

# CS 4001: Computing, Society & Professionalism



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**Week 1: Welcome and Overview**  
**January 8, 2019**

# Introduction

## ➤ Instructor

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➤ Office: TSRB 341

➤ Office hours: By appointment

## ➤ Teaching Assistant

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➤ Office: TSRB 341A (SocWeb Lab Area)

➤ Office Hours: By appointment

# Class Resources

- Course webpage:  
[http://www.munmund.net/CS4001\\_Spring2019.html](http://www.munmund.net/CS4001_Spring2019.html)
- Syllabus\* (also a handout):  
[http://www.munmund.net/CS4001\\_Spring2019.html](http://www.munmund.net/CS4001_Spring2019.html)
- Canvas for announcements and homework submissions
- \* Subject to minor changes. Always check the class schedule online

# Learning Objectives

- *Ethics*: What do "right" and "wrong" mean anyway? We'll learn about several philosophical approaches to ethics including utilitarianism, social contract theory, and virtue ethics. The goal is to be able to address ethical dilemmas with reasoned arguments, grounded in a combination of these ethical theories.
- *Professional Ethics*: What special responsibilities do we have as computing professionals? What do the Software Engineering Code of Ethics and ACM Code of Ethics say, and how can we use these in our daily practice?

# Learning Objectives

- *Computing and Society:* In what ways does computer technology impact society? We'll talk about a host of issues including privacy, intellectual property, freedom of speech, governmental surveillance, AI and robots, algorithmic bias and manipulation.
- *Argumentation:* How do you construct a well-reasoned argument? (Reading/writing/core and logical structure)

# Required Texts

- Ethics for the Information Age\*, Seventh Edition, by Michael Quinn
- Writing Arguments: A Rhetoric with Readings\*, Concise Seventh Edition (2016) by John D. Ramage, John C. Bean, and June Johnson.
- Visual & Statistical Thinking: Displays of Evidence for Decision Making\* by Edward R. Tufte. Graphics Press, 1997.
- Articles on electronic reserve.
- Articles available online.

\* (You may rent an electronic copy rather than buying it.)

# Assignments and Grading

- Class Attendance and Participation - 15%
- Surprise in-class quizzes– 5%
  - Five in all
- Homeworks – 20%
  - Four homeworks due between January 22 and April 11
- Midterm - 15% (March 7)
- Term Paper - 25%
- Final Exam - 20% (Final exam week - TBD)

# Late Policy

- Students need to submit all of their materials on or before the deadline to qualify for 100% credit.
- 24 hours delay will result in 25% penalty; 48 hours late submissions will incur 50% penalty.
- Materials submitted past 48 hours will not be accepted, and will be entered a zero grade.



# Class Attendance

- Class attendance is required. Please remember to sign the attendance sheet each class.
- Please do not sign the attendance sheet if you are more than 15 minutes late to class.
- If you need to miss class for a legitimate reason, please send email to the instructor and TA before class.
- You may miss up to two classes without it affecting your grade.
- **Attendance scoring starts from Thursday!**

# Class Participation

- We will use a lecture (slides), discussion, class activity style of instruction.
- Discussion may draw from assigned class readings, material in the slides, class activity, or other material distributed in handouts, popular science articles, videos etc.
- Class participation will count towards your grade.
- Homeworks and exams can extensively draw from class discussions/activities

# Significance

What is ethics?



# What is Ethics?

- The word ethics comes from the Greek word ethos meaning customs or habits
- Ethics is also known as moral philosophy
- In other words, ethics means the science of customs or habits of society

Out in the desert you are driving. You can see in all directions for miles. No one else is around. Do you stop at a stop sign? Why or why not?

## The Stop Sign



# Revisiting “what is ethics”

- Ethics is the field of study that is concerned with questions of value, that is, judgments about what human behavior is “good” or “bad” in any given scenario.
- Ethics are the standards, values, morals, principles, etc which are used to base one’s decisions or actions on; often there is no clear “right” or “wrong” answer

Difference between legal and ethical



# Difference between legal and ethical

- Law controls what people can and cannot do, while ethics are moral standards that govern what people should or should not do
- In some instances, legal regulations prohibit people from carrying out certain tasks, such as administering life-saving support, that are considered morally permissible actions.



# Difference between legal and ethical

- Some laws generate few negative responses, as their intent to protect and promote the safety and well-being of the public is virtually indisputable.
- Other laws, however, generate disagreement among citizens, particularly over sensitive issues such as end-of-life care and medical treatment for certain conditions.
- While legal and moral issues sometimes coexist in harmony, they can also raise questions and generate conflicting opinions.

# Examples

- *Illegal but ethical*: Civil disobedience against unjust laws during the Civil Rights Movement; letting someone else use your prescription asthma inhaler when they are having an attack; euthanasia
- *Legal but unethical*: Lying to boss to take a sick leave because you have to take care of your kid; speaking against government in authoritarian regimes; same sex marriage laws in some countries
- *Both illegal and unethical*: murder, sexual assault

# Class Activity 1a: Ethical Robot

- Imagine that you work for a computer company. You have just been assigned to a team which is charged with coming up with an approach for building a robot capable of making ethical or moral decisions. Where would you start? How would you proceed? Is such a task one that you believe is even possible?

# Class Activity 1b: Ethical Robot

- Do we need robots capable of making ethical or moral decisions? When? For what?
- Are robots the kinds of entities capable of making ethical or moral decisions?
- Whose morality or what morality should be implemented?

# Class Activity 2: Free speech and cyber harassment

- Should cyberbullying be a criminal offense?
  - Cite three reasons why it should be.
  - Cite three reasons why it should not be.

# Arguments

## ➤ FOR:

- It can result in suicide; criminalization will save lives.
- Cyberbullies are harassing because of prejudice and hate; therefore, they should be getting the same consequence as any others who commit hate crimes.
- Criminalizing cyberbullying would act as a deterrent. If we criminalize cyber bullying, it would decrease the number of people who do it, because they know that there is the possibility of getting in trouble for it.

# Arguments

## ➤ AGAINST:

- Difficult to define cyberbullying – what is severe enough that warrants prosecution?
- Violates the first amendment
- There are too many kids who cyber-bully, the government would not be able to prosecute them all. 53% of kids admit having said something mean or hurtful to another person online This means that about 26 millions kids would be liable for cyber-bullying prosecution

# Some Case Examples

- “Always on” Internet of Things (IoT) devices
- Governmental surveillance
- Technology and power (The Facebook emotion contagion study)



# Don't Buy Anyone an Echo



Adam Clark Estes

12/05/17 10:28am • Filed to: GRINCH WEEK ▾

 1.6M

 1.3K

 66

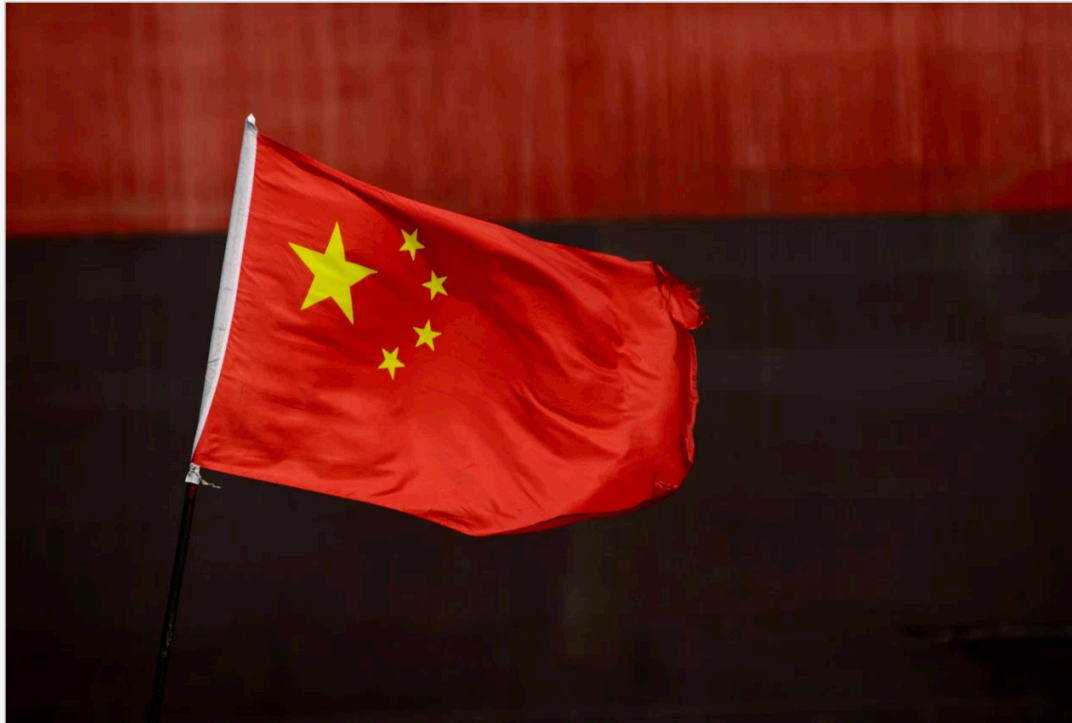
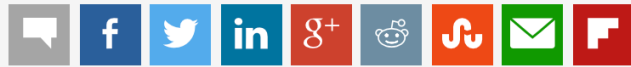


Amazon/Gizmodo

Three years ago, we said the Echo was “the most innovative device Amazon’s made in years.” That’s still true. But you shouldn’t buy one. You shouldn’t buy one for your family. You definitely should not buy one for your friends. In fact, ignore any praise we’ve ever heaped onto smart speakers and voice-controlled assistants. They’re bad!

# China's CCTV surveillance network took just 7 minutes to capture BBC reporter

Posted Dec 13, 2017 by [Jon Russell \(@jonrussell\)](#)

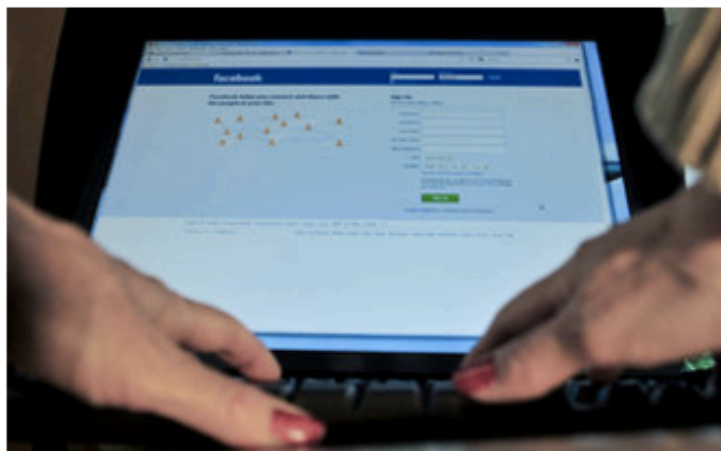


It took Chinese authorities just seven minutes to locate and apprehend BBC reporter John Sudworth using its powerful network of CCTV camera and facial recognition technology.

This wasn't a case of a member of the media being forcibly removed from the country. [The chase was a stunt set up](#) to illustrate just how powerful and effective the Chinese government's surveillance system can be. It's a stark example of the type of monitoring that China has invested heavily in over recent years with the aim of helping police do their job more efficiently.

# Facebook Tinkers With Users' Emotions in News Feed Experiment, Stirring Outcry

By VINDU GOEL JUNE 29, 2014



Facebook revealed that it had altered the news feeds of over half a million users in its study.

Karen Bleier/Agence France-Presse — Getty Images

To [Facebook](#), we are all lab rats.

Facebook routinely adjusts its users' news feeds — testing out the number of ads they see or the size of photos that appear — often without their knowledge. It is all for the purpose, the company says, of creating a more alluring and useful product.

But last week, Facebook revealed that it had manipulated the news feeds of over half a million randomly selected users to change the number of positive and negative posts they saw. It was part of a psychological study to examine how emotions can be spread on social media.

Background + Any background in ethics + One topic or issue about computing and society that interests or concerns you, and why

Student Introductions



# Next Class

- Materials and readings on the class website
- Longer than normal reading, but interesting
- Try to identify three things:
  - People: who was involved? what did they do? what might they've done differently?
  - Policies: government; corporate