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EMPOWERMENT TECHNOLOGIES
Quarter 3 – Module 1
Introduction to Information and Communications Technology

ALTERNATIVE DELIVERY MODE

ADM

Empowerment Technologies
Alternative Delivery Mode
Quarter 3 – Module 1 : Introduction to Information and Communications Technology
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Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you

What I Need to Know

This module was designed and written with you in mind. It is here to help you master the context of Empowerment Technologies. It contains varied activities that can help you as a Senior High School student to succeed in environments that require the use of computer and the Internet.

The module contains lessons in Introduction to Information and Communications Technology which allows students to understand the world of ICT.

Happy learning!

After going through this module, you are expected to:

K: understand how ICT affects our daily lives

S: use the different trends in ICT to our advantage

A: Be responsible in the use of the internet

What I Know

1. This media is designed to help people who have visual and hearing impairments.
   a. Assistive media   b. Long tail   c. Facebook   d. Blogger
2. It is dubbed as the ICT hub of Asia.
   a. Hongkong   b. Philippines   c. Singapore   d. Vietnam
3. An interconnected system of public webpages accessible through the internet.
   a. World Wide Web   b. Browser   c. Website   d. URL
4. This is a type of social media that allow users to post their own news items or links to other news sources.
   a. Social networks   b. Social news   c. Blogs   d. Forums
5. This is the operating system used in iPhones.
   a. Android   b. Symbian   c. Blackberry OS   d. iOS
6. Twitter is a social media site that can be classified as
   a. Media sharing   b. Microblogging   c. Blog   d. Social news
7. A feature of Web 2.0 in which a user can give a feedback to a certain product.
   a. User participation   b. Rich user experience
   c. Mass participation   d. Folksonomy
8. This type of social media allows user to download videos from a website.
   a. Blogs and forums   b. Bookmarking sites
   c. Social News   d. Media sharing
9. Facebook is a type of social media website that can be classified as
   a. Microblogging   b. Media sharing   c. Social networks   d. Social news
10. This is a read-only webpage.
    a. Web 1.0   b. Web 2.0   c. Web 3.0   d. Web 4.0

What's New

Reflect and answer the following questions:

1. Do you have a social media account? What is it?
2. How many times have you posted in Facebook today?
3. Did you use the internet yesterday? How many hours?
4. Do you follow a celebrity or read news in social media?

If you answered yes in most of these questions, then you are a *digital native.* You are born or brought up during the age of technology and exposed or surrounded by ICT.

What is It

Information and Communications Technology

Information refers to the ideas or concepts obtained from reading, investigation, study or research which are transmitted through media such as telephone, television and radio. Information is necessary to make decisions and to predict the future. For example, scientists can detect the formation of a typhoon using the latest technology and warn the public to avoid disasters in the affected areas.

Communication is a means of transmitting messages or sending and receiving information between individuals using symbols, signs or verbal interactions. Before, people transmit messages through signs or symbols and performing drama and poetry. However, these 'older' forms of communication are less utilized due to the advent of technology like the use of the Internet, e-mail or video conferencing.

Technology is the use of scientific knowledge, experience and resources to create processes and products that fulfill human needs.

Information and Communications Technology or ICT deals with the use of different communication tools such as telephone , mobile phones, Internet, etc. to locate, save, send, and edit information. For instance when we make a video call, we use the internet.

ICT in the Philippines

Philippines is considered as the ICT Hub of Asia because of the tremendous growth of ICT related jobs like Business Process Outsourcing, or call centers. It started with Accenture in 1992 with Frank Holz who was responsible for developing and marketing the first Global Resource Center in Manila.

Annual Survey of Philippines Business and Industries in 2010 revealed that the ICT industry shares 19.3% of the total employment population. Moreover, according to 2013 edition of Measuring the Information Society by the International Telecommunication Union, in the year 2012 there were 106.8 cell phones per 100 Filipinos. While Time magazines declared Makati City, Philippines- Rank 1 as the "Selfiest Cities around the world, and Rank 9 is Cebu City. With these statistics, Philippines is indeed the ICT hub of Asia.

World Wide Web

The World Wide Web, commonly referred to as WWW, W3, or web is an interconnected system of public web pages accessible through the internet, invented by Tim Berners-Lee in 1989.

Web 1.0

Web 1.0 refers to the first generation of the Internet when most websites were read-only or static. Webpages are usually just single files in Hypertext Markup Language (html or htm) format that are displayed in a web browser when the URL is entered. Users are merely audiences or readers who absorb information from websites.

Web 2.0

Web 2.0 means the second generation of the Internet. It is dynamic and focuses on user participation. There is a give-and-take relationship between a website and its users, in which the latter has the power to share different types of information such as texts, images, sounds, and videos. This allows for the creation of interactive application with more real-life uses like online banking, online shopping, and media-sharing.

Features of Web 2.0

1. *Folksonomy:*
   It is a way to classify and to find information. It enables users to find information in an organized way, like tagging photos, websites, or links. Some social networking sites use tags that start with a pound sign (#) which is termed as hashtag.

2. *Rich user experience*
   It has a dynamic and interactive content. For instance a user can click on an image of a flower to get more information about that flower like its growth conditions, nutrient requirements, and more.

3. *User participation*
   It helps with the flow of information between the user and the owner of a certain website. For instance, a user can interact by liking, commenting, or sending reviews to a certain post or site.

4. *Mass participation*
   Allows universal web access from a traditional internet user to a wider variety of users of various cultures that leads to differentiation of concerns.

5. *Long Tail*
   Services that are offered on demand rather than on a one-time purchase. This means user can either subscribe to a data plan that charges users for the amount of time spent in the Internet or a data plan that charges for the amount only of bandwidth used.

6. *Software as a Service (Saas)*
   Allows the user to subscribe to a software rather than purchasing them subscribing and using Google Docs, a free web-based application, to create or edit word documents online.

Web 3.0

The third version of the internet which is an upgrade of Web 2.0. It's main characteristics include but are not limited to:

   1. Real-time
   Events and information are made available to users as they take place.

   2. Everywhere
   Internet can be accessed by users in all places.

   3. Machine learning
   Computers and mobile devices can create data and make decisions based on the user's previous actions.

Trends in ICT

1.   *Technological Convergence* is an evolution of technological developments that integrate different types of applications and media to form a new system. For example, a system can be used for calling and texting, browsing the internet or creating a word document using the smartphone.

2.   *Social Media* is a collection of internet-based communication tools and computer-assisted channels dedicated to allow users to collaborate, communicate, and share information or content in a virtual community and network.

There are six types of social media:
a. *Social Networks* - enables people to connect with other people with the same interests or background (e.g. ,Facebook and Twitter).

b. *Bookmarking Sites* - allow user to store, manage links or create a tag   to various websites and resources that allows you and others to easily search or share them (e.g. ,StumbleUpon and Pinterest).

c. *Social News* - sites that allow users to post their own news articles or links to other news sources and comment to the post or vote on the news articles of the website (e.g. ,Reddit, Digg)

d. *Media Sharing* - sites that allow users to upload and share media content like music, images and video (e.g. ,Flicker, Youtube and Instagram)

e. *Microblogging* - sites that focus on short updates from the user wherein subscribers of this user will be able to receive these updates. (e.g. ,Twitter and Plurk)

f. *Blogs and Forums* - websites that allow users to post their content where users are able to comment to the said topic. Some of the free blogging platforms are Blogger, Wordpress, and Tumblr.

3. *Mobile Technologies* refer to devices ranging from basic mobile phones to tablet PCs, PDAs, MP3 players, memory sticks, e-readers, and smartphones. It is a combination of hardware, operating systems, networking, and software, including content, learning platforms, and applications.

Mobile devices use different operating systems:
a. *iOS* - used in Apple devices like iPhone or iPad
b. *Android* - open source operating system developed by Google.
c. *Blackberry OS*- used in Blackberry devices
e. *Symbian* – an original smartphone OS used by Nokia devices.
f. *WebOS* - used for smartphones but now used for smart TVs
g. W*indows Mobile* - developed by Microsoft for smartphones and pocket PCs.

4. *Assistive Media*

A technology that includes assistive, adaptive, and rehabilitative devices for people with disabilities and also includes the process used in selecting, locating, and using them. It enables people to perform tasks that they can't accomplish or great difficulty of accomplishing it by changing methods of interacting with the technology needed to accomplish such tasks.

Examples of Assistive Media:
➢ Mobility impairments
   Wheelchairs, transfer devices, walkers, prosthesis
➢ Visual impairments
   Screen readers, braille and braille embossers, desktop video magnifier, screen magnification software, large-print and tactile keyboards
➢ Hearing impairments
   Hearing aids, assistive listening devices, amplified telephone equipment

What's More

Create a table and list down ten static websites and ten dynamic websites. Indicate the URL of each website.

What I Have Learned

Instruction: Make a journal to manifest your understanding about the topic. You can start by following the format below. Write it in your notebook.

I have learned that _____.

I have realized that _____.

I will apply _____.

What I Can Do

Construct a process map of any device starting from its old to its new version. You may draw or paste cut-out pictures in a short bondpaper.

Assessment

I. Match Column A with Column B. Read each item carefully and use your notebook to write your answers.

Answers	A	B
_____1.	Invented the World Wide Web	a. Information
_____2.	An act of transmitting messages	b. Web 2.0
_____3.	The magazine that declared Makati City, Philippines as the selfiest city around the world.	c. Symbian
_____4.	This refers to the knowledge obtained from reading, investigation, study or research.	d. Tim-Berners-Lee
_____5.	This dynamic webpage focuses on user participation.	e. Folksonomy
_____6.	Users are just merely readers of the content of the webpage.	f. Social Media
_____7.	This enables users to find information through tagging.	g. Time Magazine
_____8.	An operating system that is used by Nokia devices.	h. Web 1.0
_____9.	An operating system for pocket PCs.	i. Communication
_____10.	This allows users to interact, communicate, and share information in a virtual community.	j. Windows Mobile

II. Identify the type of social media that is being asked in the following:

_____1. Twitter   _____6. Wordpress

_____2. Blogger   _____7. Reddit

_____3. Facebook   _____8. Instagram

_____4. Pinterest   _____9. Tumblr

_____5. Youtube   _____10. Flicker

Additional Activities

Make an essay on how ICT helps you as a student. Write your answer in your notebook.

Answer Key

What I Know

1. A
2. B
3. A
4. B
5. D
6. B
7. A
8. D
9. C
10. A

Assessment

I.

1. D
2. I
3. G
4. A
5. B
6. H
7. E
8. C
9. J
10. F

II.

1. Microblogging
2. Blogs and Forums
3. Social Networks
4. Bookmarking Sites
5. Media Sharing
6. Blogs and Forums
7. Social News
8. Media Sharing
9. Blogs and Forums
10. Media Sharing

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