Chapter 2
IT Workers and IT Users

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Objectives

◦ What factors are transforming the professional services industry?

◦ What relationships must an IT worker manage, and what key ethical issues can arise in each?

IT Professionals

▸ Profession is a calling that requires:
- Specialized knowledge
- Long and intensive academic preparation

▸ Professionals:
- Require advanced training and experience
- Must exercise discretion and judgment in their work
- Carry special rights and responsibilities

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Are IT Workers Professionals?

▸ Partial list of IT specialists
  ◦ Programmers
  ◦ Systems analysts
  ◦ Software engineers
  ◦ Database administrators
  ◦ Local area network (LAN) administrators
  ◦ Chief information officers (CIOs)
  ◦ IT entrepreneurs
  ◦ Cloud/network engineers
  ◦ Data analysts
  ◦ Investigators/Researchers
  ◦ Marketing engineers

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Are IT Workers Professionals? (cont'd.)

▶ Legal perspective

- ◦ IT workers are not recognized as professionals
- ◦ Not licensed by state or federal government
- ◦ IT workers are not liable for malpractice*

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The Changing Professional Services Industry

▸ Although not legally classified as professionals, IT workers are considered part of the professional services industry

▸ Seven forces are changing professional services
  ◦ Client sophistication (able to drive hard bargains)
  ◦ Connectivity (instant communications)
  ◦ Transparency (real-time work in progress)
  ◦ Modularization (able to outsource modules)
  ◦ Globalization (industry extremely competitive)
  ◦ Commoditization (for low-end services)

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Professional Relationships That Must Be Managed

▶ IT workers have many different relationships with:

- ◦ Employers
- ◦ Clients
- ◦ Suppliers
- ◦ Other professionals
- ◦ IT users
- ◦ Society at large

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Relationships Between IT Workers and Employers

▸ IT workers must set an example and enforce policies regarding the ethical use of IT in:

- Software piracy
  - Act of illegally making copies of software or enabling access to software to which they are not entitled

  - Area in which IT workers can be tempted to violate laws and policies

  - The Business Software Alliance (BSA) is a trade group representing the world's largest software and hardware manufacturers; mission is to stop the unauthorized copying of software

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Relationships Between IT Workers and Employers (cont'd.)

▶ IT workers must set an example and enforce policies regarding the ethical use of IT in: (cont'd)
  ◦ Trade secrets
    • Business information generally unknown to public
    • Company takes actions to keep confidential
    • Require cost or effort to develop
    • Have some degree of uniqueness or novelty
  ◦ Whistle-blowing
    • Employee attracts attention to a negligent, illegal, unethical, abusive, or dangerous act that threatens the public interest
  ◦ Professional use of resources vs. balance your personal life
  ◦ IP

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Relationships Between IT Workers and Clients

▶ IT worker provides:
  ◦ Hardware, software, or services at a certain cost and within a given time frame

▶ Client provides:
  ◦ Compensation
  ◦ Access to key contacts
  ◦ Work space

▶ Relationship is usually documented in contractual terms

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Relationships Between IT Workers and Clients (cont'd.)

- Conflict of interest and full-disclosure
  - Ethical problems arise if a company recommends its own products and services to remedy problems they have detected

- Threat to life and property
- Protection of their information
- Respecting their rights

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Relationships Between IT Workers and Clients (cont'd.)

▸ Fraud
  ◦ Crime of obtaining goods, services, or property through deception or trickery
  ◦ Fraud is proven in court

▸ Misrepresentation
  ◦ Misstatement or incomplete statement of material fact
  ◦ Problem if causes entry into contract

▸ Breach of contract
  ◦ One party fails to meet the terms of a contract

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Relationships Between IT Workers and Suppliers

▸ Develop good working relationships with suppliers:
  ◦ To encourage flow of useful information and ideas
  ◦ By dealing fairly with them
  ◦ By not making unreasonable demands

▸ Bribery
  ◦ Providing money, property, or favors to obtain a business advantage
  ◦ U.S. Foreign Corrupt Practices Act (FCPA): crime to bribe a foreign official, a foreign political party official, or a candidate for foreign political office

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Relationships Between IT Workers and Suppliers (cont'd.)

▶ Bribery (cont'd.)

- ◦ At what point does a gift become a bribe?
- ◦ No gift should be hidden
- ◦ Perceptions of donor and recipient can differ

Relationships Between IT Workers and Suppliers (cont'd.)

TABLE 2-2 Distinguishing between bribes and gifts

Bribes	Gifts
Are made in secret, as they are neither legally nor morally acceptable	Are made openly and publicly, as a gesture of friendship or goodwill
Are often made indirectly through a third party	Are made directly from donor to recipient
Encourage an obligation for the recipient to act favorably toward the donor	Come with no expectation of a future favor for the donor

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Relationships Between IT Workers and Other Professionals

▶ Professionals owe each other adherence to a profession's code of conduct

▶ Ethical problems among the IT profession
  ◦ Résumé inflation
  ◦ Inappropriate sharing of corporate information

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Relationships Between IT Workers and IT Users

▶ IT user: person using a hardware or software product

▶ IT workers' duties
  ◦ Understand users' needs and capabilities
  ◦ Deliver products and services that meet those needs
  ◦ Establish environment that supports ethical behavior:
    • To discourages software piracy
    • To minimize inappropriate use of corporate computing resources
    • To avoid inappropriate sharing of information

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Relationships Between IT Workers and Society

- Society expects members of a profession:
  - To provide significant benefits
  - To not cause harm through their actions
- Actions of an IT worker can affect society
- Professional organizations provide codes of ethics to guide IT workers' actions

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Professional Codes of Ethics

- State the principles and core values that are essential to the work of an occupational group
- Most codes of ethics include:
  - What the organization aspires to become
  - Rules and principles by which members of the organization are expected to abide
- Many codes also include commitment to continuing education for those who practice the profession

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Professional Codes of Ethics (cont'd.)

▶ Benefits individual, profession, and society as a whole
  ◦ Ethical decision making
  ◦ High standards of practice and ethical behavior
  ◦ Trust and respect from general public
  ◦ Evaluation benchmark for self-assessment

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Professional Organizations

▸ No universal code of ethics for IT professionals

▸ No single, formal organization of IT professionals has emerged as preeminent

▸ Five of the most prominent organizations include:
- ◦ Association for Computing Machinery (ACM)
- ◦ Association of IT Professionals (AITP)
- ◦ Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS)
- ◦ Project Management Institute (PMI)
- ◦ SysAdmin, Audit, Network, Security (SANS) Institute

Certification

- Indicates that a professional possesses a particular set of skills, knowledge, or abilities in the opinion of a certifying organization
- Can also apply to products
- Generally voluntary
- Carries no requirement to adhere to a code of ethics
- Employers view as benchmark of knowledge
- Opinions are divided on value of certification

Certification (cont'd.)

▶ Vendor certifications
  ◦ Some certifications substantially improve IT workers' salaries and career prospects
  ◦ Relevant for narrowly defined roles or certain aspects of broader roles
  ◦ Require passing a written exam
  ◦ Can take years to obtain experience
  ◦ Training can be expensive
  ◦ Workers are commonly recertified as newer technologies become available

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Certification (cont'd.)

▸ Industry association certifications
  ◦ Require a higher level of experience and a broader perspective than vendor certifications
  ◦ Lag in developing tests that cover new technologies
  ◦ Are moving from purely technical content to a broader mix of technical, business, and behavioral competencies

Government Licensing

- Generally administered at the state level in the United States
- Requires that recipient pass a test
- Case for licensing IT workers
  - Encourages following highest standards of profession
  - Encourages practicing a code of ethics
  - Violators would be punished
- Without licensing, no requirements for heightened care and no concept of professional malpractice

Government Licensing (cont'd.)

- Issues with government licensing of IT workers
  - No universally accepted core body of knowledge
  - Unclear who should manage content and administration of licensing exams
  - No administrative body to accredit professional education programs
  - No administrative body to assess and ensure competence of individual workers

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IT Professional Malpractice

- Negligence: not doing something that a reasonable person would do, or doing something that a reasonable person would not do

- Duty of care: obligation to protect people against any unreasonable harm or risk
  - Reasonable person standard
  - Reasonable professional standard

- Professional malpractice: professionals who breach the duty of care are liable for injuries that their negligence causes

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Common Ethical Issues for IT Users

▸ Software piracy

▸ Inappropriate use of computing resources
  ◦ Erodes productivity and wastes time
  ◦ Could lead to lawsuits

▸ Inappropriate sharing of information, including:
  ◦ Private data (employees and customers)
  ◦ Confidential information (company and operations)

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Supporting the Ethical Practices of IT Users

▸ Policies that protect against abuses:
  ◦ Set forth general rights and responsibilities of users
  ◦ Create boundaries of acceptable behavior
  ◦ Enable management to punish violators

▸ Policy components include:
  ◦ Establishing guidelines for use of company software
  ◦ Defining and limiting appropriate use of IT resources
  ◦ Structuring information systems to protect data and information
  ◦ Installing and maintaining a corporate firewall

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Supporting the Ethical Practices of IT Users (cont'd.)

TABLE 2-5 Manager's checklist of items to consider when establishing an IT usage policy

Question	Yes	No
Is there a statement that explains the need for an IT usage policy?		
Does the policy provide a clear set of guiding principles for ethical decision making?		
Is it clear how the policy applies to the following types of workers?		
• Employees		
• Part-time workers		
• Temps		
• Contractors		

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Summary

- Professionals
  - Require advanced training and experience
  - Must exercise discretion and judgment in their work
  - Their work cannot be standardized
- From a legal standpoint, a professional:
  - Has passed the state licensing requirements
  - Has earned the right to practice there
- IT professionals have many different relationships
  - Each with its own ethical issues and potential problems

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Summary (cont'd.)

- Professional code of ethics
  - States the principles and core values essential to the work of an occupational group
  - Serves as a guideline for ethical decision making
  - Promotes high standards of practice and behavior
  - Enhances trust and respect from the general public
  - Provides an evaluation benchmark
- Licensing and certification of IT professionals
  - Would increase the reliability and effectiveness of information systems
  - Raises many issues

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Summary (cont'd.)

- IT-related professional organizations have developed a code of ethics
- These codes:
  - Outline what the organization aspires to become
  - List rules and principles for members
  - Include a commitment to continuing education for those who practice the profession