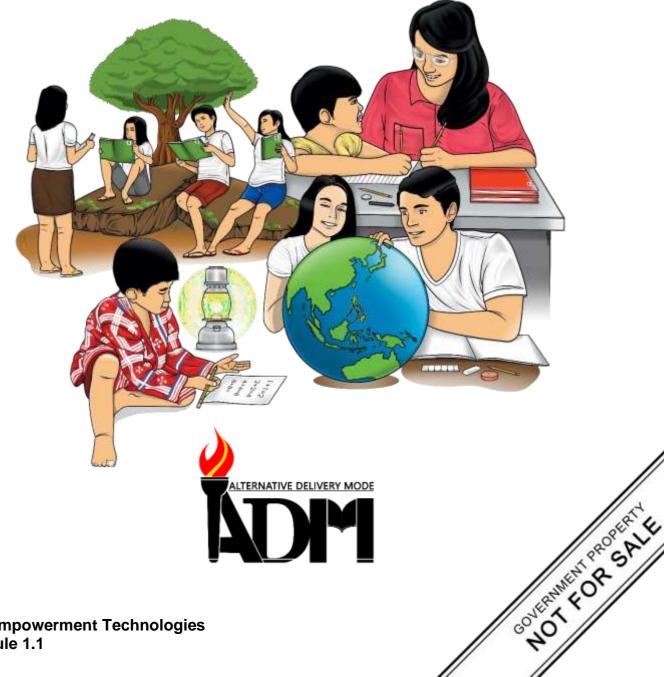


# Empowerment **Technologies** Quarter 1- Module 1.1: ICT and **Its Current State**



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# **Empowerment Technologies** Quarter 1- Module 1.1: ICT and Its Current State



# **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-bystep 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 information and communication technology. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

The module mainly focuses on one lesson:

• Lesson 1 – ICT and its Current State

After going through this module, you are expected to:

- 1. identify what is ICT;
- 2. explain and give how ICT affects their everyday lives and its current state; and



Directions: Choose the letter of the best answer. Write the chosen letter on a separate sheet of paper.

- 1. How is the Web different from the Internet?
  - A. The internet involves larger networks than the web.
  - B. The web is software while the internet is the hardware.
  - C. The internet is an older term people used for the web.
  - D. There is no difference between the two.
- 2. Which device is **NOT** included in ICT?
  - A. Smartphone.
  - B. Internet.
  - C. Wrist Watch
  - D. Twitter.
- 3. Reddit is an online platform where people can create a post (sub reddit) and other people can respond on it. Which web version is characterized by Reddit?
  - A. Web 1.0
  - B. Web 2.0
  - C. Web 3.0
  - D. Reddit is not a website
- 4. How will you describe if something is ICT?
  - A. ICT focuses on the hardware aspect of networks where it allows interconnection of networks.
  - B. ICT refers to systems and protocols used inside the internet in able for other computers to interact with other computers.
  - C. These are new technologies that allows people to communicate quickly with each other.
  - D. These are hardware or software that allows access, storage, transmission and manipulation of information.

Modern computers are wonders of technology. They can perform multiple functions like watching videos, typing documents, editing images and much more. That in the past, these are done by different device or gadget.

- 5. Which ICT trend is described with the statement above?
  - A. Convergent Technologies
  - B. Social Media
  - C. Mobile Technologies
  - D. World Wide Web

- 6. Which of the following website functionality demonstrates web 2.0 capability
  - A. An author making an article for people to read.
  - B. Posting details of an item for sale online.
  - C. Leaving a like on picture on a social media site.
  - D. Reverse searching the web of an image.
- 7. What does ICT stands for?
  - A. Information and Communication Technology.
  - B. Integral Convergent Technology
  - C. Interoperable Cellular Telecommunication
  - D. Information Communication Technology
- 8. How will you describe Social Media?
  - A. Multiple different devices combine into a single gadget because of technological advancement.
  - B. These are platforms that allow users to communicate in an online social communities.
  - C. This is the miniaturization of previously heavy or big technology.
  - D. These are web technologies that allow the user to add content.
- 9. Which best describe the Web 3.0 keyword "Executable"?
  - A. This is the interaction of different application in your device.
  - B. The use of mobile applications interacting with other application.
  - C. Processing the input of the user based on other data.
  - D. The Keyword of Web 3.0 is not Executable.
- 10. What is the different between all the web technologies (web 1.0, web 2.0 and web 3.0)?
  - A. Web technological milestone as invented on certain time periods
  - B. It represents the computer hardware technology the web is running on.
  - C. These are different version of the web protocols that runs in the internet.
  - D. Functionality and features that it represents.
- 11. What is the HTTP?
  - A. It is the Hyper Text Transfer Protocol or the very code a website use to be displayed.
  - B. It acts as a web program that analyzes data transfers for malicious codes
  - C. It is the procedure of how data is transferred online between different networks
  - D. It is a markup language that details how different elements are displayed,
- 12. As a Technological Trend, why are smartphone an example of mobile technology?
  - A. It is the combination of different technological devices.
  - B. It is an example of device that is small and portable.
  - C. It allows instant mass communication.
  - D. It is a device that utilizes cellular communication technology.

- 13. Which is the best example of current technology that demonstrate full Web 3.0 technology
  - A. E-commerce sites like Lazada or Shopee.
  - B. Self-correcting spelling functions in Microsoft application.
  - C. Smart phone applications.
  - D. Web 3.0 is not yet fully realized or developed.

Short wave radios during World War II were big and bulky but today we have communication devices that can fit in our pocket

14. Which ICT technological trend is described in the given statement?

- A. Social Media
- B. Mobile Technologies
- C. Convergent Technologies
- D. Cellular Communication

15. What definition describes the Internet?

- A. It is the interconnection of computers, hardware and networks.
- B. It allows the transfer of data from one computer to another.
- C. It is a network of different web applications that allows quick transfer of data.

D. It is the collection of different websites and webpages searchable using web browsers.

# Lesson

# **ICT and Its Current State**

The essence of what it is to be human is our ability to learn, change and adapt. Throughout our history, we underwent three significant technological revolutions that drastically changed the way we live. From mastering the use of steam in machines and contraption to create more than what we immediately need, mastering electricity itself bringing daylight in night and transcending radically our ability in storing and processing data.

As a learner, you are about to face a new technological revolution. One that has massive information storage, transmission and analysis at its core. Confronting this new challenge requires you to have a good fundamental knowledge of Information and Communication Technology.



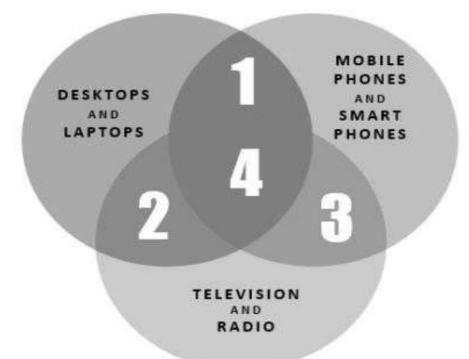
This lesson will introduce the concept of Information Communication Technology. This lesson includes what ICT means, its concept and current state of technology. It will also discuss the difference between the Web and Internet. It will also outline important technological milestone in the evolution of web technology and how it contributed to the way we share and transmit information today.



What's New

### **Technological Convergence**

Using the Venn Diagram below, list down how each one is similar to the other. Write your answer in a table like the one below



1	2	3	4



# What is It

#### What is ICT?

Information Communication Technology (ICT) is an umbrella term referring to communication hardware or software that allows the access, storage, transmission and manipulation of information. In terms of Hardware, ICT specifically encompasses radio, television, communication devices (smart and non-smart phones), desktops computers, laptops and network hardware and technologies. ICT is also comprised of software, applications and platforms that allows information to be accessed, stored, transmitted and manipulated.

ICT is used across by many industries and disciplines and in some, it is a crucial element for them. ICT is now a part of many people's lives, for better or for worst. Ultimately, this technology depends on your behavior as an end user, thus learning how to use ICT properly and responsibly is a must.

#### **Current State of ICT**

ICT is following certain trends as it is developing in this time and age. This trend dictates the idea and design of how ICT delivers information to people. The following are emerging technologies, principles or concepts in ICT.

- 1. Convergent Technologies This is when multiple different devices combine into a single gadget because of technological advancement. One example of this is smartphone, where it is capable of doing the functions of a television, radio, computer, telephone, camera and GPS as a single device.
- 2. Social Media These are software, applications or platforms that allow users to communicate in an online social communities or network. Social media allows people to communicate faster through a larger number of people.
- **3. Mobile Technologies -** This is a term for devices that are easily carried and allows fast means of communication. These devices from the past were originally big and bulk, but due to the technological advancement, they become smaller and more compact.

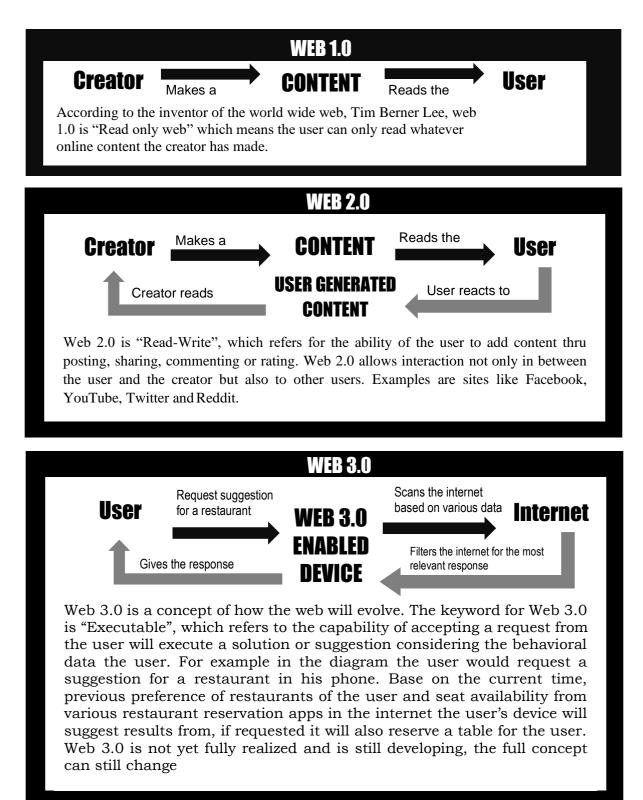
## World Wide Web (WWW) vs Internet

People colloquially refer the world wide web ('*web*' for short) as the internet or vice versa interchangeably, but there are key differences between the two.

The Internet by definition is the actual interconnection of computers and other networks, while the web refers to the system that enables people to access information over the internet. The internet is the hardware aspect because it relates to computer networks, connections and infrastructures. The web on the other hand, refers to the software aspect as it relates to the Protocols or HTTP (HyperText Transfer Protocol. HTTP are the system or procedures that enables the transfer of information in the internet) web services, applications and platforms.

## Web Versions

The web has three distinctive versions namely: Web 1.0, Web 2.0 and Web 3.0. Some people think that the indicated web versions are updates across a particular point of history. The versions of the web are categorized based on functionality and features that it represents.





What's More

# 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.

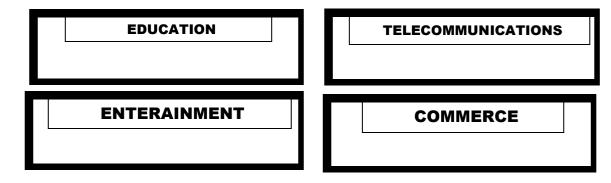


Figure 2.7



- 1. What is Information Communications Technology?
- 2. How does ICT affect our modern world?
- 3. Using one sentence or phrase, how does each Web versions (Web 1.0, Web 2.0, Web 3.0) differ from one another?



What I Can Do

ICT has greatly influenced people's lives. That in most situations, it is taken for granted. Using the table below, think of things you're doing/you've done that involves ICT technologies. Then beside it, research or ask older people how were their lives then without ICT technologies. Then create a generalization or conclusion based on the information you have collected.

WHAT IS IT NOW WITH ICT?	WHAT WAS IT THEN WITHOUT ICT?
GENERALIZATION:	



Directions: Choose the letter of the best answer. Write the chosen letter on a separate sheet of paper.

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# **The Future of ICT**

In the past, telephones were used to communicate in long distances. This technology is not mobile, meaning it can't be carried anywhere. Today, the most common telecommunication device allows people to communicate that can fit inour pockets.

Imagine an ICT device twenty (20) years from now, that will have a drastic effect on our society. Give your ICT device a name and describe your work with an essay explaining what it is and what it does. The essay must be at least two hundred (200) words.



Answer Key

12'B	A.GI
A.41	14.B
13.D	13.D
12.C	17.B
11.B	11.C
10.D	10.D
0 <sup>.</sup> C	6 <sup>.</sup> C
8. B	8' B
2. C	A. 7
A .8	9 <sup>.</sup> C
2' D	5. A
4. A	4' D
3' B	3' B
5' B	5° C
J. C	1. B
<b>tn</b> 9ms2922A	wonA I tsdW

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