Unit 1 and 2 E-Advertising

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E-Marketing/E-Advertising Meaning

E-marketing is referred to those strategies and techniques which utilized online ways to reach target customers. There are millions of Internet users that daily access different websites using a variety of tools like computers, laptops, tablet and smart or android phone devices, and the number of internet users are increasing very rapidly. So every business seems to be jumping on the internet marketing bandwagon. The internet is most powerful tool that can put any business on solid footing with market leaders companies. There are many free as well as economical way on internet to promote your business. Successful companies must ask themselves some tough questions about how they will promote their business online? What their company expectations are? And what will be their plan to meet those expectations? After answer all these questions a company should design an effective marketing plan.

Definition

E marketing also known as online or internet advertising which uses the internet technology to promote online message to customer. E-marketing examples are email or social media advertising, web banners and mobile advertising.

Advantages and Disadvantages of E-Marketing

Advantage of E-Marketing

1. Internet provides 24 hours and 7 days "24/7" service to its users. So you can build and make customers relationships worldwide, and your customer can shop or order product at any time.
2. The cost of spreading your message on internet is nothing. Many social media sites like Facebook, Linkedin and Google plus allow you freely advertise and promote your business.
3. You can easy and instantly update your registered customers or subscribers through email.
4. Visitors or potential customers of your website can get up to the minute information on each visit.
5. If you are having a sale, your customers can start shopping at the discounted prices literally as soon as they open their email.
6. If a company has an information sensitive business, like a law firm, newspaper or online magazine, that company can also deliver its products directly to customers without having to use a courier.

Disadvantages of E-Marketing

1. If you want a strong online advertising campaign you have to spend money. The cost of web site design, software, hardware, maintenance of your business site, online distribution costs and invested time, all must be factored into the cost of providing your service or product online.
2. Almost over 60% of households now a day shop online. While that numbers are continuously growing, your company needs to reach maximum people.
3. Some people prefer the live interaction when they buy any product. And if your company has a small business with one location, this may also deter customers from buying who lives on long distances.
4. Your company should have updated information on your site. This requires research and skills and thus timing of updates is also critical.
5. Is your company web site secure? There are many incorrect stereotypes about the security of the internet. As a result, many visitors of your business web site will not want to use their credit card to make a purchase. So there is a fear in the minds of your visitors of having their credit card info stolen.

Pulling it all together we can say that there are many pros and cons. So it's important for your company to consider each when designing your **e-marketing strategy**. You can easily overcome disadvantages, but this can

happen only when you will view the customer experience from the eyes of your customer, not from the eyes of an internet marketer.

What is Electronic advertising?

Electronic advertising is advertising that uses the Internet and other forms of digital media to help a business promote and sell goods and services.

What is the purpose of using Electronic advertising?

The purpose of using Electronic advertising is to reach a wider range of potential customers by connecting with them over the web. It is also a lot more cost effective as you can fund your advertising within the boundaries of your own budget. Another luxury of Electronic advertising is 'Target Marketing'. This means that you can target your desired group of customers based on a wide range of criteria such as age, location, gender and religion, (Plus much more!)

What is the principal structure of Electronic advertising?

- Published on the Internet.
- Electronic advertising provide a hyperlink that redirects to the company's site.
- Can include animated movements in the advertisements.

What are the different types of Electronic advertising?

- Web banner advertising:

A) Wallpaper advertising: This is one of the most popular types of advertising as it changes the background of the website to the chosen promotion.
B) Pop up advertising: When clicking on a website it causes a new screen to open by itself that advertises the product.
C) Floating advertising: A floating ad moves across the screen, giving the user the option to click on it.

- Ad Sense advertising:

This refers to companies that have paid major search engines, (such as Google) to promote their businesses within the first three links that appear when a search is entered.

How does the use of Electronic advertising impact on e-commerce marketing?

One precaution that should be taken regarding Electronic Advertising is that if it is done poorly it can severely damage the image of the company. Once something is published on the Internet it is near impossible to remove it therefore extra care must be taken to ensure that the advertisements are consistently monitored and controlled.

Definition: Advertising Channel

An advertising channel is a medium used by a company to advertise their products and inform the customers about some promotion. The number of advertising channels has grown many folds with the advent of internet technology to embellish traditional media advertising. As a result, television, radio, and print advertising are now used in connection with technology-based advertising like e-mails and websites, blogs etc. Marketers choose their advertising channel depending on the budgets they have at their disposal and on which will provide the most effective and efficient adverting for their company.

In order for the companies to survive in the modern business world engaging in some sort of aggressive advertising tactics has become mandatory. Simply relying on word of mouth isn't a good strategy considering the fact that most of competitors are all competing for the same customer base. Luckily, there is no shortage of advertising options from which marketers can choose, providing great versatility in terms of affordability and scope to remain competitive in the market. One among these is known as an advertising channel, and companies that choose their channels wisely have a big advantage in a competitive market.

Examples

Social Media and Mobile is gaining wide acceptance now these days with lots of ads published through this medium. Other common examples are Websites, Direct Mail, Emails, Radio, TV and print ads.

RADIO

Radio is one of the important inventions of the 20th Century, which has changed the overall meaning of the term mass communication. The parallel changes in technology have made the radio more powerful in terms of the impact they have upon masses. Radio reaches almost everyone everywhere. Radio involves the process, by which the messages are sent through electrical waves. In other words, sound would be sent and received through the waves

Functioning of a Radio Station

A radio station comprises of three different wings

1. Programme wing

2. Engineering wing

3. Administration wing

The programme wing and Engineering wing are responsible for running a radio station’s broadcast, while the administrative wing provides all the support that is required for the functioning of the station.

The management or administrative Department looks into Human Resources (HR), Public Relations (PR), Accounts and Business areas.

The Programme department is led by a Programme Director who oversees planning, research and production of programmes. There are two types of staff-

a) *On air talent like DJ who may not be a regular staff*

b) Production Directors, Programme Executives who supervise programmes. Some radio stations have a Sales Department consisting of Account executives, Advertising managers, and sales representatives. Working of a Radio Station Radio management is a multifaceted activity.

• Radio broadcasting is a one-way wireless transmission over radio waves intended to reach a wide audience.

• Radio Signal types – Analog audio - (Greek, ana is "according to" and logos "relationship") is a technique used for the recording of analog signals which among many possibilities include audio frequency, analog audio and analog video information for later playback. – Digital audio refers to technology that records, stores, and reproduces sound by encoding an audio signal in digital form instead of analog form. Sound is passed through an analog-to-digital converter (ADC), and pulse-code modulation is typically used to encode it as a digital signal.

Types of Radio Broadcasting

a. AM
b. FM

AM

• Amplitude Modulation • AM broadcasting is the process of radio broadcasting using amplitude modulation. AM was the first method of impressing sound on a radio signal and is still widely used today.

FM

• Frequency Modulation • FM broadcasting is a broadcasting technology pioneered by Edwin Howard Armstrong which uses frequency modulation (FM) to provide high fidelity sound over broadcast radio. The term "FM band" describes the "frequency band in which FM is used for broadcasting". This term is slightly misleading, since it equates a modulation method with a range of frequencies.

Subtypes of Radio Broadcasting

- Commercial Broadcasting
- Non-commercial educational
- Public Broadcasting
- Non-profit Varieties – Community radio – Campus Radio – Hospital Radio station

Commercial Broadcasting

• Commercial broadcasting (also called private broadcasting) is the broadcasting of television programs and radio programming by privately owned corporate media, as opposed to state sponsorship. It was the United States′ first model of radio (and later television) during the 1920s, in contrast with the public television model in Europe during the 1930s, 1940s and 1950s which prevailed worldwide (except in the United States) until the 1980s.

Non-Commercial Broadcasting

• The term noncommercial educational (NCE) applies to a radio station or TV station that does not accept on air advertisements (TV ads or radio ads), as defined in the United States by the Federal Communications Commission (FCC). NCE stations do not pay broadcast license fees for their nonprofit uses of the radio spectrum.

Public Broadcasting

• Public broadcasting includes radio, television and other electronic media outlets whose primary mission is public service. Public broadcasters receive funding from diverse sources including license fees, individual contributions, public financing and commercial financing.

Non-Profit Varieties

• Community radio is a radio service offering a third model of radio broadcasting in addition to commercial and public broadcasting. Community stations serve geographic communities and communities of interest. They broadcast content that is popular and relevant to a local, specific audience but is often overlooked by commercial or mass media broadcasters.

• Campus radio (also known as college radio, university radio or student radio) is a type of radio station that is run by the students of a college, university or other educational institution. Programming may be exclusively by students, or may include programmers from the wider community in which the radio station is based.

Pirate Radio

• Pirate radio is illegal or nonregulated radio transmission. It is most commonly used to describe illegal broadcasting for entertainment or political purposes. Sometimes it is used for illegal two-way radio operation. Its history can be traced back to the unlicensed nature of the transmission, but historically there has been occasional use of sea vessels—fitting the most common perception of a pirate—as broadcasting bases.

Satellite Radio

• Satellite radio is a radio service broadcast from satellites primarily to cars, with the signal broadcast nationwide, across a much wider geographical area than terrestrial radio stations, while transmitting higher quality sound.

Radio Call Sign

• A call sign (also known as a call name or call letters—and historically as a call signal—or abbreviated as a call) is a unique designation for a transmitting station. • A call sign can be formally assigned by a government agency, informally adopted by individuals or organizations, or even cryptographically encoded to disguise a station's identity.

n broadcasting and radio communications, a **call sign** (also known as a **call name** or **call letters**—and historically as a **call signal**—or abbreviated as a **call**) is a unique designation for a transmitter station. In the United States of America, they are used for all FCC-licensed transmitters.[1] A call sign can be formally assigned by a government agency, informally adopted by individuals or organizations, or even cryptographically encoded to disguise a station's identity.

The use of call signs as unique identifiers dates to the landline railroad telegraph system. Because there was only one telegraph line linking all railroad stations, there needed to be a way to address each one when sending a telegram. In order to save time, two-letter identifiers were adopted for this purpose. This pattern continued in radiotelegraph operation; radio companies initially assigned two-letter identifiers to coastal stations and stations aboard ships at sea. These were not globally unique, so a one-letter company identifier (for instance, 'M' and two letters as a Marconi station) was later added. By 1912, the need to quickly identify stations operated by multiple companies in multiple nations required an international standard; an ITU prefix would be used to identify a country, and the rest of the call sign an individual station in that country.[2]

https://www.slideshare.net/SaimaSam/pps-television-advertising (you may also refer)

What is Television Advertising?

A television advertisement is a span of television programming produced and paid for by an organization, which conveys a message, typically to market a product or service. Advertising revenue provides a significant portion of the funding for most privately owned television networks. The vast majority of television advertisements today consist of brief advertising spots, ranging in length from a few seconds to several minutes (as well as program-length infomercials). Advertisements of this sort have been used to promote a wide variety of goods, services and ideas since the beginning of television. Television advertising can be great for business. But it doesn't come cheap and good ads aren't easy to create.

Why Television Advertising?

Television advertising can be great for business. But it doesn't come cheap and good ads aren't easy to create. Television advertising is the sending of promotional messages or media content to one or more potential program viewers. Release My Ad is Television advertising agency which helps you to leverage the power of radio for your brand to generate results for business. Release My Ad is the easiest way to book your Cinema Ad in all the leading Movie Theatres across the country. We help you capture the undivided attention of the relaxed and receptive audience with our exclusive ad creative at the best rates. Release My Ad provides a platform for advertisers to take advantage of targeted television advertising in India, by showing local & regional ad on TV with Geo targeted advertising.

Meaning of television

"a system for transmitting visual images with sound and displaying them electronically on a screen"

Introduction of television

Television is no doubt, the biggest source of entertainment for the Indian population. There is demand for both colour and black & white (B&W) TVs. While in terms the B&W TVs are thrice that of CTVs, in value terms the CTV segment accounts for roughly 65-70% of the market shares.

the television market in India reached a size of rs. 4300 crore in 1996 after deckling sales during 1989-1992, it has again started booming. In 1995-96 the colour television market grew by 30% and sold 1.8 million sets valued at rs. 2800 crore.

the Black & White TV market size of rs. 1500 crore which sold 4.9 million sets, registered a decline of 15% in 1996, down from the earlier year`s growth rate of 25% according to the consumer electronics and television manufacturers association, the colour TV market is expected to quadruple to 7 million sets with annual growth rates of 25-30% by the year 2000 A.D. similarly the B&W TV market is likely to double in the same period.

What is advertised on television?

few homes are without a television set, and some have more than one. For popular goods to be found in any high street throughout the country, it is an impactive medium since, it takes the advertisement right into the home where it will be seen by the prospective buyer including others in the household who influence purchase.

Consequently, commercials generally advertise popular goods and also consumer durables such as domestic appliances and lawnmowers. In recent years, more expensive products and services have appeared on television as shown above.

Television advertising in Britain

since the 1950s television has been a major advertising medium in Britain, but from 1991 all forms of broadcasting were revolutionised by the broadcasting act 1990. this was not the only change in broadcasting because cable television had been gaining a foothold in previous years, sky satellite television (both by dish & cable) was stealing audience from the BBC in 1990, taking over the ill-fated British satellite broadcasting.

Advantages of television

- **Realism**
- **Receptive audiences**
- **Repetition**
- **Zoning and networking**
- **Appeal to retailers**
- **Linked with other media**
- **Cost efficiency**
- **Impact Influence**

Realism

Because of the combination of colour, sound and action, television has assets no other medium can offer (with the exception of the cinema which no longer has the big audiences which existed prior to television). With the advantages the advertiser can show and demonstrate the product.

It is a packaged food, pack recognition is established so that the buyer knows what he or she is looking for in the shop, or there is quick recognition even if the advertisement has been temporarily forgotten. Ingenious effects can be achieved by computer graphics.

Receptive audiences

being received in the home in an entertainment atmosphere, commercials are well received, especially as they are produced to high technical standards and the presenter s often a well-known personality or at least a good actor or actress who presents the product authentically. In fact the quality of British commercials is so high that its creators are the ones who also produce some of the best cinema films.

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Repetition

The advertisement can be repeated to the point when a sufficient number of viewers have seen it enough times advertisement to have impact. Nowadays, advertisers do not indulge in saturation advertising, which is not only expensive but offensive. A good advertisement should be capable of being shown again after a rest without boring its audience.

Zoning and networking

in Britain, there are currently 16 ITV area contractors licensed by the independent television commission (ITV), two being in London. An advertiser can use one or any combination of stations, or network them all if he or she wishes.

Appeal retailers

Television advertising can reach retailers as well as consumers, both because commercials can be addressed solely to them. Retailers know that if something is advertised on television there will be demand and it will sell.

It can sometimes be very difficult for sales representatives to sell products to retailers unless they can promise the back-up of television advertising, and this can be imperative when dealing with supermarket chains with hundreds of outlets. These are fast- moving goods, and nothing moves goods faster than television advertising.

Linked with other media

the TV commercials may be fleeting, but if fuller information, or a means of returning an enquiry coupon is required this can be done by advertising in the weekly listings magazines radio, times TV Quick, TV times, or what`s on TV or in newspaper carrying supportive advertisement can be named I the commercials. Press ads may refer to `as on TV`. The television companies also offer telephone enquiry services, and computerised ordering facilities, the number being given I the commercial. Many advertisers are own adding a website as a response element in their commercial.

Cost efficiency

Many advertisers view television as the most effective way to deliver a commercial message because it has a wide reach. Millions of people watch some TV regularly. Television not only reaches a large percentage of the population, but it also reaches people who are not reached effectively by print media.

For example, NBC's Today show would average approximately $18500 for a 30-second spot and the household CPM would be $4.50. this mass coverage is extremely cost efficient. For an advertiser attempting to reach a undifferentiated market, ca 30-secod spot on a top-rated show may cost a penny or less for each person reached.

Impact

another advantages of television is the strong impact the interaction of sight and sound creates this feature includes a level of consumer involvement that often approximates the shopping experience, including encountering a persuasive salesperson. Television also allows a great deal of creative flexibility because of the many possible combination of sight, sound, color, motion, ad drama. Television has tremendous dramatic

capacity; it ca make mundane products appear important, exciting, and interesting. It can also create a positive association with the sponsor if the advertisement is likable. Certainly this has been the case for Budweiser's "Louie the lizard" ads. It is also the challenge facing MTV, as described by Tom Kuntz in the "inside story" feature.

Influence

The final advantages of television is that it a strong effect on our culture. For most icons television is a critical source of news, entertainment, and education. It is so much a part of our daily lives that we are more likely to believe companies that advertise o television, especially sponsors of drama ad educational programs, such as IBM, Xerox, and Hallmark cards, than we are to believe those that don't.

Disadvantages of television

- **Expense**
- **Clutter**
- **Nonselective audience**
- **Inflexibility**

Expense

the most serious limitation of television advertising is the extremely high cost of producing and running commercials. although the cost be restrictive, especially or small and even midsized companies. Production costs include filming the commercials (several thousand to several hundred thousands dollars) and the cost of talent. Or celebrities such as jerry Seinfeld, Candice Bergen, ad Michael Jordan, the price tag can be millions of dollars.

Clutter

Television suffers from a very high level of commercials clutter. N the past, the national association of broadcasters (NAB) restricted the amount of allowable commercial time per hour to approximately 6 minutes. In 1982 the justice department overturned this restriction.

Although the networks continue to honor the NAB guidelines, this could change as revenue needs increase. If the number of 30-second commercials, station break announcements, credits, and public service announcements increases, the visibility and persuasiveness of television advertising would diminish.

Nonselective audience

despite the introduction of various technologies that better target consumers, television remains nonselective. Network television still attracts about 60% of the U.S. audience. Although the network attempt to profile viewers, their description are quite general, offering the advertiser little assurance that appropriate people are viewing the massage.

Inflexibility

television also suffers from a lack of flexibility in scheduling. Most network television is bough in the spring and early summer for the next fall season. If an advertiser is unable to make this up-front buy, only limited time-slot alternatives remain available. Also, t is difficult to make lastminute adjustment in terms of scheduling, copy, or visuals.

Conclusion

It is the latest and faster growing medium in India. In market it appeal through both eyes, and ears. Products can be demon started and effectively presented through this medium. It also offers considerable flexibility.

however, it is an extremely expensive medium. Further, it also suffers from the demerit of limited coverage.

TV ad:-

• Television commercials have several components which must work together to create the right impact and communicate the advertiser's message.

1.VIDEO

• The video or visual elements are what is seen on the television screen.

• The main focus of the visual such as the product, the presenter, action sequences, lighting graphics, colour and other factors.

2.AUDIO

• The audio portion of a commercial includes several elements such asvoice,musicandsoundeffects.

• A common method for presenting the audio portion of a commercial is through a voice-over whereby the message is delivered or action on the screen is narrated by the voice of an announcerwhoisnotvisible.

• A trend among major advertisers is to hire celebrities with distinctive voices to do the voiceovers for their commercials.

3.MUSIC

 A very important part of many television commercials is music which plays various roles and functions such as providing a pleasant background or helping create the appropriate mood or setting.

 Musical element in both television and radio commercials is jingles, which are catchy songs about a product or service that usuallycarrytheadvertisingthemeandasimplemessage

Evolution of tv

- The television is an invention that over 98.5% of American families have in their house today.
- The TV is mostly used for entertainment. It also shows news that informs people what is happening locally and around the world.
- The TV is also one of the biggest advertisers using commercials in between shows.

Timelines of the TV

- In 1862 Abbe Giovanna Caselli invents his Pantelegraph and becomes the first person to transmit a still image over wires.
- Then in 1906 Lee de Forest built a vacuum tube that worked in the first mechanical working television.
- In 1940 Peter Goldmark invents the first color television with 343 lines of revolution.
- In 1948 cable television was introduced in Pennsylvania.
- In 1981 NHK demonstrates the HDTV which had 1,125 lines of revolution.
- In 1992 the first 21-inch full color plasma TV was introduced
- In 2010 the first 3-D televisions were put on the market.

Major change of the TV

- From when the first television was made by Lee de Forest, there has been many changes and improvements to it.
- After the TV was first invented, in 1936, coaxial cable was invented to transmit television signals.
- The first TV started out with black and white pictures until 1940 when the first color TV was built.
- Later on in 1948 cable became available to people that owned televisions. This provided them with more channels to view.
- Then finally in 1956 the first remote control was made for the TV that was made with wires. The only problem was that the wires would not work in sunlight.
- Later the first HDTV was made for viewers to get a better and higher quality image.
- And in 2010 the first 3D TVs were sold letting viewers watch their programs in 3D.

Environmental aspect

- Contains a lot of lead
- Many LCD TVs use lamps that contain mercury so they are harder to dispose of.
- People don't know how to dispose of televisions properly. Now there is a big concern about electronic waste.
- The newer TVs are requiring more electrical power to run

society aspect:-

- More people are becoming less active and obese because of TVs. Instead of exercising more people are staying home and watching television.
- TV can influence the way people think, and manipulate their decisions.
- Children are becoming more obese and lazy. In 1963, 4.5% of children ages 6 to 11 were seriously overweight; by 2009, this percentage had more than tripled.
- TV influences a lot of violence to viewers in shows and movies. 80% of Hollywood executives think there is a link between TV violence and real-life violence.

Audio visual advertising the most effective

Dominic Dudley interpreted the launch of Google video advertising as a threat to what he called "traditional TV advertising" – which I assume means broadcast advertising – despite Google itself describing it as complementary to broadcast TV. I have three observations.

First, the launch confirms that television – audio-visual content – is the medium that offers advertisers the most effective and persuasive way to talk to consumers and is what they most aspire to use. And consumers will be watching more television as technology, including broadband and mobile, makes it available wherever they want it.

Second, the "experts" quoted in the article failed to point out that push and pull media fulfil different roles within the creation, adoption and purchasing cycle of brands, and that to fund the latter from the former is a rash move unless your only horizon is very short-term. Google video advertising is much more likely to replicate the role that below the line investment – point of sale, direct mail, etc – fulfils. As I know from advertisers I have worked with recently, broadcast plus any interactive format, be it online, search, mobile, or iTV, is a cracking combination, but it's dangerously easy to over-attribute the effect to the response-generating end of the activity.

Third, there are loads of emerging technologies which will deliver television in new and exciting ways but, just because it's another form of telly, please don't assume broadcast TV will necessarily be challenged by it

Doordarshan

- Public television broadcasterof India
- Division of Prasar Bharati, a public service broadcaster nominated by the Government of India
- One of the largest broadcasting organizations in the world in terms of the infrastructure of studios and transmitters
- Recently, it has also started Digital Terrestrial Transmitters
- On September 15 2009, Doordarshan celebrated its 50th anniversary

How Did It Begin?

- Doordarshan had a modest beginning with the experimental telecast starting in Delhi on 15 September 1959 with a small transmitter and a makeshift studio
- The regular daily transmission started in 1965 as a part of All India Radio
- The television service was extended to Bombay (now Mumbai) and Amritsar in 1972

- Up until 1975, only seven Indian cities had a television service and Doordarshan remained the sole provider of television in India.
- Television services were separated from radio in 1976
- Each office of All India Radio and Doordarshan were placed under the management of two separate Director Generals in New Delhi
- Finally, Doordarshan as a National Broadcaster came into existence

Goes National

- National telecasts were introduced in 1982
- In the same year, colour TV was introduced in the Indian market with the live telecast of the Independence Day speech by then prime minister Indira Gandhi on 15 August 1982
- Followed by the 1982 Asian Games which were held in Delhi
- Now more than 90 percent of the Indian population can receive Doordarshan (DD National) programmes through a network of nearly 1,400 terrestrial transmitters.
- There are about 46 Doordarshan studios producing TV programs today
- The 80s were noted for such shows as Hum Log (1984), Buniyaad (1986-87) and comedy shows like Yeh Jo Hain Zindagi (1984)

Some Major Serials

- Nukkad (A Comedy Set On A Pavement)
- Ramayan(Mythological)
- Mahabharat(Mythological)
- Shaktimaan(India's First Super Hero)
- The Great Maratha (Historical) • Chitrahaar(Film Songs)
- Rangoli (Film Songs)
- Dada Dadi Ki Kahaniyaan(Children's)
- Vikram Betaal (Children's)
- Fauji (Shahrukh Khan’s First TV Serial – Before he Came Into Films)

Fun Time!!!

- Doordarshan also telecast English cartoons at 12.00 noon during summer vacations in a programme named "Fun Time"
- Showed cartoons like: Spider-Man Giant Robot He-Man & The Masters Of the Universe Jungle Book Duck Tales

- Comic plays of Charlie Chaplin, Laurel & Hardy and Didi's Comedy Show

Channels

• Presently, Doordarshan operates 21 channels – two All India channels-DD National and DD News, 11 Regional languages Satellite Channels (RLSC), four State Networks (SN), an International channel, a Sports Channel (DD sports) and two channels (DD-RS & DD-LS) for live broadcast of parliamentary proceedings

DD has its own DTH service called DD Direct Plus. It is free of charge

- DD-India is broadcast internationally via satellite
- It is available in 146 countries worldwide
- However, information on receiving this channel in other countries is not easily available
- The timing and programming of DD-India international is different from that of India

Cable and STB channel

Set-Top Box

A set-top box is a device that enables a television set to become a user interface to the Internet and also enables a television set to receive and decode digital television (DTV) broadcasts. DTV set-top boxes are sometimes called receivers. A set-top box is necessary to television viewers who wish to use their current analog television sets to receive digital broadcasts. It is estimated that 35 million homes will use digital set-top boxes by the end of 2006, the estimated year ending the transition to DTV.

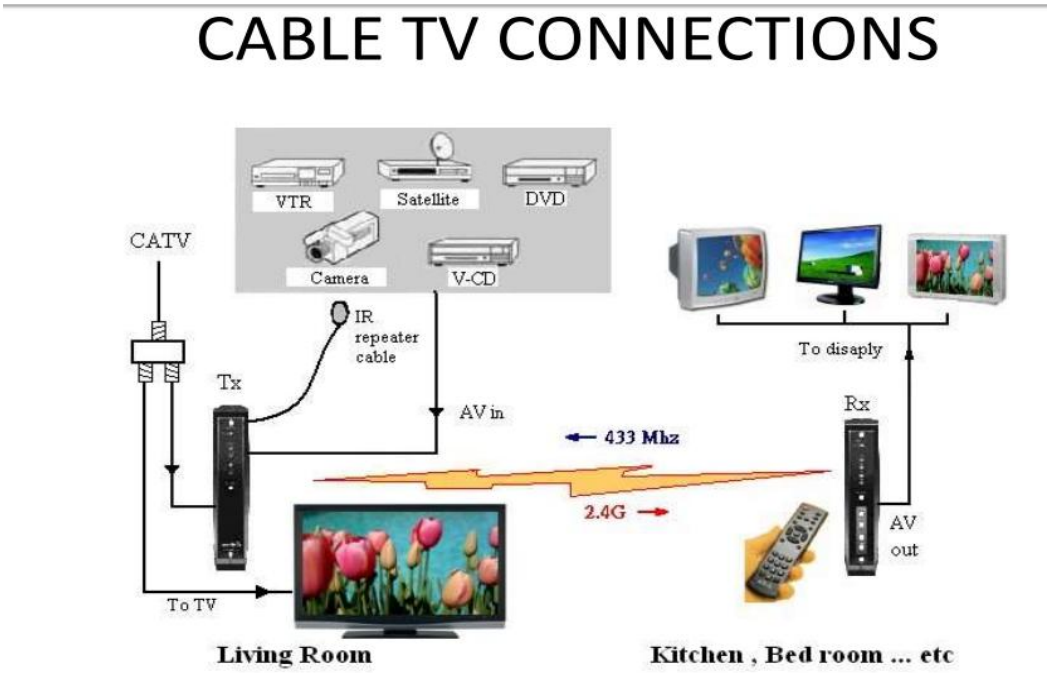
In the Internet realm, a set-top box is really a specialized computer that can "talk to" the Internet - that is, it contains a Web browser (which is really a Hypertext Transfer Protocol client) and the Internet's main program, TCP/IP. The service to which the set-top box is attached may be through a telephone line as, for example, with WebTV, or through a cable TV company like TCI.

In the DTV realm, a typical digital set-top box contains one or more microprocessors for running the operating system, possibly Linux or Windows CE, and for parsing the MPEG transport stream. A set-top box also includes RAM, an MPEG decoder chip, and more chips for audio decoding and processing. The contents of a set-top box depend on the DTV standard used. European DVB-compliant set-top boxes contain parts to decode COFDM transmissions while ATSC-compliant set-top boxes contain parts to decode VSB transmissions. More

sophisticated set-top boxes contain a hard drive for storing recorded television broadcasts, for downloaded software, and for other applications provided by your DTV service provider.

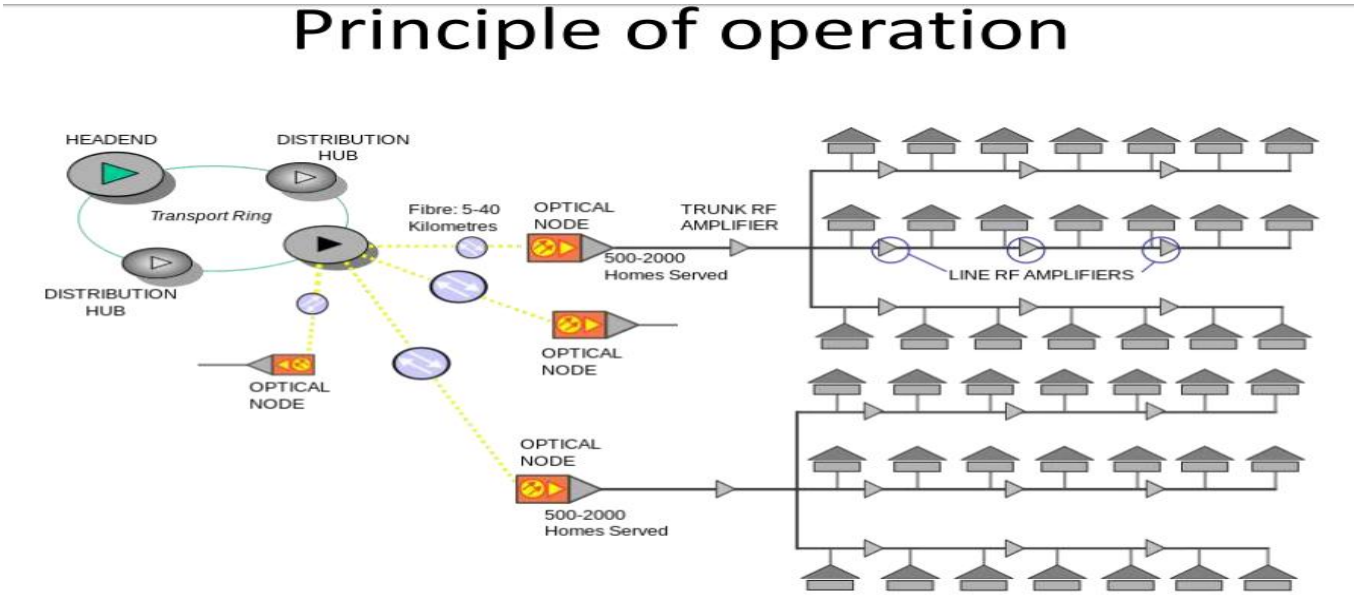
Digital television set-top boxes are used for satellite, cable, and terrestrial DTV services. They are especially important for terrestrial services because they guarantee viewers free television broadcasting. A set-top box price ranges from $100 for basic features to over $1,000 for a more sophisticated box. It is often leased as part of signing up for a service.

Cable



• Cable television is a system of delivering television programming to paying subscribers via radio frequency (RF) signals transmitted through coaxial cables or light pulses through fiber-optic cables. • Cable television, introduced in the 1970s, offers a greater number of channels, while solving antenna reception problems. Using a direct feed to the television or decoder box, cable TV is the most widely used television reception medium. Understanding how cable television really works allows insight into how one cable leading into your home can carry so much information.

Principle of operation



• In the most common system, multiple television channels (as many as 500, although this varies depending on the provider's available channel capacity) are distributed to subscriber residences through a coaxial cable, which comes from a trunk line supported on utility poles originating at the cable company's local distribution facility, called the headend. Many channels can be transmitted through one coaxial cable by a technique called frequency division multiplexing. At the headend, each television channel is translated to a different . By giving each channel a different frequency "slot" on the cable, the separate television signals do not interfere. At the subscriber's residence, either the subscriber's television or a set-top box provided by the cable company translates the desired channel back to its original frequency (baseband), and it is displayed onscreen. Due to widespread cable theft in earlier analog systems, the signals are encrypted on modern digital cable systems, and the set-top box must be activated by an activation code sent by the cable company before it will function, which is only sent after the subscriber signs up.

• There are also usually upstream channels on the cable, to send data from the customer box to the cable headend, for advanced features such as requesting pay-per-view shows, cable internet access, and cable telephone service. The downstream channels occupy a band of frequencies from approximately 50 MHz to 1 GHz, while the upstream channels occupy frequencies of 5 to 42 MHz Subscribers pay with a monthly fee. Subscribers can choose from several levels of service, with "premium" packages including more channels but costing a higher rate. At the local headend, the feed signals from the individual television channels are received by dish antennas from communication satellites. Additional local channels, such as local broadcast tv stations, educational channels from local colleges, and community access channels devoted to local governments are usually included on the cable service. Commercial advertisements for local business are also inserted in the

programming at the headend (the individual channels, which are distributed nationally, also have their own nationally oriented commercials).

Bandwidth

• Cable channels are allowed bandwidth of 6 Megahertz, or MHz, per channel. Given that coaxial cable is capable of many times this, it can carry many channels into the home on a single RG-6 coaxial feed. Some cable providers use a thicker, stiffer cable, called RG-11, to get highdefinition, or HD, cable service and broadband Internet into your home. This cable is capable of carrying delicate digital data for miles without loss.

How Companies Get Their Signals

• It may be surprising to learn that most cable companies get their signals from, ironically, satellite providers. Using large dishes, these companies receive the channel data from their providers, package the channel and broadband Internet bundles as desired, and resell them to their subscribers. This makes sense if you reflect that no terrestrial broadcaster sends the types of channels you see on your local stations. On occasion, although rarely, cable television services can drop out due to severe weather, just like a satellite system you may have at home.

Compression

• The magic of compression is that it allows cable television companies to send potentially thousands of channels to your home, each using the same 6-MHz bandwidth per channel. MPEG-2 and MPEG-4 are the two compression schemes found in cable TV broadcasts. MPEG stands for Motion Picture Experts Group. This technology aims to eliminate much of the unneeded data on the channel, while not adversely affecting picture quality. HD is enabled via cable, thanks to MPEG compression schemes. In fact, many channels are digitally encoded, and are unlocked by using a cable box. This encoding allows one cable to carry all channels, not requiring a second coaxial feed for premium channels.

Cable Redistribution Boxes

• Cable companies use service redistribution boxes found in your neighborhood or yard to re-amplify the signals. Peering inside, you would see multiple coaxial cables connected to what appears to be a large splitter, which in turn is connected to a silver or black box. This allows the cable feed to be retransmitted for many miles without significant degradation. Fiber-optic cabling allows more data from the service provider, which then converts to coaxial cables leading into your home or business.

Extra Space

• You might think that a television channel would take up quite a bit of electrical “space,” or bandwidth, on a cable. In reality, each television signal is given a 6-megahertz (MHz, millions of cycles per second) channel on the cable. The coaxial cable used to carry cable television can carry hundreds of megahertz of signals — all the channels you could want to watch and more. • In a cable TV system, signals from the various channels are each given a 6-MHz slice of the cable’s available bandwidth and then sent down the cable to your house. In some systems, coaxial cable is the only medium used for distributing signals. In other systems, fiber-optic cable goes from the cable company to different neighborhoods or areas. Then the fiber is terminated and the signals move onto coaxial cable for distribution to individual houses.

Inside the Cable Modem

• Cable modems can be either internal or external to the computer. In some cases, the cable modem can be part of a set-top cable box, requiring that only a keyboard and mouse be added for Internet access. In fact, if your cable system has upgraded to digital cable, the new set-top box the cable company provides will be capable of connecting to the Internet, whether or not you receive Internet access through your CATV connection. Regardless of their outward appearance, all cable modems contain certain key components: • A tuner • A demodulator • A modulator • A media access control (MAC) device • A microprocessor

An Internet area network (IAN)

is a concept for a communications network[1] that connects voice and data endpoints within a cloud environment over IP, replacing an existing local area network (LAN), wide area network (WAN) or the public switched telephone network (PSTN).

Seen by proponents as the networking model of the future,[2] an IAN securely connects endpoints through the public Internet, so that they can communicate and exchange information and data without being tied to a physical location.

Unlike a LAN, which interconnects computers in a limited area such as a home, school, computer laboratory or office building, or a WAN, which is a network that covers a broad area, such as any telecommunications network that links across metropolitan, regional, or national boundaries, using private or public network transports, the IAN eliminates a geographic profile for the network entirely because the applications and communications services have become virtualized. Endpoints need only be connected over a broadband connection across the Internet.

Hosted in the cloud by a managed services provider, an IAN platform offers users secure access to information from anywhere, at any time, via an Internet connection. Users also have access to telephony, voicemail, e-mail,

and fax services from any connected endpoint. For businesses, the hosted model reduces IT and communications expenses, protects against loss of data and disaster downtime, while realizing a greater return on their invested resources through increased employee productivity and reduction in telecom costs.

Types of Networks

There are several different types of computer networks. Computer networks can be characterized by their size as well as their purpose.

The size of a network can be expressed by the geographic area they occupy and the number of computers that are part of the network. Networks can cover anything from a handful of devices within a single room to millions of devices spread across the entire globe.

Some of the different networks based on size are:

- **Personal area network, or PAN**
- **Local area network, or LAN**
- **Metropolitan area network, or MAN**
- **Wide area network, or WAN**

Personal Area Network

A personal area network, or PAN, is a computer network organized around an individual person within a single building. This could be inside a small office or residence. A typical PAN would include one or more computers, telephones, peripheral devices, video game consoles and other personal entertainment devices.

If multiple individuals use the same network within a residence, the network is sometimes referred to as a home area network, or HAN. In a very typical setup, a residence will have a single wired Internet connection connected to a modem. This modem then provides both wired and wireless connections for multiple devices. The network is typically managed from a single computer but can be accessed from any device.

This type of network provides great flexibility. For example, it allows you to:

- Send a document to the printer in the office upstairs while you are sitting on the couch with your laptop.
- Upload a photo from your cell phone to your desktop computer.
- Watch movies from an online streaming service to your TV.
- If this sounds familiar to you, you likely have a PAN in your house without having called it by its name.

Local Area Network

A local area network, or LAN, consists of a computer network at a single site, typically an individual office building. A LAN is very useful for sharing resources, such as data storage and printers. LANs can be built with relatively inexpensive hardware, such as hubs, network adapters and Ethernet cables.

The smallest LAN may only use two computers, while larger LANs can accommodate thousands of computers. A LAN typically relies mostly on wired connections for increased speed and security, but wireless connections can also be part of a LAN. High speed and relatively low cost are the defining characteristics of LANs.

LANs are typically used for single sites where people need to share resources among themselves but not with the rest of the outside world. Think of an office building where everybody should be able to access files on a central server or be able to print a document to one or more central printers. Those tasks should be easy for everybody working in the same office, but you would not want somebody just walking outside to be able to send a document to the printer from their cell phone! If a local area network, or LAN, is entirely wireless, it is WLAN

Metropolitan area network (**MAN**)

is a computer network that interconnects users with computer resources in a geographic area or region larger than that covered by even a large local area network (LAN) but smaller than the area covered by a wide area network(WAN). The term is applied to the interconnection of networks in a city into a single larger network (which may then also offer efficient connection to a wide area network). It is also used to mean the interconnection of several local area networks by bridging them with backbone lines. The latter usage is also sometimes referred to as a campus network

A wide area network (WAN)

is a geographically distributed private telecommunications network that interconnects multiple local area networks (LANs). In an enterprise, a WAN may consist of connections to a company's headquarters, branch offices, colocation facilities, cloud services and other facilities. Typically, a router or other multifunction device

is used to connect a LAN to a WAN. Enterprise WANs allow users to share access to applications, services and other centrally located resources. This eliminates the need to install the same application server, firewall or other resource in multiple locations, for example