



DEPARTMENT OF EDUCATION
SCHOOLS DIVISION OF NEGROS ORIENTAL
REGION VII

Kagawasan Ave., Daro, Dumaguete City, Negros Oriental



TRENDS, NETWORK AND CRITICAL THINKING IN THE 21ST CENTURY

Quarter 4 – Module 3c:
ICT Tool Weaknesses



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Trends, Networks, and Critical Thinking in the 21st Century – Grade11
Alternative Delivery Mode
Quarter 4 – Module 3c: ICT Tool Weaknesses
First Edition, 2020

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What I Need to Know

This Learning Module is an alternative instructional design that uses developed instructional materials which are based on the needs of the students. They are encouraged to independently work for the different activities which will develop them to be productive people in the society.

This course presents some relevant information about “ICT Tool Weaknesses” which can be applied in facing challenges in our world today. You shall be able to learn some skills and ideas that you may use for your daily living in this fast-changing world. By studying this module, you will learn not to abuse the independence that you have and appreciate its value. You will also become a productive citizen by understanding your role in this democratic world. Thus, you could be an influence of “change for the better” in this challenging world.

Happy learning!

Content Standard

The learners understand the meaning and dimensions of democracy.

Performance Standard

Using any form of oral presentation, the learner explains creatively the ill effects of undemocratic practices related to factors such as gender biases, poverty, political marginalization, racial inequality, cultural domination, crisis of representation and politics of recognition.

Most Essential Learning Competency

The learner is expected to:

Explain the weakest link in a system using strategic and intuitive thinking (**HUMSS_MCT12-IId-f-4**)

At the end of the module, you should be able to:

- K: Identify various ICT tool weaknesses;
- S: Explain how Information Communication Technology can facilitate relationships; and
- A: Appreciate the value of technology in today’s modern world despite its weaknesses.



What I Know

Direction: Read each item carefully and write the answer in your activity notebook.

Write **Advantage** if you agree and **Disadvantage** if you disagree with the following statements:

1. My phone is the most important gadget that I have.
2. Internet connection makes me happy.
3. Facebook is a huge part of my daily activities.
4. Technology can be used in various ways to facilitate business
5. We cannot live without technology.
6. Students can use ICT in organizing their work.
7. ICT encourages collaborative work, so students can work together.
8. Internet can lead children to access unsuitable sites.
9. ICT tools have led to the creation of new and interesting jobs.
10. Video conferencing saves money especially when it comes to travel expenses and accommodation.



What's In

"It has become appallingly obvious that our technology has exceeded our humanity" (Albert Einstein)?

1. Do you think the statement holds true today?

2. Give at least 2 real life examples in connection to the statement given by Albert Einstein.



What's New

Picture Analysis:

Direction: Study and analyze the pictures, then answer the questions below. Write your answers in your notebook.



<https://tinyurl.com/2tasu5h9>



<https://tinyurl.com/u9e2bbrd>

1. What can you say about the pictures? Describe the two pictures above.
2. In your own point of view, do human beings really need these technologies today?



What is It

School doors around the world have been closed for several months to contain the spread of the COVID-19 pandemic. During this crisis, we have seen an incredible number of large-scale efforts to use technology in support of remote learning. At the same time, this crisis has exposed the **challenge** in integrating technology in education, including many inequalities starting with the lack of access to computers and the internet. Because of its far-reaching impact, the COVID-19 pandemic has given us massive insights into how the role of technology can radically shift to reach the learners and how to adapt new normal teaching strategies in these challenging times.

Digital technology in education enables us to find answers to existing societal problems especially in these difficult times. On top of that, technology can help boost the learners' capacity in terms of answering their modules.

The new advancements brought by the emergence of technology remain beneficial to human life in several domains, whether it's in medical, educational, or political aspect. As far as the medical field is concerned, this last one remains a major factor in treating peoples' lives and consequently

saving their lives through combating viruses and serious diseases. Not to mention enhancing communication and making business transactions more efficient. Also, connected with foreign investors is now becoming easier with the aid of ICT. More tasks are now being accomplished efficiently with less time and effort.

Technology has also increased productivity for almost all companies worldwide. If we look at it closely, new innovations are emerging every day. Let's have "Smart Cities" as our example, making optimal use of all the technologies available for better and more comfortable life in the cities along with optimizing the use of limited resources. On the other hand, the fast evolution of technology has certainly several disadvantages that are quite alarming, especially when it comes to its rampant usage. Today, people no longer need to think or even analyze that much because of the existence of several devices/gadgets like the calculator, computer, smart phones, tablets, etc. People no longer need to memorize stuffs because the machines and devices can record things for their convenience. The major decline of human capital remains an alarming topic to which attention should be seriously directed.

Most technological discoveries focus more on saving time and money as well as human efforts, which implies that more work is done by machines, and that equates to more unemployment. Therefore, the use of technology, without a doubt, needs to be regulated and needs to fall under new laws. Among the means to regulate the behaviour of people in general and companies in particular is to resort to *consultancy* which aims to dictate what is right, when and how to apply technology in the most efficient and less costly way possible.

Disadvantages and risks of technology

The evolution of modern technology has disadvantages. One example is one's excessive dependence on new technologies. Man no longer needs to think. Even if the calculator is a good invention, man no longer makes mental calculation and no longer harnesses his mathematical skills. The decline of human capital implies an increase in unemployment. In some areas, devices can replace the human mind.

General Benefits of ICT Usage in Teaching and Learning

One of the popular tools which is commonly adapted in the teaching of reading and writing is the use of blogs. Blogging offers a real-world digital medium for communication. It is multi-dimensional in that it does not just offer a 'container' for writing but has the possibility of multiple audiences and access points. In a research conducted on the effectiveness of using the 'online writing' approach in teaching

writing, Kelly & Safford (2009) drew upon data from a research project undertaken by studying learners in 6 classrooms within 2 years during the 2006 World Cup, to analyze how children used complex sentence structures in their writing on a football weblog. They explored how the confluence of a temporary, popular, global event and an online forum for communication created a moment of linguistic empowerment where pupils began to use high-level forms of language. This research shows positive findings in terms of the students' interest in presenting ideas and responding to their classmates' ideas by commenting on blogs. Online blogs allow students to get feedback from more than one person, and this type of peer feedback may be more effective than traditional self-editing (Holder, 2006). It gives the implication towards the positive interactivity for the teaching and learning of sentence grammar, by using blogs in the teaching of writing.

The use of technology certainly needs rules and new laws. For example, the use of internet also needs to be regulated as much as possible. However, the invention of the atomic bomb is now becoming a country's prerogative and stopping its continuous production is becoming impossible. In fact, regulations are difficult to implement when these technologies are introduced – such as regulations surrounding the impending arrival of autonomous vehicles.

RISKS AND CHALLENGES

#1: Distance learning will reinforce teaching and learning approaches that we know do not work well.

Countries are shifting to distance learning approaches, whether through distributing physical learning materials for students or through using technology to facilitate online learning. And there are real risks because many of these approaches can be very solitary and didactic when you're just asking students to sit and quietly watch videos, read documents online, or click through presentations—that's really dull. The worst form of learning is to sit passively and listen, and this may be the form that most students will receive during school closures. It serves no one well, especially those who are the furthest behind.

#2: Educators will be unsupported in performing their jobs well.

Teachers had little or no notice about their schools closing and shifting to online learning—this can be challenging for anybody. They've shared that they are overwhelmed with all sorts of materials and products, and we are seeing educators begin to push back and request help filtering through all the resources to find those that are quality. At the same time, teachers are just like the rest of us in that they are experiencing this strange new world as mothers, fathers, aunts, uncles, and grandparents. They are trying to deal

with their individual lives and take care of their kids and find new ways to make sure that learning continues.

#3: The protection and safety of children will be harder to safeguard.

Schools have safeguard measures in place to ensure that predators toward children, such as pedophiles, can't access young people. Now, once you move to online learning in a home environment, you can't safeguard against this. People have to be mindful about the design of online learning so that bad individuals don't get to children outside of their home.

#4: This crisis will help us come together across boundaries.

We would be remiss if we take away a greater sense of empathy for each other—the idea that we can work through anything together from this crisis. It's an opportunity for the education sector to unite, forge connections across countries and continents, and truly share what works in a global way. Prior to this crisis, we've been able to do well, and we will miss a big opportunity if we don't try to do that now.

Finally, as most technological discoveries aim to reduce human effort, it would imply that more work is done by machines. This equates to less work for people: the human is becoming ever so obsolete by the day, as processes become automated and jobs are made redundant. The negative impact of the influence of technology on children should not be underestimated as well.

Online teaching during COVID-19 school closure

The COVID-19 pandemic situation has posed unprecedented challenges requiring teachers to adapt to teaching online. Until March 2020, the typical teaching situation at school was characterized by students who convened in classrooms according to their timetables and teachers who covered their subjects' standard content, frequently through formal lecturing. Students were required to listen to their teachers, work individually or in groups, and predominantly reproduce knowledge in assessments (e.g., Lipowsky [2015](#)). By contrast, ICT use was limited (Fraillon et al. [2014](#), [2019](#); GEW (Gewerkschaft Erziehung und Wissenschaft) [2020](#)). The school lockdown confronted teachers, students, and parents with an entirely new situation (Huber and Helm [2020](#)). Continued teaching and learning was only possible through alternative means of schooling. Teachers had to change to online teaching, requiring them to use various digital tools and resources to solve problems and implement new approaches to teaching and learning (Eickelmann and Gerick [2020](#)). Beyond instructional goals, teachers were also required to maintain contact with their students to account for the social integration of their learning groups.

ICT Transformation Process in Educational Systems

Although the transition to online teaching was unexpected and rapid due to COVID-19, it took place amid a wider ICT transformation process in educational systems (Selwyn [2012](#); McFarlane [2019](#)). Digitalization in schools has recently attained prominence. A key argument relates to closing the ‘gap’ between students’ conventional learning and development at school and ‘the experiences and skills that our youth need to enter the information economy’ (Kozma [2011](#), 106): the school curriculum should increasingly be interwoven with ICT, and students should be given opportunities to use advanced technological tools and digital resources for creative and innovative problem solving (Kozma [2011](#), 115).

Digital technology has revolutionized almost every aspect of people's lives in recent decades (Goodman, 2019). Office work, shopping, music, movies, television, photography, travel, transport, and long-distance communications are just some areas that have been transformed. It has become increasingly rare to find an electronic device or large machine that doesn't incorporate digital technology in some way.



What's More

Task 1. Direction: Identify at least 3 disadvantages of ICT tools and suggest possible solutions with regards to these problems. Have this in your activity notebook.

Disadvantages of ICT Tools	Possible Solutions for ICT-related Problems



What I Have Learned

Task 2. Direction: Write your own reflection using the template provided below. Have this in your activity notebook.

I have learned that _____

I have realized that _____

I will apply _____



What I Can Do

Task 3

Direction: Briefly answer the following:

1. As a student, give instances where you never used any of your gadgets in one day.
2. What gadget would you like to have in this time of pandemic? Why?
3. What technology you see today you think is okay if not invented?



Assessment

Direction: Read each item carefully and write the answer in your activity notebook.

Write **Advantage** if you agree and **Disadvantage** if you disagree with the following statements:

1. My phone is the most important gadget that I have.
2. Internet connection makes me happy.
3. Facebook is a huge part of my daily activities.

4. Technology can be used in various ways to facilitate business.
5. We cannot live without technology.
6. Students can use ICT in organizing their work.
7. ICT encourages collaborative work, so students can work together.
8. Internet can lead children to access unsuitable sites.
9. ICT tools have led to the creation of new and interesting jobs.
10. Video conferencing saves money especially when it comes to travel expenses and accommodation.



Additional Activities

Direction: Write a 100-word composition on how mobile phones and other gadgets shaped your relationship with your classmates and peers in this pandemic time.

Rubrics:

Content/Relevance	20
Mechanics	15
Organization	15
Neatness	10
Total	60

Glossary

The following terms used in this module are defined as follows:

1. Information Communication Technology (ICT) - is an extensional term for information technology (IT) that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware, storage and audio-visual systems, that enable users to access, store, transmit, and manipulate information.
2. Electronic device - An electronic device has transistors or silicon chips which control and change the electric current passing through the device.
3. Human capital - Human capital is an intangible asset or quality not listed on a company's balance sheet. It can be classified as the economic value of a worker's experience and skills. This includes assets like education, training, intelligence, skills, health, and other things employers value such as loyalty and punctuality.
4. Blog - a blog was more of a personal diary that people shared online. In this online journal, you could talk about your daily life or share about things that you were doing. Then, people saw an opportunity to communicate information in a new way online.
5. Humanity - is the human race, which includes everyone on Earth. It's also a word for the qualities that make us human, such as the ability to love and have compassion, be creative, and not be a robot or alien.
6. Gadgets - an often small mechanical or electronic device with a practical use but often thought of as a novelty
7. Smart City - In general, a smart city is a city that uses technology to provide services and solve city problems. A smart city does things like improve transportation and accessibility, improve social services, promote sustainability, and give its citizens a voice.
8. Albert Einstein - was a German-born theoretical physicist who developed the theory of relativity, one of the two pillars of modern physics
9. Digital Technology - Digital technologies are electronic tools, systems, devices and resources that generate, store or process data. Well known examples include social media, online games, multimedia and mobile phones.
10. Video conferencing - Video conferencing is a technology that allows users in different locations to hold face-to-face meetings without having to move to a single location together. ... Uses for video conferencing include holding routine meetings, negotiating business deals, and interviewing job candidates



Answer Key

1. Answer may vary
2. Answer may vary
3. Answer may vary
4. Answer may vary
5. Answer may vary
6. Answer may vary
7. Answer may vary
8. Answer may vary
9. Answer may vary
10. Answer may vary

What I Know

11. Answer may vary
12. Answer may vary
13. Answer may vary
14. Answer may vary
15. Answer may vary
16. Answer may vary
17. Answer may vary
18. Answer may vary
19. Answer may vary
20. Answer may vary

Assessment

References

<http://dmgtechs.com/2018/07/30/technology-strengthsand-weaknesses/>
<https://www.information-age.com/modern-technologyadvantages-disadvantages-123465637/>
<https://www.youtube.com/watch?v=KnkVub6j4Ok>
<https://turbofuture.com/misc/Disadvantages-of-Digital-Technology>
<http://dmgtechs.com/2018/07/30/technology-strengthsand-weaknesses/>
<https://www.information-age.com/modern-technologyadvantages-disadvantages-123465637/>
[https://www.academia.edu/28260734/A Review of Advantages and Disadvantages of Using ICT Tools in Teaching ESL Reading and Writing](https://www.academia.edu/28260734/A_Review_of_Advantages_and_Disadvantages_of_Using_ICT_Tools_in_Teaching_ESL_Reading_and_Writing)

https://en.wikipedia.org/wiki/Information_and_communications_technology

<https://www.collinsdictionary.com/dictionary/english/electronic>

<https://www.investopedia.com/terms/h/humancapital.asp>

<https://www.vocabulary.com/dictionary/humanity>

<https://www.merriam-webster.com/dictionary/gadget>

<https://blog.bismart.com/en/what-is-a-smart-city#:~:text=In%20general%2C%20a%20smart%20city,%2C%20the%20idea%20isn't.>

https://en.wikipedia.org/wiki/Albert_Einstein

<https://www.education.vic.gov.au/school/teachers/teachingresources/digital/Pages/teach.aspx#:~:text=Digital%20technologies%20are%20electronic%20tools,across%20all%20curriculum%20learning%20areas.>

<https://www.education.vic.gov.au/school/teachers/teachingresources/digital/Pages/teach.aspx#:~:text=Digital%20technologies%20are%20electronic%20tools,across%20all%20curriculum%20learning%20areas.>

<https://www.investopedia.com/terms/v/video-conferencing.aspx#:~:text=Video%20conferencing%20is%20a%20technology,to%20a%20single%20location%20together.&text=Uses%20for%20video%20conferencing%20include,deals%2C%20and%20interviewing%20job%20candidates.>

<https://www.gstic.org/inspiration/how-covid-19-has-exposed-the-challenges-for-technology-in-education/>

<https://www.brookings.edu/blog/education-plus-development/2020/04/10/top-10-risks-and-opportunities-for-education-in-the-face-of-covid-19/>

<https://www.tandfonline.com/doi/full/10.1080/02619768.2020.1809650>

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