

# CPSC 430

# Computers & Society

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Slides courtesy of Dr. Kevin Leyton-Brown

# Class Outline

1. Announcements (20 mins)
2. Course Topics Activity (20 mins)
3. Introduction to Ethics (30 mins)
4. Break (5 mins)
5. Persuasion Activity (30 mins)
6. Kantianism (30 mins)
7. Reminders before next class (5 mins)

# Announcements

# Reminders

- Reading quizzes:
  - map onto textbook chapters and assigned readings.
  - are not for credit, but **are required for you to start Peer Reviews** (which are for credit).
  - can be done multiple times, but you must wait 30 mins before each attempt.
- Due to the tight coupling of all assessments, extensions in this course are NOT possible!
  - There is lots of flexibility in some things, and not much flexibility in others please plan accordingly and don't leave things to the last minute.

# Course Topics Activity

# Rhetoric

- Make one point
  - Other arguments should be sub-points of this point
  - Your outline helps keep you honest here
- Be conversational; use simple, accessible language
- Be open to alternate points of view
- Be interesting!
- Pay attention to the verb tense you are using:
  - Past and present tense can sound more judgmental or accusatory
  - Future tense sounds more exhortative and less confrontational
- When speaking:
  - Be loud enough to be audible
  - If you know you're quiet, move to the front of the room so I can give you a mic
  - Convey emotion and excitement
  - Refer to notes if you need to, but don't read
  - Pausing is better than "um"
  - Don't ramble; know when to stop!

# Small Groups

<b>Networked Communications</b>  “Any social network that employs moderators should be required to make it impossible to share posts flagged as false.”  <b>1: for; 10: against</b>	<b>Intellectual Property</b>  “The government should aggressively prosecute intellectual property infringement, particularly including peer-to-peer file sharing.”  <b>2: for; 11: against</b>	<b>Information Privacy</b>  “It should be illegal for shopping malls to install cameras for tracking customer behavior.”  <b>3: for; 12: against</b>
<b>Privacy and the Government</b>  “It should be illegal to sell a mobile phone that cannot be decrypted by the police if so ordered by a court.”  <b>4: for; 13: against</b>	<b>Computer and Network Security</b>  “Canadians should be able to vote online in federal, provincial and municipal elections.”  <b>5: for; 14: against</b>	<b>Computer Reliability</b>  “Self-driving cars should be allowed to operate on public roads once they have been shown to be at least slightly safer than the average human driver.”  <b>6: for; 15: against</b>
<b>Professional Ethics</b>  “Computer scientists and data scientists should not aid in the development of autonomous weapon systems.”  <b>7: for; 16: against</b>	<b>Work and Wealth</b>  “The activity of a company's employees on their computers, such as what applications they have opened and for how long, is private and should never be tracked.”  <b>8: for; 17: against</b>	<b>Artificial Intelligence</b>  “Images generated by artificial intelligence systems (e.g., DALL-E 2) that require minimal human input should not receive copyright protection.”  <b>9: for; 18: against</b>

# Work and Wealth

“The activity of a company's employees on their computers, such as what applications they have opened and for how long, is private and should never be tracked.”



# Artificial Intelligence

“Images generated by artificial intelligence systems (e.g., DALL-E 2) that require minimal human input should not receive copyright protection.”

# Introduction to Ethics

# Ethics and Morality

## Ethics

Study of morality

## Morality

What people ought to or ought not to do

## Why do we have a course about ethics and technology?

- Generally need a way to decide the best thing to do
- New problems accompany new technologies
- “Common wisdom” may not exist for novel situations brought about by new technologies

# What we're up to here

- **Ethics:** a rational, systematic analysis
- **Workable ethical theory:** produces explanations that aim to be persuasive to a skeptical, yet open-minded audience
- Good, persuasive **arguments**.



# 1. Subjective Relativism

*“Who are you to criticize my values?”*

- There's no universal standard of right or wrong.
- Every individual must decide for himself or herself.

## 2. Cultural Relativism

*“Who are you to criticize my culture's values?”*

- Moral actions are based on a culture's actual moral guidelines.
- Different cultures have different moral standards.
- It is presumptuous to judge another culture's values.

# 3. Divine Command Theory

*“Stealing is wrong, because the Bible says so.”*

- Good actions are actions that God has willed.
- We should therefore use holy books as guides for moral decision making.



# 4. Ethical Egoism

*“Surly looks out for one guy: Surly!”*



- People’s self-interest is their only ethical obligation
- Morally right actions are those which advance one’s own long-term interests
- Helping others is moral only insofar as it advances one’s own interests



Break

# Persuasion Activity

# Scenario: Intellectual Property

- A software company made a financial management program
  - The program stores extremely sensitive financial data about users on users' hard drives
  - The program is very popular, and widely pirated
- During an automatic software update, the company installs a back door that deletes the data of users who are running a pirated copy
  - Only pirates have their data wiped
  - No user of a legal copy loses any data
- Is the company's behavior unethical?
  - A. Yes: The company behaved unethically
  - B. No: The company did not behave unethically

# Scenario Variations

- Would your answer be different if:
  - The program was for managing photos instead of finances?
  - The data was stored on the company's servers instead of users' hard drives?
  - The back door existed from the beginning instead of being installed as an update?
  - The back door was disclosed in an End User Licensing Agreement?
    - (that nobody ever reads)

# Persuasion Exercise

- Break off into groups of 4
- Assign each person in the group: A, B, C, D
- Secretly I will assign each of A, B, C, and D one ethical theory. Each person must then use that ethical theory to make their arguments on the scenario.
- Once the arguments have been made 2 minutes, for 3 minutes the rest of the group will critique the argument (and identify the ethical theory)
- Switch to another person

# Persuasion Exercise

Person A is assigned:

- ☐ subjective relativism
- ☐ cultural relativism
- ☐ divine command theory
- ☐ ethical egoism

# Persuasion Exercise

Person B is assigned:

- ☐ subjective relativism
- ☐ cultural relativism
- ☐ divine command theory
- ☐ ethical egoism

# Persuasion Exercise

Person C is assigned:

- ☐ subjective relativism
- ☐ cultural relativism
- ☐ divine command theory
- ☐ ethical egoism



# Persuasion Exercise

Person D is assigned:

- ☐ subjective relativism
- ☐ cultural relativism
- ☐ divine command theory
- ☐ ethical egoism

# Scenario: Intellectual Property

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Debrief

# Discussion and Debrief

- What was most convincing about the different arguments?
- What was least convincing?
- Was there a critique that applied to all of the theories?

# Kantianism

## 2.6 Kantianism

- Key goal: derive morality from more basic principles
- Is anything good regardless of its consequences?
- Immanuel Kant: Only thing in the world that is good without qualification is a good will (desire to do the right thing)
  - other things we might call good (e.g., giving to charity) really depend on consequences
- Reason should cultivate desire to do right thing. Make this precise?



# Categorical Imperative (1<sup>st</sup> Formulation)

Act only from moral rules that you can at the same time will to be universal moral laws.

# Illustration of 1st Formulation

- Question: Can a person in dire straits make a promise with the intention of breaking it later?
- Proposed rule: “I may make promises with the intention of later breaking them.”
- The person in trouble wants his promise to be believed so he can get what he needs.
- Universalize rule: Everyone may make & then break promises
- Everyone breaking promises would make promises unbelievable, contradicting desire to have promise believed
- The rule is flawed. The answer is “No.”



# Categorical Imperative (2<sup>nd</sup> Formulation)

Act so that you treat both yourself  
and other people as ends in themselves  
and never only as a means to an end.

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“This is usually an easier formulation to work  
with than the first formulation of the  
Categorical Imperative.”

*...but it depends critically on the “only”.  
IMO, it’s “unworkable”.*

# Second formulation follows from the first

From Wikipedia (“Categorical Imperative”):

*The free will is the source of all rational action. But to treat it as a [means to an end] is to deny the possibility of freedom in general. Because the autonomous will is the one and only source of moral action, **it would contradict the first formulation to claim that a person is merely a means to some other end, rather than always an end in themselves.***

# Case for Kantianism

- Rational
- Produces universal moral guidelines
- Treats all people as moral equals

# Perfect and Imperfect Duties

- Perfect duty: duty obliged to fulfill without exception
  - Examples: Telling the truth
- Imperfect duties are still duties that can be inferred by the application of “pure reason”: i.e., the first or second formulations of the categorical imperative. But they’re:
  - Activities you couldn’t keep doing forever; never “done”
  - Cause for praise if you do it; not cause for blame if you don’t.
- So what *are* imperfect duties?
  - Examples: helping others; developing your talents.
- More generally:
  - Furthering the ends of ourselves and others.
  - Not following maxims that lead to undesirable states of affairs (as distinct from logical contradictions) when universalized
- Not everything we think of as “good” is even an imperfect duty (e.g., doing my chores)

# Case Against Kantianism

- Sometimes no rule adequately characterizes an action
- Sometimes there is no way to resolve a conflict between rules
  - In a conflict between a perfect duty and an imperfect duty, perfect duty prevails
  - In a conflict between two perfect duties, no solution
  - Doesn't allow for tradeoffs between moral imperatives
- Kantianism allows no exceptions to perfect duties
- Second formulation of the categorical imperative is really easy to misuse (as, indeed, is Kantianism in general)



# Breakout discussion: Companion bots

Companion robots are being developed to provide care and therapy to elderly patient



Use Kantianism to determine whether or not the use of these robot companions is ethical

Source: [Robots in aged care: a dystopian future?](#)

Source: <https://www.ge.com/news/reports/a-robotic-companion-for-the-elderly>

# Breakout Discussion: Mobile Surveillance

- “a special investigative team covertly infiltrates the mobile devices of Canadians. The tools, which have been used on at least 10 investigations between 2018 and 2020, give the police access to text messages, email, photos, videos, audio files, calendar entries and financial records. The software can also remotely turn on the camera and microphone of a suspect’s phone or laptop.”
- **Is it ethical for the Canadian government to use this system?** Consider from the perspective of Kantianism.



<https://bit.ly/3BJUvNX>

Reminders before next class