pictures an orange cast unless you take steps to correct it. Your camera may have an indoor or incandescent bulb setting that will do this for you.

Getting the Perfect Shot

Looking through the lens

Pointing your camera and looking through the lens is just the beginning of the process. You will need to consider carefully the angle that you choose, as well as selecting what will and what will not be in your image. One of the most underused pieces of photography equipment is feet - try moving around and seeing what effect a different perspective has on your image - take pictures from different angles.

Lens Focal Length

We define focal length as the distance from the optical center of the lens to the focal plane target or "chip" of the video camera when the lens is focused at infinity. We consider any object in the far distance to be at infinity. On a camera lens the symbol "∞" indicates infinity.

Since the lens-to-target distance for most lenses increases when we focus the lens on anything closer than infinity, we specify infinity as the standard for focal length measurement.

Focal length is generally measured in millimetres. In the case of lenses with fixed focal lengths, we can talk about a 10mm lens, a 20mm lens, a 100mm lens, etc. As we will see, this designation tells a lot about how the lens will reproduce subject matter.

Zoom and Prime Lenses

Zoom lenses came into common use in the early 1960s. Before then, TV cameras used lenses of different focal lengths mounted on a turret on the front of the camera, as shown on the right. The cameraperson rotated each lens into position and focused it when the camera was not on the air. Today, most video cameras use zoom lenses. Unlike the four lenses shown here, which operate at only one focal length, the effective focal length of a zoom lens can be continuously varied, taking it from a wide-angle to a telephoto perspective.

To make this possible, zoom lenses use numerous glass elements, each of which are precisely ground, polished, and positioned and can be repositioned to change the magnification of the lens. As the lens is zoomed, groups of these lens elements must move independently at precise speeds. With prime lenses, the focal length of the lens cannot be varied. It might seem that we would be taking a step backwards to use a prime lens or a lens that operates at only one focal length. Not necessarily. Some professional videographers and directors of photography especially those who have their roots in film feel prime lenses are more predictable in their results. Prime lenses also come in more specialized forms, for example,

super wide angle, super telephoto, and super fast sensitive to light. Even so, for normal work, zoom lenses are much easier and faster to use. The latest of HDTV zoom lenses are extremely sharp, almost as sharp as the best prime lenses.

Angle of View

Angle of view is directly associated with lens focal length. The longer the focal length in millimetres, the narrower the angle of view in degrees.

You can see this relationship by studying the drawing on the left showing angles of view for different prime lenses. A telephoto lens or a zoom lens operating at maximum focal length has a narrow angle of view. Although no exact definition for a "telephoto" lens exists, we would consider the angles at the top of the drawing from about 5 to 10 degrees in the telephoto range.

The bottom of the drawing from about 45 to 90 degrees represents the wide range for this lens. The normal angle of view range lies between telephoto and wide angle. When you double the focal length of a lens, you double the size of an image on the target; and, as you would assume, the reverse is also true. Put another way, with the camera in the same position, a short focal lens creates a wide view and a long focal length creates an enlarged image in the camera. Note the two images below.

Another concern in using different focal length lenses at different distances is the relative amount of background area you'll include in the picture.

The drawing below shows the major differences for telephoto, normal, and wide-angle lenses in this case 70mm, 20mm, 10mm, and 5mm lenses. Although the subject remains in the same place, note the differences in the background area covered with each lens focal length.

A Zoom vs. a Dolly

Another way to alter what the camera sees is to move dolly the camera toward or away from a subject. Although it might seem this would produce the same effect as zooming the lens in and out, that's not quite true. When you zoom, you optically enlarge smaller and smaller parts of the picture to fill the screen. When you dolly a camera you physically move the entire camera toward or away from subject matter. The latter is similar to how you would see the central and surrounding subject matter if you were to walk toward or away from it.

Some directors, especially in motion pictures, prefer the more natural effect of a dolly, even though it's much harder to achieve smoothly.

ZOOM RATIO

Zoom ratio is used to define the focal length range for a zoom lens. If the maximum range through which a particular lens can be zoomed is 10mm to 100mm, it's said to have a 10:1 ten -to-one) zoom ratio 10 times the minimum focal length of 10mm equals 100mm.

That may be fine, but with this designation, you still don't know what the minimum and maximum focal lengths are. A 10:1 zoom lens could have a 10 to 100mm, or a 100 to 1,000mm lens, and the difference would be quite dramatic.

To solve this problem, we refer to the first zoom lens as a 10 X 10 ten -by-ten and the second as a 100 X 10. The first number represents the minimum focal length and the second number the multiplier. So a 12 X 20 zoom lens has a minimum focal length of 12mm and a maximum focal length of 240mm. The zoom lenses on most handheld field cameras have ratios in the range of 10:1 to 30:1. The photos below show the effect of zooming from a wide-angle position to a telephoto view with a 30:1 zoom lens.

Although one manufacturer makes a zoom lens with a 200:1 zoom ratio, the ratio used for network sports is generally 70:1 or less. A camera with a 70:1 zoom lens could zoom out and get a wide-shot of a football field during a game and then zoom in to fill the screen with a football sitting in the middle of the field.

Motorized Zoom Lenses

Originally, the cameraperson manually controlled the zoom lens by push rods and hand cranks. Today built-in, variable-speed electric motors do a much smoother and more controlled job. We refer to these electric zooms as servo-controlled zooms. Although servo-controlled lenses can provide a smooth zoom at varying speeds, directors often prefer manually controlled zoom lenses for sports coverage, because the camera operator can adjust them much faster between shots. This can make the difference between getting to a new shot in time to see the critical action and missing it. Although most videographers work within the limits of the lens supplied with their cameras, it's possible to modify the focal length of most lenses both zoom and

prime lenses by using a positive or negative supplementary lens. Supplementary lenses can increase or decrease the basic focal length and coverage area of lenses. Thus far, we've assumed that varying the focal length of a lens simply affects how close the subject matter seems to be from the camera. That's true, but we will see in the next section that focal length also affects the subject matter in a number of other important and even dramatic ways.

UNIT 2. LIGHTING

Lighting can emphasize important details or hide them. It can flatter a subject by bringing out positive attributes, and it can de-emphasize or hide less attractive attributes. Lighting can even impart a sinister and hostile look. It all depends on how you choose to use the concepts.

Television is based on the medium of light; in fact, without light there could be no video. Just as sound must be skilfully controlled in audio production, light must be expertly controlled in television. As video — especially HDTV — has begun to emulate the more artistic dimensions of film, there has been a greater emphasis on creative lighting. But, before you can successfully control light, you need to understand and control its three basic characteristics:

Coherence quality

Color temperature

Intensity

Lights: Hard Light

Light that is transmitted directly from a small point source results in relatively coherent parallel rays. This gives the light a hard, crisp, sharply defined appearance. The light from a clear, unfrosted light bulb, a focused spotlight, or the noonday sun in a clear sky, all represent hard light sources. Hard light casts a sharp, clearly defined shadow. When hard light is used to illuminate a face, imperfections in the skin stand out. The result is less than flattering. Several types of lighting instruments are used in TV to create hard light, including the beam-spot projector and the ellipsoidal spotlight.

Soft Light

Soft diffused light has the opposite effect. Soft light sources are used in production to create a broad, even area of light. In the field, videographers often rely on umbrella reflectors to create a soft lighting effect. This is simply a light bounced off the inside of a silver or white,

umbrella-like reflector. Because soft light tends to hide lines, wrinkles and blemishes, it's desirable in doing glamour work. A soft light source placed close to the camera minimizes surface detail. The effect is commonly referred to as flat lighting. Although it has certain applications, especially in extreme close-ups of objects where shadows would obscure important details, flat lighting leaves subject matter somewhat "dimensionless." When used over a large area, it can impart an arid and sterile-looking appearance.

Lighting: Ultra-Soft Lighting

There are a few occasions when ultra-soft lighting is necessary to keep video equipment from exceeding its brightness or contrast range limitations and as a result compressing losing important detail.

Basics of Lighting: Studio Lighting

Studio lighting can be broken down into two categories, continuous and flash. While continuous lighting has two main advantages there are many disadvantages.

The good points of continuous light:

It's inexpensive, and makes a good starting point for anyone on a small budget.

You can see what the light is doing and where the shadows and highlights are.

The main disadvantages of continuous light:

It generally produces more heat than light, very uncomfortable! The light that it produces is not balanced to daylight. What does this mean in practical terms? The heat produced by a continuous light can make you and your subject very hot and bothered, but because of the very bright light it will also have the effect of closing down the iris in your model's eyes, which it is generally accepted, doesn't make a good portrait. We have all taken photos in artificial light and ended up with yellow pictures! To your eyes, the light from a tungsten bulb looks white, but it isn't. Colour temperature the colour of the light is measured in degrees Kelvin, daylight is around 5,600K and a tungsten bulb is more like 3,200K and therefore records on daylight balanced film as yellow.

This can be overcome in three ways: Firstly, you can use tungsten balanced colour film. Secondly, you can put a filter on your lens, which will enable you to use any

daylight film. The big problem with these two solutions is that as the tungsten filament in the bulb burns it leaves a small residue on the inside of the glass envelope. This means that the colour of the light gradually becomes more yellow as the bulb ages. This brings us to flash. With a normal on-camera flashgun there is no way of knowing what the lighting effect will be, except to say that if you are using it fitted on the camera - it will be pretty awful! The advantages of studio flash are - modelling lamp, consistency, power and control.

Modelling Lamp

Studio flash units are fitted with a continuous lamp, which can be seen on this photograph sitting in the centre of the circular flash tube. Because of its position it gives a very accurate indication of the angle and quality that the flash will produce when fired. This makes your lighting easy to set-up, because what-you-see-is-what-you-get'. As this lamp is relatively low powered you don't get the heat or brightness problem we talked about with continuous light. The only thing to remember is that the flash will be a much stronger light, so the shadows will be darker and the highlights will be lighter. To trick your eye/brain built-in compensation device when setting up lighting, first close one eye a camera only has one) then squint through your lashes. This has the effect of increasing the contrast level you can see and is much more like what the camera will record.

Consistency

Remember how we said that as tungsten bulb burnt it got more and more yellow? Well with flash every time you press the shutter the colour of the light from the flashtube is balanced to daylight.

Power

Modern flash units give huge amounts of power, released in a fraction of a second typically with a unit such as an Elinchrom this is around 1/2500th second!). For most home users a unit with a power of 250, 300, 500 or 600 watt/seconds is usually sufficient. Watt/seconds or Joules the same thing is the measure of the power that a flash unit can produce. So if your 600w/s unit was set up two metres from your subject and you were getting a flash meter reading of f/16, then a 300w/s unit in the same place would give a stop less at f/11.

Videography and Photography Lighting - Direction

You can convey a wide variety of tones and moods just by altering a video or photo's lighting direction. Learn how to control and improve your work and see how big of a difference lighting direction makes.

One of the most important factors in determining the mood of your photos or videos is the direction from which the light comes. You can light a subject from any direction, from above, from the side, from behind and from below.

Usually light comes from a combination of sources in varying intensity. For clarity, this video will demonstrate the effects of the different lighting directions individually.

Lighting set-up

1. Frontal light. Frontal light is often considered Beauty light. It is the scheme that is most commonly used in magazine covers, for example. In portraiture, frontal light emphasizes central features of your face, eyes nose and mouth, and can make the subjects face appear thinner. A good way to create beauty light on a subject is to have a light directly from the direction of the cameras lens.

2. Side light. Side light is the most versatile direction and can be used to create a variety of looks. In side light, the height of the light is also very important. While a light above the subject's eye level will accentuate shadows in the eye sockets and under the nose and chin, a light below the subjects chin level will light up its eyes and accentuate the volume of features such as nose and jaw.

3. Lighting from above. Light from above is very common in life. The sun lights us from above, as do interior fluorescents and ceiling lighting fixtures. This type of light can create shadows in the eye sockets if the source is too close to the subjects face. An overhead light, placed relatively far from the subject will give a good amount of light to its eyes and help define features in the way we are used to seeing them in everyday situations.

4. Light from below is a stylized choice. Often used in horror and suspense films for it eerie effect. You can achieve this setup by placing your source under the level of your subject's shoulders. For better results with this setup, place your light close to the subject, as its dramatic tone usually calls for strong shadows.

5. Backlight. A Light source coming from directly behind a subject results in silhouette. Light coming from behind and above is a good complement in portrait photography. In order to get your subject silhouetted make sure your exposure is set for the light, not the subject.

Lighting Direction

Creating a well-lit image requires that you make several choices according to what you want to achieve. When you light a portrait or a scene you must decide ahead of time the effect you want it to have on a viewer. By knowing the effect of each light direction you can choose the combination that best suits your goal.

Lighting Rules

Lighting in a nutshell: first you get these itsy bitsy lighting instruments and place them. Seriously, lighting a nutshell follows the same rules as lighting an elephant.

Those rules are:

1. Get enough light on the scene so that your camera can "see".

2. Position your lights to create shadows, which will, in turn, create the illusion of depth and texture on a smooth flat TV screen.

3. Maintain consistent color temperature unless you are using color for dramatic effect.

Enough light -

The most recent color TV cameras can produce a remarkably good image in just a couple foot candles of light, the amount you might find in a typical living room. This does not mean, however, that the camera makes a good picture at that low level. When the camera chips are gasping for photons, the amplifier circuits crank way up to yield a picture that is grainy and has poor color rendition. It's a lot like turning up the volume on your radio to hear a distant station; you increase hiss, noise, and interference from other stations. Most TV cameras today, even if they are rated for 1.5 lux minimum sensitivity, require nearly 120 lux, to generate a clean, clear, normally amplified the +18 dB boost circuits are not engaged picture. Even at 120 lux, the camera lens has to be open all the way around f/2 yielding a diminished depth-of-field and perhaps fuzzy corners in the picture due to lens aberrations. Most TV cameras today are rated at 2000 lux with the lenses

set at f/8 yielding excellent depth-of-field. Two thousand lux is the brightness you find in a TV studio or outdoors on a lightly cloudy day.

If you are racing around with an ENG camera, your only hope is to place your subject under some existing light and maybe enhance the brightness a little with the onboard camera light. It is surprising how much brightness you get from a 25 watt onboard light when you're illuminating a newsperson only 5 feet away. This type of light isn't beautiful, but at least it makes a picture.

Blinded by the light-

Normally you want light to be behind you the camera), not shining into the camera lens from behind the subject. Perhaps you've already seen what happens when your camera follows a person walking indoors across an open door or window flooded with daylight. Everything in the scene goes dark except what's outdoors leaving your subject in silhouette. Possible solutions: Lock your camera's auto gain and auto iris circuits on manual so that the window gets overexposed while your interior shot remains unchanged. This still doesn't make a pretty shot. Covering the window glass with a neutral density gel a sheet of tinted plastic -like material may help, but the technique doesn't work on open doors, and requires you to carry around huge rolls of gel material. Another solution is to pour lots of interior light onto the subject, equal in brightness and color temperature to the outdoor light.

You'll come across dozens of situations where a desk lamp in a scene silhouettes your performer, or too much sky in an outdoor shot darkens the desert roadway, or your performer is forced to stand with the sun to his/her back i.e. the talent is standing at the edge of a canyon and the only way to have the canyon as a backdrop is to shoot into the sun.

No problem --- In the case of the desk lamp, just insert a low wattage bulb to tone down the brightness. Gel the bulb to the right color temperature if necessary. If the sky is too bright in your outdoor scene, either tilt your camera down to reduce the percentage of sky in the shot, or employ a graduated filter on your lens to darken the top part of the picture. As for the sun to your talent's back, set up a few reflectors to bounce the light into the talent's face. Now the sunlight becomes a

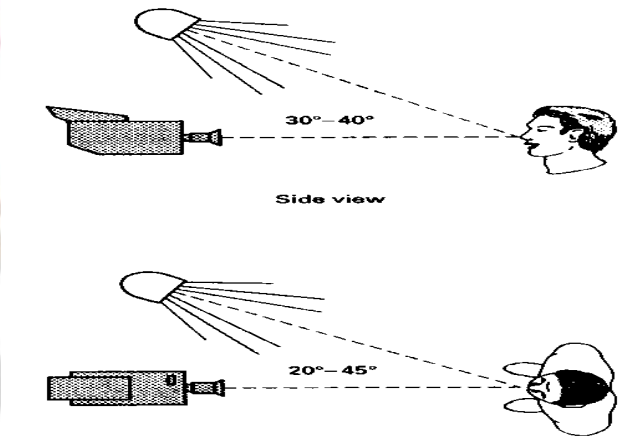
back light adding dimension to the scene. This shot, in fact, is often preferred over the sun-in-the-face shot because the uncontrolled sun tends to make the talent squint; the more controlled reflected light can be positioned to yield desired shadows without the squints.

Me and my shadow-

If you've just arrived from Mars, you've probably noticed that TV screens are nearly flat. Engaging imagery is three-dimensional. Somehow you have to create the illusion of texture and dimension in your picture to keep it interesting. You do this with light and shadow. The basic rules of 3- and 4-point lighting haven't changed since, here they are:

If you have only one light 1 -point lighting, place it to one side and above the camera aiming at the subject. If the light is too close to the camera, your subject will appear featureless no shadows. If the light gets too low, the subject will look spooky or ominous. Campfires and candlelight are the only illumination that normally comes from below. We are accustomed to light coming from above, from Ceilings and the sun. Light from above and to the side of the camera will create a shadow under the chin and along one side of a face, giving it dimension. One light alone does not do a great job. It is often so harsh that it creates super black shadows, which exceed the contrast capability of the camera.

You may diminish these shadows by bouncing your light off a white surface such as a wall or ceiling behind and above you, or by using a light with a large reflector, or one



covered with specular dimpled glass, or with a fine screen called a scrim, or a white fiberglass sheet. All of these will weaken the light and soften the shadows. On faces, soft shadows are more flattering than hard shadows.

Two-point lighting adds much more flexibility and I feel it is the minimum number of lights that you need to do a creditable lighting job. The first light, called the key light, creates the basic illumination for the scene; you might think of it as the sun. Place the lamp to one side of the camera and above it. How far you place the light from the camera is a matter of taste. The farther you move the light from the camera, the more pronounced the shadows will be, making your subject more dimensional, but you don't want to overdo it. You might place the lamp at an angle of 20 degrees to 45 degrees to one side and 30 degrees to 45 degrees above the subject. When working with a single light, you keep it closer to the camera to downplay the shadows. When you have two lights, the second light takes over the job of downplaying the shadows. A naked key light may be too harsh for video portraiture: every zit and wrinkle will show. Soften it with a scrim.

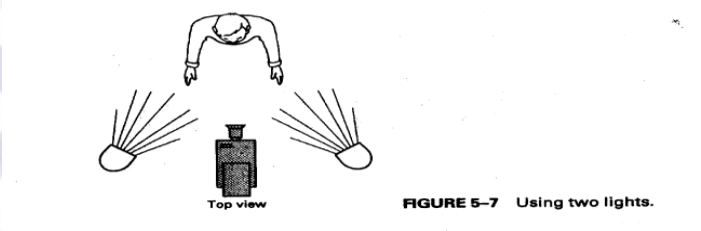


FIGURE 5–7 Using two lights.

The second light, the fill light fills in the shadows you just made. This light is generally placed 20 degrees to 45 degrees to the side and 30 degrees to 45 degrees above the camera-to-subject-axis just like the key light but on the opposite side of the camera from the key light. The fill light is generally softer, not making strong shadows of its own, but mitigating the shadows made by the key light. The fill light generally has a larger reflector and scrim to weaken the light and soften its effect. The fill light shouldn't be as strong as the key light; you don't want to erase the shadows, just diminish them to the point where they add subtle dimensionality. The fill light may be half the wattage of the key light or be placed farther from the subject, weakening the light, or be gelled or scrimmed to weaken the light. The fill light may often be dimmed up to 20% without ruining your color temperature.

Three-point lighting adds a third light, a back or modeling light that sets the subject off from its background. The backlight, which is a hard, focused light, positioned
45 degrees to 75 degrees up from horizontal behind the subject, places a rim of brightness around heads and shoulders. Position the light far enough out of the scene so that it doesn't shine into your camera lens. Make the light bright enough to do the job without being obvious.
Even the experts don't trust their eyes when lighting, and view the camera's image through a TV monitor when adjusting the brightness of the lights. Although the process can be done with light meters and calculations, it is quick and easy to observe the TV screen and use common sense and your innate aesthetic prowess when adjusting lights. Be careful not to aim the light directly down on your talent.
This would create a halo across the top of a person's head and illuminate their nose. As the person's head moved, their nose would dip into and out of the light blinking on and off like Rudolph, the White-Nosed Reindeer.

Three-point lighting will get you through most situations. Most small studios and office shots don't have room for a backdrop to be placed far from the talent. This means the background gets illuminated by the spillage from the key and fill lights, and you cannot do much about it. In larger areas, the backdrop or set may be far enough from the talent to become dark. It is appropriate for the background to be darker than the foreground; after all, you want the foreground to be the center of attention. If the background becomes too dark, you need to add a fourth light thus the term 4-point lighting, which is called the set light. This fixture can be positioned overhead or near the floor or anywhere out of sight of the camera, aimed at the set. If the set is small, nearly any light will do the job. If the background is a tall curtain that must be illuminated evenly, special fixtures with semi-parabolic reflectors are used. When aimed towards the set from above, the fixture will beam most of its light towards the bottom of the set, which is farther away, and beam a smaller amount of light at the top of the set, which is nearby. This keeps the nearby part of the set from becoming overly bright.

Color temperature -

Lights come in different colors as we all know, but white light can have subtle color differences that are not obvious to the naked eye. This explains why we can buy a blue suit in a store and wears it outside only to find it's sort of brown. The store lights make the colors look different than the outdoor light. The amount of redness or blueness found in white light is called color temperature and is measured in degrees Kelvin. A Kelvin degree is about 273 degrees higher than the same temperature measured on the centigrade scale. Physicists derive color temperature by heating a very black object hotter and hotter. As the temperature rises, the color changes. At first the object would glow red at 500 degrees K, then orange at 2000 degrees and white hot at 3500 degrees K. Applying more heat, the body would glow bluish-white at 6000 degrees through 10,000 degrees. Above 10,000 degrees, the color gets no bluer. Probably the instrument melts at that point setting off smoke detectors all over the physics laboratory.

Thanks to physicist Max Planck, who first described this phenomenon and the patience of his local fire department, the subtle coloration of white light can be described by its color temperature. Incandescent light in a home, as well as outdoor light in the early morning or around sunset, is about 2000 degrees K. Early or late daylight or the light from professional quartz studio bulbs is about 3200 degrees K, slightly less red than home light bulbs. Mid-day light is about 5500 degrees K as is HMI Halogen Metal Iodide) lights.

This light is bluer and looks "colder" than 3200 degrees K studio lights. Daylight on a hazy or foggy day could be as high as 7000 degrees K. Fluorescent lamps maybe around 3500 degrees to 6000 degrees K but have strong amounts of green and may be missing other colors entirely making them hard to describe on the color temperature scale. Professional fluorescent lamps are made which approximate a 3200 degree color temperature. When setting up your camera you can adjust your color temperature filters and white balance the camera for tungsten, halogen, fluorescent, or outdoors light and get a good image. A problem arises when you have two different colored lights in the same scene. If, for instance, you illuminated a face with a fluorescent light on one side and incandescent light from the other, the fluorescent cheek will

look greenish-blue and the incandescent cheek would look reddish. By adjusting your camera you could make one side of the face look fine, but the other side would be ready for trick-or-treat.

Dimming an incandescent light cools it and makes it redder just like the physics experiment. You may get away with 10 to 20% dimming before the color shift becomes noticeable, but beyond that you create a color temperature problem, especially if the light coming from the opposite side of someone's face is running undimmed the full 3200 degrees K. If you have to dim, say, your fill light more than 20%, it may be time to relamp the fill fixture with a lower wattage bulb or add a scrim or neutral density gel, then run the lamp undimmed. The color temperature of light can be changed by placing a colored filter, called a gel short for gelatin, from which it is made) into the lighting fixture. Blue filters seriously reduce the amount of light that comes from a lamp, sometimes making it necessary to use more lights and more power. Once solution to this problem is to avoid electric lamps altogether and using a simple reflector, bounce the existing sunlight onto the dark side of the face. A white sheet or a white foam core board would bounce a soft reflected light. The light may be so soft that the reflector will need to be near the subject. Placing wrinkled tin foil over the foamcore multiplies its reflectivity, allowing the reflector to be used from farther away from the talent. The foil reflector, however, would make a much focused beam that may be a little hard on your talent's eyes.

A third solution to the above dilemma: HMI lights. HMI lights are color balanced to 5400 degrees K and are perfect companions for sunlight. A fourth solution is to use professional fluorescent lights. They come in banks of 2-6 and their bulbs are manufactured to produce a certain color temperature. Most are dimmable, usually from 60% to 150% without changing color temperature.

Kinds of lights -

TV studios typically use tungsten halogen lamps in big clumsy fixtures with clamps to hang them from the ceiling grid. Key lights are usually focusable which means the bulb can be moved closer or farther from the reflector or a front lens spreading the light into a wide flood or a narrow spot. Fill lights are usually large, with scoop-like reflectors. To soften the light, sometimes several are used side by side. Professional soft lights have the lamps inside a big white box that reflects the

light smoothly over a larger surface. Fiberglass or steel mesh scrims can be slid in front of lights to soften their beams. Colored gels can be slid into the same slots to change the color of the lights. Hinged flaps called barn doors, affixed to the front of the instrument allow the beam to be aimed and shielded from certain areas of the stage. A backlight, for instance, would have the top barn door turned down like a visor so that light would strike the subject but would be shielded from the camera.

HMI lights are a favorite for outdoor portable shooting because they make a large amount of usable light with minimal power. For instance, because of its outdoor-compatible color temperature and high efficiency, a 1200-watt HMI light produces just about as much light as a 10 kilowatt tungsten lamp after the tungsten light passes through the blue gel. HMI lights are less likely to overburden office or home electrical outlets, and because of their efficiency they don't turn offices and homes into ovens or stress a smaller building's air conditioner.HMI lights have two disadvantages. First, they are more expensive. Second, the instruments don't plug directly into a wall outlet. Instead, they plug into large and heavy ballast, a transformer that powers the light.

Rules for using Lights

No basic article TV lights would be complete without warnings about how to handle them. Never move a lamp while it is lit. The hot filament is almost gaseous, making it very delicate. If you bump the lamp, the filament may break apart and the light will go out. When your light does go out, turn off the fixture's power unplugging it is even safer), and let it sit while you search for a replacement bulb. Bulbs and fixtures get hot and you will fricassee your fingertips if you go fishing for the bulb too soon. A glove might be helpful here.

The replacement bulb's glass should never be touched with your fingers. Small amounts of oil from your fingertips will decrystallize the glass when it heats up, causing it to crack. Instead, transport the bulb by its packing, and slip it into its socket without touching the glass with your fingers. Once the fixture is relamped, you can plug it in and turn it on.

Don't unplug or plug in fixtures while they are turned on. Lusty sparks will jump from the plugs as you make or break an active circuit. Turn off the studio dimmer for the light or throw

the light switch before disconnecting it. If using extension cords, remember that lights use a lot of power. Check the temperature of your extension cords near their plugs from time to time; don't wait until you smell smoke. Also, don't turn all of your lights on at the same time; the power surge may trip your circuit breaker. Office and school electrical outlets are often good for 30 amps 3600 watts and older homes may be good for only half that much. Heavy-duty extension cords are generally rated at 15 amps which translate to 1800 watts of power. You'll be overworking your extension cord if you try to run two 1000-watt lights from it.

Lastly, Murphy's 44th Law of Lighting states that lighting systems will work during rehearsal but will fail during the show. The likelihood of failure increases with the importance of the show. Therefore, don't operate lights at the limit of your power capacity. Also consider that VCRs, cameras, and computers consume power and do not perform well on a starvation diet. You may be able to light the scene, but the rest of your gadgets will become under voltage valetudinarians.

Filters

A filter is a camera accessory consisting of an optical filter that can be inserted in the optical path. The filter can be a square or rectangle shape mounted in a holder accessory or, more commonly, a glass or plastic disk with a metal or plastic ring frame, which can be screwed in front of the lens. Filters allow added control for the photographer of the images being produces. Sometimes they are used to make only subtle changes to images; other times the image would simply not be possible without them. The negative aspects of using filters, though often negligible, include the possibility of loss of image definition if using dirty or scratched filters, and increased exposure required by the reduction in light transmitted.

The former is best avoided by careful use and maintenance of filters, while the latter is a matter of technique; it usually will not be a problem if planned out properly, but in some

situations does make filter use impractical. Since all kinds of digital effects are available in the edit bay, glass lens filters might seem old fashioned. Who needs a star filter when you can just dial one in?

True, but digital magic takes time, skill and often the budget for plug-in programs. Sometimes it's quicker and simpler to create effects right in the camera with lens filters. And sometimes it even looks better than the electronic equivalent.

The most common lens filters are used to control five aspects of video: brightness, color, light quality, focus and resolution.

Polarizers

Let's start with polarizers - filters so versatile that they straddle three out of five of these areas: brightness, color and light quality. A polarizer is made of two rings: the back one screw onto the front of the lens, but the front one rotates freely. A polarizer reduces overall brightness by about 1.5 aperture f - stops for instance, from f16 to f9.5. A polarizer can also change colors somewhat, especially darkening blue skies or water, for dramatic effect.

Finally, a polarizer can alter light quality by suppressing reflections on glass and water and by reducing specular highlights, which are small, bright reflections from water, shiny metal or glass.

Brightness Control

Neutral density filters limit the amount of light entering the lens, allowing camcorder's aperture to open by one or more f-stops. For example, an ND3 opens one stop and an ND6 two stops. Opening the aperture reduces depth of field, throwing backgrounds out of focus for portraits, flower close-ups and similar shots. When parts of an image are just too bright for even your smallest f-stop, they flare out to blank, ugly white. In this case, a neutral density filter may not widen the aperture, but it will reduce the overall light enough to prevent this unpleasant effect. This can be a common occurrence where the sky is visible in a shot on a sunny day. For even better control, a graduated neutral density filter starts clear at one side and darkens progressively. By positioning it with the dark side up, you can control over-bright skies in scenic shots.

Color Control

Overall color tints are easy to add and fine-tune in post production, so you might not need actual glass in the field. Still, graduated color filters can create some great effects. A

graduated colored filter can turn a noon sky into a sunset, without giving foreground subjects sudden sunburn. A graduated blue or green filter with the color on the bottom can jazz up dull lake or ocean water colors.

Light Quality Control

We said that a polarizer can reduce sparkles off water, glass, or bright metal - but what if you want to enhance them? Star filters and similar filters are great for gee-whiz treatments of lights.

Focus Control

Camcorders focus so closely that close-up lenses diopters are rarely needed. But what if you need to shoot one subject six inches away and another other 100 feet away while keeping both of them sharp? The answer is a split-field diopter. This sneaky device will focus one half of your lens very close, even though the focus setting on the camcorder is distant or even at infinity.

Resolution Control

A diffusion filter can reduce the natural resolution of your lens, to create smoke, fog or steam effects. Experiment with multiple thicknesses until you get the effect you want. Another trick can be to smear petroleum jelly around the edge of an inexpensive clear-glass lens not on your camera's lens!) for a romantic soft -focus look on your leading lady. Diffusion can also be used to soften wrinkles and blemishes in portrait shots. Be careful, however, when intercutting close-ups when only one is diffused. The change in sharpness from shot to shot will give the trick away.

Reflectors

Reflectors are so versatile, useful and simple that professional videographers deploy them even in high-rent productions. Advanced amateurs may know how to

use reflectors for outdoor fill light, but that's only their most obvious application. So let's conduct a quick flyover of professional reflector techniques, both outdoors and in. First, let’s take a quick taxonomy of reflector species. Reflectors are either rigid or flexible. Rigid reflectors may be faced in order, from brightest to softest with shiny aluminum, matte aluminum, wrinkled aluminum or white paper. Paper-faced reflectors are usually foamcore: rigid Styrofoam sandwiched between paper surfaces and available at any art or craft store. Flexible reflectors are usually cloth spread across thin metal hoops that can be folded for storage. Fabrics may be metallic for greater reflectivity or plain for a soft, diffuse effect. They come in white or sometimes gold. Which to choose? Flexible reflectors are light and easily stored, but they're unstable in any breeze, making their light waver visibly on-screen. Hard reflectors are cheap to buy or easy to make for almost nothing but they're bulky and rigid, making them difficult to transport and store away. Since these critters are most often used in wide open spaces, let's see how to employ reflectors outdoors as key, fill, rim or background lights.

Reflector Key Light

With the sun shining, why make your primary light a reflector? Often the sun's in the wrong position or the subject's standing in adjacent shade. In fact, the sun can become a gorgeous rim light, outlining the subject's head and shoulders and separating them from the background.

Start by placing your subject with the sun behind them between ten and two o'clock. Then use a white reflector placed between four and eight o'clock, close to the subject and just below eye level, to fill in nose and chin shadows. If you want to get fancy, use a reflector on either side, with the key unit closer, so the subject is lighter on that side. A reflector key light also works well when the subject is in the shade. Bounce the light in, moving the reflector in or out until it is two to three times as bright as the ambient shade light that is ultimately creating the fill.

Reflector Fill Light

More often, we'll use the sun as the key and the reflector for the fill, with each light source placed between three and nine o'clock, though some limit the arc to four to eight on our clock face. As always, place the reflector just slightly below the subject's eye level to fill nose and chin shadows. Too high a position delivers a Hitler moustache effect and too low creates a

vampire. If the sun is at seven to eight o'clock, you can often get a nice effect with the reflector all the way around to three o'clock, filling the subject's profile.

Every type of reflector can and should be used for fill. For close-ups, a diffuse white card looks most natural, but its intensity is too low for the throws required in longer shots. If you're short-handed, have subjects aim a white card, held below the frame line, up at themselves for their close-ups. It often works great.

When higher intensity is needed, bring in the aluminum or metallic fabric models. They have enough punch to work effectively out of camera range. Always try to use the softest version that will deliver enough fill, starting with a metallic fabric model.

Using aluminum reflectors for key or fill light requires care, because they throw a hard, narrow beam and they can make subjects squint unattractively. Make sure you place them far enough away to reduce their intensity.

Reflector Rim Light

Those hard aluminum surfaces are perfect for rim-lighting the subject, especially when the sun is between four and eight o'clock. Place the reflector very high and opposite the sun or as nearly opposite as possible while staying out of frame.

Rim lighting works best when a second reflector is delivering fill light, as described in the previous section. If the sun is close enough to six o'clock and low enough in the sky, fill light may be unnecessary, but the golden glow of rim light might look wonderful.

When the subject is in shade, rim lighting doesn't work, unless the protected spot is just outside a sunny area. A hard aluminum unit in the sun can often bounce light off a second hard unit in the shade and back onto the subject's hair and shoulders. That's what bright aluminum reflectors are for: very long throws of relatively narrow light beams. In bright sunlight, hard aluminum units set as far as 100 feet away, from which position they can spread a broad, diffuse light on subjects without hurting their eyes.

Reflector Background light

Suppose you have a subject in the sun with, say, a shaded building wall as background. That makes for great facial exposure, but often a boring background. To spark it up, fill in the backing with one or more hard aluminum reflectors softer models are too low -intensity to work.

Here, the keys to success are angle and distance. If the wall is parallel to 12 o'clock, behind the subject, try to get the reflector as close as 11 o'clock sun angle permitting to rake the background with an oblique wash of light. If you have the resources, aim multiple reflectors at different areas of the background. With care, you can produce a variegated and interesting wash of light that looks quite natural.

Reflectors indoors

Reflectors are not as versatile indoors because the light sources they depend on aren't as powerful as sunlight. Even so, you can easily use them to make one light do the work of two.

If you're working with just one spotlight, use it as a key light and place a large, white card out of frame on the opposite side. The result is a very soft, natural looking fill light. You can even soften the naturally hard spot beam a bit with spun glass diffusion e.g. a furnace filter) and still put out enough light for the reflector.

Even if you have more spotlights, you may want a softer look to your lighting design. To achieve it, turn the lights away from the subject and bounce them back in with reflectors. In this application, metallic cloth or crinkled aluminum types work better than ultra-soft white cards.

So there's a quick rundown on reflectors. Once you see how versatile they are, you'll realize that reflectors aren't lights for poverty-stricken productions: they're versatile tools that pros use all the time. Foamcore, cloth and even some hard reflectors can be colored gold instead of white. Hoop-and-fabric units are sometimes two-sided, with one side gold and one side silver. Gold reflectors are very useful for warming up the light they throw.

Here are just a few ways to use them:

To simulate the magic hour look of sunset

To counteract the naturally bluish cast of open shade

To warm up one light source also useful in creating day-for-night effects

To add glamour to close-ups, either as fill light or as a warm rim light on hair and shoulders.

The most economical way to acquire a warm reflector is by buying a piece of tinted foamcore. Instead of true gold, try a lighter yellow color to start, then experiment until you find what suits your needs. We use two types of reflectors -

spot and flood. Spot reflectors have a 10° beam width that concentrates all the light in one central spot while the rest of the area remains mildly illuminated. For videography and photography purposes we use flood reflectors with a beam width of 100°. Flood reflectors evenly illuminate large areas with the same light intensity. All reflectors are made of aluminum resistant to high temperatures and possessing excellent reflective characteristics.

Videography refers to the process of capturing moving images on electronic media e.g., videotape, hard disk, or solid state storage, streaming media. The term includes methods of electronic production and post production. It is the equivalent of cinematography, but with images recorded on electronic media instead of film stock. The word combines "video" from early Greek and later Latin, meaning "I see" or "I apprehend", with the Greek terminal ending "graphy", meaning "to write". Its contemporary sense is rooted in an article titled "Videography: What Does It All Mean?" The advent of digital imaging in the late 20th century began to blur the distinction between videography and cinematography. Today digital cameras are rapidly rendering film cameras into collectors' items.

The videography market has grown to include distribution as well as production. With this growth has come market segmentation, based on the application: event video, corporate video, broadcast video, etc. The advent of the Internet has created a global environment where videography covers many more fields than just shooting video with a camera. Included under the videography umbrella are digital animation such as Flash, gaming, web streaming, video blogging, still slideshows, remote sensing, spatial imaging, medical imaging, and in general the production of most bitmap- and vector-based assets. As the field progresses videographers may produce their assets entirely on a computer without ever involving an imaging device, using software-driven solutions. Moreover, the very concept of sociality and privacy are being reformed by the proliferation of cell-phone video cameras, which are spreading at an exceptional rate in industrialized societies. A videographer may be the person actually operating the camera or he or she may be the person in charge of the visual design of a production the latter being the equivalent of a cinematographer). Videography also refers to the compiling of an artist's music videos or video releases compare with " filmography".

Multi-Temp Light for photography or videography

Modern video cameras have a superb low light capability that makes available-light recording possible and the most used method of shooting video. However, if you need better control of a scene and a higher quality image, supplemental lighting may be needed. As you may have observed, low light levels increase the graininess of video images. Conversely, more light results in higher resolution and higher quality images. We feel that the flexibility of our Multi-Temp Light will help you achieve professional results while making the Multi-Temp your favorite artificial light source. The Multi-Temp Light uses four cool burning fluorescent light bulbs of slightly different colors to provide lighting that closely replicates natural daylight. The compact fluorescent light bulbs generate the approximate four times the light output of incandescent bulbs with a life expectancy of approximately 5,000 hours. The bulbs are warm to the touch but don't generate the scalding heat that makes incandescent or halogen bulbs such a burn and fire hazard.

Why 4 different color temperature bulbs

For years light bulb manufacturers have tried to create the perfect light source by experimenting with different filaments and bulb coatings. There were daylight fluorescents, halogens and even high tech metal discharge lamps, but none was perfect. We discovered that like an orchestra achieving a wonderful sound by combining multiple players and instruments. We can achieve a very high quality natural light by combining multiple lights of different characteristics in slightly different locations. This is what makes the Multi-Temp Light different from other artificial lights. The user can select one, two, three or four different bulbs resulting in 15 possible color combinations that can change the character of the video image. Additionally, some users set their video camera "White Balance" under one color temperature and then switch to different color temperatures to create a warmer or cooler look without the use of filters.

Illuminations: Lights for Different Jobs

The three main types of movie lights are spotlights, floodlights, and soft lights.

Spotlights

Spotlights are small-source instruments, meaning that the lamp and reflector are rarely bigger than six inches across though film studio spots can be way bigger). All but the cheapest models can be focused, narrowing or widening the light beam by moving the lamp forward or back in its housing. Because of their small light source and their ability to focus, spotlights throw a relatively directional and "hard-edged" beam, meaning that its intensity falls off very quickly at the perimeter. Nowadays, all spotlights use special halogen lamps.

Tiny 12-volt spotlights can be camera-mounted. Versatile models have multiple heads and lamps, for varied lighting intensities and beam-spread; and they can be fitted with barn doors, filters, and even Munchkin soft boxes. Used alone, on-camera spots can produce crude-looking lighting; but they can be invaluable supplements to stand-mounted units. Because you can soften spotlights they are the most versatile lighting instruments, suitable for key, fill, rim, and background illumination.

Floodlights

Because floods are larger light sources than spots, they have the opposite

virtues and vices. Lacking lenses and focus systems, they are simple and less expensive; and their soft-edged light beams take little practice to manage. On the down side, they are difficult or plain impossible to mask, spilling their beams all over the place.

The smallest floodlights are broads: shallow rectangular pans usually fitted with two narrow barn doors. Used naked, they can throw effective washes on walls and other backgrounds, but because they are still relatively small, they often need extra softening, usually with sheets of white spun glass held in front of them on frames. Pans are very large lights some over four feet square) that throw ultra -soft even light beams that seem to wrap around subjects. Pans contain several high-accuracy fluorescent tubes, and some models allow you to switch them individually. Pans are fairly clumsy to use; but vendors have added conveniences like bodies that clam-shell shut to form their own cases and fluorescent ballast units that function as counter weights. Typically balanced for daylight, pans work well with location windows and existing fluorescent ceiling lights. Like all, fluorescents, they are more efficient than lights with halogen lamps, putting out substantially more light and less heat per watt of power.

Soft lights

Pans bridge the gap between floodlights and soft lights. Soft lights are very large lights sources typically 1 ½ to 4 feet square) created by placing the instrument inside a fabric enclosure or else aiming it at a reflective umbrella. All soft lights deliver a diffuse beam that is easy to use and looks very natural. On the down side, you can't control the edges of softlight beams though some types include accessories to limit the beam spread.

Some soft lights are really accessories for small spotlights, which mount at the rear of a fabric cube with opaque sides and translucent front. Other versions are "pure" softlights, with open lamp-and-socket assemblies designed for specific housings. PhotoFlex, for example has a proprietary tent engineered like an umbrella.

Actual umbrellas have been used as softlights for decades. Mounted on a stand, the umbrella reflects light onto the subject from a small spotlight clamped to the bottom of its "handle" and aimed into the fabric bowl. Umbrellas are versatile, inexpensive, and easy to carry and store. You can get different levels of diffusion by using different fabrics -- say, silver-thread cloth

or plain white. For a super-duper soft effect, fit a translucent white umbrella and reverse the unit so that the spot aims at the subject through the diffusing cloth.

Lamps

Nowadays, almost all professional lights use either halogen or fluorescent lamps. Halogen lamps are small and very bright for their power consumption. They burn at precisely 3,200K color temperature, for perfect indoor white balance, and unlike household light bulbs yes, bulbs they don't dim and yellow as they age.

On the down side, halogen lamps get so hot that their envelopes must be made of quartz, rather than conventional glass. Touching them cause serious burns; and even when the lamps are cold, human fingers leave skin oil deposits that will make the quartz shatter spectacularly when heated. Fluorescent lamps now come in all shapes and sizes. When you buy conventional fluorescent tubes, be sure to get the "high accuracy" type for good color temperature.

UNIT 3. SOUND

Unit of Sound

Sound is perceived through the sense of hearing. Humans and many animals use their ears to hear sound, but loud sounds and low-frequency sounds can be perceived by other parts of the body through the sense of touch as vibrations. Sounds are used in several ways, notably for communication through speech and music. They can also be used to acquire information about properties of the surrounding environment such as spatial characteristics and presence of other animals or objects. The decibel dB is used to measure sound level, but it is also widely used in electronics, signals and communication.

Humans can generally hear sounds with frequencies between 20 Hz and 20 kHz. Sound above the hearing range is known as ultrasound and that below the hearing range as infrasound.
Sound recording and reproduction is the electrical or mechanical inscription and re-creation of sound waves, usually used for the voice or for music.
The two main classes of sound recording technology are analog recording and digital recording.

What is a microphone?

A device for turning acoustic power into electric power is called a microphone. Acoustic power is real sound waves. In other words, it changes sound into an electric signal. These signals are usually sent to an amplifier or recording device. There are many different brands and also different types. Still, they all have one thing in common: they all use a diaphragm.
This diaphragm is a thin part, sometimes made of metal that vibrates when sound goes to the microphone. When the diaphragm shakes, it causes the other parts of the microphone to create signals. Every studio needs at least one mic, but which type and which model is best?

All microphones convert sound energy into electrical energy, but there are many different ways of doing the job, using electrostatics, electromagnetism, piezo-electric effects or even the change in resistance of carbon granules. Fortunately for SOS readers pondering over which mics to buy, the field of choice is narrowed considerably when it comes to mics used in music recording or live performance. The vast majority of mics used in these applications are either capacitor electrostatic) or dynamic electromagnetic) models. Both types employ a moving diaphragm to capture the sound, but make use of a different electrical principle for converting the mechanical energy into an electrical signal. The efficiency of this conversion is very important, because the amounts of acoustic energy produced by voices and musical instruments are so small.

Major Microphone Designs

There are six common microphone designs:

- Hand held - the type held by on-camera talent or used for on-location interviews

- Personal mic lavaliere / clip -on mic) - Whether hung from a cord around the neck lavaliere) or clipped to clothing, these are all ref erred to as personal mics.
- Shotgun- used for on-location production to pick up sounds a moderate distance from the camera
- Boundary effect microphone - also called PZ or PZM mics these rely

primarily on reflected sounds from a hard surface such as a tabletop

- Contact mics - which pick up sound by being in direct physical contact with the sound source. These mics are generally mounted on musical instruments.
- Studio microphones- the largest category of microphone. These include a number of application designs that we'll discuss.

These six categories include different transducer types, or approaches to converting sound waves into electrical energy.

Dynamic Microphones

The dynamic mic also called a moving-coilmicrophone) is considered the most rugged professional microphone. This type of mic is a good choice for electronic newsgathering ENG work, where a wide variety of difficult conditions are regularly encountered. In dynamic microphone sound waves hit a diaphragm attached to a coil of fine wire. The coil is suspended in the magnetic field of a permanent magnet.

When sound waves hit the diaphragm they move the coil of wire within the magnetic field. As a result, a small electrical current is generated that corresponds to the original sound waves. This signal must be amplified thousands of times.

When small size, optimum sensitivity, and the best quality are all prime considerations, another type of mic, the condenser mic, is often preferred.

Condenser/Capacitor Microphones

Condenser microphones a lso called capacitor or electrets condenser mics are capable of top-notch audio quality. Condenser mics aren't as rugged as dynamic mics, and problems can result when they are used in adverse weather conditions. Condenser mics work on the principle that governs an electric condenser or capacitor. An ultra-thin metal diaphragm is stretched tightly above a piece of flat metal or ceramic. In most condenser mics a power source maintains an electrical charge between the elements. Sound waves hitting the diaphragm, cause fluctuations in an electrical charge, which then must be greatly amplified by a preamplifier pre -amp. The pre -amp can be located within the microphone housing or in an outboard electronic pack. Although most pre-amps output an analog signal, some of the newer models immediately convert the output to digital. Because they require a pre-amp, this means that, unlike the dynamic mics discussed earlier, most condenser mics require a source of power, either from an AC standard Alternating Current electrical power supply or from batteries. An AC power supply for a condenser mic is sometimes built into an audio mixer or audio board. This is referred to as a phantom power supply. When this type of power supply is used, the mic cord ends up serving two functions: it delivers the signal from the mic to the mixer and it carries power from the mixer to the pre-amp of the condenser mic.

Of course, using batteries to power the pre-amp of the condenser mic is more convenient you don't have to use a special mixer or audio board connected to an electrical power source. But, battery-powered condenser mics introduce a problem of their own: at the end of their life

cycle the batteries can go out without warning. To get around any unexpected problems, especially on important productions, two miniature condenser mics are often used together. If one mic goes out, the other can immediately be switched on. This double microphone technique is called dual redundancy, a term that is somewhat redundant in itself.

Ribbon Mics

Except possibly for an announce booth shown here), ribbon mics are seldom used in TV production. Although they can impart a deep, resonant "coloring" to sound, they are fragile and highly sensitive to moving air. This precludes their use outside the studio and on most booms, which covers most TV production applications. Ribbon mics were primary used in radio studios.

Boundary Effect Mics

PZ also called PZM stands for sound pressure microphone for standard video work, which comes under the heading of a boundary effect microphone. This mic relies entirely on reflected sound. In specific situations, such as when placed on a tabletop, a PZ mic will provide a pickup that's superior to that of other types of mics.

Contact Mics

As the name suggests, contact mics pick up sound by being in direct physical contact with the sound source. These mics are generally mounted on musical instruments, such as the surface of an acoustic bass, the sounding board of a piano, or near the bridge of a violin.

Contact mics have the advantage of being able to eliminate interfering external sounds and not being influenced by sound reflections from nearby objects. Their flat sides distinguish them in appearance from small personal mics.

Directional Characteristics

In an earlier module we talked about the angle of view of lenses -- the area that a lens "sees." Microphones have a similar attribute: their directional characteristics, or, you might say, the angle of view that they "hear."

In microphones there are three basic directional categories:

- Omni directional
- Bi-directional
- Unidirectional

Omni directional Mics

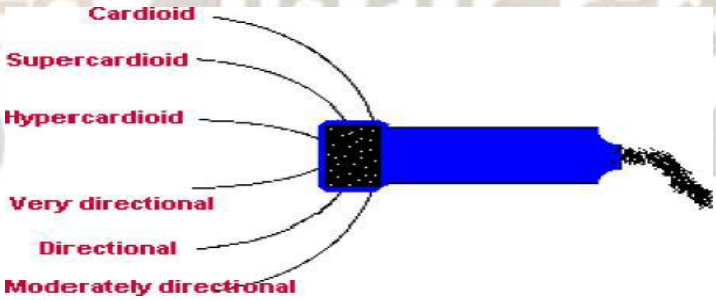
Omni directional mics also called non directional mics are more or less equally sensitive to sounds coming from all directions. Although this attribute would have advantages in radio where several people could stand or be seated around a single microphone, in video production it's almost always more desirable to use some form of directional mic. For one thing, this will reduce or eliminate unwanted sounds behind -the-camera noise, ambient on- location noise, etc. while maximizing sound coming from talent.

Bi-directional Mics

In a bi-directional sensitivity pattern bipolar pattern the mic is primarily responsive to sounds from two directions. Although commonly used in radio interviews for people sitting across from each other at a table, until the advent of stereo, bi-directional also called figure eight sensitivity patterns had limited use in television. We'll get into stereo and the need for this type of directional pattern in a later module.

Unidirectional Mics

The term unidirectional simply refers to a general classification of mics that are sensitive to



sounds coming primarily from one direction.

There are four subdivisions in this category -- each being a bit more directional:

- Cardioids
- Super cardioids
- Hyper cardioids
- Parabolic

Although these terms may sound as if they belong in a medical textbook, they simply refer to how narrow the mic's pickup pattern "angle of view" is.

Cardioids

The cardioids pattern is named after a sensitivity pattern that vaguely resembles a heart shape. Mics using a cardioids pattern are sensitive to sounds over a wide range in front of the mic, but relatively insensitive to sounds coming from behind the mic. Although this pattern might be useful for picking up a choir in a studio, the width of cardioids pattern is too great for most TV applications. When placed two or more meters 7 or more feet from a speaker, it tends to pick up unwanted, surrounding sound, including reverberation from walls.

Super cardioids

The super cardioids are even more directional than the cardioids sensitivity pattern. Whereas the cardioids have about a 180-degree angle of acceptance, the super cardioids have about 160-degrees of coverage. When this type of mic is pointed toward a sound source, interfering off -axis sounds tend to be rejected. This polar pattern is similar to that of our ears as we turn our head toward a sound we want to hear and try to ignore interfering sounds.

Hyper cardioids and Lobar

Even more directional are the hyper cardioids and lobar patterns with 140-degrees of coverage. Because off-axis sounds will be largely rejected, they have to be accurately pointed toward sound sources. Some highly directional shotgun mics are included in the hyper cardioids category.

Shotgun Mics

So-called shotgun mics with their hyper cardioids or narrower angles of acceptance are one of the most widely used types of mics for on-location video work. Since they are quite directional, they provide good pickup when used at a distance of 2 to

4 meters 7 -13 feet from the talent. Like other types of directional microphones, they tend to reject sound that would interfere with the on-camera talent.

Audio mixers

In professional audio, a mixing console, digital mixing console, mixing desk Brit., or audio mixer, also called a sound board or soundboard, is an electronic device for combining also called " mixing", routing, an d changing the level, tone, and/or dynamics of audio signals. A mixer can mix analog or digital signals, depending on the type of mixer. The modified signals voltages or digital samples are summed to produce the combined output signals. Mixing consoles are used in many applications, including recording studios, public address systems, sound reinforcement systems, broadcasting, television, and film post-production. An example of a simple application would be to enable the signals that originated from two separate microphones each being used by vocalists singing a duet, perhaps to be heard through one set of speakers simultaneously. When used for live performances, the signal produced by the mixer will usually be sent directly to an amplifier, unless that particular mixer is “powered” or it is being connected to powered speakers. Each signal that is input into the mixer has its own channel. Each channel on a mixer has an audio taper pot, or potentiometer, controlled by a sliding volume control fader, that allows adjustment of the level, or amplitude, of that channel in the final mix. A typical mixing console has many rows of these sliding volume controls. Each control adjusts only its respective channel or one half of a stereo channel; therefore, it only affects the level of the signal from one microphone or other audio device. The signals are summed to create the main mix, or combined on a bus as a submix, a group of channels that are then added to get the final mix for instance, many drum mics could be grouped into a bus, and then the proportion of drums in the final mix can be controlled with one bus fader).

There may also be insert points for a certain bus, or even the entire mix. On the right hand of the console, there are typically one or two master controls that enable adjustment of the console's main mix output level. In recent years, with the demand for larger consoles, the main mix and submix controls have started to be placed in the center of the console. The idea behind this is that larger consoles often need two people to operate them, and that the first channels used are often the lower numbered channels. With the mains and subs in the middle, two people

can easily control their own set of 16, 24, or 32 channels as well as easily reach the main controls. It is very rare to see this setup on boards with 24 or fewer channels.

Finally, there are usually one or more VU or peak meters to indicate the levels for each channel, or for the master outputs, and to indicate whether the console levels are over modulating or clipping the signal. Most mixers have at least one additional output, besides the main mix.

Sound Editing

Audio editing is the process of taking recorded sound and changing it directly on the recording medium analog or in RAM digital. Audio editing was a new technology that developed in the middle part of the 20th century with the advent of magnetic tape recording. Prior to magnetic tape, editing and the repairing of breaks was performed on wire recorders with solder and extra wire to reinforce the new joint. After World War II, reel-to-reel tape machines became prevalent and edits were made with straight razors and special tape to connect pieces of magnetic tape that had been cut. Audio editors would listen to recorded tapes at low volumes, and then located specific sounds using a process called scrubbing, which is the slow rocking back and forth of the tape reels across the playback heads of the tape deck.

With the development of microcomputer technology, sound recordists were able to digitize their recordings and edit them as files within a computer's RAM. The earliest audio editor was written by Sound stream Inc specifically for the PDP-11 minicomputer platform. Digital audio workstations appeared using proprietary software and hardware solutions but after the personal computer became widely available in the mid '80s, much the power of a DAW came into the hands of home and small business users through software audio editing programs written specifically for personal computers. The earliest program to become widely used in this application was a wave editor called Sound Designer in the late 1980s and early 1990s. Sound Designer was created by a company called Digidesign who achieved early industry dominance. Today, the most popular retail audio editing programs not associated with specific hardware are: Audacity, Adobe Audition, Sony Sound Forge, Digidesign Pro Tools LE and Goldwave.

A sound editor is a creative professional responsible for selecting and assembling sound recordings in preparation for the final sound mixing or mastering of a television program or motion picture. Sound editing developed out of the need to fix the incomplete, undramatic, or technically inferior sound recordings of early talkies, and over the decades has become a respected filmmaking craft, with sound editors implementing the aesthetic goals of motion picture sound design.

Techniques

There are primarily 3 divisions of sound that are combined to create a final mix, these being dialogue, effects, and music. In larger markets such as New York and Los Angeles, sound editors often specialize in only one of these areas, thus a show will have separate dialogue, effects, and music editors. In smaller markets, sound editors are expected to know how to handle it all, often crossing over into the mixing realm as well. Editing effects is likened to creating the sonic world from scratch, while dialogue editing is likened to taking the existing sonic world and fixing it. Dialogue editing is more accurately thought of as "production sound editing", where the editor takes the original sound recorded on the set, and using a variety of techniques, makes the dialogue more understandable, as well as smoother, so the listener doesn't hear the transitions from shot to shot often the background sounds underneath the words change dramatically from take to take. Among the challenges that effects editors face are creatively adding together various elements to create believable sounds for everything you see on screen, as well as memorizing their sound effects library.

The essential piece of equipment used in modern sound editing is the digital audio workstation, or DAW. A DAW allows sounds, stored as computer files on a host computer, to be placed in timed synchronization with a motion picture, mixed, manipulated, and documented.

SOUND & CAMERA

NEVER forget that the piece you are preparing is an audio-visual production. Note that audio comes before visual. It is absolutely vital that you get the sound right for your video without good sound, your work will look amateurish and sloppy. A slick soundtrack can often hide the cracks in your images. Therefore you need to plan your sound just as carefully as you plan your images. If your audience is viewing your work via YouTube, the image might be reduced to a couple of inches wide, but the sound will be as big and powerful as their computer speaker get that to work in your favour, not against you. Video produced for handheld mobile devices needs excellent sound to enhance the storytelling, as images are so small. Sound can help you keep your audience's attention. There are several different sorts of sound that you can use. Using computer editing software, you can layer them in, adjust volume and sync images to particular sounds. Use 'J-cuts', where you lay in a couple of seconds of sound from one clip over the end of the one before, thus leading the audience into the visuals. Some sound you will record using your camera, other sound will come from other sources. Be inventive!

Sound Recorded With Your Camera

Room Noise and Ambient Sound

You will learn very quickly that, with a video camera, there is no such thing as silence. If you are filming indoors your camera will pick up what is known as 'room noise' - the hum created by electrical appliances especially air conditioning units!), the buzz of fluorescent lights, the echo of sound waves bouncing off the walls big rooms sound very different to little rooms, the noises of a building as it creaks gently around you. Professional sound recordists will always record two minutes of room noise with no one talking or moving as it can come in very useful for patching up a soundtrack. Room noise is deadened by soft furnishing, so if you are seeking to minimize harsh sounds, film in a room with carpets, curtains and lots of soft cushions! You will need to take up the volume to compensate, however. Outside there is also a lot of background noise, or ambient sound - passing traffic, birdsong, wind, nearby or distant people, aircraft, reversing trucks, squawking sirens - a whole cacophony of sounds that you cannot control. This is the noise of everyday life, and without it images begin to look very odd indeed. You therefore

need to record it to add meaning to your filmed sequences, but you need to take care that it is not too loud and that it does not drown out any vital dialogue or voice over. You have some control over volume levels when editing, but it is better to capture your sound effectively at source. It is also worth capturing around two minutes of ambient sound outside as, again, you may need to patch up your soundtrack.

Dialogue, or Spoken to Camera sound

There is a microphone on the front of your camera. Most home video cameras come with an omni directional microphone which basically records all the sounds that are present in front of the camera. This means that you must ensure that the dialogue you are trying to capture is much louder than any background noise. More sophisticated models will also have an external mic jack where you can plug in a more powerful, directional microphone.

Recording human voices is perhaps the most difficulty-fraught area of working in video. Digital video cameras are reasonably good at coping with indoor levels of lighting, however, they are not good at recording sound and this is something you have to work around creatively, especially when interviewing a subject.

NB - zooming the camera in on a subject does not also zoom the microphone.

Keep these tips in mind for audio recording that is easy to hear and a pleasure to listen to.

1. Use a Quality Microphone

Microphones built in to camcorders are generally low quality. They don't always pick up sound well, and sometimes you'll end up hearing the sound of the camcorder operating. If possible, use an external microphone whenever you're shooting videos. A lavaliere, or lapel mic, like the type newscasters use, is unobtrusive and especially helpful if you want to hear someone's voice clearly.

2. Monitor the Sound

If you can plug headphones into your camera, do it! They'll allow you to hear exactly what the camera hears, so you'll know if your subject is speaking loudly enough, or if the background noises are too distracting.

3. Limit Background Noises

Background noises can be distracting in a video, and can make for difficult editing. Turn off fans and refrigerators so you don't hear them humming. If there's a window open, close it and shut out the traffic noises.

4. Turn off the Music

If there's music playing in the background, turn it off. Leaving it on while you're recording will make editing difficult because you can't cut and rearrange clips without hearing the jumps in the music. If you like the music and want it in the video, it's better to add in the recording later on.

5. Record Background Sound

Think about what sounds are distinctive to the event you're recording, and try to capture those on tape. If you're at a carnival, the music of the merry-go-round and the sound of the popcorn popper will really add to the mood of your video and help viewers feel as if they are there with you. Try to record these sounds clearly, without worrying too much about the video footage. While editing you can move the audio clips around and have them playing underneath different parts of your video.

6. Watch Out For Wind

Recording outdoors on a windy day is difficult because the impact of the wind on the microphone can create loud slapping or popping sounds. You can buy a wind protector for your microphone to cut down on this effect or, in a pinch, slip a fuzzy sock over the mic!

7. Add It Later

Remember, you can always add sound later. If you're recording in a loud area, wait and record narration later when you're in a quieter space. Or you can wait and add sound effects, which are available with many editing programs.

SUMMARY

Video camera is a camera used for electronic motion picture acquisition, initially developed by the television industry but now common in other applications as well. Video cameras are used primarily in two modes. The first, characteristic of much early television, is what might be called a live broadcast, where the camera feeds real time images directly to a screen for immediate observation; in addition to live television production, such usage is characteristic

of security, military/tactical, and industrial operations where surreptitious or remote viewing is required. The second is to have the images recorded to a storage device for archiving or further processing; for many years, videotape has been the primary format used for this purpose, but optical disc media, hard disk, and flash memory are all increasingly used. Recorded video is used not only in television and film production, but also surveillance and monitoring tasks where unattended recording of a situation is required for later analysis.

We define focal length as the distance from the optical center of the lens to the focal plane target or "chi p" of the video camera when the lens is focused at infinity. We consider any object in the far distance to be at infinity. On a camera lens the symbol "∞" indicates infinity. Since the lens-to-target distance for most lenses increases when we focus the lens on anything closer than infinity, we specify infinity as the standard for focal length measurement. Focal length is generally measured in millimetres. In the case of lenses with fixed focal lengths, we can talk about a 10mm lens, a 20mm lens, a 100mm lens, etc. As we will see, this designation tells a lot about how the lens will reproduce subject matter.

Zoom ratio is used to define the focal length range for a zoom lens. If the maximum range through which a particular lens can be zoomed is 10mm to 100mm, it's said to have a 10:1 ten -to-one) zoom ratio 10 times the minimum focal length of 10mm equals 100mm.

Lighting can emphasize important details or hide them. It can flatter a subject by bringing out positive attributes, and it can de-emphasize or hide less attractive attributes. Lighting can even impart a sinister and hostile look. It all depends on how you choose to use the concepts. Television is based on the medium of light; in fact, without light there could be no video. Just as sound must be skillfully controlled in audio production, light must be expertly controlled in television.

TV studios typically use tungsten halogen lamps in big clumsy fixtures with clamps to hang them from the ceiling grid. Key lights are usually focusable which means the bulb can be moved closer or farther from the reflector or a front lens spreading the light into a wide flood or a narrow spot. Fill lights are usually large, with scoop-like reflectors. To soften the light, sometimes several are used side by side. Professional soft lights have the lamps inside a big white box that reflects the

light smoothly over a larger surface. Fiberglass or steel mesh scrims can be slid in front of lights to soften their beams. Colored gels can be slid into the same slots to change the color of the lights. Hinged flaps called barn doors, affixed to the front of the instrument allow the beam to be aimed and shielded from certain areas of the stage. A backlight, for instance, would have the top barn door turned down like a visor so that light would strike the subject but would be shielded from the camera. A filter is a camera accessory consisting of an optical filter that can be inserted in the optical path. The filter can be a square or rectangle shape mounted in a holder accessory or, more commonly, a glass or plastic disk with a metal or plastic ring frame, which can be screwed in front of the lens. Videography refers to the process of capturing moving images on electronic media e.g., videotape, hard disk, or solid state storage, streaming media. The term includes methods of electronic production and post production. It is the equivalent of cinematography, but with images recorded on electronic media instead of film stock. Sound is perceived through the sense of hearing. Humans and many animals use their ears to hear sound, but loud sounds and low-frequency sounds can be perceived by other parts of the body through the sense of touch as vibrations. Sounds are used in several ways, notably for communication through speech and music. They can also be used to acquire information about properties of the surrounding environment such as spatial characteristics and presence of other animals or objects. A device for turning acoustic power into electric power is called a microphone. Acoustic power is real sound waves. In other words, it changes sound into an electric signal. These signals are usually sent to an amplifier or recording device. There are many different brands and also different types. Still, they all have one thing in common: they all use a diaphragm. Audio editing was a new technology that developed in the middle part of the 20th century with the advent of magnetic tape recording. Prior to magnetic tape, editing and the repairing of breaks was performed on wire recorders with solder and extra wire to reinforce the new joint. After World War II, reel-to-reel tape machines became prevalent and edits were made with straight razors and special tape to connect pieces of magnetic tape that had been cut. Audio editors would listen to recorded tapes at low volumes, and then located specific sounds using a process called scrubbing, which is the slow rocking back and forth of the tape reels across the playback heads of the tape deck.

RADIO JOCKEYING AND NEWS READING -207

Basics of Radio News: Concept of News, News Values: Objectivity, Balance and Fairness

While dealing with news, two stages we have covered so far. First, to see what we call news, what actually isnews? Second, to understand those features that convert an ordinar y event or statement or opinion, intonews.
News must carry following basics to come up to the idealstandards of news.

1. Accuracy
2.Meaningful
3.Interesting
4.Factual
5.Objectivity
6.Conciseness
7.Clarity
8.Comprehensiveness
9.Cohesiveness

Let us go into the details of each and every news element

1. Accuracy

When we say **`a news item must be accurate'** we actually mean that whatever we are required to produce as news, or whatever we are being given in the name of news to believe in, it must be correct in every crumb of its details.

The **names of people** given in the news must be correct.
The **names of the places** given in the news must be accurate.
The **ages** of the people, if required to be given in the news, must be given with precision.
The **days, dates and time** of the incident or speech, or accident, being treated and reported as news, must be accurate.
Language must be correct in terms of **pronunciation, vocabulary, structure and grammar.**
Statements of people must be accurate.

2. Meaningful

The news should be meaningful and must make any sense. It also implies that it must carry any one, or some of them, or all of the news values we have gone through

3. Interesting

The news story, especially to be broadcast on radio, must be written and presented in such a way that the listener may not get bored. It is quite a difficult task to be managed when it comes to writing and presenting news bulletin since news is something that can never drift away from the principals of accuracy and objectivity. What we actually mean by making news bulletin interesting is the reading effect in the tone and style must be avoided by the news caster and spoken language is to be employed while writing the lines of any news item

4. Factual

The news story must base on the incident or statement which has actually taken place. In this era of media, where the choice available to the listener is wide and universal, news on one channel can easily and instantly be verified on the other channels. The taking risk of putting on air something fabricated or concocted will definitely bring bad repute to the channel doing it. Hence the most important element to be cared for and taken into serious consideration while presenting news is its being factual and truthful

5. Objectivity

Besides being accurate and factual, a news story needs to be to-the-point as well. Unnecessary details, though may be a part of the incident, should be brushed aside. Another thing that is important to be considered while making the element of objectivity certain in a news story is that it must not be given personal touch or flavour. Even a slight impression of personal emotions or any kind of exaggeration may endanger the objectivity of the bulletin

6. Conciseness

When it is said, a news story must be concise, it means, it should not be unnecessarily lengthy. Where unnecessary details are to be avoided, unnecessary wording must also be pruned out. Verbosity always kills the purpose and this is brevity that is unanimously agreed upon to be the soul of wit. Wordy expressions and unnecessary repetition must be avoided. Your duty is to inform people about an event; you are not supposed to make them understand a thick and problematic matter of psychology or the reasons why crimes are getting rampant in our society. These may well be the topics of an article or feature but can not be touched upon in a news bulletin. One-word substitution saves the space and time, both.

7. Clarity

The main objective of news is to keep the listeners in picture of what is happening around them and in the world. And the purpose is achieved only if clarity is there clarity.

Simplified vocabulary, easy-on-tongue order of the words, and correct and clear pronunciation are the key factors employing which the goal of making news clear and understandable may well be achieved.

8. Comprehensiveness

If something is comprehensive it means that it is complete by all regards and aspects. A news item is considered comprehensive only when it answers the every possible question that may arise in the minds of listeners. As a general principal to make a news story comprehensive and complete - five Ws and one H are to be satisfied. They actually stand for: what, when, where, why, who and how **What** happened?

When happened?

Where happened?

Why happened?

Who did it? and
How did it happen?
Sometimes in certain stories it also becomes necessary to answer another **W**, and that is **who for**. For instance, in vicarious crimes (crimes which are performed by an agent on behalf of some other person or persons), it becomes necessary to give the person's name as well **who** the agent did a certain crime **for**.
First, to make a news item comprehensive, and then, the whole news bulletin, is a must. A news bulletin must also consist of all the possible news items of all those happenings which have taken place j ust prior to the moment the news bulletin goes on air.
Sometimes, however, it happens that an important news lands in newsroom immediate after the time the bulletin has started. In such case, an attempt must be made to pen down the story at the moment and be handed to the newscaster so that in this era of neck-to-neck competition the channel may not lag behind its competitors

9. Cohesiveness
The last but not the least one is the element of cohesiveness. When we talk of an order, a kind of symmetry;a well-knit, well-planned, well-organized and even end-product, we actually talk of cohesiveness
It means that the order of the details to be put in a news item must be in proper order. Symmetry suggestsbeauty and it must be self-evident in the construction of the news story. Asymmetry mars the beauty andthe listener does not go on with the bulletin smoothly and comfortably. It must not be jumpy and uneven.To be more precise, a news item, and then the bulletin, must be well-knit, well arranged and well-ordered

Difference between New Values & Elements of News:
News Value
We have come across different definitions of news and have been successful in drawing some common factors which every definition, by and large, shares with the other one. The common fea tures we have drawn out of different news definitions are the news values. These are the values which len d newsworthiness to a common incident, event, statement, or opinion. This is the first stage to evaluate an incident against the yardstick of the news values.
News Elements

Once it is decided that this particular event deserves to be treated as a news item, the next stage is
to pen it down for a news bulletin or
a newspaper. Now comes forth the expertise and the skill needed to
write, arrange and style the event, which has already been declared as
a news item. The expertise which a
news writer employs while penning down the news story are called News Elements.

Radio News and Structure of Radio Station

UNESCO Associate and expert Mr. Paul De Maeseneer says, "News is a piece of information about a significant and recent event that affects the listeners and is of interest to them." It could at best be a working definition.

The structure of the broadcasting network in India, the types of radio stations we have in our country, and their organisational set-up, which is designed to achieve the policy objectives of broadcasting.

A broadcasting station is more than a production company. The wide range of its activities include consultations with a wide spectrum of the audience, programme planning, production, editing, presentation and transmission of programmes, research, beside a lot of other activities.he organisational structures of iilstitutions are designed in accordance with their objectives and functions.'This holds true of radio networkslstations as well. There are several broadcasting networks in the world, some are public service broadcasting organisations, and others are commercial networks. Besides, there are individual radio stations, mostly of a comnlercial nature. The policy objectives of radio networkslradio stations differ widely depending on the policy of those who ow~Jc~!ltrol them. The organisational structure of a broadcasting organisation also varies widely in relation to the size ,of the network, its policy objectives and capital investments.

Types of Organisational Setup

There are three types of organisations, these are:

Line organisation;

Line and staff organisation; and

Functional organisation.

In a Line Organisation, the line of authonty 1s direct with no advisory or aux~liaryact~vit~esattached. This form is simple and clear-cut. suitable for small firms.

In a Line and Staff Organisation, there is a provision for 'staff position' to discharge a variety of auxiliary and advisory functions. For example, in a sales organisation, the sale is the primary activity yhile accounting, legal, public relations, etc., are auxiliary activities.

A Functional Organisation consists of a number of branches or divisions each of which has specialistsaccoulltable to their senior counterparts in their central office or headquarters. A multi-disciplinary organisation such as a broadcasting network with a large number of radio stations, generally adopts the functional type of organisation.

15.2.2 Principles of an Organisational Setup

For smooth functioning of the organisation, certain universal principles are generally followed by management. Some of these are:

Unity of command;

Span of control;

Exception principle; and

Scalar principle.

The Unity of command principle means that no member of an organisation should report to more than one superior. According to the Span of control principle, there must be an optimum limit to the maximum number one can supervise. The Exception principle emphasises the need for delegation of not only functions, but authority down the line while the Scalar principle deals with hierarchy in each set-up.

ORGANISATIONAL STRUCTURE OF ALL INDIA RADIO

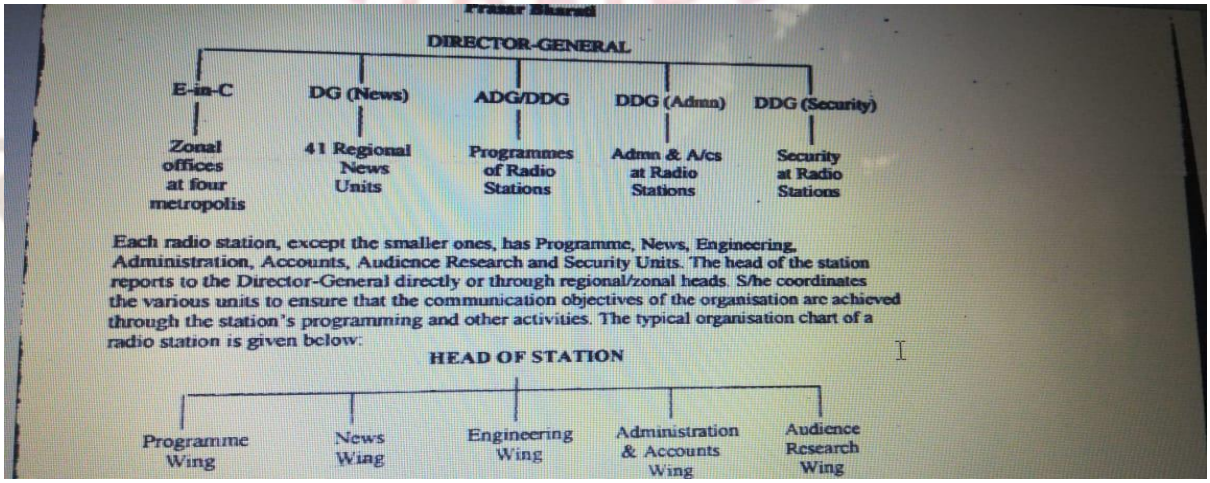
The type of organisation and the principles of management adopted by a broadcasting station will depend on its size, range of operations and ownership. In our country, radio broadcasting had been the responsibility of All India Radio funded by the government. A number of radio stations in the private sector are coming up. A number of educational channels operated by IGNOU known as GyanVani have come up and more are to be commissioned. The NGO sector may also set up community broadcasting stations as and when Government regulations pennit. Their organisational pattern would be different depending on their size, financial outlay and activities to be undertaken. In this unit, we shall discuss the organisational structure of All India Radio.

All India Radio (AIR) is one of the major public service broadcasting organisations in the world, and perhaps the largest in Asia. It has a network comprising 209 broadcasting centres with a staff component of over 30,000 employees and an annuq,l,expenditure of over Rs. 450 crores in the year 2000. Its home service, averaging 2300 hours of output everyday, includes national, regional, sub-regional and local service in 26 languages and 146 dialects, beside light entertainment commercial service. Its external service in 16 foreign and 10 Indian languages is beamed to 84 countries around the globe for a daily duration of over 70 hours.

The headquarters of the network located in New Delhi is headed by a Director-General.

The Director-General is assisted by an Engineer-in Chief, a Director-General (News), . AdditionalDeputy Director-General for Programme, Administration and Security, a Director of Monitoring Service and a Director for Audience Research. The Director General is answerable to the ParsarBharati Board of Management.

The Director-General prokidcs the professional leadership. He controls and supe~ses the Organlsatior~ oTa activities of various divisions. The heads of propnme and engineering divisions are, in turn, RndioStatior~ assisted by regionalhzonal heads and a chief engineer incharge of civil construction. The heads of programme regions are located in Mumbai, Calcutta and Guwahati, while the zonal chief engineers are headquartered at the four metropolises. There are 4 1 Regional News Units attached to the various radio stations and they receive professional guidance from the Director-General. A Deputy Director General carries out the inspection of radio offices. The chart given below explains the hierarchical arrangement:



TYPES OF RADIO STATIONS

AIR has a Uuee-tier system of broadcasting comprising national, regional, subltegional and local stations.

National Channel

Regional station

Sub-regional station

Local station

Other stations/offices

National Channel

The National Channel transmits programmes of national relevance. It is an alternative channel to the listeners who have access to the regional /sub-regional and VividhBharati Service. The languages of the spoken-word broadcast of the National Clmnel are Hindi and English. Orga~lisational Structure. The National Chamel features Hindustani and Carnatic music. light and folk music' from Planning and Research different regions of the country, Western music, plays, dramatised presentation of short stories translatea into Hindi from different Indian languages, documentaries, financial reviews, sports magazines and programmes in Urdu. The national service is available to substantial segments of the people in different regions. It begins every day at 1855 hours in the evening and continues up to 0610 hours. The production of programmes is undertaken at Delhi and Chennai, and supplemented by the recordings received from stations in different regions of the country.

Regional radio station

The organisational setup of a regional radio station which is located at the capital of a state or Union Territory is more or less on the pattern detailed in the typical set-up of a radio station.

The head of a regional station is Station Director who is the controller of the station and i I is responsible for its final output. Public relations is directly under the Station Director. 1 Sfhe keeps liaison with state government fimctionaries, eminent writers, thinkers, scientists, technologists, musicians, artistes and others. Sthe also presides over the Programme Advisory Committees and Consultative Panels attached to the stations. We have already discussed these Advisory cowttees and panels in the previous block.

1

A Station Directoi of a radio station in a state capital has the added responsibility of organising and coordinating the programmes of state level relevance and importance. Sfhe also inspects other stations in the state.

Programme Wing

Each station is equipped with facilities for programme production and presentation. The Programme Wing is divided into a number of production units such as; the Talks Unit, Women and Children's Programmes Unit, the Farm and Home Unit (for producing rural programme), Youth Programmes Wing, the Education Programme Unit, Science Programme Unit, Music Units (for classical, light and folk muslc programmes) Outdoor Broadcasting (field based) programme, Morning Information Programme and Senior Citizen Programme Units. In some stations, there are Western Music and Industrial Workers Programme Units also. All the stations have a Programme Coordination Unit and Public Relations Unit.

The programmes are produced by Programme ExecutiveslProgrammme Officers/Farm Radio Officers who are deployed at the statron according to the language and other special requirements. The programme producers are assisted by reporters, script writers and production assrstants. instrumentalists and music composers asslst in the production of music programmes. The work of the programme executives is supewrsed by assistant stationdirectorsldeputy director in accordance wlth the Scalar Princrple. The Station Director coordinates all the activities in accordance with the principle of Llne of Control.

The presentation of programmes is generally made by announcers and broadcast of proglimmee in accordance with a pre-determined schedule is ensured by a cadre of officers referredtc as T-...lal;lission Executives. We shall discuss in detail in the next unit as to how a station's programe ~ckerllltei; drawn up and the process through which an abstract idea gets translated into a programme.

Engineering Wing

The head of the engineering wing is a Station Engineerlsuperintending Engineer. She controls and coordinates all the technical activities of the stations. S/he is assisted by Assistant Stat~on Engineer, Assistant Engineer, Senior Engineering Assistant, Engineering Assistants and Technicians. They handle all programme origination and transmission, including relays from Delh~ or other stations. They are responsible for maintenance and operation of the technical facilities created at the station.

News Wing

The News Wing is headed by a Joint Director or News Editor wd is assisted by sub-editors and news reporters. For news reporting and news gathering there are staff correspondents, supported by a number of part-time correspondents or stringers. The news editing is done by the editorial staff. while translation and reading of news is done by translators and news readers respectively. The news wing also produces district newsletters and one or two ~lewsreels in a week.

Administration and Accounting Wing

This is headed by an Administrative Officer assisted by a head clerk, accountant and a number of assistants.

Audience Research Wing

An Audience Research Officer, supported by field investigators conduct feedback studies which help the station to formulate their programme-fare. The Audience Research Wing also conducts formative research studies to provide the programmers with a profile of the audience, their tastes and preferences.

Sub-RegionalStation

These are located at various citiesitowns. To illustrate, in Uttar Pradesh, sub-regional stations t are located in Allahabad, Varanasi, Gorakhpur, Rampur, Najibabad, Agra and Mathura. These stations broadcast programmes not only in Hindi, the regional language, but also in the dialects of the area. They cater to the distinct cultural and agricultural needs of the listeners of the area. 111 some stations located in the states, such as Assam or West Bengal, the principal language of broadcast of the sub-regional station is different from the principal language of the state. For

example, Silchar in Assam broadcasts programmes primarily in Bengali, while Kuuseong in West Bengal broadcasts programmes mostly in Nepali. This is directly related to the communication imperatives of the areas served by the station. The organisational setup of a sub-regional station is similar to that of a regional station. In some of the stations, there is no provision for Regional News Unit or Audience Research Unit. There are Advisory Committees and Consultative Panels attached to these states.

Local Station

The local radio stations form an important tier in the system of broadcasting. There are community broadcast stations whose approach to broadcasting is different from the national 1 or regional radio. The station has to play the dual role of providing support to extension i agencies in the development of their areas and serving as a mouthpiece of the community. It is a low-cost, low-budget station with minimum production facilities used exclusively for enrichment and education.

Other StationsIOffices

In addition to those discussed above, there are other off~ces and stations in AIR.

Commercial Broadcast Stations: These with a small complement of staff look after the

commercial broadcasts which comprise VividhBharati programmes, programmes in the local 1 languages and commercial advertisements. They are located in the regionalisub-regional stations.

Organisational Structure, North Eastern Service: The North Eastern Service is located in Shillong. It is an integrated Planning and Research service catering to the communication needs of the listeners living in the North Eastern region. The broadcasts fiom individual stations in the North East of India are mostly in the tribal dialects due to the absence of a common linguafianca of the region. The spoken-word broadcasts are in English and Hindi. The music broadcast features are folk and tribal songs of the entire region, collected from different stations of AIR in the North East.

Commercial Sales Unit: %Commercial Sales Unit (CSU) is the Wing which keeps liaison with the advertisers and advertising agencies. The advertisements (or commercials) are cleared by this unit located in Mumbai. Marketing units have also been set up to promote sale of airtime.

VividhBaharti Service: VividhBharati programmes form the bulk of commercial

broadcasting services of AIR. Thcy are produced at a separate production unit functioning

in Mumbai. The programmes arc taped and copies sent to the commercial broadcastingcentres.

External Services Division: The external broadcasts of the country are organised by the

External Services Division of AIR located at Delhi. It is an independent office with its own

production and managerial staff.

News Service Division: The national news bulletins and news-based programmes are produced by the News Service Division with headquarter located at Delhi. It is an independent office with large number of editors and correspondents.

PRIVATE RADIO STATIONS

In 1967, the Committee on Broadcasting and Information headed by eminent broadcaster A.K. Chanda recommended separate corporations for radio and television. The Union Government decided in 1969 against converting AIR into a corporation. However, radio and television were separated and on April 1, 1976 and Doordarshan came into existence as a Department of the Government.

The structure of broadcasting was again reviewed by a Working Group on Autonomy forAkashvani and Doordarshan in August 1977. This group headed by B.G. Verghese recommended in May 1978 the creation of a National Broadcast Trust to be named Akash Bharati to look after radio and television. The then Union Government did not consider it necessary for the setting up of a trust under the name AkashBharati. However, it brought a bill for creating a Public Sector Corporation under the title PrasarBharati. The bill lapsed with be dissolution oftheLokSabha. Under a modified version of the Bill, the PrasarBharati Act in 1990 and the Act was notified for implementation with effect from September 15, 1997. As a result, All India Radio and Doordarshan are functioning as units of the autonomous corporation PrasarBharati.

Unit II: Writing Skills for Radio

Radio News writing

Radio News: Instantaneous

How is radio news gathered?

- Reporters/Correspondents/Stringers/Liners
- News agencies
- PR agencies

News scripting:

News writer has to keep in mind the precise details of:

- *Time limit* of the news bulletin: Hence it has to be precise and to the point
- *Headlines*: Radio news stories do not have sub headings. Radio headlines have to be precise and short.

Governing factors for a radio news writing:

Immediacy: It is immediate

Accuracy: Has to be accurate with a little time available.

Objectivity: No scope for editorialization.

Brevity: Should be brief. Time factor is very important.

Clarity: By using simple language but not slangs and vulgar.

Words/Phrases/Idioms: Should not lead the listeners to dictionaries.

News in details:

Once the headlines are over, the news in details should follow the same caution discussed above. The news should contain only the factual information but not the subjective viewpoints.

Radio Language:

A spoken language in a written form, sometimes:

- The rule of grammar are not strictly followed
- Simple, clear, crisp and interesting
- Less importance to diction, pronunciation etc.
- Written as if you are talking to one listener separately.

Time for each news story in a bulletin:

Proportionate to the importance of the story

Ordering of news stories:

Depends on the:

- Importance of the news story
- Followed by interesting elements in the story

Most on-air personalities working at radio stations today have at least some journalistic background. This is because more and more small radio stations need people who can are capable of filling many roles. It is not surprising then that many radio personalities at small stations announce, play music, work the console, and write the day's news. Having all these skills is important, especially for aspiring disc jockeys.

There are many types of news stories. Hard News is essentially the news of the day. This is the type of news most frequently read on the front page of the newspaper or at the top of the hour on a radio or television station. Soft News is news that isn't time sensitive. This can include profiles about local individuals, or even companies and organizations. Editorials are personal opinions about particular topics. Editors and writers often take a side on a topic and write an argument about why their side is right and the other side is wrong. Features are in depth stories about a certain topic. Features can be about current events, but they often are best at discussing a particular issue in detail.

Radio news features are essentially two to four minute pieces that tell a single story. The story can be about a current event, or it could be an information piece about an ever-green topic. The news pieces typically focus on a single topic, and go in depth about it. They also typically contain interviews or sound bites from relevant people.

News features typically contain the following elements:

1. A well-researched topic.
2. An introduction or a lead.
3. A main body with a clear narrative pattern.
4. Interviews and/or sound bites.
5. A conversational writing style.
6. The topic's character and personality.
7. A wrap up that completes the story.

The Topic

Topics for radio news features vary greatly, but the vast majorities are specific topics that are of interest to the intended audience, and that offer themselves to in depth discussion. It's not necessary to choose a topic of interest to the feature's writer, but it is important to do in depth research on the topic. Since a feature is not an editorial, the facts must be complete and accurate, since the story's integrity relies on them.

Researching a topic in the 21st century can be very easy, but the researcher must be diligent about selecting information from reputable sources. Features typically use information from first hand research, as well as second hand research. This means the writer interviews pertinent individuals and reads original documents, as well as obtaining information already gathered by others.

The Introduction

The beginning of any radio news feature should contain a brief introduction. This introduction should tell the listener a bit about this story, but without giving too much away yet. This is also called the news feature's hook. The writer's main objective here is to hook in the listener and make her want to listen. Keep the introduction short; no more than two sentences.

The Body

The news feature's body should contain the story's main details. This is typically referred to as the "5 W's and 1 H". The who, what, when, where, why, and how. The who tells the listener who the main characters of this story are.The what tells the listener what this story is about. The when tells the listener when this happened, or if it's a future event, when it will happen. The where tells the listener where this event or story takes place. The why tells the listener why this is happening. The how tells the listener how this happened, or how they can get involved or attend. These details should be told in the first paragraph, or at most in the first and second paragraph.

After the listener understands the main points about this story, the rest of the story (another four to eight paragraphs) should contain further information about the story. The further information should be more in depth details about the "5 W's and 1 H". For example, many radio news features tend to go into detail about the who, what, and why.

Quotes

Just like any news story published in a newspaper, radio news features should have quotes from related individuals in order to support the story's premise. These quotes are sometimes in the form of interviews with prominent individuals directly involved in the story.

As an example, pretend a radio news feature producer is writing a story about a city's public transit system. The producer could try interviewing the city's director of public transit, or perhaps even the city's major. The producer would need to ask relevant questions relating to the topic. This is important, since the interviews need to help prove or disprove the news story's premise.

Interviews may be used in at least two different ways within a news feature. The interview can occur directly after the announcer reveals the story's main points, or it may occur at the very end after the announcer has finished his entire written dialogue.

Another form of quote used in radio news features is the sound bite. A sound bite is a short audio recording lasting no longer than 10 seconds, and revealing a major point in support of the story's argument. Sound bites are similar to interviews in that they are quotes taken from people directly involved in the story. Sound bites differ from interviews in that the sound bites are typically taken from secondary sources, such as other interviews or press conferences.

For example, suppose a radio news producer is writing a report on last night's basketball game. The producer can't interview the basketball star who scored thirty points, but he knows there was a press conference after the game where the star made some comments. The producer could obtain footage from the press conference and extract a sound bite from when the basketball star was interviewed.

Writing Style

Newspaper articles and radio news features are very different in regards to writing style. Where a newspaper article might be written with a formal tone, the radio news feature is often written with an informal tone. This is because newspaper articles are meant to be read, not announced.

When writing the radio news feature, the most important style consideration is to be conversational. The use of contractions in a radio news feature is not only allowed, but actually recommended. Writers may also want to avoid long, complicated words, as well as using parenthetical statements and other writing techniques not ease to announce.

Radio is a broadcast medium in which the announcer speaks directly to each listener. The announcer must have the ability to relate to the listener directly. This is why conversational writing is so essential. When in doubt, the writer should try reading the words out loud. If the sentences are too long or sound like a book, they should consider rewriting.

Another important consideration when determining the story's writing style is to take the intended audience and format into consideration. Writing a radio news feature for an audience of young college students will be much different than writing that same feature for an audience of retired adults. Understand the station's demographics, and that demographic's needs before attempting to write for them.

It's also crucial to understand the station's format before writing the feature. A news feature written for a National Public Radio station, and one written for a 24-hour news stations will be completely different. NPR news features tend to last an average of four minutes, while a 24-hour news station's news features might last a minute or less.

Depending on the format, the writing style may not be the only difference. On some formats, some stories may be inappropriate or even obsolete. On other stations, certain facts may not matter to the target audience.

As an example, when reporting a fire at a hospital, a 24-hour news stations might briefly discuss information about casualties, but they may also discuss information about how this will affect the listeners' commute. On a music station, the story might be reduced to a one or two line synopsis. It's not that people listening to a music station don't care about the hospital fire, it's just that news isn't as important as music on a music station.

Tone and Character

Radio news feature writers should pay attention to the type of story being reported on, and set the tone appropriately. Different types of stories require different approaches in tone. For example, when writing a story about clowns at the park, the tone may be much happier, and the script may even include clown puns and euphemisms. On the other hand, when writing about a plane crash, anything other than a serious and delicate tone would be inappropriate and perhaps even offensive.

The Wrap-up

The end of every story should include some sort of wrap up in order to complete the story. Wrap-ups usually include a quick recap of the story, going over the facts one more time in order to summarize the story. Some stories even wrap-up the story by looking to the future, perhaps by including a quote about a future action or event, or with the announcer telling the audience of future plans

Elements of Radio News

Novelty

(the quality of being new), timeliness, significance, interesting to the listeners. impact on listeners and conflict are the main elements of news. A few more can be added to these - proximity or nearness, prominence, government action, development, human interest, weather, sports etc. as these also affect the listeners greatly.

Timeliness

Timelinessis very important. It must be a recent event, which had not been reported before. News should focus on what actually happened and not speculate about what will happen in future. What happened last year or last month or even last week is history. What happened today or at the most yesterday is really news. However, even though some major incident might have happened long back but if it comes to light now, it can still make news. With radio news the emphasis is even more on what happens now as radio is a 'now' medium. Significance is what makes an incident news. What happened? Is it too serious? Are too many people affected? Is it a really big event? Such factors arouse the interest of your audience. Celebrity stories also relate to this element. Marriage of a film or sports star is news, while common people's weddings are usually not. However, what is significant for one may not be so for others.

Significance

Significance is what makes an incident news. What happened? Is it too serious? Are too many people affected? Is it a really big event? Such factors arouse the interest of your audience. Celebrity stories also relate to this element. Marriage of a film or sports star is news, while common people's weddings are usually not. However, what is significant for one may not be so for others. Interest of listeners or the relevance for listeners is a basic fact

Interest of listenersor the relevance for listeners is a basic factor for deciding what news is. What is of interest to people of Delhi may not be relevant for News Production 48 Radio Journalism Kolkata residents. Some news definitely would be of interest to both but not all. Therefore, the selection of news items should depend on the potential interest of your audience. It is imperative that a radio journalist know well his/her audience and their interests. The first question to be asked is whether the news item is of interest to the listeners? Is it relevant to them? Events having impact on listeners instantly make news. What affects a large number of people creates great interest amongst the audience. For instance, fluctuations in petrol or diesel prices affect everyone. So these are news. Demonetisation created very big news because it affected everyone.

Conflict is another very important element of news. By nature, we are attracted to the drama involved in a conflict situation. Wars are major and sustained news events. Elections command active attention of a lot of people. Then, the factor of oddity also contributes to news interest of a situation. Avery old saying in journalistic circles is that a dog biting a man is not news but a man biting a dog is. Why? It is an unusual and unique event.

NEWS FORMATS

News Bulletin In the realm of news, radio's strength emanates from its capacity to inform current affairs instantly. There are many formats to cover current affairs. A radio news bulletin is one such very prominent format with different presentation styles depending on the length and requirements of the bulletin. A two minute or five minute bulletin will not have headlines because these bulletins are already brief. These will present the news crisply in the order of

priority. A ten minute bulletin will, however, start with about 4-5 headlines followed by detailed news and

end also with a repetition of the headlines. It may have one break in the middle of the bulletin restating the identity of the originating organisation. This will help those who may join later to identify the station/organisation broadcasting the news. It can include sound bites or voice dispatches of correspondents. A 15 minute bulletin can however carry several sound bites, voice dispatches and even short news capsules made using both sound bites and dispatches or vox pops. Live dispatches by correspondents from news location also find a place in such bulletins. These can have two breaks after every five minutes with a crisp short sentence announcing what more is to come in the bulletin.

Radio Packages

Radio Packages are a great way of telling a story to listeners through words and sounds.

A good package - essentially pre-recorded reports fearuring interviews and sound effects - will grab the listener's attention and tell the story in an entertaining and creative way.

Our handy guide, written by experienced BBC reporter Karen Hoggan, has everything there is to know on how pupils can create a good package for radio - from ensuring they record everything they need on location, to advice on how to mix their material together into a finished product.

Karen has put together packages for the likes of Today, PM, You & Yours and World Service, so has plenty of tried and tested techniques for making memorable radio reports.

Remember - these are just guidelines. It's a good idea to follow them, but the more creative and inventive you can be, the better. And when it comes to bringing a radio report to life, practice makes perfect!

Requirements for a good Radio Package:

- Recordings of Human Voice/Other Sounds
- Lots of Sound Effects
- Music
- A narrative: for this, you could record yourself on location, explaining where you are and including facts about the story and introducing interviewees. Or you can record "links" in the studio later, when you have worked out what you want to say

Firstly, whatever you do, you need to plan a rough outline of your report. You need to know how long it is supposed to be and what points you want to make. This will help you to decide what interviews and sound effects you need to record.

Following areas in planning:

Research: You need some facts about the story you are covering. You need to know who your interviewee is and why you are talking to them.

Sounds: Sound effects are very important on radio because, unlike TV, you don't have pictures to help you. Even before you go to your location THINK about what kind of sounds you might hear that would make your package sound interesting. When you get there LISTEN carefully. Then record the sounds - in a school these might include the school bell, pupils in the playground, classroom noises, keyboards, pupils changing classes, sports classes - football etc.

Voice Qualifier

Voice qualifier

One of the manners of speaking (as whining, chuckling, loud tone of voice, general high pitch) that may accompany the articulation of the vowels and consonants of an utterance and convey a meaning of social relationship and emotion.

Radio Jockey :Techniques and Style

A Radio Jockey or a RJ is a person who hosts a talk show on radio. In simple terms he/she is the 'sutradhaar' of an assigned show on radio. He/she hosts the show, reads the script, plays the music and audio advertisement at specific intervals, raises topics of concern, designs subjects for discussion and interacts with callers and listeners via telephone, email, social media and SMSs. Everything that he/she does should be appealing and entertaining. The RJ should be able to engage the audience with his/her voice and selection of words and how he/she presents the content before the audience does matter.

Essentials for an RJ

Be yourself: Create your own image. Don’t try to imitate anyone. Be clear about your likes

and dislikes.

Talk one to one: A Radio jockey should converse in such a way that one who is listening to him should feel as if The RJ is talking only to him. That means RJ should not address the masses but to a single person.

Get to the meat of the link: RJs who speak more become very boring so a good RJ should have an ability to convey his thoughts or whatever he want to say in minimum words that too impressively .He should be able to paint a picture before the audience with his words.

Some more essentials for being a good RJ

Music

RJ is all about music. Thus, Intensive knowledge of music is precondition to be RJ

Personality

RJ should carry vivacious personalityand should be young from heart and who loves talking to people and believe in its own performance. RJ is original and has own style.The language he speaks is very normal but he treys to spice it up so that what he presents comes out differentlyand sounds interesting to the listeners. The foremost condition of RJ nature is hanging your shyness, embarrassment, inhibition and reserve nature in your wardrobe. Simply come out of it and make yourself open.

Voice

Modulating voice should be your style of speaking. Monotones speech in single flow without any ups and downs will make you to lose your audience. So sound different every time. A friendly and interesting voice is a necessary attribute, but not an all-sufficient one. Research your own script and break it into interesting modules.

Humor

Lifeline of radio chatting is humour. Jokes or mimicry helps you further. Saying something witty and very direct way to say will leave a mark on your audience. Do something that's normal and at the same time that has not been done in radio before.

Resource

Radio jockeying is not only garrulous and whimsical remarks.So be resourceful about the information that people generally miss It is about delivering important news and keeps people well informed for the happenings. So always be resourceful.

Be Friendly!

The listeners should be able to relate to you. Why would they want to listen to a stranger? Try to be one among them and always be a friend so that they can relate to you. You need to listen to somebody who is a friend of us. Be like how kids talk in schools and guys talk in colleges, how friends talk when they are going out to eat or drink.

The competition is tough and it takes more than a good voice to woo the audience. There are some who believe that RJ is born and not made. General advice is to listen to a lot of radio, try to put yourself in the shoes of listeners, try and come up with innovative ideas, use oodles of wit and pack your voice with energy.

So to say

A RJ should be able to create bond with the listener, should be friendly, spontaneous, warm, and have a good voice and good command over the language. Youngsters are preferred as they have new ideas and concepts and are bubbling with enthusiasm. A radio jockey must have good voice with perfect modulation, diction and clarity while speaking 'on-air'. Apart from these the following would be added advantage:

- S/he would be well read and knowledgeable,

 should be well acquainted with current trends and fashion,

 should know current who's who,

 should have command over spoken words and able to use easy-to grasp language/dialect,

 could chat with the guest in the studio or audience over telephone,

 able to operate modern electronic gadgets like editing consoles and computer

Guidelines , Code & Ethics for Presentation

Trust: Trust is the foundation of the Broadcasting. It is independent and impartial .

Truth and Accuracy Broadcasting seeks to establish the truth of what has happened and are committed to achieving due accuracy. Accuracy is not simply a matter of getting facts right; when necessary, it is the weigh of relevant facts and information to get at the truth.

Impartiality Broadcasting is impartiality to all subject matter and will reflect a breadth and diversity of opinion of people output as a whole, over an appropriate period, so that no significant strand of thought is knowingly unreflected or under-represented.

Editorial Integrity and Independence The broadcasting is independent of outside interests and arrangements.

Serving the Public Interest Its main aim is to serving the public interest. It seek to report stories of the audiences interest .

Fairness Output will be based on fairness, openness, honesty and straight dealing.

Transparency It will be transparent about the nature and provenance of the content offer . Where appropriate, identity of the person who has created it will given and use labelling to help online users make informed decisions about the suitability of content for themselves and their children.

Use of Music and Generating Sound Effects

Sound effects in a radio programme give meaning and sense of location. It adds realism to a programme and helps a listener to use imagination. Think of a crowded market or temple. If you are creating that scene in a radio programme, you do not have to go to a crowded market or temple to record. Well, you can record those sounds and use them. But in most cases, you use sound effects which are already recorded. Sound effects can be used in two ways:

(a) spot effects or effects that are created as we speak and

(b) recorded sound effects.

If you are recording a radio programme in which someone knocks at the door, you can make a knocking sound either on a door or a wooden partition. Or you want to show that someone is

pouring water from a bottle into a glass; here again you can use the actual sounds produced on the spot. But if you want a lion roaring or a dog barking, you probably cannot bring a lion or a dog to the studios! Here we use recorded sounds which are kept on tapes or discs. Almost all sounds are available on CDs which you can try and use. There are also certain types of computer software available for this. You can also create sound effects. You can use two coconut shells to produce the sound effects of the sounds of horses' hooves. Take a piece of cellophine paper or aluminum wrapper and crush them in front of a microphone. Record the sound and hear. It will sound as if fire is raging. You can think and create many such sound effects. However, there is a word of caution. If you record an actual door opening, you many not get the real feeling of a door opening when you record it. What matters is what it sounds like and not what it is.

Music : Music is the soul of radio. It is used in different ways on radio as already discussed in the earlier lesson. Film songs and classical music programmes are independent programmes on radio. Music is also used as signature tunes or theme music of various radio programmes.
Let us see what music does to any programme.
a. Music adds colour and life to any spoken word programme.
b. Music can break monotony.
c. Music is used to give the desired effect of happy or unhappy situations, fear or joy.
d. Music can suggest scenes and locations. For example, you have to create a bright early morning situation. This can be done by playing a pleasing note on the flute along with the sound of chirping birds.

Broadcasting on All India Radio by individuals will not permit the following:

(i) Criticism of friendly countries.

(ii) Attack on religion or communities.

(iii) Anything obscene or defamatory.

(iv)Incitement to violence or anything against maintenance of law and order.

(v) Anything amounting to contempt of Court.

(vi) Aspersion against the integrity of the President, Governors and the Judiciary.

(vii) Attack on a political party by name.

(viii) Hostile criticism of any State or the Centre.

(ix) Anything showing disrespect to the constitution or advocating change in the Constitution by violent means (but advocating changes in a constitutional way should not be debarred).

VIDEO EDITING (209)

VIDEO EDITING

CODE (209)

UNIT-1

Video editing is the process of manipulating video by rearranging different shots and scenes in order to create a whole new output. It can be as simple as stitching together different scenes and shots with simple video transitions, and can become as complicated as adding different computer-generated imagery (CGI), audio and tying together different elements, which may take years, thousands of man-hours and millions of dollars to accomplish, as is the case with big-budget motion pictures.

Video Editing Software Features

Video editing used to require expensive machines called video editors, however, today video editing software is now available for personal computers and workstations. Typical video editing software includes tools to convert file formats, cut segments (trimming), join clips, re-sequence clips, adjust brightness/contrast, rotate or crop footage, add sound or add transitions and other special effects.

Cloud-Based Video Editing

Video editing applications are typically desktop programs, however there are several cloud-based options that allow you to upload a video and edit the file online. Cloud video editing applications typically allow you to connect to various social and online accounts to share your movie.

Free Video Editing Software

Many people use digital cameras or smartphones to record video, then use video editing software to add sound, trim clips and so on. The following free video editing packages will get you started with editing your videos:

- Avidemux: a free video editor designed for simple cutting, filtering and encoding tasks.
- Freemake Video Converter: Freemake Video Converter converts video between 500 formats and gadgets.
- Machete Video Editor Lite: Designed for quick and simple slicing of your video files.
- VirtualDub: A video capture/processing utility for 32-bit and 64-bit Windows platforms.

- WeVideo: Free, online video editing software.

Windows Movie Maker: Use existing images or video clips to create a movie

A good video, whether it be a music video, marketing campaign video, corporate video, or anything else, must follow 3 important stages:

- Pre-production
- Production
- Post-production

Post-production is primarily the editing stage. But why is video editing important? I'm not here to tell you that video editing is the most important of them all, hands down. I'm here to tell you that without it, you'll be left with a complete mess. It's true that all roles of video production are important. Without a good cameraman, your shot is ruined. Without a good director, your scenes are disorganized and confusing. But without an editor, all of the other aspects of video production can no longer come together to create the masterpiece that you're trying to create. To better understand this point, here are some of the reasons video editing is so vitally important:

The Perfect Flow

Your film (short or long) can be absolutely amazing with virtually no errors or room for improvement up until the post-production process; however, the flow you have in mind is entirely dependent on the editors working with the director and cinematographer. Have you ever been shooting a scene when all of a sudden something unexpected and completely unpredictable ruins it? For example, if a light blows out, you have to replace it and start anew. The flow that you had may have been wonderful, but it can be jammed up in the blink of an eye. When an editor receives the footage, their primary goal is to make it as smooth and organized as possible. Basically, they want to contain the flow that you established. As an editor, it's their job to make this happen (in conjunction with the director, producer, cinematographer, and anyone else involved in these decisions of course). It's capturing this flow with cuts, pace, and sound that makes a stunning film.

Cutting Your Way to Success

In video editing, one of the most common and most effective ways to achieve the perfect flow is through cuts. Cutting in and of itself is not difficult: you choose a start and end time and there

you go, it's gone. But that's not all that goes into a cut. To make your video's flow ideal, you have to cut shots at the perfect time. Timing is critical! Cut it too soon and you end up with a sudden stop that the audience was not expecting. Cut it too late and you end up with a shot that seems to drag on forever.

Switching Gears…or Scenes

Transitions make all the difference in the world to a scene. Sometimes, without a transition you end up with a jumpy, fast-paced mess that nobody wants to watch. Video editing makes these transitions smooth and elegant. The flow that the editor is trying to preserve is what makes the film great, and transitions (in conjunction with cutting) are a way to keep the pace of the film controlled. With the pace under control, the editor can focus on equally as important changes, such as continuity editing, coloring, layering, and sound editing.

The Forgotten One: Sound Editing

What the first thing is that comes to mind when you hear the word "editing"? I'm going to guess you didn't answer with sounds and voice-overs. Everyone thinks of video editing as the visual part. Although this is true, it's not the whole story. Editing a film so that the pictures flow does not necessarily mean the audio flows as well. Adjusting volumes levels and synchronizing audio clips with video clips can be anything but a walk in the park; however, it can also make your film exactly as it was intended. Sound editing is how your film can set the mood and evoke emotions from your audience. Replacing a sound track with another, unintended one can really open your eyes to what it is sound editing truly does for us. To drive the point of sound editing and choices of sounds home, take a look at **this video** of the Matrix club scene with a…different approach to audio. Although it may be a bit extreme, it does illustrate the importance of sound editing!

Conclusion

Video editing is important because it is the key to blending images and sounds to make us feel emotionally connected and sometimes truly there in the film we're watching. It's a safe assumption to say that video editing is among the most important jobs in the film industry. With professional video editing you can create an emotion-evoking masterpiece, and it can make or break your film, which is why it's just as important to choose the right video editor as it is to choose the right camera equipment.

Different Types of Video Editing

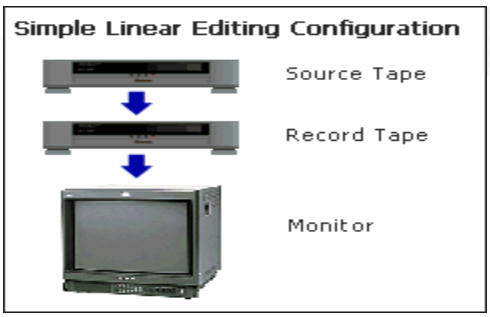
There are several different ways to edit video and each method has its pros and cons. Although most editors opt for digital *non-linear* editing for most projects, it makes sense to have an understanding of how each method works. This page provides a very brief overview of each method — we will cover them in more detail in other tutorials.

Film Splicing

Technically this isn't video editing, it's film editing. But it is worth a mention as it was the first way to edit moving pictures and conceptually it forms the basis of all video editing. Traditionally, film is edited by cutting sections of the film and rearranging or discarding them. The process is very straightforward and mechanical. In theory a film could be edited with a pair of scissors and some splicing tape, although in reality a splicing machine is the only practical solution. A splicing machine allows film footage to be lined up and held in place while it is cut or spliced together.

Tape to Tape (Linear)

Linear editing was the original method of editing electronic video tapes, before editing computers became available in the 1990s. Although it is no longer the preferred option, it is still used in some situations.



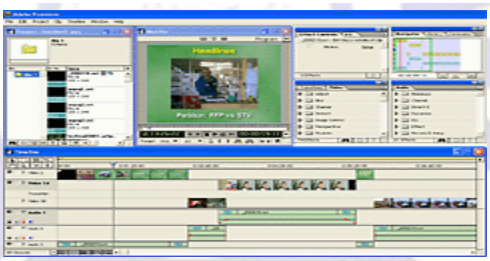
In linear editing, video is selectively copied from one tape to another. It requires at least two video machines connected together — one acts as the *source* and the other is the *recorder*. The basic procedure is quite simple:

1. Place the video to be edited in the source machine and a blank tape in the recorder.
2. Press *play* on the source machine and *record* on the recorder.

The idea is to record only those parts of the source tape you want to keep. In this way desired footage is copied in the correct order from the original tape to a new tape. The new tape becomes the edited version.

This method of editing is called "linear" because it must be done in a linear fashion; that is, starting with the first shot and working through to the last shot. If the editor changes their mind or notices a mistake, it is almost impossible to go back and re-edit an earlier part of the video. However, with a little practice, linear editing is relatively simple and trouble-free.

Digital/Computer (Non-linear)



In this method, video footage is recorded (captured) onto a computer hard drive and then edited using specialized software. Once the editing is complete, the finished product is recorded back to tape or optical disk. Non-linear editing has many significant advantages over linear editing. Most notably, it is a very flexible method which allows you to make changes to any part of the video at any time. This is why it's called "non-linear" — because you don't have to edit in a linear fashion.

What Are the Rules of Video Editing?

- 1) Don't Jump. Jumping occurs when consecutive shots of one subject change point of view. ...
- 2) Cut on Motion. ...
- 3) Cut on Similar Elements. ...
- 4) Wipe. ...
- 5) Match the Scene. ...

- 6) B-Roll. ...
- 7) 45* ...
- 8) Stay on 1 Plane & 180* **Rule**.

What is a Film and Video Editor?

A film and video **editor** is a highly skilled film industry employee who edits movies or videos. The success or ultimate failure of the production lies in their hands. The final production must be a coherent project that incorporates the storyline and personality of the starring **actors**. Many in the industry consider film editing to be an art that often goes unnoticed and unappreciated, with some dubbing film editing as 'the silent art'. The history of film editing is a long trek, going back to the early heydays of Hollywood. As technology grew, the job descriptions of film editors

What does a Film and Video Editor do?

The job duties of film and video editors are numerous. An employee might find himself studying scripts to understand the storyline and collaborating with **directors**, **producers**, and film staff regarding the script and director's goals. Throughout the filming, the film editor will examine tapes for editing purposes, looking for errors, segments that run long or parts that do not match the story or go with the storyline. He will work with others adding sounds, voices and music that match the script and place them in the appropriate place.

Film and video editors complete these tasks with digital equipment and computer software to create high-quality sound effects. Varying camera angles and shots will be looked at and the best ones added to the reels. The reels will be reviewed several times before the editor comes up with a final version called the director's cut. During the process, he works with other staff including **sound** and lighting technicians, **costume designers** and **makeup**

artists, **actors**, **directors** and other **editors**. Making a movie is truly a team effort.

The film and video editor's job has changed over the years. When movies were black and white, editing was simple. With computer and advanced technology, a film and video editor's job became increasingly more complex using computer graphics to aid in editing films and supplying the necessary elements to create the finished product.

Are you suited to be a film and video editor?

Film and video editors have distinct **personalities**. They tend to be artistic individuals, which means they're creative, intuitive, sensitive, articulate, and expressive. They are unstructured, original, nonconforming, and innovative. Some of them are also investigative, meaning they're intellectual, introspective, and inquisitive.

What is the workplace of a Film and Video Editor like?

Employers for film and video editors include television stations, cable companies, and film and video companies. Another arena of employment is in independent studios. These professionals must be able to work as team players with others in the industry. Fellow employees might include other film editors, sound and lighting technicians, makeup and costume artists, actors, directors and company owners. Although those in this field work as a group, they often find the main portion of their job is performed independently.

Film and video editors spend a large portion of time in projection rooms, cutting labs or computer rooms, editing the films alone. Workers in the film industry find that they are sometimes required to work long hours, especially during movie post-production. Those working in TV studios find the work hours are more traditional, putting in a 40-hour workweek

UNIT-2

Video Encoding Formats

- MP4 (mp4, m4a, m4v, f4v, f4a, m4b, m4r, f4b, mov)
- 3GP (3gp, 3gp2, 3g2, 3gpp, 3gpp2)
- OGG (ogg, oga, ogv, ogx)
- WMV (wmv, wma, asf*)
- WEBM (webm)

- FLV (flv)
- AVI*
- QuickTime*

Analogue editing

Analogue editing was around before it all changed into digital editing. Before computers were created they used analogue editing which was all done by hand, nothing was done by using software. You had a copy of the positive film where all the footage went onto when it was filmed. They then took the film and cut it in different parts using a splicer and pasted it onto different pieces of film to create the cutaways. With analogue editing it then had to be fed through a machine, this shows how much the editing techniques has changed over the years how now it can all be done on a computer and no messing around is needed.

What is Digital Video Editing Software?

Digital Video Editing software is software that allows you to use your computer to edit video and audio, usually via a standard or modified computer keyboard and mouse. It can also be software that is incorporated into a turnkey video editing system that consists of a custom, dedicated computer for editing. Final Cut Pro, Avid, Vegas Video, Adobe Premiere, and Pinnacle Studio are examples of video editing software. The Casablanca, Kron, and Video Toaster are examples of turnkey video editing systems that contain video editing software. Digital video editing software allows you to upload your video footage into a computer in a process called video capture. The video and audio that you capture is generally stored on the computer hard drive and then is accessed as needed during the video editing process. This differs remarkably from old-fashioned linear video editing in that the video can be randomly accessed. That is, the computer can go to any hard drive location very rapidly and pull up any section of video and audio that you want and use it to edit. There is no need to change videocassettes or reels of videotape and to wind through the tape to locate a shot before you edit it in. Video clips can be dragged and dropped and moved around at will and manipulated in many ways with very little effort. Generally, these clips are laid down on what is called a timeline which

is displayed on the computer screen. You can place clips on a particular point on the timeline, insert a clip between two existing clips, shuffle clips around, etc. You can also store clips in

"bins" or files and name them. You may have a timeline for video, and a timeline for audio, and in many video editing software programs you can make use of multiple audio and video timelines. In many video editing software systems you can also store and maintain alternate versions of productions with very little effort, because of the ease with which you can make a copy of an edited production to be stored on the same hard drive, then modify it separately from the original. In many video editing software programs special effect can be "rendered" digitally, titles can be created digitally, and so on. What you can do is largely determined by what is written into the video editin

The Different Types of Vegetable Cutting Styles

- Brunoise (Fine Dice) This particular technique will allow you to fine diced vegetables and fruit. Chiffonade (Shredding) The chiffonade technique is usually used on leafy vegetables and herbs. Julienne (Match Stick **Cuts**) ...
- Macedoine (Large Dice) ...
- Slicing. ...
- Mincing. ...
- Roll-**Cutting**. ...
- Parallel **Cutting**.
- BiteableSkip navigation
- Create
- Features
- Templates
- Blog
- Learn
- Calendar
- Plans
- FAQ
- Contact
- Login
- Sign Up — Free

Video transitions effects & examples

Nearly every film and video today — whether a big-budget Hollywood production or a two-minute commercial — is composed of a number of individual shots edited together into the final result. There are exceptions, of course. For example, music videos are sometimes filmed in one continuous long take. However, for the most part, video editors have to find ways to connect one shot to the next in a way that moves the story forward and guides the viewer from scene to scene. Cuts and transitions help them accomplish this.

What Are Video Transitions?

Video transitions are a post-production technique used in film or video editing to connect one shot to another. Often when a filmmaker wants to join two shots together, they use a basic cut where the first image is instantly replaced by the next.

But what if the filmmaker wants to convey a particular mood, jump between storylines, switch to another point of view, spice up the narrative, or move backward or forward in time? This is where more artistic transitions are useful.

Types of Video Transitions

In movies and television, there are a few main video transitions that are frequently used. Digital video creators often use these types of transitions as well, though they've got other options (more on that below.)

Fade In/Out

A fade is when the scene gradually turns to a single color — usually black or white — or when a scene gradually appears on screen. Fade-ins occur at the beginning of a film or scene, while fade-outs are at the end. A fade to black — the most common transition type — is a dramatic transition that often symbolizes the passage of time or signifies completion. Fading to black is used to move from a dramatic or emotional scene into another scene, or to the credits at the end of a film.

Fading to white, on the other hand, can be used to create a sense of ambiguity or a sense of hope, as this montage shows.

Fade to White by Jacob T. Swinney

Dissolves

A dissolve overlaps two shots or scenes, gradually transitioning from one to the other. It's usually used at the end of one scene and the beginning of the next and can show that two narratives or scenes are linked. They can be used to show time passing, or to move from one location to another. Quick dissolves might be used to show the scenes occur a few minutes or hours later, while a long dissolve might symbolize a longer duration of months or years between the scenes. Dissolve transitions were a staple in Old Hollywood cinema, but they don't get used often these days. A slightly more advanced form of dissolve is the match dissolve, where a similarly-shaped and object will dissolve to another, such as slowly fading from a soccer ball to the moon, while matching their size and position on the screen.

Wipes

A wipe is when a shot travels from one side of the frame to the other, replacing the previous scene. Wipes are often used to transition between storylines taking place in different locations, and/or to establish tension or conflict. The original Star Wars trilogy has some great examples of wipe transitions. Where a fade often symbolizes completion, a wipe is usually used to show that the action is unresolved.

Whip Pan

A whip pan transition is when the camera quickly pans creating a blur effect between scenes. It's a bit similar to a wipe but tends to be much faster. Director Paul Thomas Anderson frequently uses whip pans in his films, but they're not always a transition from one shot to another, it's just changing to a different angle in one shot. This type of transition is often used for comedic effect or to convey fast-paced action.

Zoom

Like a whip pan, zoom transitions can be used to convey a frenetic pace, switching quickly from one scene to the next.

In this supercut, Edgar Wright's hectic zoom cuts create a comedic effect as Shaun goes through his mundane morning routine.

Creative Transitions

In addition to using traditional transitions, thanks to video editors like Biteable, today's video makers can easily add other unique transitions to their videos. For example, a fun puzzle transition can gradually "put the pieces" together for viewers as you move to the next scene. Other kinds of creative transition styles include spinning or rolling effects, splintering or shattering transitions, diagonal wipes, split screens, and more.

Video Transition Tips

While it can be tempting to go crazy with transitions, especially if you're new to video making, it's best to avoid this. Here are a few quick tips for using video transitions well.

- **Keep them consistent:** There's nothing more amateur than using different transitions for every scene.
- **Keep them subtle:** Unless you're going for a specific effect, it's best to use transitions sparingly. Remember, most of the time, directors use basic cuts between scenes. Transitions are usually only used when they serve a storytelling purpose (and good design should go unnoticed.)
- **Keep the meaning of each transition type in mind:** While you can have some fun with transitions, as Edgar Wright did with his toothbrushing zoom cuts, it's best to bear in mind what different transitions symbolize and use them only where appropriate. For example, as fade to black is a dramatic transition that signifies completion, it would be odd to use it between two scenes that take place in the same time and space.

Transitions are a valuable tool for video creators, helping to move the story along, convey a mood or tone to viewers, and set the stage for the next scene. Different transitions have different meanings and symbolism, so they should be used thoughtfully and should always serve the story. If you're ready to get started, Biteable makes it easy to add creative transitions to your videos, with a wide variety of

UNIT-3

What Is Sound Design

Sound design is the process of recording, acquiring, manipulating or generating audio elements. It is employed in a variety of disciplines including filmmaking, television production, theatre, sound recording and reproduction, live performance, sound art, post-production and video game software development. Sound design most commonly involves the manipulation of previously composed or recorded audio, such as music and sound effects. In some instances it may also involve the composition or recording of audio to create a desired effect or mood.

Sound Designing Studio

Examples of Sound design- The eerie scream of an Alien, or the sound of the weapons going off in a video game. A sound designer is one who creates all the stunning sound SFX. Sound design requires both technological and artistic skills. A sound designer needs to develop excellent knowledge and techniques in recording, mixing, and special effects in order to create unique and interesting sounds. There are a host of modern Software and hardware synths which are used to create new and unheard SFX and sounds.

The Designer's Work

Sound designers and composers begin their work by studying the script, gathering as much information as they can about any sound or music it calls for. As in all other aspects of design, an early meeting with the director and the design team is essential to get a clear understanding of the production concept. Some directors will already have very clear ideas about what the sound effects and/or music should sound like, while others may request that the sound designer/composer sit in on rehearsals to assist with developing effects and music to fit the specific contexts in which they will be used.

The Sound Designer works closely with the Director and a range of other staff to create the aural world for the audience, involving:

• The Sound Designer may create sound effects, atmospheres, sonic textures and filmic ambiences that will create naturalistic and abstract worlds for the story, as well as aid the audience's emotional and dramatic connection with the performance.

• The Sound Designer may choose, edit and remix music; work with a composer to make original music; or work with live musicians in the theatre.

Software for sound design

• The Sound Designer may advise on how to best hear the performers, which may involve acoustic adjustments to the theatre and set, or the addition and configuration of radio and/or float mics for the performers.

In order to be successful, the professional Sound Designer must have a huge array of creative and technical skill sets, including a well-developed sense of hearing; a comprehensive understanding of musical history and genre; a musician's sensitivity to timbre, rhythm, melody, harmony and musical structure; and a deep understanding of psychoacoustics, system engineering, acoustics, computer networking, component integration, and of the systems for sophisticated audio distribution. Technical skills across a variety of computer operating systems and software are fundamental, as is the ability to learn new concepts and equipment in a world of fast-paced technological development. But perhaps most importantly, Sound Designers understand the tremendous power of sound to aid the storytelling process, to transport an audience direc

SFX Collection 01 offers a versatile and timeless collection of skillfully crafted sound effect material; designed from the ground-up and processed using the very finest of vintage and new age electronic studio equipment.

The sheer volume, quality and diversity of sound effects included make this sample library an essential addition to any producer's sound arsenal!

SOUND TRANSITIONS

- **Textures** - Ethereal beds, disturbing ambience & sublime pad FX
- **Impacts** - Reverb-washed collisions & thunderous drops
- **Stabs & Acid Hits** - Rustic stabs, chords & minimal synth effects sounds
- **Sweeps & Drones** - Distorted tones, drones, luscious sweeps and short transition FX samples
- **Short FX & Hits** - Over 250 short FX & processed hits
- **Cymbal FX** - A unique collection of processed crash cymbal sound effects
- **Downlifters** - Noise drops, synth swirls, downward transitions, essential intros and progressive sweeps

- **Uplifters** - pitched rises, effected noise & up-rising tones
- 9 ready-to-play sampler patches optimized for Kontakt, Halion, EXS24, NN-XT and SFZ

UNIT 4

The ATLAS Production Studio, located on Level B-2 in the ATLAS Building, is a 1,000 square-foot facility that was opened in 2006. This studio environment provides students with authentic TV studio production experience. Although it currently uses standard definition the studio will soon become converted to high-definition. Students also have access to a separate control room equipped with a professional video switcher and 24-input audio board, a Chyron character generator and a prompter system that uses Inception software.

The ATLAS studio gives students several opportunities to learn and practise their trade, developing professional-quality resume material. Classes like NewsTeam and extracurricular shows like Sports Mag rely heavily on the studio to help them cover campus news. The studio is more than just a lab – it's a facility that makes it flexible for broadcast students to produce a wide range of programming.

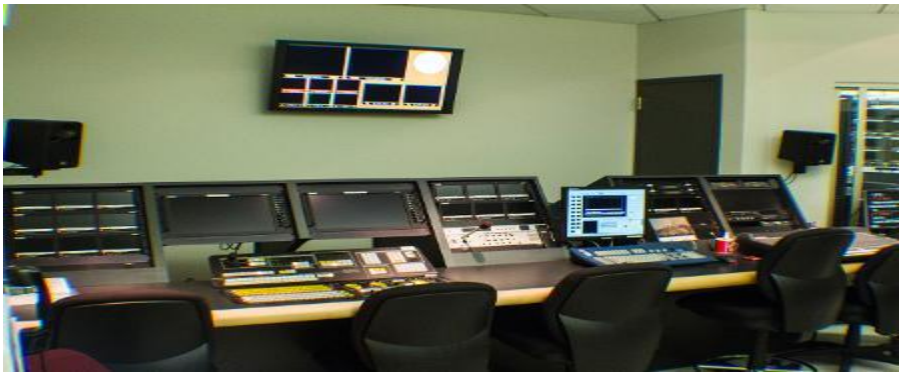
In TV-1, students will get the opportunity to work cameras, run the video switcher, Chyron character generator, audio board, prompter and video server.

Learn about Directing

Find out how to operate the EchoLab Switcher

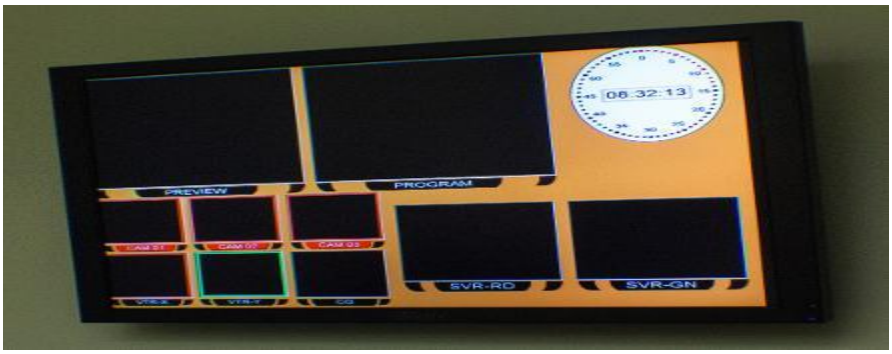
Find out how to operate the Chyon Character Generator

Find out how to operate the Video Server



Studio Control Room This installation is where students work behind-the-scenes, assembling video productions as they occur live. Professional control rooms vary in appearance, and some stations will operate out of separate rooms. But in principle, the installation operates much the

same. The video monitor on the wall shows the various camera, graphics and video sources. On the desk there are several control panels that allow for the selection of video and audio sources, character generator and teleprompter. The director sits in the centre where they oversee the creative integration of all the production elements. Each station also includes intercom connections for headsets that are used to communicate with personnel in the studio.



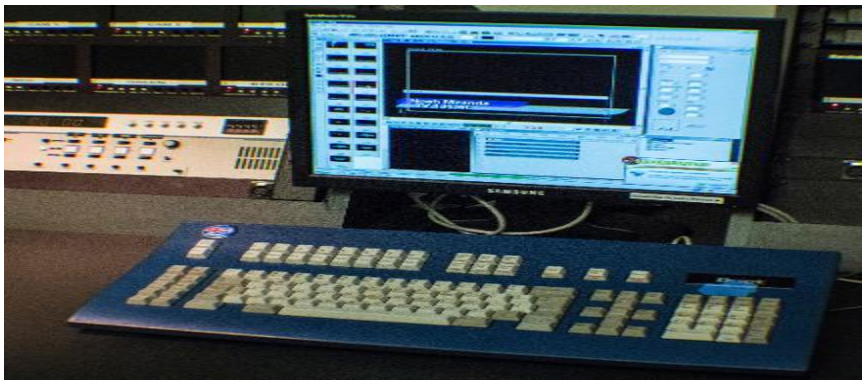
Video Monitor

This monitor hangs directly in front of the control room desk and views a number of production elements. The two larger screens are used to Preview video sources and the Program monitor shows the outgoing product either for the recording of live television or directly to tape, DVD or into the video server itself. Additionally, the Video Monitor shows the graphics, camera sources and other video sources. Other installations may have the entire wall covered in several TV and computer monitors capable of displaying multiple sources.

Echolab Video Switcher

Also known as the "vision mixer" this control console is used to select from multiple video and graphic sources. The station is operated by the Technical Director who inserts the video elements, as the director calls for them, into the outgoing program.

Find out how to operate the EchoLab Switcher



Chyron Duet

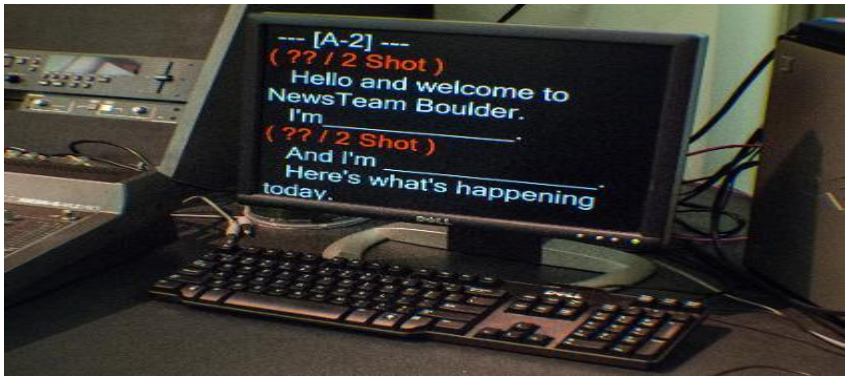
Character Generator (CG) This console is used to create the names (lower thirds) and other full-screen digital graphics that are then inserted, or superimposed over the program video. The CG operator calls up the graphic and then transfers it to the downstream keyer. The TD accesses the keyer on the video switcher where they can then "key-in" the graphic over the video.

Find out how to operate the Chyron

Audio Console

This 24-channel console electronically combines, or mixes, audio from several sources, including microphones, video sources and a CD player. The audio mixer is used to change the sound levels of any source, making sure that the signals produced have levels consistent with

broadcast quality. Other features allow the operator to change the dynamic quality of the audio and also to route audio to other locations like the studio.



Teleprompter

This device displays a visual text to the talent speaking. The talent reads off a screen that is directly below the camera lens, but is reflected to their eyes by a piece of glass. The prompter software is supported by EZ News, an integrated news production system that is used extensively in our broadcast production classes. The teleprompter feature pulls in content directly from rundowns and scripts, updating in real-time as changes are made.

Video Server, DVD and DV Playback/Record Decks

This room is located to the side of the control room. The laptop controls the video server, which is used frequently in many of our productions. The video server is a computer-based device that records and stores video and audio. Hundreds of hours-worth of video can be stored for later playback in the server. Other devices found in this room include a pair of DVD recorders/players, mini-DV decks, BetaCam and 3/4 decks. The use of tape formats has greatly

diminished since most video can be stored and played back from the server without any degradation of signal.

Find out how to operate the Video Server

Studio Cameras

The studio camera is where light enters the lens and become transformed into a video signal. This electrical signal is then conveyed to the picture monitors and video switcher in the control room, which then converts the signal back into an image we can see. The camera is comprised of the lens, imaging device and viewfinder all mounted onto a pedestal that can be wheeled smoothly across the studio floor. The height of the pedestal can also be adjusted and the camera head Each camera is also fitted with teleprompter monitors just below the lens. The camera is attached to the camera support that allows for smooth pans and tilts. The handlebars are fitted with zoom and focus controls. The viewfinder is a monochrome (black & white) monitor that displays the image for the purpose of framing and focus. The angle can be adjusted to provide ideal viewing no matter the height of the operator or of the camera.

Lighting Grid

The grid in the studio ceiling is used to attach a multitude of lights that are then operated using a computerised panel. These lights are comprised of hot lights (Tungsten) and cool lights (Fluorescents). Tungstens are available in many configurations including spotlights and floods. Fluorescents are becoming more popular in studios because they produce low volumes of heat while projected a softer, diffused, skin-flattering quality of light.

Green Screen

This green curtain is used when productions call for chroma-keying, a technique for compositing two images or video streams together based on colour hues. The green is electronically removed from the image, making it transparent, revealing another image behind. Also known as colour-separation overlay (CSO), chroma keying can be done using backgrounds of any uniform colour, and as long as the same colour isn't visible on the talent or objects in the foreground.

The 10 Most Sought-after Video Editing Trends in 2019

1. Video Chapterization Will Become Necessary

Today, the attention span of your target audience, whatever field you may be in, has drastically reduced. Faced with a wealth of information on social media and video sharing channels, very few people are willing to sit through an entire video.

Video Chapterization is a boon for video editors and creators by allowing the users to skip through the video chapter-wise to get to the relevant content faster. YouTube already allows uploaders to add chapters to their videos and is an upcoming video editing trend which will see widespread adoption in the coming years.

2. Creating a Video Strategy Will Become Extremely Important

Almost 73% of video marketers admit that videos help them getting the best ROI, but 29% also admit that the lack of an effective strategy is the main reason why they don't see bigger returns.

When it comes to video editing, a well-planned video strategy is becoming especially important and will soon become commonplace in 2017. In today's day and age, the "throw at the wall and see what sticks" strategy is not going to work as your target audience is extremely knowledgeable and knows how to differentiate between a randomly edited and thought out video.

3. Professional Video Editing Software Will Go Mobile

This trend has already caught on when it comes to high-quality photo editing software such as Adobe Photoshop, Adobe Lightroom, etc., making their smartphone debut 2 years back. In 2017, we can expect to see high-quality video editing software release versions of their mobile apps to facilitate ease-of-use and seamless mobility.

4. H.265 Videos Are Here to Stay

The H.265 video format, also popularly known as HEVC (high-efficiency video coding) has taken the world by storm. It is already on its way to being adopted as the new video standard and is replacing the good, but old H.264 format.

With 4K video becoming a norm, video editors need to focus on compression techniques which can help them publish high-quality videos in as small a size as possible, without any significant downgrades. The H.265 video format offers all these and much more, including better prediction size and transforming and more customization when it comes to utilizing motion estimation blocks, etc.

5. Live Video Editing Will Become the Thing

The rise of live video; be it on Facebook, Twitter, or YouTube, was one of the latest video editing trends in 2016. But in 2017, as we see the technology establish itself, we can also expect live video editing to become a norm across all these platforms. Currently, live video editing is restricted to applying filters and emoji, but soon, we can expect a spurt of growth in live video transitions, applying titles, end credits, and overlays, etc.

6. Edited VR Videos Will Integrate with Social Media Platforms

2016 saw YouTube gain a string of competitors in the form of Instagram, Facebook, Twitter, etc. as all these platforms started making video a bigger part of their overall user experience. Video editors are now spoilt for choice as far as the channels they can publish to are concerned, but an upcoming trend which can help them is the way VR videos will integrate into these platforms.

Facebook is already developing Sorround360, a high-quality and cutting-edge VR camera which would facilitate the production, editing, and publishing for VR video content on different social media channels.

7. Video Editing Software Will Become More Accessible

Gone are the day when buying a video editing software costed a bomb, as most software publishers such as Adobe as moving towards a cloud-based SaaS model to attract first-time buyers and non-professionals.

One of the topmost video editing trends in 2017 will be the simplification of such software to make it more accessible to new users while making the whole process of editing video and audio less intimidating.

8. Standard Aspect Ratios Will Decline

There was a time when a video editor was stuck to editing a video while keeping the aspect ratio in mind, typically 4:3 or 16:9. But today, media is being regularly consumed on devices which are responsive to multiple aspect ratios and even different orientations as well.

In 2017, we will see more video editors adventuring with multiple aspect ratios and resolutions to generate creative, fresh, and exciting content daily.

9. Seamless Video Transitions Will Find Acceptance

The future of video editing is wide and expansive. One of the trends which is bound to catch on is the gradual incorporation of seamless transitions which eliminates cuts between two scenes. Such videos not only draw in your viewers, but also allow you to experiment while telling your story.

Motion graphic designers are today already creating custom transitions which are not as jarring as usual transitions, and while lately, we see a lot of Hollywood blockbusters using this technique to a good effect, we can expect this trend to trickle down to other industries in 2017.

10. GIFs Everywhere!

One of the latest trends in video editing which has got everyone excited is the proliferation of GIFs and how they can be used by video editors to advertise and market a product better. A GIF generally contains a set of images within a single file set which when presented in an order gives the appearance of a video while maintaining the file size of an image.