WHEN TECHNOLOGY AND HUMANITY CROSS

Anna Maria Gracia I. Estardo, MAEd
At the end of this lesson, the students should be able to:

- Know the different technological advancements in society;

- Discuss the development of S&T in the Ph;

- Discuss the effects of the interplay between technology and humanity through the dilemma(s) they face.
TECHNOLOGY

“techne” and “logos”
A discourse on art. (Buchanan, 2010)

Concepts like machines and tools were also attached to the word “technology”
In one way or another, each person in the society is **directly** or **indirectly** affected by technology whether he wills it or not.

Most people survive their everyday lives with great reliance to the different technological advancements already available to the masses.

Technology is already an inevitable part of the society.
Necessity or want?
- Convenience
- Pleasure
- Happiness
- Communication
Anything too much is bad.

Various ethical dilemmas involving the use of technological devices

Misuse or invention to produce bad results
Television sets, Mobile Phones, Computers and Humanity
Television

- According to Kantar Media, in the Ph, 92 percent of urban homes and 70 percent of rural homes own at least one television set.
- Households with tv set reached 15.135M (Noda, 2012)

What would these imply?
- Ultimate medium for advertisement placements
- Almost all use this particular type of device
- Television plays a great role in the lives of the people
Paul Gottlieb Nipkow
- Late 1800s
- Successful in his attempt to send images through wires with the aid of a rotating metal disk (Nipkow disk)
- “electric telescope” – 18 lines of resolution
Alan Archibald Campbell-Swinton and Boris Rosing

- New system of television by using the cathode ray tube in addition to the mechanical scanner system
Mobile Phones
Filipinos love to use their mobile phones anywhere, anytime.

More than half of the Filipino population own at least one mobile phone regardless of type.

2010, Synovate declared 67 percent product ownership in the country.
Mobile phones are considered a must-have among young Filipinos (ABS-CBN News, 2010)

1 out of 3 Filipinos cannot live without a mobile phone – Ipsos Media Atlas Philippines Nationwide Urban 2011-2012 survey
The first call ever made on a cell phone, was from an engineer named **Martin Cooper** calling a rival engineer to brag about his accomplishment.
- Mobile phone used by Cooper
  - Weighed 1.1 kg
  - Measured 228.6 x 127 x 44.4 mm
  - 30-minute talk time
  - 10 hours to charge

- Motorola DynaTAC 8000x in 1983
Computers and Laptops

- Not possible for all Filipino families to own at least one computer or laptop.

- Most profits gained by computer and laptop manufacturers come from offices, businesses, or schools.

- Growing number of Internet users in the Ph, problems regarding the Internet providers.
Charles Babbage
Released in June 1981 by the Osborne Computer Corporation, the Osborne 1 is considered to be the first true portable, full-featured computer.
Facts about Filipinos and their use of gadgets and the Internet:

- Mobile phone subscription is at 119M
- 3.2 hours on mobile and 5.2 hours on desktop daily
- Ph has one of the highest digital populations in the world
- 47M active FB accounts
- Fastest-growing application market in SEA
Roles played by these Technological Advancements

- Television sets
- Mobile Phones
- Computers and Laptops
Ethical Dilemmas

1. Most parents would argue that these devices make their children lazy and unhealthy
2. People are freely exposed to different things on televisions, mobile phones, laptops or computers.
Ethics of Responsibility

“what ought to be allowed?”
ROBOTICS and HUMANITY
Robot

- An actuated mechanism programmable in two or more axes with a degree of autonomy, moving within its environment, to perform intended tasks.

- Autonomy – ability to perform intended tasks based on current state and sensing without human intervention.
Service Robot

- A robot that performs useful tasks for humans or equipment excluding industrial application.

- A robot may be classified according to its intended application as an industrial robot or a service robot.
Personal Service Robot

- Service robot for personal use
- Used for a noncommercial task, usually by laypersons.

  Examples: domestic servant robot, automated wheelchair, personal mobility assist robot, pet exercising robot
Professional service robot

- Service robot for professional use
- Used for a commercial task, usually operated by a properly trained operator.

- Examples: cleaning robot for public places, delivery robot, firefighting robot, rehabilitation robot, surgery robot
Precise relative positioning via Wi-Fi markers

FIREFIGHTING ROBOT
George Devol

- an American inventor known for developing **Unimate**, the first material handling robot employed in industrial production work.
Roles played by Robotics

- Ease the workload of mankind
- Make life more efficient and less stressful
- Perform complicated activities
- Pleasure, entertainment in parks or exhibits
- Toys, child-friendly
- Used in movies
Isaac Asimov

- was an American writer and professor of biochemistry at Boston University.
Isaac Asimov
"Three Laws of Robotics"

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.

2. A robot must obey orders given it by human beings except where such orders would conflict with the First Law.

3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.
Ethical Dilemma/s faced by Robotics
1. Safety
Who should be held accountable if someone’s safety is compromised by a robot?

Who should be blamed, the robot, the agent using the robot, or the maker/inventor of the robot?
2. Emotional component
   - It is not completely impossible for robots to develop emotions.

   - What if robots become sentient?
   - Should they be granted robot rights?
summary

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentry</td>
<td>Genus</td>
<td>Officer Willi</td>
<td>George</td>
<td>Unicorn</td>
<td>Cyber 1</td>
<td>Cycler</td>
<td>RoPet TM</td>
<td>Hebot II</td>
<td>Kermit</td>
</tr>
<tr>
<td>Quadracon</td>
<td>Genesis 1</td>
<td>Quester</td>
<td>Khudge</td>
<td>Robocycle</td>
<td>ComRo</td>
<td>Elmer Elsie</td>
<td>Tobor 1 Robot</td>
<td>Cotton Candy</td>
<td>Brasil</td>
</tr>
</tbody>
</table>