

Strand: **COMPUTERS AND APPLICATION**

Substrand: **THE INTERNET AND THE WORLD WIDE WEB**

Content Learning Outcome:

1. Differentiate between internet and the world wide web
2. Identify the three parts of URL

Internet

- It is simply a network of networks.
- It is the actual physical network that spans the entire globe.
- It is made up of computers, handheld devices, cables, switches, routers, satellites and wireless devices.

Resources

- Everything that can be accessed on/from the internet
- These resources are simply stored on some devices usually known as servers.

World Wide Web

- It provides a means and ways to access the internet resources.
- It gives a multimedia interface whereby we can easily interact with the resources that are available on the internet.

Multimedia

- It is a combination of various forms of media.
- For example: animations such as growing/shrinking text, hypertext, sound, images and videos. WWW organizes information by using hypermedia.

Hypermedia

- Is an extension to hypertext providing multimedia facilities, such as those handling sound and video.

Hypertext

- Is text which contains links to other texts.

Interface

- Is a way of interacting with these media, usually by clicking on hyperlinks or simply on images to view or save it on your computer.

Browser.

- Is a program that allows you to launch the desired web site.
- For example, Internet Explorer, Mozilla Firefox, Opera, Apple Safari, Google Chrome and Microsoft Edge.

URL (Uniform Resource Locator)

- Is simply known as a website address.
- To launch a particular website, you need to type the URL in the address box of your browser.
- **Example: <http://www.education.gov.fj/>**

Hypertext Transfer Protocol (http)

- Is the protocol used to accessing most web sites.

World Wide Web (WWW)

- Is the subdomain,
- Is the network consisting of millions of internet sites that offer hypermedia resources.

http://	www	.education	.gov	.fj
Protocol	Sub domain		Domain Code	Country Code
		Domain Name		

Internet Service Providers (ISP).

- Gives access to the internet in order to utilize the web services.
- Some common ISPs in Fiji are Connect Fiji, Unwired Fiji, Vodafone, Digicel and USP through AARNET for USP students/staff only.

Activity Question

- What is the difference between internet and WWW?
- Explain the parts of an URL?
- Give five examples of URLs?

The end.

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Content Learning Outcome:

1. Discuss the effects of cyber culture
2. Identify the types of communication over the Internet
3. Identify and compare different search tools

Define the term Cyber culture

It is a set of social expectation, etiquette, history and language used by a collection of people active on the WWW.

Relation between cyber-culture and education

It is the ground upon which e-learning frameworks is build for every connected person in the world.

Changes in cyber culture over the years:

- Browsers and websites providing rich media, YouTube
- Internet becoming ubiquitous in mainstream offline society.
- Everyone in the world have connection: such as social networking site (Facebook, MySpace, Twitter, Skype, viber, etc..)

Effects of Cyber-culture

Positive Effect

1. It is easier to do research
2. Communication with family, friends and relatives is faster.
3. There is a great possibility to earn while working from home.
4. Faster business transactions and cheaper products.
5. Savings on travel cost.

Negative Effect

1. Children, young adults and even adults get addicted to game online
2. Pornography is widespread
3. Loss of the human touch
4. Criminal elements use information to advance their malicious intents
5. Abandonments of family

Communication Tools

The two most common form of communication:

- electronic mail (e-mail)
 - Instant messaging
 - Chat
- } live and direct communication

1) e-mail:

is the sending and receiving of electronic messages over the internet.

Types	Web-based system	Client-based system
Background	- Enables you to access mails from any computer.	- It is software that need to be install on our computer.
Storage:	- Store on web server	- Downloaded locally on computer
Example:	- Google G-mail, MSN Hotmail, Yahoo Y-mail	- MS Outlook, Mozilla Thunderbird, Apple Mail

Basic elements of e-mail message [layout]:

Header:	Message:	Signature:
Address: email address of a person Subject: brief topic about the message Attachment: files that is attached	Where the entire message is typed.	Additional message about the person sending mail.

2) Instant messaging (IM):

- Allows file transfer
- Voice and video communication
- ex: skype, MSN, viber

3) Chat

- Text based messaging
- Cheaper
- ex: vodafone chatbot, digicel chatbot, LTA chatbot, etc

Search Tools (search engines)

- are the programs that enable searching for relevant information on the web.
- ex: Google, Backle, Yahoo, MSN, Bing, Wec Crawler.

Search categories:

- image, videos, scholar articles, news, maps, shopping and direct search.

Activity Question

1. Give three ways in which people are connected to the cyber culture.

2. State two positive and negative impact of cyber culture.
3. Differentiate between IM and chat.

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Content Learning Outcome:

1) Describe different web technologies

Web Technologies

Web Utilities

- Are specialized programs that make using internet and web easier and safer.
- Such as: plug-ins, filters and file transfer.

Plug-ins

- Programs that can be loaded automatically to enhance browsers capabilities in displaying information such as images and videos.
- examples: QuickTime, Adobe, Real player, Macromedia flash player, uBlock Origin, etc
- <https://www.lifewire.com/best-plugins-chrome-4177412>

Filters

- Programs that simply allow blocking access to certain website.
- Example: CensorNet, Blocks, network-based web filtering, etc

File transfer utilities

- Such as file transfer protocol (FTP) enable the user to upload and download files.
- Most convenient way of transferring files is peer-to-peer (P2P) networking.
- examples: Limewire, Frostwire, Gnutella and BitTorrent.

Uploading: is the process of saving files from your local computer to the internet.

Downloading: is the process of saving files from internet to the local computer.

Social Networking

- allows people all over the world to be connected to each other through the internet.
- example: FaceBook, Twitter, Instagram, Flickr, etc
- FaceBook, and Twitter are built to share thoughts, memories and news.
- Instagram and Flickr, YouTube and Vimeo are built to share image and video
- Scoopit and Reddit are built to share or curating contents.
- Experfile, Crunchbase, and LinkedIn are built to share professional networking.

Blogs

- Is a journal or newsletter that is updated frequently and intended for the general public.
- It reflects author's philosophical reflection, thoughts, ideas, and opinions.
- example: www.blogger.com, www.blogcatalog.com

Wikis

- website that allows users to add, modify and delete contents.
- example: Wikipedia

Podcasting

- an electronic audio files such as an MP3/4 file uploaded on the web for users to download to their mobile devices like iPods, iPhone, and iPads.
- It like an personal radio station
- Example: iTunes, IPodder, Vodafone's hello tunes.

Internet of Things (IoT)

- Is the network of physical devices, vehicles, home appliances and other items embedded with electronics, software, sensors, actuator and connectivity which enables these things to connect and exchange data, creating opportunities for more direct integration of the physical world into computer-based system, resulting in efficiency improvements, economic benefits and reduce human exertions.
- example:
 - person with a heart monitor implant
 - farm animal with a biochip transponder
 - automobile with built-in sensors to alert driver when tire pressure is low

Careers

Web-developer:

- is a programmer who is specializes in the development of WWW application, application that can be run over HTTP from a web server to a browser.

Web-designer:

- personal who prepares content for the web.

Web-administrator:

- oversees websites, ensuring all users can access them and the sites operate smoothly, maintenance of websites.
- Ensuring that there are backups for all the contents, software and application.

Activity Question

- 1) List three risk in using social networking site.
- 2) Differentiate between blogs and wikis.
- 3) Differentiate between uploading and downloading.

