Motivation

- Computers permeate all aspects of society
- Computing professionals need to act in a socially-responsible manner
- To cause you to become a more ethical person, particularly in your career as a computing professional
Tools

- Ethical theory
- Critical thinking
- Codes of ethics
- Career management
- Oral and written communication
- Web resources

[web resource link]

Major Ethical Issues

- Computer System Security
- Encryption, Law Enforcement, and Privacy
- Safety-Critical Systems
- Whistle Blowing
- Intellectual Property
- Environmental and Health Concerns
- Fairness
Getting Started

Ethics and Computing
Chapter 1

Definition

- Ethics
  Standards of conduct and moral judgment
- Grounded in notions of right and wrong, good and evil
- Personal ethics vs. societal ethics
Fundamental Prerequisite

- The study of ethics and computing must assume that standards of right and wrong can and do exist.

Types of Ethics

- Theoretical ethics
- Applied ethics
- Professional ethics
Theoretical Ethics

- Relativism
  - No one standard of right and wrong
  - Morality relative to time and culture
  - What is desired by the majority of those who hold power
  - Whatever feels right to you

- Utilitarianism
  - Morality based on consequences
  - Act so as to increase the utility of all
  - The good of the many outweighs the good of the few
  - Negative consequences for an individual may be extreme
Theoretical Ethics

- Deontological
  - Morality based on motivation and intent
  - Each person has intrinsic worth and deserves basic respect
  - “All men created equal…with certain inalienable rights”
  - How to decide whose rights are curtailed

Applied Ethics

- No one theory purely followed
- Ideal action is not always clear (relative to the situation)
- Want actions to produce greatest common good
- Preserve minimum standard of personal dignity
Applied Ethics

- Not everyone agrees on what is right, good, ethical, moral, legal
- Tolerance in minor disagreements important

Professional Ethics

- Relations between professionals and their clients
- Relations between the profession and society
- Relations among professionals
- Relations between employee and employer
- Specialized technical details of the profession
Professional Ethics

- Codes (ACM, AITP, IEEE, NSPE)
- New ethical issues posed by computers
  - Computer-based decision making
- Old ethical issues in new guises
  - E.g., privacy of email

Living Ethically

- Unethical behavior rooted in excessive self-interest
- Have high standards of ethical conduct
- Stick to your standards even in the face of short-term loss
- Serve a larger purpose
Case Study

- Goodearl and Aldred vs. Hughes whistle-blowing case
- Lack of testing of chips for military weapons systems
- False Claims Act civil suit filed (1990)
- Hughes found guilty; fined $4M (1996)
- Goodearl and Aldred receive $900K plus $450K legal fees
- What would you have done?

Points to Remember

- Expect to face ethically-difficult situations
- Accept responsibility for your actions
- Bad choices usually come from short-term self-interest
- Consider ethical issues before they confront you
- Avoid ethically challenging situations
Ethics Questions

- Is email correspondence with friends using UTA computers ethical?
- Is logging into another person’s computer account ethical?
  - With their permission?
  - Without their permission?
- UTA Computer Usage Policy
  - [http://www.uta.edu/uta/wwwteam/citup.html](http://www.uta.edu/uta/wwwteam/citup.html)
- Is cheating ethical?