Unit 6 - Lesson 1: Ethics and Technology

1- Lesson programmation: Ethics and Technology

Time available: 4 hours

1. Pre-reading: Discussion questions about Ethics and Technology.
2. Study some vocabulary about the text "Understanding the Ethics of Technology".
3. Reading: "Understanding the Ethics of Technology".
4. Multiple-choice activity about the previous reading.
5. Advertisements activity about the reading "Understanding the Ethics of Technology".
6. Discussion questions about self-driving cars
7. Watch the video "The ethical dilemma of self-driving cars - Patrick Lin"
8. Multiple-choice activity based on the previos video.
9. Grouping Sentence Activity: "Ethical Dilemmas in Self-Driving Cars".

Learning materials:

- **Readings**

1- Discuss your initial thoughts and opinions with your classmates. These questions are designed to activate your prior knowledge and get you thinking about the themes you'll encounter in the text. There are no right or wrong answers, but try to give reasons for your responses.

1. What do you think are some of the biggest ethical challenges in using modern technology today?
2. How do you believe advancements in technology, like AI and robotics, can impact our everyday lives?
3. Do you think that technology always has a positive impact on society? Why or why not?
4. In your opinion, who should be responsible for ensuring that technology is used ethically?
5. Can you think of any example where technology has been used in a way that might raise ethical concerns?

2- Review the following words before reading the text "Understanding the Ethics of Technology"

Keywords:

1. **Fairness**: Impartial and just treatment or behavior without favoritism or discrimination.
2. **Framework**: A basic structure underlying a system, concept, or text.
3. **Guideline**: A general rule, principle, or piece of advice.
4. **Evolve**: Develop gradually, especially from a simple to a more complex form.
5. **Deploy**: To use or introduce something for a particular purpose.

3- Reading:
https://drive.google.com/file/d/1h-RMD-aA8n36Wy0_TXE4-H6Nzeu0PKg6/view?usp=drive_link

4- Answer the following multiple-choice questions based on your understanding of the text. Each question has four options, but only one is correct. Select the option that best answers the question.

- **What is the primary focus of the Ethics of Technology?**

A) Promoting technological sales

B) Balancing progress with responsibility

C) Discussing the financial aspects of technology

D) Simplifying technological concepts

- **Which area is NOT mentioned as being impacted by advancements in technology?**

A) Literature

B) Artificial Intelligence

C) Robotics

D) Data Analytics

- **What is a key ethical consideration in technology?**

A) Entertainment value

B) Color schemes

C) Privacy protection

D) Brand popularity
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- **Who should collaborate to navigate the ethics of technology?**

A) Technology users only

B) Industry leaders and policymakers

C) Children and teenagers

D) Fictional characters

- **What kind of design principle is important in the development of ethical technology?**

A) Profit by design

B) Ethical design

C) Aesthetic design

D) Minimalist design

- **What does the digital gap refer to?**

A) The difference in digital game preferences

B) The divide in digital technology access

C) The gap in digital marketing strategies

D) The difference in digital currencies value

- **Which term relates to the development of computer systems with human-like abilities?**

A) Digital Gap
B) Data Analytics
C) Artificial Intelligence
D) Biotechnology

- **What is a crucial role of governments in the ethics of technology?**

A) Providing free internet
B) Establishing policies and regulations
C) Designing new gadgets
D) Promoting tech companies

- **The Ethics of Technology stresses the importance of:**

A) Ignoring public opinions
B) Focusing solely on profits
C) Striking a balance between innovation and ethical responsibility
D) Prioritizing speed over quality

- **What is essential for ensuring technology is used in a beneficial way for society?**

A) Keeping technology secrets
B) Avoiding any changes or updates
C) Continuous monitoring and evaluation
D) Limiting technology to certain regions

5- Below are five advertisements related to the themes and concepts from the text "Understanding the Ethics of Technology." For each advertisement, choose the option that best aligns with the principles or ideas discussed in the text.

- **Advertisement 1: AI Software Company**

"Developing AI with a Conscience. Our AI software is designed with ethical considerations at its core. We prioritize _____ in our AI development."

A) Maximum profit generation
B) Competitive market strategies
C) Bias reduction and transparency
D) Exclusivity in client selection

- **Advertisement 2: Tech Access Initiative**

"Bringing Technology to Everyone. Join our initiative to bridge the digital gap by providing _____ to underprivileged communities."

A) Basic internet training
B) Access to modern digital devices
C) Entertainment content
D) Exclusive software deals

- **Advertisement 3: Data Security Firm**

"Your Privacy, Our Priority. We specialize in safeguarding your personal data against breaches, ensuring the utmost _____ in all our services."

A) Flexibility
B) Profitability
C) Security
D) Visibility

- **Advertisement 4: Collaborative Tech Conference**

"Shaping the Future Together. Our annual tech conference invites policymakers, industry leaders, and the public to discuss the responsible use of technology, focusing on _____."

A) Market trends and sales
B) Collaborative policy-making
C) Networking opportunities
D) Product launches

- **Advertisement 5: Educational Tech Workshop**

"Empower Yourself Digitally. Enroll in our workshop to enhance your digital literacy, focusing on the ethical use and understanding of _____ in the modern world."

A) Social media platforms
B) Video gaming
C) E-commerce
D) Digital art creation

6- Discussion questions about self-driving cars

1. **Decision-Making in Crisis:** "If you were in a self-driving car that had to make a quick decision in an emergency, do you think the car should prioritize your safety, the safety of others, or try to minimize overall harm? Why?"
2. **Ethical Programming:** "When programming a self-driving car, what ethical principles should guide the decisions it makes in emergency situations? Should it protect the driver at all costs, or should it have different priorities?"
3. **The Helmet Dilemma:** "Imagine two motorcyclists: one wearing a helmet and one without. In an emergency, should a self-driving car choose to hit the one wearing the helmet because they have a higher chance of survival, or is that unfairly penalizing the responsible motorcyclist?"
4. **Technology and Ethics:** "How do you think new technologies, like self-driving cars, challenge our traditional understanding of ethics and responsibility? Should these decisions be left to programmers, companies, or governments?"

7- Watch the video "The ethical dilemma of self-driving cars - Patrick Lin"

- **Link of the video:**
https://www.youtube.com/watch?v=ixIoDYVfKA0

8- Read each question based on the text "Ethical Dilemmas in Self-Driving Cars" and choose the correct answer from the options provided.

- **What dilemma does a self-driving car face when a heavy object falls off a truck on the highway?**

A) Whether to increase speed
B) Whether to stop and wait for instructions
C) Choosing between hitting the object, an SUV, or a motorcycle
D) Deciding whether to play music to calm passengers

- **What is a key predicted benefit of self-driving cars?**

A) They will make driving more exciting
B) They will dramatically reduce traffic accidents
C) They will be cheaper than regular cars
D) They will be able to fly in the future

- **In the helmet dilemma, what ethical issue arises when choosing which motorcyclist to hit?**

A) Whether the motorcyclist is speeding
B) Penalizing the motorcyclist wearing a helmet
C) Choosing based on the color of the motorcycles
D) Deciding based on the age of the motorcyclists

- **What problem arises from self-driving cars making predetermined decisions in accidents?**

A) They can't drive in bad weather
B) They might favor or discriminate against certain types of vehicles
C) They require constant internet connection
D) They cannot recognize traffic signals

- **Who might be responsible for making ethical decisions in programming self-driving cars?**

A) Only the car owner
B) Only the government
C) Programmers, companies, or governments
D) Pedestrians and other road users

- **What is the purpose of thought experiments like the ones described in the text?**

A) To test physical abilities of cars

B) To isolate and test our intuitions about ethics

C) To promote a particular brand of self-driving cars

D) To create entertainment for car enthusiasts

9- Grouping Sentence Activity: Ethical Dilemmas in Self-Driving Cars

Instruction: Below are sentences from the text "Ethical Dilemmas in Self-Driving Cars". Group these sentences into the three main categories provided. Write the letter of each sentence next to the correct category.

Sentences:

A. "Your car can't stop in time to avoid the collision, so it needs to make a decision."

D. "The ethical considerations get more complicated here."

F. "Our new technologies are opening up many other novel ethical dilemmas."

H. "But accidents can and will still happen."

B. "Self-driving cars are predicted to dramatically reduce traffic accidents and fatalities by removing human error."

G. "There may be all sorts of other benefits: eased road congestion, decreased harmful emissions."

C. "When they do, their outcomes may be determined months or years in advance by programmers or policymakers."

E. "It's tempting to offer up general decision-making principles, like minimizing harm."

I. "Who should be making all of these decisions anyhow? Programmers? Companies? Governments?"

Categories:

1. **Challenges and Dilemmas** _____
2. **Predicted Benefits** _____
3. **Decision-Making and Responsibility** _____