COMPUTER STUDIES NOTES

FORM 2

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**Internet Services**

**Internet Services**  
**a. www**The worldwide web is an interconnection of millions of web pages that are accesible over the internet.

**b. Information Search**Using Search engines e.g. Google, mysearch, Yahoo, MSN etc to look for information on the web.

**c. e- commerce**This entails all business transactions that are carried out over the internet / networks. It include e- banking, e-billing and Mobile banking.  
**d. e-mail**

This involves all the activities associated with handling electronic mail. These include:   
Creating of e-mail accounts   
Composing and sending e-mails   
Uploading an attachment  
Downloading an Attachment  
Saving, Deleting and spamming mails  
Printing  
Sign in/Sign out

**Note**: With the contemporary and ever changing technology the requirements for connectivity as well as services available could vary.  
  
**Communication Links**

Here are examples of computer communication links  
  
Communication Between Computers   
Here are examples of achieving communication between computers  
  
**Service Providers**

Companies that offer services to end users are known as service providers. Examples of Internet service providers are: Access Kenya, Wananchi, Afrrica online, Kenya Data network and Iconnect  
  
**Internet Connectivity**

Telecommunication facilities such as modems short for modulator, demodulator which converts a digital bit stream into an analogue signal suitable for transmission over some analogue communication channel and back into digital signals   
Internet Service Provders such as Global Swift, Swift Kenya, Jambonet among others. They provide this at a fee to the end user and internet Software.

**Internet Software bowsers**

*Examples:*

WWW  
***Information Search***: Search engines ,for example the internet explorer, URLs an hyperlinking.  
Internet Services:  
email,   
e-commerce  
e-learning  
e-mail  
  
***Create an e-mail account***

*Composing and sending an e-mail   
Uploading an attachment  
Downloading an Attachment*  
Exercise

**Accessing the Internet**  
Examples of Services Offered by the Computer   
There are a number of examples of services offered by the internet.  
Electronic mail  
e-Commerce  
e-Learning  
  
  
***Electronic Mail or e-mail***

This refers to the use of computers in sending and receiving messages, that is, text, sound, video and graphics.  
In order to connect a network to the internet, the local area network needs an internet Server. The server is given the name World Wide Web. (Www) and has all the information that others on the internet access.  
  
E-commerce   
E-Commerce refers to the process of buying, selling marketing and selling of products and services over computer networks.  
  
**Electronic Learning**

***Electronic learning*** (E-learning) this is learning through interaction with special programs using the computer that is a program written to facilitate learning.This refers to the use of computers in sending and receiving messages, that is, text, sound, video and graphics. E-Commerce refers to the process of buying, selling marketing and servicing of products and services over computer networks.   
  
***Search Engines***: Search engines are internet based software that locate the addresses of specific websites and store them in a database. It allows the user to locate the websites faster.We are going to use google as an example in this lesson. Run the internet browser and load Google .  
  
In the google search bar enter the words " Rate of HIV infections"  
Click on Search to reveal the available marching sites.  
  
***Select any site/ Link to access information.***  
NOTE: Be aware that certain usage of internet information may infringe copyright. This usually occurs when using information for commercial gain.  
Using Google  
  
***In Internet Explorer on the Google Search Page :***

1. Right Click the Google logo.
2. Left Click Save Picture As

**Note:** The same method applies if the Google image is being viewed in other browsers   
r Chrome.   
In the Save Picture Window:

1. Select Save as type from the drop down box - usually Gif or jpeg (Gif for a small file size or JPEG for better quality if the image is a photograph for example).
2. Give the image a name -

we have called it google-logo.gif in the file name dialog box.   
Saving the picture in Google  
In the Insert Picture window:  
  
Locate the image file - in this instance we have saved the file in desktop as google- logo.gif  
Left Click the file to select it.  
Click Insert

The image is now inserted into the Word Document and can be resized or moved around then saved along with the rest of the documents content.

***Accessing internet  
Logging in***

You log in or sign in to make a computer system or network recognise you so that you can begin a computer session on the internet. On your desk top, right click the icon for internet access. Click on 'open' to access the internet.

**Surfing/Browsing**

Browsing refers to moving through different web pages with a view to obtaining desired information on the internet.  
  
**Search Engine**

This is software or a website that enables one to find information quickly by typing keywords or phrases. Examples are Google, Alta vista and Excite. Typically, a search engine works by sending out a spider to fetch as many documents as possible.

**Hyperlinks**

This is an element in an electronic document that links to another place in the same document or to an entirely different document. Typically, you click on the hyperlink to follow the link. Hyperlinks are the most essential ingredient of all hypertext systems, including the World Wide Web.   
  
**Downloading, Saving and Printing**

After searching and finding information on the internet, one may need to transfer it to a remote computer. The process of transferring the information is called downloading. One needs to be careful when saving from the internet. Ensure that the application package used while saving is available in the remote computer. Printing can be done with any application that is being used.

**By the end of this lesson, you should be able to:**

use e-mail facilities, state the moral, social and spiritual issues that may emerge through access to the internet.

**Internet Software**

This is a communication software that are designed to help the user to read and send individual text documents on the internet so long as the sender and receiver have an e-mail address

**e-mail software**

These are communication software that are designed to help the user to read and send individual text documents on the internet so long as the sender and receiver have an e-mail address  
  
**e-mail facilities**

The following are e-mail facilities offered to a visitor:  
1. Mail checking:   
Signing into ones e-mail address in order to read mails.  
2. Mail composing:  
This is the process of writing new mail in order to send it  
3. Mail forwarding:  
Sending received mail to another recipient.  
4. Mail sending:   
This is the process of dispatching mail to a recipient  
  
  
**Fax**

This is the process of sending or receiving pictures and text over a telephone line using a fax machine. Fax machines work by digitizing an image ,dividing it into a grid of dots. Each dot is either on or off, depending on whether it is black or white. Electronically, each dot is represented by a bit that has a value of either 0 (off) or 1 (on). In this way, the fax machine translates a picture into a series of zeros and ones (called a bit map) that can be transmitted like normal computer data. On the receiving side, a fax machine reads the incoming data, translates the zeros and ones back into dots, and reprints the picture.  
  
**File attachment**

This is a file that accompanies an e-mail message. This kind of file may contain text, picture, music, movie clip.

**On-Line Meetings**

This is two-way communication using electronic media e.g. chatting, group texting and blogging. In video-conferencing, cameras are used so that live pictures of people involved can be seen.  
  
Use of internet to access information on cross cutting issues  
The following are the cross cutting issues that negatively impact on our socio -economic and cultural aspects of our daily lives if not controlled. HIV and AIDs drug abuse, environmental issues, moral integrity  
Use of Internet to Access information on Cross Cutting Issues  
  
**Data Security and Controls**  
Medical Report  
Think of your medical report. You may think it is secure in the hospital computers, but anybody can view them. The information can be illegally accessed; imagine this record getting into the wrong hands. The confidentiality of your sickness would be known to many!  
The Telephone Industry

1. define the term data security and privacy
2. identify the security threats
3. identify possible data control measures
4. identify types of computer crimes
5. describe how to protect data/information against computer crimes
6. discuss laws governing protection of ICT

The rapid growth and wide spread use of electronic data processing and business conducted through the Internet (e-commerce) along with numerous computer crimes has increased the need for better methods of protecting the computers as well as the information processing, storage, and transmission.  
  
**Definitions**

***Data security***is the protection of data/information against the deliberate or accidental access by unauthorized persons  
  
***Data privacy***This is the non disclosure of personal information to unauthorized persons without the legal consent of the owner, however, this can be revealed to relevant authorities without the permission of the owner. For example, your financial details in a bank can be revealed to government agencies for investigation.  
  
**Implications of Data Security**

The loss of data has severe implications in any business operations. This can lead to; Disrupted operations, Lost productivity, Missed deadlines, Customer/buyer, complaints, Product and service defects, Billing errors, Lost revenues and profits, Damage to organizations image