

# ETHICS IN INFORMATION TECHNOLOGY, FOURTH EDITION

## *Chapter 2*

### *Ethics for IT Workers and IT Users*



# Objectives

2

- As you read this chapter, consider the following questions:
  - ▣ 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?

# Objectives (cont'd.)

3

- ▣ 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?

# IT Professionals

4

## □ **Profession** is a calling that requires:

1. Specialized knowledge
2. Long and intensive academic preparation

## □ **Professionals:**

1. Require advanced training and experience
2. Must exercise discretion حرية التصرف and judgment in their work
3. Their work cannot be standardized
4. Contribute to society, participate in lifelong training, assist other professionals
5. Carry special rights and responsibilities

# Are IT Workers Professionals?

5

## □ Partial list of IT specialists

1. Programmers
2. Systems analysts
3. Software engineers
4. Database administrators
5. Local area network (LAN) administrators
6. Chief information officers (CIOs)
7. ...

# Are IT Workers Professionals?

## (cont'd.)

6

### □ Legal perspective

#### □ IT workers do not meet legal definition of professional

1. Not licensed by state or federal government
2. Not liable سوء التصرف عرضه for malpractice

# The Changing Professional Services Industry

7

- IT workers are considered part of the **professional services industry**
- Seven forces are changing professional services
  1. Client sophistication (able to drive hard bargains)
  2. Governance (due to major scandals)
  3. Connectivity (instant communications)
  4. Transparency (view work-in-progress in real-time)
  5. Modularization (able to outsource modules)
  6. Globalization (worldwide sourcing)
  7. Commoditization (for low-end services)

# Professional Relationships That Must Be Managed

8

- IT workers involved in relationships with:
  - Employers
  - Clients
  - Suppliers
  - Other professionals
  - IT users
  - Society at large



# Relationships Between IT Workers and Employers

9

- IT workers agree on many aspects of work relationship before workers accept job offer
- Other aspects of work relationship defined in company's policy and procedure manual or code of conduct
- Some aspects develop over time
- As steward متعهد of organization's IT resources, IT workers must set an example and enforce policies regarding the ethical use of IT.

# Relationships Between IT Workers and Employers

10

- IT workers often have the skills and knowledge to abuse systems and data or to enable others to do so.
- **Software piracy** is an area in which IT workers may be tempted to violate laws and policies Software piracy
  - ▣ Software piracy is an Act of illegally making copies of software or enabling access to software to which they are not entitled.
  - ▣ **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
  - ▣ Thousands of cases prosecuted each year

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

11

**TABLE 2-1** Worldwide and policy council members of Business Software Alliance (as of November 2010)

Adobe	Altium	Apple	Autodesk
AVEVA	AVG	Bentley Systems	CA
Cadence Design Systems	Cisco Systems	CNC Software– Mastercam	Corel
Dassault Systèmes Solid- Works Corporation	Dell	HP	IBM
Intel	Intuit	Kaspersky	McAfee
Microsoft	Mindjet	Progress Software	PTC
Quark	Quest	Rockwell Automation	Siemens PLM Software, Inc.
Stone Bond Technologies	Sybase	Symantec	Synopsys

Source Line: Business Software Alliance, “BSA Members,” © 2011, [www.bsa.org/country/BSA%20and%20Members/Our%20Members.aspx](http://www.bsa.org/country/BSA%20and%20Members/Our%20Members.aspx).

# Relationships Between

## IT Workers and Employers (cont'd.)

12

- 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 حدائنه و ابداع
  - ▣ Whistle-blowing كاشف الفساد
    - Employee attracts attention to a negligent متهاون, illegal, unethical, abusive, or dangerous act that threatens the public interest

# Relationships Between IT Workers and Clients

13

- 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

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

14

- Client makes decisions about a project based on information, alternatives, and recommendations provided by the IT worker
- Client trusts IT worker to act in client's best interests
- IT worker trusts that client will provide relevant information, listen to and understand what the IT worker says, ask questions to understand impact of key decisions, and use the information to make wise choices

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

15

- Ethical problems arise if a company recommends its own products and services to remedy problems they have detected
  - ▣ Creates a conflict of interest
- Problems arise during a project if IT workers are unable to provide full and accurate reporting of a project's status
  - ▣ Finger pointing and heated discussions can ensue

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

16

- Fraud
  - ▣ Crime of obtaining goods, services, or property through deception or trickery
- Misrepresentation
  - ▣ Misstatement or incomplete statement of material fact
  - ▣ If misrepresentation causes a party to enter into a contract, that party may have the right to cancel contract or seek reimbursement تعويض عن for damages



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

17

- Breach of contract
  - ▣ One party fails to meet the terms of a contract
  - ▣ When there is material breach of contract:
    - The non-breaching party may rescind فسخ the contract, seek restitution of any compensation paid to the breaching party, and be discharged from any further performance under the contract
- IT projects are joint efforts in which vendors and customers work together
  - ▣ When there are problems, it is difficult to assign who is at fault

# Relationships Between IT Workers and Suppliers

18

- Develop good working relationships with suppliers:
  - ▣ To encourage flow of useful information and ideas to develop innovative مبتكر and cost-effective ways of using the supplier in ways that the IT worker may not have considered
    - By dealing fairly with them
    - By not making unreasonable demands

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

19

## □ Bribery الرشوة

- 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
- At what point does a gift become a bribe?
- No gift should be hidden
- Perceptions of donor المتبرع and recipient can differ
- United Nations Convention Against Corruption is a global treaty to fight bribery and corruption

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

20

**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

Source Line: Course Technology/Cengage Learning.

# Relationships Between IT Workers and Other Professionals

21

- Professionals feel a degree of loyalty to other members of their profession
- Professionals owe each other adherence الالتزام to their profession's code of conduct
- Ethical problems among the IT profession
  - ▣ Résumé inflation on 30% of U.S. job applications
  - ▣ Inappropriate sharing of corporate information
    - Information might be sold intentionally or shared informally with those who have no need to know

# Relationships Between IT Workers and IT Users

22

- 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

# Relationships Between IT Workers and Society

23

- Society expects members of a profession:
  1. To provide significant benefits
  2. 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

# Professional Codes of Ethics

24

- 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 يطمح 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



# Professional Codes of Ethics (cont'd.)

25

- Following a professional code of ethics (مدونات قواعد السلوك المهني) can produce benefits for the individual, the 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 (معييار التقييم للتقييم الذاتي)

# Professional Organizations

26

- No universal code of ethics for IT professionals
- No single, formal organization of IT professionals has emerged as preeminent بارز
- Four of the most prominent organizations include:
  1. Association for Computing Machinery (ACM)
  2. Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS)
  3. Association of IT Professionals (AITP)
  4. SysAdmin, Audit, Network, Security (SANS) Institute