

# CS 347U: Internet and Ethics

# Controlling technology

**Technology impacts society, often in unforeseen ways**

## **Examples**

- **Digital photography eliminating dark rooms**
- **E-mail reducing snail mail volumes**
- **Laptop computers increasing neck and back pain**
- **Cell phones making users feel safer**
- **Refrigerator freon and the ozone layer**
- **Internet allows us to communicate effectively but enables outsourcing of programming jobs overseas**

# Questions

**Are there things on the Internet you wish had never been created?**

# Questions

**Give examples of how new Internet applications require society to create new rules**

# Questions

**Should ripping a CD of your own legal? Would it be legal to leave the digital copy on an open network share? Would it be legal to add it to a P2P sharing library?**

# Questions

**Does Amazon sell your personal information to third-party partners? Should they be able to?**

# Questions

**What are limits to workspace monitoring of network use?**

# Questions

**Should one be prevented from posting content on the Internet that is legal in one country, but not in another?**

# Ethical frameworks

**How can we develop rules in a consistent manner to best resolve these issues?**

# Kantianism

## Reasoning method to determine universal morals

- Immanuel Kant (1724-1804)
- Often coincide with those in the Bible, but derived via reason

## Formulation

- What is always good without qualification?
  - Intelligence and courage applied to rob a bank is not good
  - A good will is
- Kant argues for dutifulness
  - Doing what we ought to do (based on moral rule) versus what we want to do
  - How does one know if an action is grounded in a moral rule?

# Kantianism

## Kant's categorical imperative (first formulation)

- Act only from moral rules that you can at the same time will to be universal moral laws
- False promises
  - To determine if this is moral, apply it universally
  - Fails Kant's categorical imperative by producing a logical contradiction
  - Promises are meaningless when they are universally false!
- Contradiction in what I wish to do and what I expect others to do

# Kantianism

## Kant's categorical imperative (second formulation)

- Act so that you always treat both yourself and other people as ends in themselves, and never only as a means to an end
  - Empathy!
- Chip plant example
  - Manager must hire employees to finish a job
  - Manager knows the plant will close in a year
  - Best candidates are from out-of-state
  - Should the manager inform the candidates of the pending closure?
    - » No disclosure – you treat candidates as a means to an end
    - » With disclosure – you treat them as the ends in themselves
    - » From Kant's second formulation, the answer is to disclose

# Act utilitarianism

**An action is right (or wrong) to the extent that it increases (or decreases) the total happiness of the affected parties/beings**

- Bentham (1748-1832) and Mill (1806-1873)
- Based on the principle of utility (greatest happiness principle)
- Focus is on consequences (consequentialist theory)
  - Motive is irrelevant (compared to Kant?)
  - Agreeing on affected parties is an issue (animal rights?)

# Rule utilitarianism

**Adopt moral rules which, if followed by everyone, will lead to the greatest increase in total happiness**

- Principle of utility applied to moral rules not individual actions
- A workable theory for evaluating moral problems

# Social contract theory

**Morality consists of rules governing how people treat one another, that rational people agree to accept, for their mutual benefit, on the condition that others follow those rules as well**

- **Hobbes (1603-1679)**
- **Requires two things**
  - **Moral rules to gain the benefits of social living and prevent us from living in a “state of nature”**
  - **Government must be capable of enforcing the rules**
- **Arrangement of giving rights to rational people is the “social contract”**

# Example: SPAM

**In 2000 spam accounted for 8% of all e-mail**

**In 2003 spam accounted for 40% of all e-mail**

**In 2009 spam accounted for 90% of all e-mail**

# Why Spam?

**Let's say I want to send an advertisement to 1,000,000 "targeted" people**

- To send by regular mail will cost ~\$400,000
- To send by e-mail it will cost ~\$1,000 to buy from an Internet company a list of e-mail addresses
  - E-mail addresses harvested from web sites, mailing lists, chat rooms, and newsgroups, then sold to spammers
  - Dictionary attacks ([john@yahoo.com](mailto:john@yahoo.com), [john@hotmail.com](mailto:john@hotmail.com), etc.)

# How do they do it?

## Run their own server farms for sending spam

- Typically located off-shore
- Use ISPs that do not care about spam
- Less effective with use of blacklists and efforts to shut down rogue ISPs (McColo)

## Use networks of compromised machines (botnets)

- Single, most popular use for a botnet
- Monetization of botnet to send spam drives much of the malware effort

# How do they do it?

## Phishing accounts

- Trick legitimate user to give up username/password
- Send as the user (reputation hijacking) to avoid blacklisting based on IP addresses

## Creating bogus webmail accounts

- Rely on good reputation of popular webmail services such as GMail and Yahoo! Mail to avoid blacklisting based on IP addresses

# Spam and ethics

## Kantian evaluation of spam

- Act only from moral rules that you can at the same time will to be universal morals
- Act so that you always treat both yourself and other people as ends in themselves, and never only as a means to an end
- Scenario: Suppose I have a great new product that I wish to advertise. I send an unsolicited email to a large group of people knowing only a tiny fraction are interested.

# Spam and ethics

## Act utilitarian evaluation of spam

- An action is right (or wrong) to the extent that it increases (or decreases) the total happiness of the affected parties.
- Scenario: A product that costs \$10 to make, is sold for \$25, and that purchasers value at \$30 (i.e. their derived happiness)
  - 100 million bulk messages sent costing those who receive it and are not interested \$0.01 of unhappiness (time wasted)
  - 10,000 customers purchase product and get full happiness

# Spam and ethics

## Rule utilitarian evaluation of spam

- We ought to adopt moral rules which, if followed by everyone, will lead to the greatest increase in total happiness
  
- Scenario: Products being advertised where only a small fraction of targets are interested

# Spam and ethics

## Rule utilitarian evaluation of spam

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- Scenario: Products being advertised where only a small fraction of targets are interested

## What if 1% of the small businesses in America sent you 1 e-mail per year?

- There are 24,000,000 small businesses in America
- 1% => 240,000 e-mails/year
- $240,000/365 \Rightarrow 657$  e-mails/day

# Spam and ethics

## **Social contract theory evaluation of spam**

- **Morality consists of the set of rules, governing how people are to treat one another, that rational people will agree to accept, for their mutual benefit, on the condition that others follow those rules as well**
- **Right to free speech as applied to mass communication**

**WWW**

# WWW and censorship

## Should the Internet be filtered/censored?

- Access tightly controlled in N. Korea, Cuba, Myanmar
- Content tightly controlled in
  - Saudi Arabia (centralized control center blocks pornography, gambling, and sites offensive to Islam and the government)
  - China's Great Firewall (human censors who perform similar functions)
- Special interesting cases
  - Germany banning neo-Nazi web sites
  - US controls pornography (Children's Internet Protection Act)

# Freedom of expression in the US

**Not an absolute right in the eyes of the US Supreme Court**

**Right is balanced against the public good**

- Abuse of the freedom to harm the public may be punished
- Libel, reckless or calculated lies, slander, misrepresentation, perjury, false advertising, obscenity and profanity, solicitation of crime, and personal abuse or fighting words
- Example: Cigarette advertising on television
  - How many of you have seen one?
  - Ethical argument for why it should not be allowed?

# **FCC v. Pacifica Foundation (1978)**

**Radio broadcast of George Carlin performance “Filthy Words” in 1973**

- **Preceded by warning of sensitive language**

# FCC v. Pacifica Foundation (1978)

## **Broadcast media is uniquely pervasive**

- Indecent material broadcast into privacy of homes
- People can turn it on or off at any time, making the warning ineffective
- Damage is done as soon as it is heard (can not undo its harm by turning it off)

## **Uniquely accessible to children**

- Can restrict access in bookstores and movie theaters
- Time of day is an important consideration, however, for broadcast radio/television

# Censorship and children

## Child Internet Protection Act (CIPA)

- **Government requirement for installing antipornography filters before receiving federal funds for Internet access**
  - **Argument for: Libraries do not provide X-rated magazines or movies so they should not be obliged to provide Internet pornography. Damage to children significant unless filtered.**
  - **Argument against: Filters are inaccurate and inconvenient. They restrict freedom of speech from some web publishers**
- **Upheld by U.S. Supreme Court in 2003**
  - **Not the role of libraries to provide a public forum for free speech**

# Is CIPA ethical?

**Kantian evaluation**

**Act utilitarian evaluation**

**Social contract theory evaluation**

# Is CIPA ethical?

## **Kantian evaluation**

- Protecting children from harm using filters
- Assumption is that some non-pornographic web pages are filtered
- Filters treat the creators of non-offensive, but blocked web pages solely as a means to the end for restricting children's access to pornographic materials

## **Act utilitarian evaluation**

- Up to each of us.
- Enacting CIPA results in fewer children being exposed (+)
- Some legitimate sites filtered (-)
- Stigma for legitimate users trying to get those sites unfiltered (-)

## **Social contract theory evaluation**

- Private viewing of pornography does not make social living impossible
- Public libraries offers arguments on both sides (assumption is that filters block useful sites)

# Catching chat-room predators

## Police sting operations to lure pedophiles

- Ethical?
- Kantian analysis
  
- Utilitarian analysis
  
  
- Social contract theory analysis

# Catching chat-room predators

## Police sting operations to lure pedophiles

- **Ethical?**
- **Kantian analysis**
  - Is the will leading to the action OK?
  - Yes and no
    - » Overall goal is good
    - » But, using deceptiveness to do so is always wrong to a Kantian!
- **Utilitarian analysis**
  - Result is a public benefit (e.g. harm one pedophile so that the rest of society benefits)
  - Publicity may deter other pedophiles
  - Impact on chat rooms as an effective medium for communication if one knows they are being “watched”?
- **Social contract theory analysis**
  - Misrepresentation by pedophile should be punished
  - Police are also misrepresenting themselves
  - Not a clear cut argument

# Discussion questions

**Suppose 99% of all e-mail from country X is spam**

- Discuss the ethics behind blacklisting all e-mail from X
- Kantian
- Act/rule utilitarianism

# Discussion questions

**Discuss the ethics behind the rule in China that mandates a time-limit for playing MMORPGs. Is this law moral? What would the judgement depend upon?**

- **Kantian**
- **Act/rule utilitarianism**
- **Social contract theory**

# Discussion questions

**Discuss the ethics of posting photos on-line without the permission of those who appear in them**

- Are there situations when it would be unethical? If so, what are they?
- Kantian
- Act utilitarianism
- Social contract theory