

SUB ICT- NOTES FOR S6

Instructions to students:

- Take the notes as presented in the slides and try to get some further information from the internet where possible.
- If you have any queries or need of any clarification contact me by call or by **WhatsApp** 0702 616 275/0706815532(Mr. Kuule Mudashiru/Mr Ssemwanga Fahad)

INTERNET SERVICES

- These are technologies that allow us to access huge amounts of information such as text, graphics, sound and software over the internet.

Internet services include:

- THE World Wide Web
- E-mail
- FTP(File Transfer Protocol)
- Newsgroups
- Message boards
- Mailing lists
- Chatrooms
- Instant messaging
- Internet telephony
- Video conferencing

INTERNET SERVICES.

(i) The World Wide Web(WWW)- Is a system of interlinked hypertext documents accessed via the internet .

Retrieving documents on the World Wide Web.

- The URL (**Uniform/ Universal Resource Locator**) specifies the internet address of a file stored on a host computer connected to the internet.
- Every file on the internet, no matter what its access protocol, has a unique URL.

- **URLs** are translated into numeric addresses using the Domain Name System (DNS)
- The DNS is a world wide system of servers that stores location pointers to web sites.

Anatomy of a URL.

- URLs have the following format:

Protocol: *//www.hostname.subdomain.top-level-domain.*

A school's URL, for example can be:

<http://www.madinahislamicss.sc.ug>. This naming structure will give you clues about the address. madinahislamicss is the name of the host; the subdomain; **sc.** signifies that this is a school and **.ug** is the top-level- domain to signify **Uganda**.

Examples of top-level domains of URLs

.com - commercial

.edu - educational

.net - network

.org - organization

.gov - government

.mil - military

INTERNET SERVICES.....

2. ELECTRONIC MAIL (E-MAIL)

- Is the transmission of messages via a computer network such as Local Area Network or internet.
- The message can be simple text or can be include an attachment such as an Ms. Excel file, graphical image or video clip.
- E-mail allows computer users locally and world widely to exchange messages.

- Each user of an e-mail has a mail address to which messages are sent. E.g muda@gmail.com where **muda** is the user name, @- separator, **gmail.com** -domain name.

Examples of E.mail software or programs:

- Eudora,
- Netscape,
- Messenger,
- Pegasus
- Outlook express.

These offer the ability to read files written in HTML.

Examples internet mail service providers:

- Hot mail
- Yahoo
- G.mail

Features of e-mail

- **To:** This feature requires the Email address of the person you are sending an e-mail message to.
- **C.C:** This is short for **Carbon copy** and this feature requires the email address of other recipients of the message and it indicates to each recipient who else has received a copy of the message.

- **BCC: Blind Carbon Copy**, makes a copy of an e-mail to other recipients, but all will not know that others have received a copy of the same e-mail message.

- **Subject:** This feature requires the title or heading of the message.
- **Compose-** Enables one to write a new e-mail message.
- **Inbox-** This feature(main folder) that holds list of all incoming e-mail messages.
- **Spam** – This feature that holds un solicited/ junk mails.

- **Attachments: (*Multimedia Internet Mail Extension*)-** MIME: These are files uploaded from a computer to an e-mail and sent to another email account. It can be a picture, Ms. Word Document etc.

- **Reply:** Is feature that enables one make a response to a received e-mail.
- **Forward:** This feature allows one send a received message to another or other recipient(s) without changing the message.

ADVANTAGES OF E-MAIL

- It is a very fast means of Communication
- It is cheaper and the cost does not vary across the globe
- Highly private and confidential compared to other means of communications.
- E-mails are efficient as the mails reach the rightful person.
- In addition to text one can send graphics and sound information.
- It is not affected by geographical condition or weather.

DISADVANTAGES

- When some one comes across a password he or she may have access to all your mails.
- E. mail can only be sent to people with these services.
- It only caters for computer literate people.

Compare **Email** and **Post Mail** service

Email

- Very fast
- Cost is uniform
- Provides automatic storage (Backup)
- Can be accessed all over the world
- More secure

Post Mail

- Slow on delivery
- Cost varies with distance and mail weight
- No Back up in case of future reference
- Can only be collected from a designated post office.
- Easily accessed by illegal users.

Netiquette

- **Netiquette** is short for "Internet etiquette.", **Netiquette** is a code of good behavior when communicating over the Internet

What is good Email Netiquette?

- Always identify yourself as a message sender
- Include a concise subject line with all of your emails
- Avoid using all capital letters in a message.

- **Avoid sarcasm.** People who don't know you may misinterpret its meaning.
- **Respect others' privacy.** Do not quote or forward personal email without the original author's permission.

- Acknowledge and reply messages promptly.
- Use appropriate language- observe good grammar and spelling.
- No spam (junk mail). Don't contribute to worthless information on the Internet.

Internet services.....

3. FTP(File Transfer Protocol)- Is an internet standard that allows users to upload and download files with other computers.

4. Newsgroups- also called a discussion group, an online forum where users conduct written discussions about a particular subject.

- **Message Boards-** or discussion board is a web- based type of discussion group that does not require a news reader program.
- **Mailing lists-** A group of e-mail names and addresses given a single name for sending messages to multiple recipients .

- **Chat rooms-** A location on an internet server that permits users to chat with each other by typing lines of text on the computer.

- **Instant Messaging-** Is a areal time communication service that notifies a user when one or more people are online and allows the user to exchange messages or files with them.

- **Internet telephony-** Also called Voice over IP (VoIP), is a web-based telephone service that allows a user to talk to others for just the cost of the internet connection.

- **Videoconferencing-** A meeting between two or more geographically separated people who use a network or the internet to transmit audio and video data. **Requirements** A video conferencing software, microphone, speakers, webcam.

Terms used in relation to internet.

- **A Web Browser:** Is a software application for retrieving, presenting, and traversing information resources on the World Wide Web.

Examples:

- *Internet Explorer,*
- *Google Chrome,*
- *Mozilla Firefox,*
- *Opera etc*

- **A Web Page:** It is a document commonly written in HTML code that contains text, pictures, sound, and video and links to other pages, files, or parts of the document

- **Home page:** This is the first page you see at a website, it acts like a title page of a book, the home page or welcome page identifies the web site and contains links to other pages.

- **A Web server** is software or hardware that uses **HTTP** (Hypertext Transfer Protocol) and other protocols to respond to client requests made over the World Wide **Web** (WWW).
- **Web publishing** : This is the designing and uploading of Web pages onto the www server to be shared by other people on the internet.

- **Hyperlink:**

It is part of the text or graphic on a web page, that when clicked at will automatically take you to a different page/ website, download a file or launch an application, video, or sound.

- **Downloading**: Copying information from the internet to one's computer.
- **Uploading**: Posting information from a host computer to the internet e.g. sending an e – mail attachment.
- **Browsing** : Searching for particular /specific items on the internet.

- **Surfing** : Means moving from one website to another for topics of interest, the term surfing is generally used to describe a rather undirected type of web browsing.
- **Bookmark**: Is a term used in Netscape to describe a Web site that is marked for later reference. Called a '**favourite**' in Internet Explorer.

- **HOST** is any computer on a network that receives services from the server.
- **A Webmaster** is the individual responsible for developing Web pages and maintaining a Website.
- **Search engine** is a software program that can be used to find Websites, Web pages and files on the internet. Eg Yahoo, Google, Askme.com etc

- **A Website:** Is a location of data stored on the www server which can be freely accessed by people through surfing the internet using a domain name or url eg
<https://www.newvision.co.ug/>

Examples of websites:

(i) Rating site

Is a **website** designed for users to vote on or rate people, content, or other things

(ii) Blog (web log)

Sites generally used to post online diaries which may include discussion forums.

(iii) A web portal is a specially designed [website](#) that brings information from diverse sources, like [emails](#), [online forums](#) and [search engines](#), together in a uniform way.

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INTERNET PROTOCOLS:

- **A protocol** refers to an agreed set of rules and procedures concerning how devices (computers and peripherals) will transmit and receive data from one to another.
- (i) **TCP/IP- (Transmission Control Protocol /Internet Protocol)**. It is the basic communication language of the internet, it can also be used as a communication protocol in the private networks called intranets and extranets.

INTERNET PROTOCOLS:

TCP/ IP is a suite of protocols and includes:

- **HTTP (Hypertext Transfer Protocol)**- Is a set of rules for transferring files (text, graphic images, sound, video, and other multimedia files) on the World Wide Web. As soon as a web user opens his /her Web [browser](#), the user is indirectly making use of HTTP.

- **FTP (File Transfer Protocol)** is network protocol used to transfer files from one computer to another computer over a TCP based network, such as the Internet. **FTP** is often used to upload web pages and other documents from host computers to web-hosting servers.

- **SMTP: Simple Mail Transfer Protocol.** It is a protocol for sending E-mail messages between servers. Most e-mail systems that send mail over the [Internet](#) use SMTP to send messages from one server to another; the messages can then be retrieved by the e-mail client using either [POP](#) or [IMAP](#)

- **POP3(Post Office Protocol version 3)**. Is the protocol or "language" that's used to download your email from your ISP to your mail program.
- **IMAP: Internet Message Access Protocol**. It is the latest protocol that is more robust (reliable) than POP₃ . It is a method for accessing E-mail messages that are kept on E-mail server.

- **Telnet**: The main protocol for creating a connection with a remote system(server).
It gives the user the opportunity to be on one computer system and do the work on another computer.
- **IRC (Internet Relay Chat)** – Is a protocol used for Internet chat and other communications.

- **DNS (Domain Name System)** - translates network address (such as IP addresses) into terms understood by humans (such as Domain Names) and vice-versa
- **DHCP (Dynamic Host Configuration Protocol)**
This protocol automatically assigns Internet addresses to computers on a network.