

ETHICS IN INFORMATION TECHNOLOGY, FOURTH EDITION

Chapter 2

Ethics for IT Workers and IT Users



Certification

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- Indicates that a professional possesses a particular set of skills, knowledge, or abilities in the opinion of the certifying organization
- Can also apply to products
- Generally voluntary
- May or may not require adherence to a code of ethics
- Employers view as benchmark of knowledge
- Opinions are divided on value of certification

Certification (cont'd.)

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□ Vendor certifications

- Many IT vendors—such as Cisco, IBM, Microsoft, SAP, and Oracle—offer certification programs for those who use their products.
- Workers who successfully complete a program can represent themselves as certified users of a manufacturer's product.
- 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, or in some cases, a hands-on lab to demonstrate skills and knowledge
- Can take years to obtain necessary experience
- Training can be expensive
- Sometimes, however, vendor certifications are too narrowly focused on the technical details of the vendor's technology and do not address more general concepts.

Certification (cont'd.)

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□ **Industry association certifications**

- Require a higher level of experience and a broader perspective than vendor certifications
- Must sit for and pass written exam
- May need to pay annual renewal fee, earn continuing education credits, and/or pass renewal test
- Lag in developing tests that cover new technologies
- Are moving from purely technical content to a broader mix of technical, business, and behavioral competencies

Certification (cont'd.)

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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.

Government Licensing

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- License is a government-issued permission to engage in an activity or operate a business
- Generally administered at the state level in the United States
- Often requires that recipient pass a test
- Some professionals must be licensed – doctors, lawyers, CPAs, medical and day care providers, engineers
- One goal: protect public safety

Government Licensing (cont'd.)

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- Case for licensing IT workers
 - ▣ Encourages following highest standards of profession
 - ▣ Encourages practicing a code of ethics
 - ▣ Violators would be punished
- Without licensing, there are no requirements for heightened care and no concept of professional malpractice

Government Licensing (cont'd.)

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- Issues associated with government licensing of IT workers
 - ▣ There are few licensing programs for IT professionals
 - No universally accepted core body of knowledge
 - Unclear who should manage content and administration of licensing exams
 - No administrative body to accredit يصانق professional education programs
 - No administrative body to assess and ensure competence كفاءة of individual workers

IT Professional Malpractice

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- **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

IT Users

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- Employees' ethical use of IT is an area of growing concern because of increased access to:
 - ▣ Personal computers
 - ▣ Corporate information systems and data
 - ▣ The Internet

Common Ethical Issues for IT Users

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- Software piracy
- Inappropriate use of computing resources
 - ▣ Erodes تآكل productivity and wastes time
 - ▣ Could lead to lawsuits
- Inappropriate sharing of information, including:
 - ▣ Every organization stores vast amounts of private or confidential data
 - Private data (employees and customers)
 - Confidential information (company and operations)

Supporting the Ethical Practices of IT Users

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- 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 appropriate use of IT resources
 - ▣ Structuring information systems to protect data and information
 - ▣ Installing and maintaining a corporate firewall

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

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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">• Employees• Part-time workers• Temps• Contractors		

Does the policy address the following issues?

- Protection of the data privacy rights of employees, customers, suppliers, and others
- Control of access to proprietary company data and information
- Use of unauthorized or pirated software
- Employee monitoring, including email, wiretapping and eavesdropping on phone conversations, computer monitoring, and surveillance by video
- Respect of the intellectual rights of others, including trade secrets, copyrights, patents, and trademarks
- Inappropriate use of IT resources, such as Web surfing, personal emailing, and other use of computers for purposes other than business
- 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
- The use of the computer to intimidate, harass, or insult others through abusive language in emails and by other means

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?

Source Line: Course Technology/Cengage Learning.

Compliance

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- To be in accordance with established policies, guidelines, specifications, and legislation
 - ▣ Sarbanes-Oxley – established requirements for internal controls
 - ▣ HIPAA – ensures security and privacy of employee healthcare data
 - ▣ Failure to be in conformance بالتوافق can lead to criminal or civil penalties and also lawsuits

Compliance (cont'd.)

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- Major challenge to comply ^{أذعن} with multiple government and industry regulations that are sometimes in conflict
- To meet this challenge:
 1. Implement software to track and record compliance ^{الامتثال} actions
 2. Hire management consultants for advice and training
 3. Create Chief Compliance Officer position

Compliance (cont'd.)

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- **Audit committee** is subset of the board of directors, with oversight الرقابة for the following activities:
 - Quality and integrity of accounting and reporting practices and controls
 - Compliance with legal and regulatory requirements
 - Qualifications, independence, and performance of organization's independent auditor
 - Performance of company's internal audit team

Compliance (cont'd.)

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□ Internal audit committee responsibilities:

- Determine that internal systems and controls are adequate كاف 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
- Insure that institutional policies and procedures, appropriate laws, and good practices are followed
- Evaluate adequacy and reliability of information available for management decision making

Summary

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- 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 (cont'd.)

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- 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

Summary (cont'd.)

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- IT-related professional organizations have developed their code of ethics that:
 - ▣ Outlines what the organization aspires to become
 - ▣ Lists rules and principles for members
 - ▣ Includes a commitment to continuing education for those who practice the profession
- Audit committee and internal audit team have a major role in ensuring that both the IT organization and IT users are in compliance with guidelines and various legal and regulatory practices