

Chapter Ten $\Rightarrow$ Communication

Objectives:-



- Communication via emails
- Active use of the internet
- Internet-Service Providers
- Search Engines
- Internet-Protocols
- Internet risks

Communication with other ICT users using emails

- Legislation $\Rightarrow$ Many countries have laws to protect people against the misuse of emails - Email laws -
- Many countries require senders to obtain opt-in permission before emails are sent out
- A company must have a clear way for recipients to opt out
- Companies must provide subscribers with a very clear way to unsubscribe from their listings.
- Companies must make their privacy very clear to subscribers
- Many countries don't allow companies to harvest email addresses
- Valid postal addresses
- Emails are not sent out with false or misleading subject lines

- Acceptable Language $\Rightarrow$ language used by people when writing emails should be acceptable, it has to be far away from obscene images, abusive language, violent messages and use of illegal materials or messages.

Guidelines set by an employer $\Rightarrow$ companies must indicate how they will ensure that all of their staff are following the rules.

All employees should only assume they can use a company's email system for business use

Companies may specify which company devices are allowed to be used

The acceptable style of emails should be made clear

It must be made clear what email content is not permitted

Employees should be told to only use their own accounts when sending emails

There must be clear rules regarding confidentiality of information

Staff need to be aware of the method & duration of storing emails.

Incoming emails should only be read by the recipient.

The company policy on how to deal with & prevent viruses must be clearly laid out.

Monitoring of emails may be carried out & staff must be aware that the company has the right to read all emails

Suitable ongoing training will take place.

Copyright & Security of emails $\Rightarrow$ Printing, copying or forwarding emails is generally not considered a breach of copyright unless the sender has indicated clearly that the message is confidential or the subject of copyright law.

• Security & password protection → It is very important to consider the security of email. Some methods include:

- using strong passwords when logging on to your email account
- changing passwords on a regular basis
- running anti-virus & anti-spam software at all times
- using spam filters to remove certain suspicious emails to a junk folder or even to block the email

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• Netiquette → is a shortened form of the phrase internet-etiquette which refers to the need to respect other users' views and display common courtesy when posting views in online discussion groups or when sending out emails

- Don't be abusive
- Don't send spam
- Be clear & succinct with your message
- Remember that posts are public & can be read by anyone
- Always check your spelling & grammar
- Respect people's privacy
- Forgive people's mistakes.
- Don't use capital letters to highlight comments
- Always acknowledge quotes used in any message you write
- Don't use too many emoticons as they might annoy your readers

Email groups $\Rightarrow$ are used for a number of purposes:

- It is easier for a user to send out multiple emails
- Companies can group people together for marketing purposes
- Spammers can create email groups by buying addresses from companies
- Companies use email groups to set up meetings.

Other email operations:

Carbon Copy (CC)

all recipients in CC can be seen by all recipients and these recipients are interested parties.

Blind Carbon Copy (BCC)

this address is invisible to everyone receiving the email it is used as a security measure in email groups.

Forwarding of emails

allows a new recipient to see the email sent if they weren't originally included in the email chain including all the content & attachments

Attachments

Files which can be included within the email message & we have to treat attachments with great caution. They have a limit size to be uploaded

Characteristics & effects of spam =>

Spam is any unsolicited email sent over the internet, it could be annoying & dangerous because it can contain viruses

The main disadvantages are:

- It uses up people's time
- It annoys people
- It uses up bandwidth on the internet slowing it down
- It can have viruses attached or be a part of phishing scam
- It can clog up users' inboxes

[2] Effective use of the internet

The difference between the internet and the WWW

Internet	World Wide Web
users can send & receive emails	it is a collection of multi-media web pages & other information on websites.
allows online chatting	
makes use of transmission protocols & internet protocols	uses http(s) protocols to send HTML documents
It is a worldwide collection of interconnected networks & devices	URLs are used to specify the location of web pages
	web resources are accessed by web browsers
	WWW uses the internet to access information from web servers.

Intranets & Extranets $\Rightarrow$

Intranet is a computer network based on internet technology but designed to meet the internal needs for sharing information within a single company. It is not available for public

How it works?

Intranets reside behind a firewall & are only accessible:

- Internally to members of the company
- to people given various levels of access who are external to the company

Why do we use Intranet?

- Intranets are safer because there is less chance of hacking
- easier to prevent external links to certain websites
- Information available specific to the internal audience of a company
- It is easier to send out sensitive messages
- Intranets offer better bandwidth than the internet

Extranets $\Rightarrow$ allow intranets to be extended outside the organization, but with the same advantages as an intranet

Difference between Internet & Intranet:-

Internet	Intranet
- The term comes from interconnected network	- The term comes from internal restricted access network
- Internet- covers everything possible to block out certain websites but it is difficult	- used to give local information relevant to the company
- can be accessed by anyone from anywhere in the world.	- possible to block out certain websites
- there is much less protection against hackers when accessing the internet	- often requires ID and password and can be accessed from agreed computers
	- is behind a firewall which gives some protection against hackers & viruses
	- information used is usually stored on local servers

Blogs $\Rightarrow$ personal internet journals where the blogger will type in their observations on a topic and provides links to some relevant websites.

Features:-

- updated on a regular basis
- usually organized in reverse order
- public - anyone can read them
- entries come from a single author
- other users cannot change blogs

Microblogs -
used on social sites
b-blog -
business blog used to
promote business on
the internet

Wikis $\Rightarrow$ web applications or websites allow any user to create & edit their web pages

Features:

- anyone can edit, delete or modify
- many authors can be involved
- possible to organize a page any way the author wishes
- shows/keeps track of all entries
- can be easily edited using a web browser
- allows large documents to be seen by many people

Social Networking Sites $\Rightarrow$ sites focus on building online communities of users who share the same interests & activities

Features:

- each member is provided with free web space
- each member can build their own private & public profiles
- possible to upload messages, photos & videos
- possible to write on each other's walls
- members are given free instant messaging & video chatting
- possible to email other members within the community
- members can create pages where they can post photos, articles
- possible to invite people to become friends
- members have control over who can access their data

Forums $\Rightarrow$ There are two types of forums: Moderated forums & unmoderated forums

Both of them are interactive websites, both are discussions & both require networked computers.

Moderated forum is checked by a moderator

Moderated forums can reduce freedom of speech

Unmoderated forums allow people to post what they like

Moderated forum doesn't allow inappropriate comments to be posted such as inappropriate language, unrelated comments

Unmoderated forums tend to be used for spam attacks

Moderated forum may be more expensive as they have to appoint a moderator

Internet Service Provider - ISP $\Rightarrow$ is a company that provides users with access to the internet, it is normal to pay a monthly fee for this service & users are given login details that include a user ID & password

Web browser $\Rightarrow$ is software that allows a user to display a web page on their computer screen. They translate the HTML from websites & show the result. This can be in the form of videos, images or sound.

Most web browsers :

- have a home page

- ability to store user's favourite sites

- keep a history of visited websites

- allow user to navigate through websites

- have hyperlinks to navigate between pages

Uniform Resource Locators - URL $\Rightarrow$ are text addresses used to access a website. Let us have a look on the URL parts

(For example) $\swarrow$

https://www.hoddereducation.co.uk/IGCSE/ICT

protocol $\swarrow$ $\downarrow$ $\downarrow$ $\downarrow$ $\downarrow$

domain host domain name domain type path

country code $\uparrow$ file name $\uparrow$

Search Engines $\Rightarrow$ are used if we don't know where to find the information we are looking for.

It looks up the words entered in the search box in their database of web pages to find out which of them match the search criteria.

examples: Google / Bing

Advantages of using the internet to find information:

- Information on the internet tends to be up to date
- The internet has vast amounts of information
- Searching for information is a fast & easy process.
- People can look for information from anywhere at anytime
- Information on the internet is free of charge
- Pages on the internet can have multimedia elements

Disadvantages of using the internet to find information:

- Internet is not regulated, anything can be posted.
- There is always the risk of accessing inappropriate websites
- It is too easy to be distracted when searching on the internet.
- There is always the risk of information overload.
- There is a huge temptation to plagiarise material because it is very easy to copy material from the internet.
- Some research skills are lost when using the internet.

Internet Protocols ^{sets of rules agreed by the sender & recipient when data is transferred.}

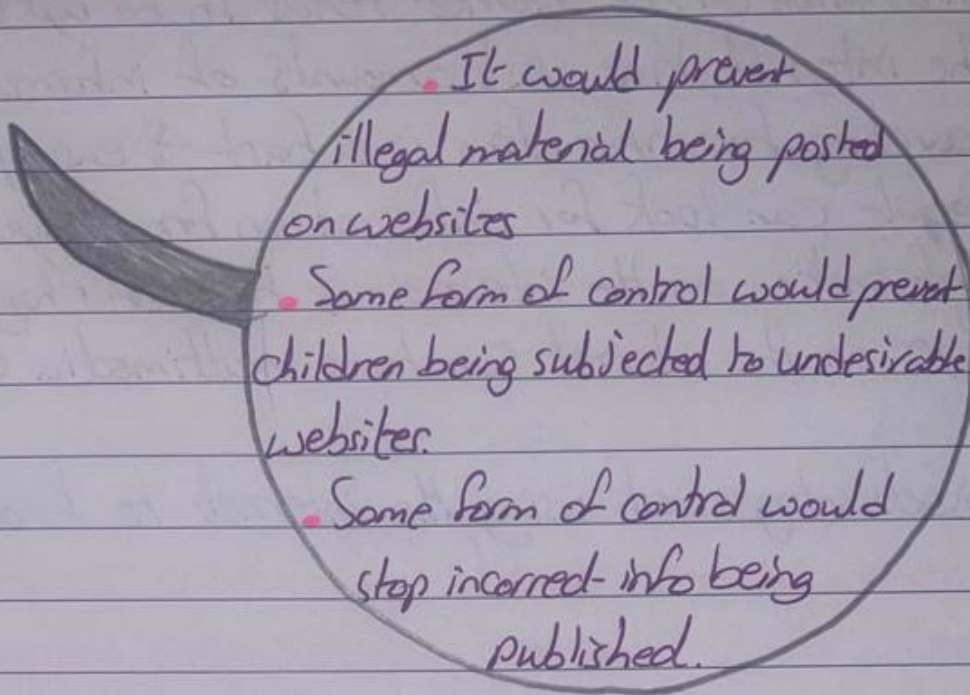
- Hypertext Transfer Protocol (HTTP)** $\Rightarrow$ is a set of rules that must be obeyed when transferring website data across the internet.

HTTPS (the letter S refers to secured)

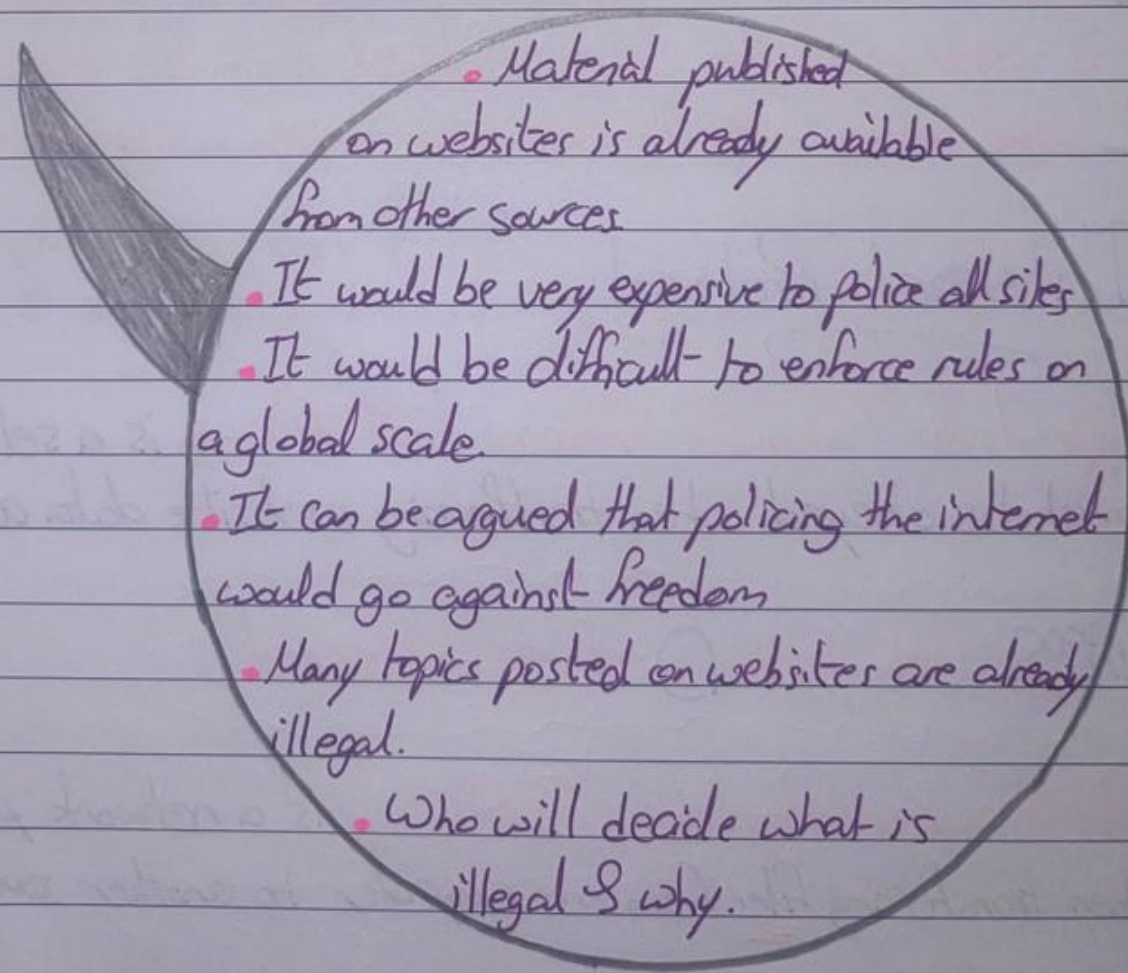
- File Transfer Protocol (FTP)** $\Rightarrow$ is a network protocol used when transferring files from one computer to another over the internet.

- Secure Sockets Layer (SSL)** was discussed in chapter 8

* Arguments in favor of internet control:-

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- It would prevent illegal material being posted on websites
 - Some form of control would prevent children being subjected to undesirable websites.
 - Some form of control would stop incorrect info being published.

* Arguments against internet controls:-

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- Material published on websites is already available from other sources
 - It would be very expensive to police all sites
 - It would be difficult to enforce rules on a global scale.
 - It can be argued that policing the internet would go against freedom
 - Many topics posted on websites are already illegal.
 - Who will decide what is illegal & why.
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