Computer Professionals
Responsibilities

Ethics

- Professional Ethics
  - Categories:
    - Medical,
    - Legal,
    - Accounting,
    - Computer,
    - ...and more.

Q: What are the special responsibilities of these professionals?

Ethics

- Computer Ethics
  - Special Responsibilities Facing Computer Professionals and Users
    - Maintaining relationships with and responsibilities toward customers, clients, coworkers, employees, and employers.
    - Making critical decisions that have significant consequences for many people.
    - Determining how to manage, select, or use computers in a professional setting.
“Do the Right Thing”

Behaving Ethically Includes:
- Being honest.
- Keeping promises.
- Doing your job well.
- Not stealing.

Q: What other behaviors are usually considered “doing the right thing?”

Ethical Views

Deontological (Moral Duty)
- Emphasizes duty and absolute rules.
- Rules should apply to everyone.
- Use logic or reason to determine what is good.
- Treat people as an ends (not a means).

Ethical Views (cont’d)

Consequentialist
- Includes Utilitarianism
  - Strive to increase “utility” (that which satisfies a person’s needs and values) for the most people (the greater good).
  - Consider the consequences for all affected people.
Ethics

Ethical Views (cont'd)

- Consequentialist (cont'd)
  - Rule-Utilitarianism: Choose rules, or guidelines for behavior, that generally increase utility.
  - Act-Utilitarianism: Analyze each action to determine if it increases utility.

Q: What are some problems with act-utilitarianism?

Ethics

Ethical Views (cont'd)

- Natural Rights
  - Derived from the nature of humanity
  - Focus is on the process by which people interact.
  - Respect the fundamental rights of others, including life, liberty, and property.

Ethics

Ethical Views (cont'd)

- Reaching the Right Decision
  - There is no formula to solve ethical problems.
  - The computer professional must consider trade-offs.
  - Ethical theories help to identify important principles or guidelines.
Ethics

Ethical Views (cont'd)

Some Important Distinctions

- Right, Wrong, and Okay: acts may be ethically obligatory, ethically prohibited, or ethically acceptable.
- Negative rights (liberties): the right to act without coercive interference.
- Positive rights (claim-rights): imposing an obligation on some people to provide certain things.
- Causing harm: some acts may cause harm to others but are not necessarily unethical.

Some Important Distinctions (cont'd)

- Goals vs. actions: the actions we take to achieve our goals should be consistent with our ethical constraints.
- Personal preference vs. ethics: some issues we disapprove of because of our dislikes, rather than on ethical grounds.
- Law vs. ethics: some acts are ethical, but illegal; other acts are legal, but unethical.

Analyzing Ethical Scenarios

- Brainstorming phase
  - List risks, issues, problems, consequences.
  - List all the stakeholders.
  - List possible actions.
- Analysis phase
  - Identify the responsibilities of the decision-maker.
  - Identify the rights of stakeholders.
  - Consider the impact of the action options on the stakeholders.
  - Find sections in codes of ethics that apply. Categorize each potential action or response as ethically obligatory, ethically prohibited, or ethically acceptable.
  - Consider the ethical merits of each option and select one.
Ethics in Professional Organizations

Special Ethical Responsibilities of Professionals
- Most people don’t have much knowledge of a professional field (computer science, medicine) - thus, problems can surreptitiously have a great impact
- Huge numbers of people can be affected, including being victims
- Responsibility to employer as well as to society
- Accuracy about capabilities and reliability
- Proper training of users

ACM Code of Ethics

Summary of ACM Code of Ethics

1. GENERAL MORAL IMPERATIVES

As an ACM member I will ....
1.1 Contribute to society and human well-being.
1.2 Avoid harm to others.
1.3 Be honest and trustworthy.
1.4 Be fair and take action not to discriminate.
1.5 Honor property rights including copyrights and patent.
1.6 Give proper credit for intellectual property.
1.7 Respect the privacy of others.
1.8 Honor confidentiality.
Summary of ACM Code of Ethics

2. MORE SPECIFIC PROFESSIONAL RESPONSIBILITIES

As an ACM computing professional I will ....

- 2.1 Strive to achieve the highest quality, effectiveness and dignity in both the process and products of professional work.
- 2.2 Acquire and maintain professional competence.
- 2.3 Know and respect existing laws pertaining to professional work.
- 2.4 Accept and provide appropriate professional review.
- 2.5 Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks.
- 2.6 Honor contracts, agreements, and assigned responsibilities.
- 2.7 Improve public understanding of computing and its consequences.
- 2.8 Access computing and communication resources only when authorized to do so.

3. ORGANIZATIONAL LEADERSHIP IMPERATIVES

As an ACM member and an organizational leader, I will ....

- 3.1 Articulate social responsibilities of members of an organizational unit and encourage full acceptance of those responsibilities.
- 3.2 Manage personnel and resources to design and build information systems that enhance the quality of working life.
- 3.3 Acknowledge and support proper and authorized uses of an organization's computing and communication resources.
- 3.4 Ensure that users and those who will be affected by a system have their needs clearly articulated during the assessment and design of requirements; later the system must be validated to meet requirements.
- 3.5 Articulate and support policies that protect the dignity of users and others affected by a computing system.
- 3.6 Create opportunities for members of the organization to learn the principles and limitations of computer systems.

4. COMPLIANCE WITH THE CODE

As an ACM member I will ....

- 4.1 Uphold and promote the principles of this Code.
- 4.2 Treat violations of this code as inconsistent with membership in the ACM.