

~~Make~~ a write-up on communication system

What is the meaning of ICT?

ICT stands for information and communication technology. It is used to describe all devices that can be used to create, communicate, disseminate ~~disseminate~~ ^{store}, manage and provide access to information. These devices include, radio, television, mobile phones, computers, the internet, satellite systems etc.

Types of Information and Communication Technology (ICT)

There are different types of ICT, which includes

1. Broadcasting
2. Telecommunications.
3. Data networks
4. Information Systems
5. Satellite Communications.

Broadcasting

Broadcasting is the spreading or ~~distur~~ distribution of audio and video content over a wide area to a large audience through any electronic ~~means~~ mass communication medium like Radio, television, etc.

In computer networking, broadcasting refers to the simultaneous distribution of the same information to many recipients.

which is made possible when a standardized data packet is received by all network devices.

A data packet means small unit of data. Breaking communication down into packets allows the same datapath to be shared among many users in the network.

Types of Broadcasting

There are three basic types of broadcasting, which include

- (i) Radio Broadcasting
- (ii) Television Broadcasting
- (iii) Satellite TV system Broadcasting.

Radio Broadcasting - This involves sending or transmitting information or entertainment signals to a large audience, who will receive or listen to it throughout a radio set. This can be via AM (Amplitude Modulation), FM (Frequency Modulation) or HD (High Definition) radio which transmits digital audio and data along with AM and FM analog signals.

Television Broadcasting, this is the transmission of information or entertainment signals in form of moving images, with or without sound from a television.

to television sets. These signals are transmitted by UHF (Ultra High Frequency) or by VHF (Very High Frequency) waves. television programmes were first transmitted in analog format and now in digital format.

Satellite TV system Broadcasting. This is the transmission of audio and video signals from the television station to an orbiting satellite in space which manages the signals and rebroadcasts it back to the Earth. These signals are captured by dish receivers placed on top of buildings and then converted by decoders to digital TV signals.

2. TELECOMMUNICATIONS

telecommunication is the transmission of audio and video signals over long distances using cables, telephones, radio, television etc. All electronic devices used for transmitting this information are called telecommunication systems.

Types of telecommunication.

The different types of telecommunication include.

1. public switched telephone network system (PSTN)

Circuit switched packet telephone system
(CSPTS)

Satellite telephone system

Fixed wireless telephone system (FWTS)

Public switched telephone network

(PSTN): This is also referred to as
Landline or plain old telephone service
(POTS). It is a wired phone system
over which landline calls are made.

Mobile phone system or Global system
for mobile communications (GSM). This
is a second-generation (2G) digital
telephone network enables individuals use
mobile handsets to communicate with
voice and text messages.

Circuit switched packet telephone system
(CSPTS). This is a system that
guarantees that a telephone call
from one person to another
remains connected for the duration
of the call unless it is
disconnected by the caller or
receiver.

Note: that the communications
circuit or path for the call is
set up and restricted.

iv Satellite telephone system. This system allows users to communicate with phones that connect with low earth orbiting satellites.

There are three major satellite telephone systems which are

- a. Iridium
- b. Thuraya
- c. Globalstar

Note: that the satellites for these three systems were launched and entered service in the mid to late 1990s.

a. Iridium. This is a satellite constellation or large group of satellites providing voice and data coverage to satellite phones, pagers, and integrated transceivers over the entire earth surface.

b. Thuraya. This is another constellation of satellites that provides regional mobile satellite phone coverage to more than 140 countries in Europe, the Middle East, North, Central and East Africa, Asia, Asia Pacific and Australasia serving about 2.3 billion people.

c. Globalstar. This provides affordable high quality satellite voice and data service across the US and to over 120 countries world wide.

V. Fixed wireless telephone system (FWTS):
This system allows users to communicate with each other within a building (home or office) or between two fixed locations that have been connected with a wireless link using a handset. Using a handset.

3. DATA NETWORKS: Data network is a telecommunications network dedicated or configured solely to transfer data such as letters, spreadsheets and other types of documents from one point to another in an organized way.

Types of Data Networks

There are different data networks that are available. These include:

- i. Personal Area Network (PAN)
- ii. Local Area network (LAN)
- iii. Metropolitan Area network (MAN)
- iv. Wide Area network (WAN)

The Internet

Personal Area network (PAN): This is a computer network built within the range of 10 meters of an individual user.

Local Area network (LAN): This is a computer network within an office or building which is set up for the

purpose of sharing resources like files

Printer games applications etc.

ii Metropolitan area network (MAN). This is a large computer network that covers a ^{city} or large campus.

iii Wide Area Network (WAN). This is a long distance computer network that covers a wide area like a state or country.

iv The Internet. This is a worldwide ~~interconnection~~ interconnection of computer networks, otherwise called a network of networks on which individuals can use their computers from where they are, to share information with others across the world.

4. INFORMATION SYSTEM

An Information System (IS) is a collection of people, hardware, software, communication devices, network and data resources organized to collect, process, store and distribute data and information within an organization for a specific purpose.

Types of Information System.

There are two major types of information system which are:

- i Data Processing System
- ii Global Positioning System.

Data Processing System: This refers to a set of programs used to process, organize and ~~man~~ manipulate large amounts of data used daily in organizations for transaction.

and by fitting a Accounting Payroll System

like Peachtree and Tally word

processing systems like Microsoft Word

etc.

Global Positioning System (GPS). This consists of
a group of orbiting Satellites in space
that transmit signals to GPS receivers on
Earth, which can provide information regarding
the exact Location of a person or item, e.g.
by using a GPS enabled device

SATELLITE COMMUNICATIONS

Satellite communication provides a communication
link between two or more points on the
Earth. It involves the transfer of signals
between sender and receiver with the help of
satellites

