Announcements

- Final Exam next Tuesday (8/9/11).
  - This Room – 2pm – 5pm
- Final Review on Monday – 8/8/11
- WA#8 due Today

What is Ethics?

- Ethics:
  - Values and Customs of a person or group
  - Analysis of certain concepts:
    - Right vs. Wrong
    - Good vs. Evil
    - Responsibility
### Ethical Thinking

**Some Ethical Questions to Consider**

- The following are some general questions to consider when researching the following topics:
- What should the penalties be with respect to violation of ethical principles? When a crime is actually committed, can we really impose judgments on individuals from another state or nation?
- Who has the responsibility and/or the authority to police computer crimes on a global basis? Who should be the "whistle blower" on ethical issues?
- When discussing what is ethical vs. what is legal, there are often differences of opinion. For instance, legal decisions can often become blurred as to what is right or wrong on a global context. An act that is illegal in one country might be perfectly legal in another. When discussing ethics, try to make a distinction as to what is the ethically RIGHT thing to do vs. what might be legally acceptable in our country.

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### Format for Class

- Slide with various ethical topics.
  - Choose one topic and discuss.
  - Your participation is a key element for this class!
  - Keep in mind ethical questions to consider.
  - **Be Respectful** of your classmates opinions!
  - When discussion has wound down, choose new topic.

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### Additional Web Resources

- [ThinkQuest web site on Computer Ethics](http://library.thinkquest.org/26658/)
- [ACM's Code of Ethics and Professional Conduct](http://info.acm.org/constitution/code.html)
- [Online Ethics Center for Engineering and Science](http://onlineethics.org/)
- [Centre for Applied Ethics: Resources on the WWW](http://www.ethics.ubc.ca/resources/computer/)
- [Computer Ethics - Cyber Ethics](http://cyberethics.cbi.msstate.edu/)
- [Ethics in Computing](http://www2.ncsu.edu:8010/eos/info/computer_ethics)
- [IEEE Ethics Committee](http://www.ieee.org/organizations/committee/ethics/)
- [Computer Institute's Ten Commandments of Computer Ethics](http://www.cpsr.org/program/ethics/cei.html)
- [DePaul University Computer Ethics Links](http://condor.depaul.edu/ethics/ethb16.html)
- [Kevin Bowyer's Ethics and Computing Links](http://marathon.csee.usf.edu/~kwb/ethics-and-computing.html)
- [Teaching Ethics and Computing](http://marathon.csee.usf.edu/~kwb/nfs-ufe/)
- [Ethics Updates by Lawrence Hinman](http://ethics.acusd.edu/)
Cases

- Computer Crime: Theft of unprotected data
- Computer Crime: Wire tapping and Eavesdropping
- Computer Crime: Attacks on People - Harassment
- Privacy: Sensitive Personal Information
- Privacy: Employee email privacy
- Computer Accuracy: Safety Critical Applications
- Computer Crime: Attacks on People - Hate Sites vs. Freedom of Speech
- Intellectual Property: Music Software
- Human Relations and Prejudice
- Education

Computer Crime: Theft of unprotected data

- If someone has not properly secured some important data, is it ethical for another person to exploit that situation and take the information? Is it not the original owner’s error by not being more secure? A parallel example is the situation that if a homeowner leaves a door unlocked, does someone else have the right to enter that house? Consider a situation where someone has thrown away trash, but do others have the right to go "Dumpster Diving" to see what is there?

Computer Crime: Wire tapping and Eavesdropping

- Should a person be allowed to monitor network activity by running a "sniffer" program that could be used to grab sensitive data and password information of the other users on the system? Should an employer be allowed to monitor keystrokes and behavior patterns of employees to see that they are doing their work? What monitoring activities are appropriate, which could be considered un-ethical, and which should be considered criminal?
**Computer Crime: Intellectual Property**

*Rights and Software Piracy*

- How do we expect a company to make a reasonable profit if software pirates steal the programs and copy them without paying? Is it possible to support future innovation if program developers are not compensated for their time? If an unknown program is discovered to be a worthless piece of junk, should the consumer be expected to pay just to see if it might be appropriate. Open source software seems to be preferred by many users, but what is the mechanism to support an industry based on that premise.

**Computer Crime: Attacks on People**

*Digital Forgery*

- Since it is possible to easily modify digital images, what are some of the ramifications of altering images to personally attack the credibility of another person? Is it not possible to modify existing images and even movies to completely misrepresent a person's situation? What rights How might digital forgery relate to legal concerns related to pornography or intellectual property rights?

**Privacy: Sensitive Personal Information**

- Companies are collecting a large quantity of information about individuals, but what rights do the individuals have to keep that information private? If a doctor has been maintaining medical records on an individual for some health concern, does an insurance company have the right to deny coverage to that individual because of potential health risks. Could not digital information be used to monitor someone's behavior so that criminals could rob an unattended home. Are private phone conversations actually private?
Privacy: Directed Advertising

- Is it ethical to monitor behavior and buying patterns of online customers, and use that information for directed advertisements and spam? What rights do the users have to keep that information from being passed around and sold to others? Is not directed advertising more valuable for retail outlets so that energy and effort are not wasted? What information is being collected about user preferences and how might it be used if all the information could be cross referenced? How appropriate are pyramid schemes that pay others for obtaining customers for directed advertising be viewed?

Privacy: Employee email privacy

- What rights does an employer have with respect to private email? Should an employee be reading and writing email on company time? Doesn't the employer have a right to read and monitor personal email messages? Should the government monitor email transfers across the Internet in order to look for subversive activity? Should the schools be monitoring inappropriate email full of vulgarity and hate? How should chain letters sent through email be considered?

Computer Accuracy: Safety Critical Applications

- As our economy becomes more and more dependent upon computer controlled devices, how much faith should be placed in the hands of software programs? Are there ways to ensure that a program is fail safe? Should a safety critical application such as a network of nuclear defense missiles or an air traffic control system be controlled only by a computer program rather than having a human element to over ride potential consequences?
Computer Crime: Attacks on People - Harassment

- In addition to some of the more common ways of bothering individuals electronically, such as spamming or email flaming, are there other ways people can be harassed by computer technology? What are some of the ethical concerns about purchasing domain names that are similar to existing entities, and then holding the parent organization hostage, requiring either payment of a large fee or risk the presentation of a parallel and possibly defamatory site?

Computer Crime: Attacks on People - Hate Sites vs. Freedom of Speech

- The First Amendment guarantees the right of free speech, but does having the right to say whatever one desires mean that there should be no consequences for things that might be slanderous or harmful? What about web sites that promote hatred, genocide, or vulgarity? Are there any effective ways to limit access to those sites in schools or other settings? Can laws governing the behavior of people in one jurisdiction be binding upon those in another?

Intellectual Property: Music Software

- What are some of the ways digital music is being disseminated over the Internet. Are there effective ways to minimize theft? How can we compensate musicians for their talent? Will mergers between major entertainment giants and Internet resource providers likely have an effect on the future of the digital music industry?
Human Relations and Prejudice

- Computers and the Internet have a great potential to unite all the peoples of the world into one global community. This could make national borders and superficial differences among people irrelevant. However, they can also contribute to isolation and anti-social behavior, allowing hate to be spread across a wide network. Will computers ultimately lead to greater understanding among peoples or will they encourage isolation, misunderstanding, and hatred.

Education

- Computers have a tremendous potential in education, providing rich resources and a wealth of information that can be delivered on an individualized basis. However, if education is provided only on demand, there is serious concern that students will become immersed in a cartoon world of games and play, avoiding more challenging topics and many other essentials that will lead to intellectual growth. Will computers really improve education or will children become absorbed by unnecessary play?