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Meaning of INTERNET

The word internet is derived from two different words intercommunication and network. Internet is a network of networks. Network is a communication established between two or more computers. Many such networked computers across world or joined together and is called internet. The computers are connected with the help of network cable, telephone lines and satellites.

CONCEPT OF INTERNET

The following sentences make it possible to understand the concept of internet.

- A group of computers connected with the help of Fibre Optics, Telephone lines and satellites.
- A place where you can establish communication with your family members and any one around the world.
- An ocean of informative resources.

- Helpful to undertake research and narrate.
- Commercial opportunities have multiplied.
- It is like a global co-operative group with regard to any problem.
- It is a place of exchange of information from professionals.
- Hundreds of libraries can be opened at the stroke of finger tip.

Types of Internet

There are mainly 3 Types in Internet Connections :

1. Dedicated Internet Connection

2. Dial-Up Internet Connection

3. Broad band Internet Connection

Dedicated Internet Connection

- By using this connection the user is able to get the 24 hours facility.
- Usually Universities, big companies, research centers use this Dedicated Internet Connection service.
- Dedicated Internet Connection is little bit costly because it needs a unique Hard Ware.

Dial-Up Internet Connection

This Internet facility can be used by Internet service Provider. After this process only the user is able to access to Internet. User will be given ‘a user name’ as well as ‘Pass word ’

There are mainly two types in Dial-Up Internet Connection

1) AP account
2) Shell account.

By using AP account user can use E mail, Apps, News group, Down loading pictures etc.

In Shell account the user can Down load PDF Files. But cant download Picture format.

Broad band Internet Connection

Broad band Internet Connection passes the information in Hi speed, by using a strong Cables. It is very faster than Dial-Up Internet Connection . Now a days this Broad Bond connection is very Popular.

Facilities of an internet

- Browsing
- Sending and receiving the information
- Online shopping
- Online application
- Online examination
- Internet banking

Use of internet in the field of education

- Collecting the information
- E-examination
- E- library
- E-newspaper
- E-content
- E-journals
- E-application
- Purchasing the materials required for the institution
- Advertisement about the institution

Browsing

Exploration of the World Wide Web by following one interesting link to another, usually with a definite objective but without a planned search strategy. In comparison 'surfing' is exploration without a definite objective or search strategy, and 'searching' is exploration definite in both objective and strategy.

Search engine

A **web search engine** is a software system that is designed to search for information on the World Wide Web. The search results are generally presented in a line of results often referred to as search engine results pages (SERPs). The information may be a mix of web pages, images, and other types of files. Some search engines also mine data available in databases or open directories.

Ex: Google, Yahoo, go to.com, ask.com

Meaning of Email

Electronic mail, most commonly referred to as **email** or **e-mail.** Email is an information and communication technology. It uses technology to communicate a digital message over the Internet. Popular email platforms include Gmail, Hotmail, Yahoo! Mail, Outlook, and many others

Gmail: Email from Google

https://www.google.com/accounts/ServiceLogin?service=mail&passive=true&rm=false&continue=http://mail.google.com/mail/%3Fui%3Dh

Gmail by Google

Welcome to Gmail

A Google approach to email.

Gmail is built on the idea that email can be more intuitive, efficient, and useful. And maybe even fun. After all, Gmail has:

Less spam
Keep unwanted messages out of your inbox with Google's innovative technology.

Mobile access
Read Gmail on your mobile phone by pointing your phone's web browser to **http://gmail.com**.
Learn more

Lots of space
Over 7510.454511 megabytes (and counting) of free storage.

Sign in with your Google Account

Username:
ex: pat@example.com

Password:

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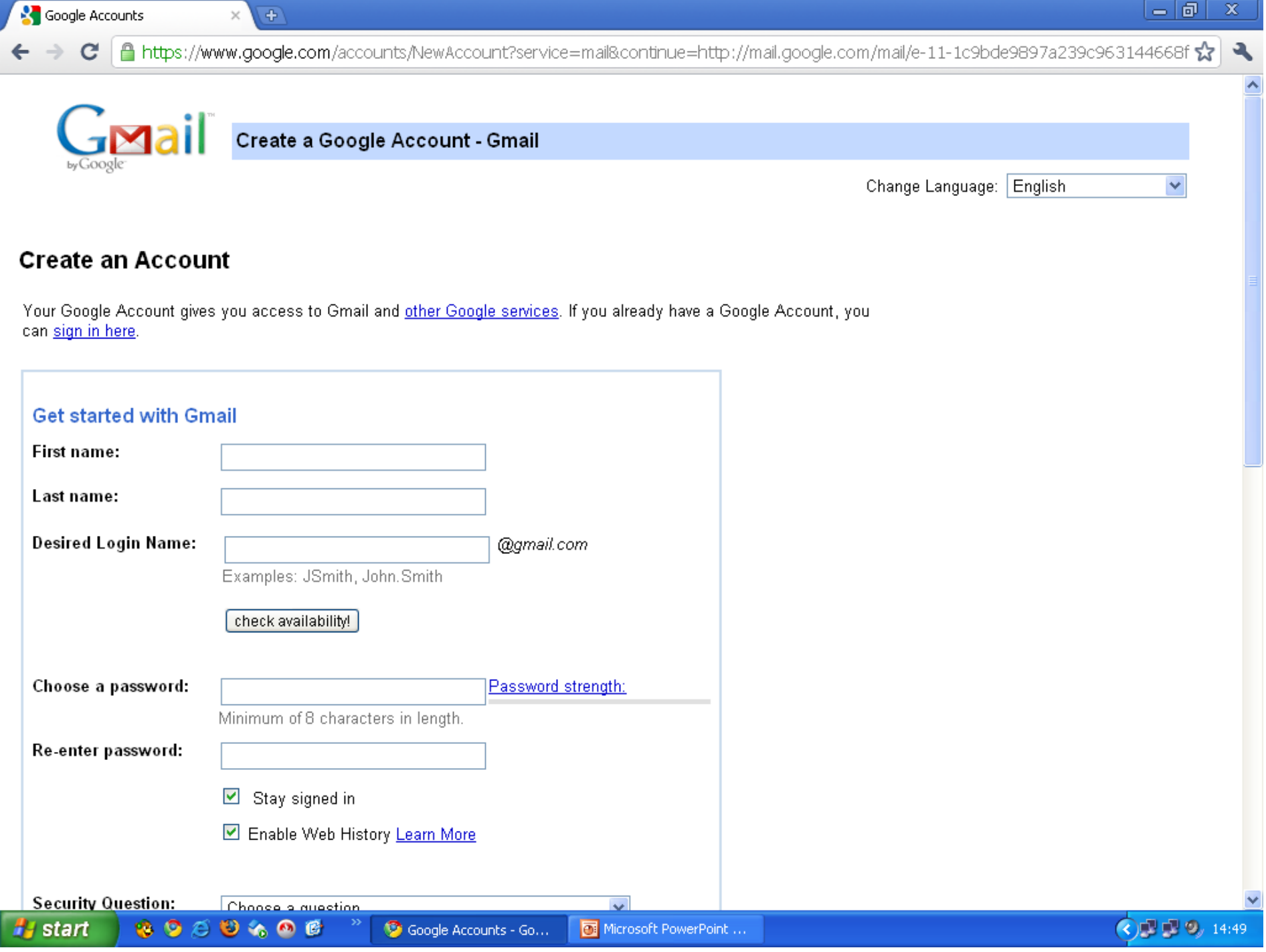
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Gmail by Google
Create a Google Account - Gmail
Change Language: English
Create an Account
Your Google Account gives you access to Gmail and other Google services. If you already have a Google Account, you can sign in here.
Get started with Gmail
First name:
Last name:
Desired Login Name:
@gmail.com
Examples: JSmith, John.Smith
check availability!
Choose a password:
Password strength:
Minimum of 8 characters in length.
Re-enter password:
Stay signed in
Enable Web History Learn More
Security Question:
Choose a question
start
Google Accounts - Go...
Microsoft PowerPoint ...
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Google Accounts

https://www.google.com/accounts/NewAccount?service=mail&continue=http://mail.google.com/mail/e-11-1c9bde9897a239c963144668f

Security Question: Choose a question ...

If you forget your password we will ask for the answer to your security question. Learn More

Answer:

Recovery email:

This address is used to authenticate your account should you ever encounter problems or forget your password. If you do not have another email address, you may leave this field blank. Learn More

Location: India

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applicable to the Services, in addition to the
Universal Terms. All of these are referred to
below as the "Additional Terms". Where
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By clicking on 'I accept' below you are agreeing to the Terms of Service above and both the Program Policy and the Privacy Policy.

I accept. Create my account.

start | Google Accounts - Go... | Microsoft PowerPoint ... | 14:50

Gmail: Introduction

mail.google.com/mail/help/intro.html

Gmail by Google

Introduction to Gmail

Congratulations!

You've successfully signed up for Gmail! Here's a quick run through to help you get comfortable.

Show me my account »

Archive instead of delete
Tidy up your inbox without deleting anything. You can always search to find what you need or look in "All Mail."

Chat and video chat
Chat with your contacts directly within Gmail. You can even talk face-to-face with built-in video chat.

Labels instead of folders
Labels do the work of folders with an extra bonus: you can add more than one to an email.

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https://mail.google.com/mail/?shva=1#inbox

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devaraj76manya@gmail.com | New! Priority Inbox[Beta] | Settings | Help | Sign out

Gmail by Google

Search Mail | Search the Web | Show search options | Create a filter

Mail
Contacts
Tasks

Compose mail

Inbox (3)
Buzz
Starred
Sent Mail
Drafts

Personal
Travel
6 more ▼

Chat

Search, add, or invite

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Set status here ▼

Text chats are saved and searchable.
Learn more

Wedding Themes - SimplyMarry.com/Register-Free-Now! - You Can Find Your Life Partner in Next 10 Minutes. Search-(About these ads

Archive | Report spam | Delete | Move to ▼ | Labels ▼ | More actions ▼ | Refresh | 1 - 3 of 3

Gmail Team	**Customize Gmail with colors and themes** - To spice up your inbox with col	2:51 pm
Gmail Team	**Import your contacts and old email** - You can import your contacts and ma	2:51 pm
Gmail Team	**Get Gmail on your mobile phone** - Access Gmail on your mobile phone The	2:51 pm

Archive | Report spam | Delete | Move to ▼ | Labels ▼ | More actions ▼ | Refresh | 1 - 3 of 3

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Gmail by Google

Search Mail | Search the Web | Show search options | Create a filter

Mail
Contacts
Tasks

Compose mail

Inbox (3)
Buzz
Starred
Sent Mail
Drafts

Personal
Travel
6 more ▾

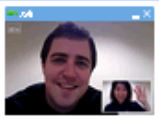
Chat

Search, add, or invite

devaraj nayak
Set status here ▾

talk

Text chats are saved and searchable.
Learn more



Send | Save Now | Discard

To:

Add Cc | Add Bcc

Subject:

Attach a file

« Plain Text | Check Spelling ▾

Send | Save Now | Discard

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Features of E-mail

- Security (password)
- Send message
- Receive message (text, audio, vedio)
- Fast service
- Message about reaching the information
- Storing the data
- chatting

LAN- Local Area Network

A **local area network** (**LAN**) is a computer network that interconnects computers within a limited area such as a home, school, computer laboratory or office building using network media.

Advantages of LAN

- Resource sharing
- Central control of equipment and data
- Easy connection of equipment from different vendors

WAN – Wide Area Network

A **wide area network** (**WAN**) is a network that covers a broad area (i.e., any telecommunications network that links across metropolitan, regional, or national boundaries) using leased telecommunication lines. Business and government entities utilize WANs to relay data among employees, clients, buyers, and suppliers from various geographical locations.

WiFi

Wi-Fi allows an electronic device to exchange data or connect to the internet wirelessly using 2.4 GHz UHF and 5 GHz SHF radio waves. The name is a trademark name, and was stated to be a play on the audiophile term Hi-Fi. The Wi-Fi Alliance defines Wi-Fi as any "wireless local area network" (WLAN).

2G (2nd Generation)

2G (or **2-G**) is short for second-generation wireless telephone technology. Primary benefits of 2G networks are:

- Phone conversations were digitally encrypted.
- 2G introduced data services for mobile, starting with SMS text messages.
- 2G technologies enabled the various mobile phone networks to provide the services such as text messages, picture messages and MMS (multi media messages).

All text messages sent over 2G are digitally encrypted, allowing for the transfer of data in such a way that only the intended receiver can receive and read it.

3G (3rd Generation)

3G telecommunication networks support services that provide an information transfer rate of at least 200 kbit/s.

Later 3G releases, often denoted 3.5G and 3.75G, also provide mobile broadband access of several Mbit/s to smart phones and mobile modems in laptop computers.

This ensures it can be applied to wireless voice telephony, mobile Internet access, fixed wireless Internet access, video calls and mobile TV technologies.

Computer assisted instruction

The computer assisted instruction is a system of teaching method regulated by the computer.

Using computers as an important unit of teaching environment is called as computer assisted instruction .

Features of CAI

- Here computer create a creative environment for the purpose of imparting the knowledge.
- There are many programmes that facilitate learning.
- It help learn in effective and meaningful way.
- It displays the education material in a modern way
- Resources are provide individually and in as grouped
- It provides the student to with facility to master the knowledge and to exercise on the subject.

- It provides the exerises with games to make it more interesting ,and records the progress of the student by evaluation
- It organizes the daily routine of the student with the series of teaching program
- It provides records marks and progress of the students for further verification
- It help the student to participate in the tutorial and interactive classes
- It checks with the records of the students learning and decides programs as per his capacity.
- It also record the details of the students who have undergone the computer assisted instruction

Advantages of CAI

Computer through education is very effective because by using the computer we can show the pictures, videos, audios etc. It made a learning faster and meaning full. complex subjects can be explain in simple & meaningful way.

Example: the working of the heart can be explained shown by using the videos & animation

- It also help to self learning: with the help of the videos and images we can try to learn all the times without the help of teacher.

- By using the computer, teacher can make the class room teaching interesting and different.

- By showing the variety of videos, Photos releted to the topic to make teaching and learning process effective and easy

Disadvantages of computer assisted instruction education

- It is an expensive method.
- There is no scope for human or emotional aspects.
- It is too mechanical.
- It is not appropriate for students of all ages.
- It is not possible to assess the essay type questions.
- It is just difficult to learn all the subject through this method

Interactive whiteboard (IWB)

An **interactive whiteboard** (**IWB**) is a large interactive display that connects to a computer. A projector projects the computer's desktop onto the board's surface where users control the computer using a pen, finger, stylus, or other device. The board is typically mounted to a wall or floor stand.

They are used in a variety of settings, including classrooms at all levels of education, in corporate board rooms and work groups, in training rooms for professional sports coaching, in broadcasting studios, and others.

Content Interaction

The primary and most obvious feature of an interactive whiteboard is the ability to interact with projected content.

Using included stylus pens, or your finger in some cases, you can : draw lines, highlight text and interact with elements such as hyperlinks or buttons. This interactivity allows a presenter or a teacher to draw attention to specific parts of a lesson or presentation in real time.

Saving and Printing

With interactive whiteboard technology, marks made by the whiteboard can also save documents and print.

For example: by using whiteboard software, you can save any annotations or writings you or your students made on projected documents, including highlights and drawings. It is a simple matter to share these annotations either by sending the file via email or printing a hard copy.

Peripheral Devices and Interconnectivity

You can also connect other technologies in order to interact with audiences, even with viewers who may not be present.

•Digital cameras to computer, can draw images from the device to mark and annotate images on a screen.

•Connect whiteboards to networked computers, so that viewers in one location can interact with a whiteboard connected to a computer in another location, offering document and image interaction at a distance.

Audience Engagement

In a classroom setting, an interactive whiteboard can enable students to interact with content themselves, rather than passively reading lecture notes. As the teacher, you can invite students to the screen to draw or highlight elements of a presentation. Furthermore, the teacher or the student can launch applications from the whiteboard in order to bring together various multimedia technologies without having to sit behind a computer or podium. Students, particularly younger students, also enjoy the tactile sensation of engaging physically with the board, rather than absorbing information passively.

Mobile Learning for Education

Mobile learning is considered to be the ability to use mobile devices to support teaching and learning.

Basic mobile phone features include:

- Making and receiving calls
- Sending and receiving text messages
- Basic office tools e.g. calculator

Advanced mobile phone features include:

- Bluetooth
- Camera capable of taking stills and more commonly now video
- (e-book readers, games)
- Recording audio
- GPS / location aware
- Web browser to connect to the internet

Smart phone

It is quite common to hear the term ‘smart phone' which is meant to signify that it has many features that traditional mobile phones do not.

With the wide range of mobile phone functionality, there will be many potential uses for mobile devices in education: including the creation and delivery of content. Not directly related to the teaching itself, there are also potential secondary benefits, such as the possibilities for making the teaching environment (smart buildings) more aware of learners based on their mobile phone acting as a beacon or identifier and then both parties having the ability to respond or act on pre-defined inputs and outputs. For example the Mobile Campus Assistant Project gives learners information about PC availability and bus departure timetables in nearby campus buildings.

Opportunities and challenges

Creating and publishing multimedia

Most new mobile phone devices have the ability to create digital media, typically still images and video with audio.

This provides the opportunity for both teaching staff and learners to produce multimedia that may have been expensive in the past and involved institution-only devices.

Challenges

• With the increase in usefulness of a mobile device, its use will also increase and this will dramatically reduce battery life.

• A huge range of mobile phone devices may make support difficult, for example interoperability issues to do with video file formats will plague us until the key players agree on which standards to use. But even if they do not agree, there are already methods to allow the device to choose from a range of formats to help alleviate problems.

• The cost of devices, service charges and range of features will always result in learners owning a wide range of devices. This will make conducting ‘feature specific' activities difficult for all (GPS related activity for example.) However having an alternative suitable activity will mitigate much of this as will institutional support of the infrastructure including wireless internet availability.

Consuming digital media

Many mobile phone devices are able to view and/or download digital media such as audio and video. Once again this provides us with an opportunity for teaching activity including contextualised fieldwork opportunities. For example, listening to audio based activities that incorporate the listener's location are already being used in multiple disciplines.

The use of QR codes, which work much like a barcode, can send the learner to relevant media/web services such as the printed session slides having a QR code that send the learner to the download location online.

Challenges

The range of mobile devices means that anything created for multiple devices will have some interoperability issues that need to be considered, which may mean producing alternatives.

Supporting the mobile user

Even if you do not intend on designing mobile specific activities, where possible you can begin to make your current resources mobile device friendly. For example it may be that your video uses a format that works for both desktop computers and mobile devices. It is also important to consider the platform from which the learners will interact with publishing and consuming resources. In his book mobile web design, 2007 (p31) Cameron Moll suggests that there are four levels of support for the mobile user covering the 4 delivery methods:

Doing nothing

Letting the mobile learner figure it out

Providing full support

Designing the user experience for the mobile context.

Whichever you choose, the very fact that you are now aware of the mobile experience is pivotal for future resources and media that you may produce.

Sustainability

One of the main problems regarding mobile was that until recently the institution had to provide the hardware. However now we are at the stage that we can use the learner's own devices - hopefully meaning fewer cupboards with unused devices! Additionally, mobile devices can often mean that our teaching and learning materials can be re-purposed and/or usefulness extended which can only be a good thing.

Podcasting and Broadcasting

Broadcast

Use of mass media for distribution of audio and video files is known as broadcast.

- It started way back in 1881 with telephone broadcasting when people subscribed for this form of broadcasting and listened to operas and other musical events on their telephones.
- Radio broadcasting started soon after with radio waves transmitted and listened through a radio receiver.
- Television followed suit, with recorded and even live events being broadcasted through television in all parts of the country, and now world.

Podcast

A **Podcast** is a digital medium that consists of a episodic series of audio, video, digital radio, PDF files subscribed to and downloaded through web syndication or streamed on-line to a computer or mobile device. The word is a neologism and portmanteau derived from "broadcast" and "pod" from the success of the iPod, as audio podcasts are often listened to on portable media players.

Difference between Podcast and Broadcast

Sl. No	Broadcasting	Podcasting
1	one can listen or watch a broadcast, there is no downloading involved.	Either you listen to a podcast ‘live’ or when you so desire if you are a member of a website as this audio file is distributed through RSS feed.
2	while broadcast is done through various mediums like radio, television and cable television.	Podcasting takes place through the internet only
3	Most radio stations of today have started to distribute podcasts besides regular broadcasting.	
4	whereas you can listen to an MP3 file only when it is being broadcast on radio.	You can listen to podcast at any time after it has been distributed,

Advantages of ICT in Education

- To broadcast material, online facility or CD-ROM can be used as sources of information in different subjects.
- To facilitate communication for pupils with special needs.
- To use electronic toys to develop spatial awareness and psycho-motor control.
- To use the Online resource like, email, Chat, discussion forum to support collaborative writing and sharing of information.

•To facilitate video-conferencing or other form of Tele conferencing to involve wide range of students from distant Geographic areas.

•For Blended learning by combining conventional classroom learning with E-learning systems

•To process administrative and assessment data.

•To exchange and share ideas among teachers for the professional growth.

•To carry out internet-based research to enhance , educational process

Factors against use of ICT

- MAINTENANCE
- NEED FOR TRAINING OF TEACHERS
- ONE OFF TRAINING IS NOT SUFFICIENT
- INEQUALITIES
- INFORMATION OVERLOAD

REMEDIES FOR CHALLENGES IN ICT

Infrastructure

1. Identification of old school buildings and constructing buildings with proper electrical wiring ,ventilation , safty and security is provided.
2. Financial facility is provided by the government by investing funds collected from NGO's and through other agencies.

3.Providing basic requirements like electricity and telephones. Providing MDN(Mobile data network)to remote areas .

Educational resources

- The cost of software and hardware can be very high .For this responsibilities are given to certain agencies , or to the companies.
- Compulsory providing internet facilities ,to get e-resources.
- Providing basic knowledge to the students of remote area.

Training for teachers

- Conducting training programmes to all school teachers .this will prevent the lax of the teacher updating the course content online which helps the students.
- To prevent cyber crimes –reality accessible reliable and mature security mechanisms for ICT should be promoted.
- The use of multilingual web technologies for preventing the digital divide among students.

Coordination and maintenance

- Appointing computer teachers to every schools.
- Providing adequate number of computers .
- Managing school time table to get provision of radio,satellite programmes by the students.
- Subject teachers has to develop interest in computer based studies.

Plan and commitment of management team and school commity

- Teachers involvement.
- Giving English language motivation progammes for both teachers and students.
- Making perfect planning and adjusting time to downloading informations and classes.