



# Ethics in Information Technology

## Chapter 2 Ethics for IT Workers and IT Users

**George W. Reynolds**

# Learning Objectives

- What key characteristics distinguish a professional from other kinds of workers, and is an IT worker considered a professional?
- What factors are transforming the professional services industry?
- What relationships must an IT worker manage, and what key ethical issues can arise in each?

# Learning Objectives

- How do codes of ethics, professional organizations, certification, and licensing affect the ethical behavior of IT professionals?
- What is meant by compliance, and how does it help promote the right behaviors and discourage undesirable ones?

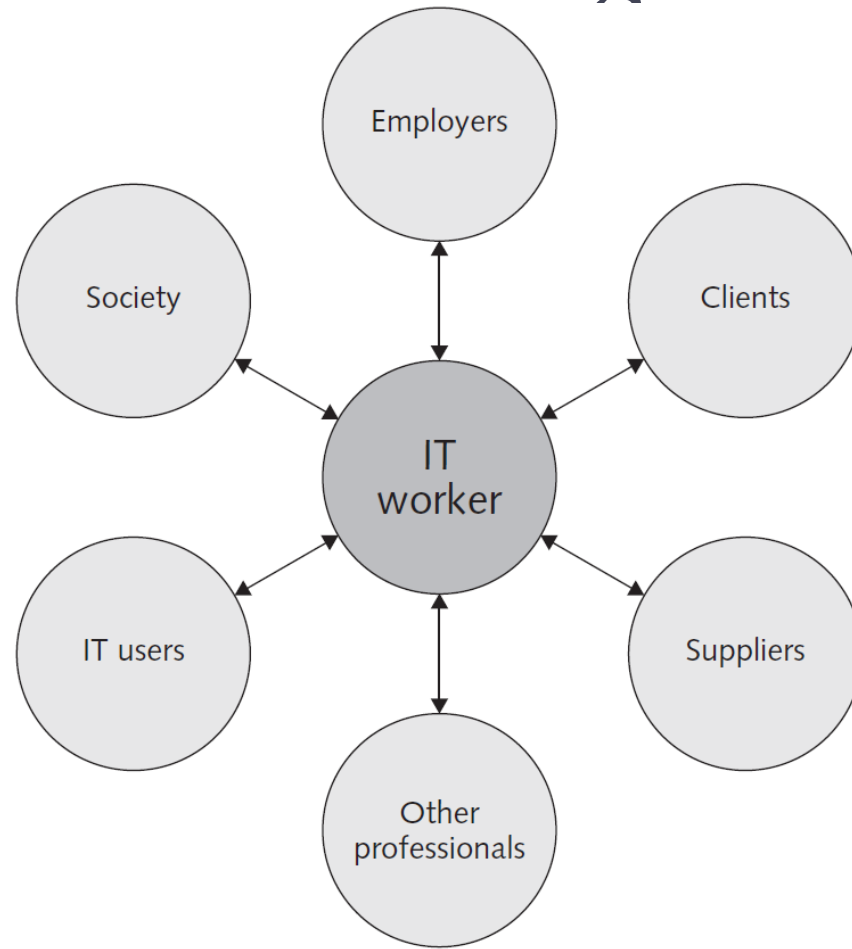
# Profession

- Requires specialized knowledge and a long and intensive academic preparation
- Professionals
  - Possess advanced training and experience
  - Exercise discretion and judgment in their work
  - Work is not standardized
  - Contribute to society and assist other professionals
  - Participate in a lifelong training program
  - Keep abreast of developments in their field

# IT Workers

- Legal perspective
  - IT workers are not recognized as professionals as they are not licensed by the state or federal government
  - Are not liable for malpractice

# Figure 2.1 - Professional Relationships IT Workers Must Manage



Credit: Course Technology/Cengage Learning.

# Ethical Issues between IT Workers and Employers

## Software piracy

- **Business Software Alliance (BSA):** Trade group that represents the world's largest software and hardware manufacturers
  - Aims to stop the unauthorized copying of software

## Trade secret

- Information that is of economic value and that has required effort or cost to develop and has some degree of uniqueness or novelty

## Whistle-blowing

- Effort by an employee to attract attention to a negligent, illegal, unethical, or abusive act by a company that threatens the public interest

## BSA GLOBAL MEMBERS



ATLASSIAN

AUTODESK



box

cādence

Mastercam

IBM



okta

ORACLE



servicenow

SIEMENS  
Ingenuity for Life



splunk>



View All Members



# Ethical Issues between IT Workers and Clients

## Conflict of interest

- Conflict between the IT worker's self-interest and the interests of the client

## Fraud

- Obtaining goods, services, or property through deception or trickery

## Misrepresentation

- Misstatement or incomplete statement of a material fact

## Breach of contract

- Occurs when one party fails to meet the terms of a contract

## Material breach of contract

- Occurs when a party fails to perform certain obligations, thereby impairing or destroying the essence of the contract

# Ethical Issues between IT Workers and Suppliers

- **Bribery:** Providing money, property, or favors to someone in business or government in order to obtain a business advantage
- **Foreign Corrupt Practices Act (FCPA):** Makes it a crime to bribe a foreign official, a foreign political party official, or a candidate for foreign political office
- **The United Nations Convention Against Corruption -** Global treaty designed to fight bribery and corruption

# Table 2.1 - 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

Source Line: Course Technology/Cengage Learning.

# Ethical Issues between IT Workers and Other Professionals

- Professionals owe each other adherence to their profession's code of conduct
- Ethical problems among the IT profession
  - **Résumé inflation:** Lying on a résumé about one's qualifications
  - Inappropriate sharing of corporate information
    - Information may be sold or shared informally to third parties

# Most common resume lies

**TABLE 2-2** Most frequent areas of résumé falsehood or exaggeration

Area of exaggeration	How to uncover the truth
Dates of employment	Thorough reference check
Job title	Thorough reference check
Criminal record	Criminal background check
Inflated salary	Thorough reference check
Education	Verification of education claims with universities and other training organizations
Professional licenses	Verification of license with accrediting agency
Working for fictitious company	Thorough background check

Source Line: Lisa Vaas, “Most Common Resume Lies,” The Ladders, July 17, 2009, [www.theladders.com/career-advice/most-common-resume-lies](http://www.theladders.com/career-advice/most-common-resume-lies).

# Relationships between IT workers and IT users

- IT users
  - person who uses a hardware or software product
- IT workers have a duty
  - to understand a user's needs and capabilities
  - to deliver products and services that best meet those needs—subject, of course, to budget and time constraints.

# Relationships Between IT Workers and Society

- Society expects members of a profession to:
  - Provide significant benefits
  - Not cause harm through their actions
- Professional organizations provide codes of ethics to guide IT workers' actions

# Knowledge Assessment

## -2.1-



# Impact of Codes of Ethics on Ethical Behavior

- Defines:
  - What the organization aspires to become
  - Rules and principles by which members of the organization are expected to abide
  - A commitment to continuing education for those who practice the profession
- Result in following benefits for the individual, profession, and society
  - Ethical decision making and ethical behavior
  - Trust and respect from general public
  - Evaluation benchmark for self-assessment

# Impact of Professional Organizations on Ethical Behavior

- Help IT workers to network with others, seek out new ideas, and continually build on their personal skills and expertise
- Prominent organizations
  - Association for Computing Machinery (ACM)
  - Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS)
  - Association of Information Technology Professionals (AITP)
  - SysAdmin, Audit, Network, Security (SANS) Institute

# Impact of Certification on Ethical Behavior

- **Certification:** Indicates that a professional possesses a particular set of skills, knowledge, or abilities, in the opinion of the certifying organization
  - Obliges an individual to have the prerequisite education and experience, and to sit for and pass an exam
  - Certifications from **industry** associations requires a higher level of experience and a broader perspective than **vendor** certifications

# Certifications from known vendors

**TABLE 2-4** Certifications in high demand

Certification	Subject matter
Microsoft Certified Technology Specialist	Designing and optimizing solutions based on Microsoft products and technologies
Cisco Certified Internetwork Expert	Managing and troubleshooting large networks
Cisco Certified Network Professional Security	Configuring and designing firewalls and the security settings on routers and switches
CompTIA A+	Performing computer and network maintenance, troubleshooting, and installation—including addressing security issues
Project Management Institute's Project Management Professional (PMP)	Leading and directing projects

Source Line: Course Technology/Cengage Learning.

# Impact of Government Licensing on Ethical Behavior

- **Government license:** Permission to engage in an activity or to operate a business
- Encourages IT workers to follow the highest standards of the profession and practice a code of ethics
- Allows for violators to be punished
- Ensure the IT workers take heightened care and abstain from professional malpractice

# Issues Associated with Government Licensing of IT Workers

- No universally accepted core body of knowledge
  - **Body of knowledge:** Outlines agreed-upon sets of skills and abilities that all licensed professionals must possess
- Lack of clarity on who should manage the 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

# 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
  - Failure results in **breach of the duty of care**

# IT Professional Malpractice

- **Reasonable person standard:** Evaluates how an objective, careful, and conscientious person would have acted in the same circumstances
  - **Reasonable professional standard:** Evaluates those who have particular expertise
- **Professional malpractice:** Liability that applies to professionals who breach the duty of care
  - Are liable for injuries that their negligence causes



# Knowledge Assessment

## -2.2-

# Common Ethical Issues for IT Users

- Software piracy
  - Popularity of the Android smartphone operating system has contributed to the software piracy problem
- Inappropriate use of computing resources
  - Erode worker productivity and waste time
  - Could lead to lawsuits
- Inappropriate sharing of information
  - Violation of someone's privacy, if its private data
  - Potential that company information could fall into the hands of competitors, in the case of confidential information

# Supporting the Ethical Practices of IT Users

- Policies that protect against abuses help:
  - Set forth general rights and responsibilities of all users
  - Establish boundaries of acceptable behavior
  - Enable management to punish violators
- Policy components include:
  - Establishing guidelines for use of company software
  - Defining appropriate use of IT resources
  - Structuring information systems to protect data and information
  - Installing and maintaining a corporate **firewall**

# Table 2.5 - Manager's Checklist for 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? <ul style="list-style-type: none"><li>• Employees</li><li>• Part-time workers</li><li>• Temps</li><li>• Contractors</li></ul>		

Source Line: Course Technology/Cengage Learning.

# Table 2.5 - Manager's Checklist for Establishing an IT Usage Policy

Question	Yes	No
Does the policy address the following issues?		
<ul style="list-style-type: none"><li>• Protection of the data privacy rights of employees, customers, suppliers, and others</li><li>• Control of access to proprietary company data and information</li><li>• Use of unauthorized or pirated software</li><li>• Employee monitoring, including email, wiretapping and eavesdropping on phone conversations, computer monitoring, and surveillance by video</li><li>• Respect of the intellectual rights of others, including trade secrets, copyrights, patents, and trademarks</li><li>• Inappropriate use of IT resources, such as Web surfing, blogging, personal emailing, and other use of computers for purposes other than business</li><li>• The need to protect the security of IT resources through adherence to good security practices, such as not sharing user IDs and passwords, using hard-to-guess passwords, and frequently changing passwords</li><li>• The use of the computer to intimidate, harass, or insult others through abusive language in emails and by other means</li></ul>		

Source Line: Course Technology/Cengage Learning.

# Table 2.5 - Manager's Checklist for Establishing an IT Usage Policy

Question	Yes	No
Are disciplinary actions defined for IT-related abuses?		
Is there a process for communicating the policy to employees?		
Is there a plan to provide effective, ongoing training relative to the policy?		
Has a corporate firewall been implemented?		
Is the corporate firewall maintained and kept up to date?		

Source Line: Course Technology/Cengage Learning.

# Compliance

- To be in accordance with established policies, guidelines, specifications, or legislation
- Requires an individual to behave in accordance with legislation
- Failure to be in compliance with legislation can lead to lawsuits or government fines

# Compliance

- To ensure compliance, companies:
  - Implement software to track and record compliance actions
  - Hire management consultants for advice and training
  - Create the position of chief compliance officer (CCO), to deal with the issues related to compliance



# Compliance

- **Audit committee:** Board of directors provides assistance to the board with respect to the:
  - Quality and integrity of accounting and reporting practices and controls
  - Organization's compliance with legal and regulatory requirements
  - Qualifications, independence, and performance of the organization's independent auditor
  - Performance of the company's internal audit team

# Compliance

- Internal audit committee responsibilities:
  - Determine that internal systems and controls are adequate and effective
  - Verify existence of company assets and maintain proper safeguards over their protection
  - Measure the organization's compliance with its own policies and procedures
  - Ensure that institutional policies and procedures, appropriate laws, and good practices are followed
  - Evaluate adequacy and reliability of information available for management decision making

# Knowledge Assessment

## -2.3-

# 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 in a state(s)
- IT professionals have many different relationships
  - Each with its own ethical issues and potential problems

# Summary

- 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
  - Increases the reliability and effectiveness of information systems