Empowerment Technology

INTRODUCTION TO ICT

ICT – Information and Communication Technology

- It deals with the use of different communication technologies such as mobile phones, telephone, Internet to locate, save, send and edit information

- Is a study of computers as data processing tools. It introduces students to the fundamental of using computer systems in an internet environment.

ICT in the Philippines

Philippines is dub as the "ICT Hub of Asia" because of huge growth of ICT-related jobs, one of which is BPO, Business Process Outsourcing, or call centers.

ICT Department in the Philippines is responsible for the planning, development and promotion of the country's information and communications technology (ICT) agenda in support of national development.

Computer

– an electronic device for storing and processing data, typically in binary form, according to instructions given to it in a variable program.

Internet

– is the global system of interconnected computer networks that use the internet protocol suite (TCIP/IP) to link billions of devices worldwide.

Sometimes called simply ‘’the Net’’, is a worldwide system of computer networks- a network of networks in which the users at any one computer can get information from any other computer.

World Wide Web

- An information system on the internet that allows documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another.

- Is an information space where documents and other web resources are identified by URLs, interlinked by hypertext links, and can be accessed via Internet.

- Invented by Tim-Berners Lee

Assignment 1: (Individual)

Conduct a short interview with the business owner using the following guide.

Company/Establishment Name:
Address:
Nature of Business:

Guide Questions:
1. What are the different ways for customers or suppliers to contact you?
2. How often do you use your cell phones for business? Estimate only.
3. Does your business have internet connection? If yes, what is its purpose? If no, would you consider having it in the future? Why or why not?
4. Does your company have a website? If yes, how does it helps your company? If no, would you consider having it in the future? Why or why not?
5. (If applicable) Would you consider giving Free Wi-Fi access in the future? If you already have it, does it help boost your sales?

Activity 3: (Same Group)

- ✓ Create or think of any business you would like to have and how you can use ICT to improve it.
- ✓ Write on a sheet of paper something about your business including its nature and how ICT can help the business becomes successful.

Remember!

- ✓ ICT is one of the best ways to improve business and it is important for you to know how to use it as your advantage. One of the advantage is for customers to share their thoughts with you online, directly to your web page. But in order to do that, you have to make your website dynamic.

Web Pages

- is a hypertext document connected to the World Wide Web. It is a document that is suitable for the World Wide Web.

The different online platforms of World Wide Web:

Web 1.0 Web 2.0 Web 3.0

Web 1.0

– refers to the first stage in the World Wide Web, which was entirely made up of the Web pages connected by hyperlinks.

Static Web Page – is known as a flat page or stationary age in the sense that the page is ''as is'' and cannot be manipulated by the user. The content is also the same for all users that is referred to as Web 1.0

Example: Shopping carts Mp3.com

Web 2.0

– is the evolution of Web 1.0 by adding dynamic pages. The user is able to see a website differently than others.

– Allows users to interact with the page; instead of just reading the page, the user may be able to comment or create user account.

FEATURES OF WEB 2.0

Folksonomy

– allows user to categorize and classify information using freely chosen keywords e.g. tagging by FB, Twitter, use tags that start with the sign #, referred to as hashtag.

FEATURES OF WEB 2.0

Rich User Experience

– content is dynamic and is responsive to user's input. An example would be a website that shows local content. In the case of social networking sites, when logged on, your account is used to modify what you see in their website.

FEATURES OF WEB 2.0

User Participation

- The owner of the website is not the only one who is able to put content. Others are able to place a content of their own by means of comments, reviews and evaluation e.g. Lazada, Amazon.

FEATURES OF WEB 2.0

Long Tail

– services that are offered on demand rather than on a one-time purchase. This is synonymous to subscribing to a data plan that charges you for the amount of time you spent in the internet.

FEATURES OF WEB 2.0

Software as a services

– users will be subscribe to a software only when needed rather than purchasing them e.g. Google docs used to create and edit word processing and spread sheet.

FEATURES OF WEB 2.0

Mass Participation

– diverse information sharing through universal web access. Web 2.0's content is based on people from various cultures.

Web 3.0 – this platform is all about semantic web.

– Aims to have machines (or servers) understand the user's preferences to be able to deliver web content.

The semantic web provides a framework that allows data to be shared and reuse to deliver web content specifically targeting the user.

Web 3.0 is yet to be fully realized because of several problems:

Compatibility

- HTML files and current web browsers could not support Web 3.0.

Security

– The user's security is also question since the machine is saving his or her preferences.

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Vastness

- The World Wide Web already contains billions of web pages.

Vaugness

- Certain words are imprecise. The words “old” and “small” would depend to the user.

Web 3.0 is yet to be fully realized because of several problems:

Logic

- since machines use logic, there are certain limitations for a computer to be able to predict what the user is referring to at a given time.

What is the difference between WEB 1.0, WEB 2.0 and WEB 3.0?

Web 1.0 / 2.0 / 3.0 Summary

Crawl	Walk	Run
Web 1.0	Web 2.0	Web 3.0
Mostly Read-Only	Wildly Read-Write	Portable & Personal
Company Focus	Community Focus	Individual Focus
Home Pages	Blogs / Wikis	Lifestreams / Waves
Owning Content	Sharing Content	Consolidating Content
Web Forms	Web Applications	Smart Applications
Directories	Tagging	User Behavior
Page Views	Cost Per Click	User Engagement
Banner Advertising	Interactive Advertising	Behavioral Advertising
Britannica Online	Wikipedia	The Semantic Web
HTML / Portals	XML / RSS	RDF / RDFS / OWL

TRENDS IN ICT

TRENDS IN ICT

1. Convergence

is the synergy of technological advancements to work on a similar goal or task. For example, besides using your personal computer to create word documents, you can now use your smartphone.

TRENDS IN ICT

2. Social Media

– is a website, application, or online channel that enables web users web users to create , co-create, discuss modify, and exchange user generated content.

6 Types of Social Media

1. Social Networks

These are sites that allows you to connect with other people with the same interests or background. Once the user creates his/her account, he/she can set up a profile, add people, share content, etc.

6 Types of Social Media

2. Bookmarking Sites

Sites that allow you to store and manage links to various website and resources. Most of the sites allow you to create a tag to others.

6 Types of Social Media

3. Social News

Sites that allow users to post their own news items or links to other news sources. The users can also comment on the post and comments may also be rank.

6 Types of Social Media

4. Media Sharing

Sites that allow you to upload and share media content like images, music and video.

6 Types of Social Media

5. Microblogging

Focus on short updates from the user. Those that subscribed to the user will be able to receive these updates.

6 Types of Social Media

6. Blogs and Forums

allow user to post their
ontent. Other users are able
to comment on the said
topic.

TRENDS IN ICT

3. Mobile Technologies

– The popularity of smartphones and tablets has taken a major rise over the years. This is largely because of the devices capability to do the tasks that were originally found in PCs. Several of these devices are capable of using a high-speed internet. Today the latest model devices use 4G Networking (LTE), which is currently the fastest.

Mobile OS

Mobile OS

1. iOS

- use in apple devices such as iPhone and iPad.

2. Android

– an open source OS developed by Google. Being open source means mobile phone companies use this OS for free.

3. Blackberry OS

– use in blackberry devices

4. Windows Phone OS

– A closed source and proprietary operating system developed by Microsoft.

5. Symbians

– the original smartphone OS. Used by Nokia devices

6. Web OS

– originally used in smartphone; now in smart TVs.

7. Windows Mobile

– developed by Microsoft for smartphones and pocket PCs.

TRENDS IN ICT

4. Assistive Media

– is a non- profit service designed to help people who have visual and reading impairments. A database of audio recordings is used to read to the user.

TRENDS IN ICT

5. Cloud Computing

distributed computing on internet or delivery of computing service over the internet.

Instead of running an e-mail program on your computer, you log in to a Web e-mail account remotely. The software and storage for your account doesn't exist on your computer it's on the service's computer cloud.

3 Components of Cloud Computing

1. Client's Computer

- clients are the device that the end user interact with cloud.

2. Ditributed Servers

- Often servers are in geographically different places, but server acts as if they are working next to each other.

3. Data Centers

- It is collection of servers where application is placed and is accessed via Internet.

Types of Cloud

1. Public Cloud

– allows systems and services to be easily accessible to the general public. Public cloud may be less secured because of its openness, e.g. e-mail

2. Private Cloud

– allows systems and services to be accessible within an organization. It offers increased security because of its private nature.

Types of Cloud

3. Community Cloud

– allows systems and services to be accessible by group of organizations.

4. Hybrid Cloud

– is a mixture of public and private cloud. However, the critical activities are performed using private cloud while the non-critical activities are performed using public cloud.

Activity 1.1 ICT across the Fields

Information Communication Technology supports many industries. Using the internet as your source, search the internet for specific application(s) of ICT in each industry indicated on the boxes below.

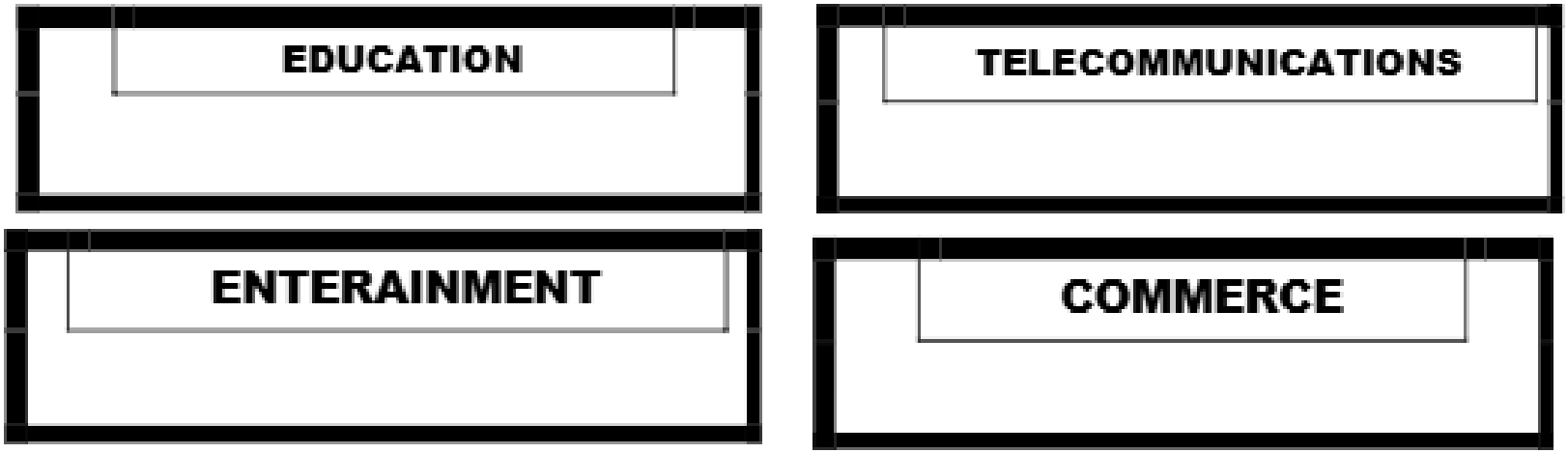

Figure 2.7