



MARIANO MARCOS STATE UNIVERSITY

College of Teacher Education

Center of Excellence in Teacher Education



EDUC 156

Technology for

Teaching and Learning 1

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MARIANO MARCOS STATE UNIVERSITY
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Understanding the Basic Concepts in ICT



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Objectives:

- Unpacked relevant concepts of ICT among learners and teachers as pre-requisites for deeper understanding of relevant concepts in ICT
- Defined concepts operationally prior to understanding of ICT terminologies along the academe.
- Used the ICT terminologies in communicating with classmates and other associates for deeper understanding



Basic Concepts in ICT

1. *Technology*

- “science of craft”
- “knowledge of techniques and processes”
- comes from Greek word, *techne*, “art, skill, cunning of hand”; and – *λογία*, -logia
- collection of techniques, skills, methods, and processes used in the production of goods or services or in the accomplishment of objectives



Basic Concepts in ICT

1. Technology

- it does not only pertains to machines but more so, a planned, systematic method of working to achieved planned outcomes - process not a product.
- According to Dale (1969), refers to any valid and reliable process or procedure that is derived from basic research using the scientific method.



Basic Concepts in ICT

2. Information and Communication Technology Literacy or ICT Literacy

- a need for information, accessing information via technology, evaluating online information, managing digital information, integrating information from varied digital sources, creating information, and communicating information through technology (Katz et al., 2004; Katz, 2007).



Basic Concepts in ICT

2. Information and Communication Technology Literacy or ICT Literacy

- using communication, information processing, and research tools, such as word processing, e-mail, groupware, presentation, web development, and Internet search tools to access, manage, integrate, evaluate, create, and communicate information



Basic Concepts in ICT

3. Educational Technology

- refers to the art or craft of corresponding to our educational needs.
- Refers to the use of technology in teaching and learning. It includes both the non-digital (flip charts, pictures, models, etc) and digital tools like hardware, software and connections (Bilbao, P. et.al, 2019)
- Educational Technology is the application of scientific knowledge about learning to practical learning situations (Bloomer 1973)



Basic Concepts in ICT

3. Educational Technology

- Educational Technology is concerned to provide appropriately designing learning situations, holding in view the objectives of the teaching or training, bring or bear the best means of instruction (Richmand 1970)



Basic Concepts in ICT

4. Digital Literacy

- ‘literacy for a digital age’ (Gilster, P 1997)
- ‘The ability to understand and use information in multiple formats’ with emphasis on critical thinking rather than information and communication technology skills (Gilster, 1997)
- It focuses more on literacies rather than media and involves finding, using and disseminating information in a digital world (Hagel 2012)



Basic Concepts in ICT

4. Digital Literacy

- It can be regarded as an umbrella framework of skills, knowledge and ethics (Calvani, Cartelli, Fini, & Ranieri, 2008)
- Martin (2008) elucidated DL as the ability to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources.



Basic Concepts in ICT

4. Digital Learning

- it refers to a mode of learning of various types with the aid of technology. This includes learning experiences that is delivered via synchronous learning or asynchronous learning.
- facilitated by acquiring knowledge or information using the advent of technology via online or off-line modes.



Basic Concepts in ICT

5. Online Digital tools and Apps

- tools and applications that can be downloaded to gather information and communicate with associates.
- it is facilitated using internet connectivity like zoom, google meet, skype and others for meetings, video conferencing, and online classes.



Basic Concepts in ICT

6. *Offline Digital tools and Apps*

- these are software applications and tools that could still work and function in the absence of internet connection
- examples of these tools are as follows:
 - ***Canary Learning*** – it is a grading tool that is used by educators and checks assignments of learners on offline mode.
 - ***Pocket*** – used for saving reading materials for the purpose of reading it offline mode.



Basic Concepts in ICT

6. *Offline Digital tools and Apps*

- **Evernote**– this app will allow you to take note important details you need to remember like your grocery list, record voice-over interviews, save images and even documents.

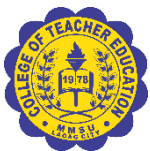
Document or contents sharing is another feature of this app. In addition, it is also capable of making markings and annotations including group chat.



Basic Concepts in ICT

6. *Offline Digital tools and Apps*

- ***iBook***– this app is very popular in the Apps Store. Though it is capable only in apple devices, it provides great deal such as:
 - ✓ Choose from eight attractive fonts and four easy-to-read page colors.
 - ✓ Add bookmarks and notes, and highlight your favorite passages.
 - ✓ Find a word, character, or phrase anywhere in your book with built-in search.
 - ✓ Turn on Auto-Night Theme to make reading more comfortable on your eyes.



Basic Concepts in ICT

7. Offline Digital tools and Apps

- ***KA-Lite***– this is Khan Academy’s offline version that works in the absence of internet. Several videos and exercises provide a great deal for students to track their mastery of the subject matter.



Basic Concepts in ICT

8. Instructional Technology

- it includes practical techniques of instructional delivery that systematically aim for effective learning, whether or not they involve the use of media.
- it is a basic purpose of the field of instructional technology to promote and aid the application of these known and validated procedures in the design and delivery of instruction.



Basic Concepts in ICT

9. Software

- instructions that tell a computer what to do
- comprises the entire set of programs, procedures, and routines associated with the operation of a computer system
- a set of instructions that directs a computer's hardware to perform a task (britannica.com)



Basic Concepts in ICT

10. Multimedia

- refers to the presentation of materials using both words and picture.
- the process of multimedia can be viewed as information acquisition or as knowledge construction (Mayer, 2002)



Basic Concepts in ICT

11. Internet

- sometimes called simply "the Net," is a worldwide system of computer networks -- a network of networks in which users at any one computer can, if they have permission, get information from any other computer.
- global system of interconnected computer networks that uses the Internet protocol suite (TCP/IP) to communicate between networks and devices



Basic Concepts in ICT

12. World Wide Web (www)

- commonly known as the “Web”
- it is an information system where documents and other web resources are identified by Uniform Resource Locators, which may be interlinked by hypertext, and are accessible over the Internet.



Basic Concepts in ICT

13. Blog

- is a discussion or informational website published on the World Wide Web consisting of discrete, often informal diary-style text entries (posts).
- posts are typically displayed in reverse chronological order, so that the most recent post appears first, at the top of the web page.
- it could be any form of writing material that one can make in order to catch the attention of readers and avid fans or followers.



Basic Concepts in ICT

14. Vlog

- stands for a “video blog” or “video log”
- it refers to a type of blog where most or all of the content is in a video format.
- Vlog posts consist of creating a video of yourself where you talk on a particular subject such as reporting or reviewing a product or an event.
- It can even serve as a way to share your artistic process or provide a tutorial guide on a creative practice or topic.
- Some vloggers even use it as a means to share new performance art or music they have created.



Basic Concepts in ICT

15. Google Apps

- comprises Gmail, Hangouts, Calendar, and Currents for communication.
- it also includes Drive for storage; Docs, Sheets, Slides, Keep, Forms, and Sites for productivity and collaboration.



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