

Week # 07

***Social, Legal, and Ethical Issues for Computers
and the Internet***

Professional Ethics and Responsibilities

Ethics

Ethical Guidelines for Computer Professionals

Cases

Ethics

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

Ethics

- Importance of 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.

Ethics

- “Do the Right Thing”
 - Behaving Ethically Includes:
 - Being honest (with profession, workplace and duties).
 - Keeping promises (capabilities, attitude, potential quality).
 - Doing your job well (Professionalism).
 - Not stealing (Customers must trust on his private data and its security).

Ethics

- Ethical Views

- Deontological (Greek word *deon*, which means '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).

Ethics

- 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.

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)
 - How to reach 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 necessary, ethically prohibited, or ethically acceptable.
 - Negative rights (liberties): the right to act without forced interference (religious issues).
 - Positive rights (claim-rights): imposing an obligation on some people to provide certain things (work as responsibilities).
 - Causing harm: some acts may cause harm to others but are not necessarily unethical forced donations, taxes, overcharging etc.).

Ethics

- Ethical Views (cont'd)
 - 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.

Ethical Guidelines for Computer Professionals

- Special Aspects of Professional Ethics
 - **Computer Professionals:**
 - Are experts in their field,
 - Know customers rely on their knowledge, expertise, and honesty,
 - Understand their products (and related risks) affect many people,
 - Follow good professional standards and practices,
 - Maintain an expected level of competence and are up-to-date on current knowledge and technology, and
 - Educate the non-computer professional.

Ethical Guidelines for Computer Professionals

- Professional Codes
 - ACM and IEEE CS
 - Software Engineering Code of Ethics and Professional Practice
 - ACM
 - ACM Code of Ethics
- Ethical Behaviors Expected of the Computer Professional:
 - Honest and fair; respects confidentiality; maintains professional competence; understands relevant laws; respects and protection of personal privacy; avoids harming others; and respects property rights.

Ethical Guidelines for Computer Professionals

- Additional Guidelines for the Computer Professional
 - Understand Success
 - Understand what success means—developers (especially) and users of computer systems must see beyond simply writing code to complete a task.
 - Design for Real Users
 - To provide useful systems, real users must be included in the design stage.

Ethical Guidelines for Computer Professionals

- Additional Guidelines for the Computer Professional (cont'd)
 - Thorough Planning and Scheduling
 - Pay attention to details—do a thorough and careful job when planning and scheduling a project and when writing bids.
 - Test With Real Users
 - To provide safe systems, real users must be included in the testing stage.

Ethical Guidelines for Computer Professionals

- Additional Guidelines for the Computer Professional (cont'd)
 - Evaluate Re-use of Software
 - Don't assume existing software is safe and re-usable.
 - Candidness
 - Be open and honest about capabilities, safety, and limitations of software.
 - Protect
 - Require a considerable case for safety.

How you prepare code of ethics for your own organization?

- Analyzing a Professional Ethical Scenario
 - Brainstorming phase
 - List risks, issues, problems, consequences.
 - List all the stakeholders.
 - List possible actions.

How you prepare code of ethics for your own organization? Cont..

- Analyzing Professional Responsibilities (cont'd)
 - 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.

How you prepare code of ethics for your own organization? Cont..

- Applying the Brainstorming and Analysis Phases
 - Refer to any of the cases in the text or the general exercises following each chapter or current scenarios in the news.