



THE UNIVERSITY OF
NEWCASTLE
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FACULTY OF
ENGINEERING AND
BUILT ENVIRONMENT



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COMP1010 – Week Ethics

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COMP1010 – Introduction to Computing
University of Newcastle

Learning Objectives

- What is ethics, and why is it important to act according to a code of ethics?
- Why is business ethics becoming increasingly important?
- What are organizations doing to improve their business ethics?

Learning Objectives

- Why are organizations interested in fostering good business ethics?
- What approach can you take to ensure ethical decision making?
- What trends have increased the risk of using information technology in an unethical manner?

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?

What is Ethics?

- Every society forms a set of rules that establishes the boundaries of generally accepted behaviour.
- These roles are often expressed in statements about how people should behave, and the individual rules fit together to form the moral code by which a society lives.

Ethics

Set of beliefs about right and wrong behavior within a society

- Moral code:** Statements about how people should behave within a society

Morality: Shared social conventions about right and wrong that become the basis for an established consensus

- Vary by age, culture, ethnicity, religion, life-experiences, education, and gender

Virtues and vices define an individual's moral values

- Virtue:** Habit that inclines people to do what is acceptable
- Vice:** Habit of unacceptable behavior

Integrity

- Acting in accordance with a personal code of principles
- Extending same respect and consideration to all that one expects to receive from others
- Applying the same moral standards in all situations
- Inconsistency emerges:
 - In a situation that conflicts with one's moral standards
 - If one applies moral standards differently according to the situation or people involved

Difference Between Morals, Ethics, and Laws

Morals

- Personal beliefs about right and wrong
- Moral acts conform to what an individual believes to be the right thing to do

Ethics

- Standards or codes of behavior expected of an individual by a group to which the individual belongs

Law

- System of rules, enforced by a set of institutions, that tells us what we can and cannot do
- Legal acts are acts that conform to the law

Ethics in the Business World

- Following increases likelihood of unethical behavior
 - Highly complex work environments make it difficult to apply principles and codes of ethics consistently
 - Pressure to maintain revenue and profits
- Risk of financial loss and criminal or civil lawsuits is more prevalent for businesses that act unethically
 - Result of heightened vigilance by employees, shareholders, and regulatory agencies

Bathsheba Syndrome

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- Reference to the biblical story of King David, who became corrupted by his power and success
- Moral corruption of those in power is facilitated when people choose to ignore their leaders inappropriate behavior

Corporate Social Responsibility (CSR)

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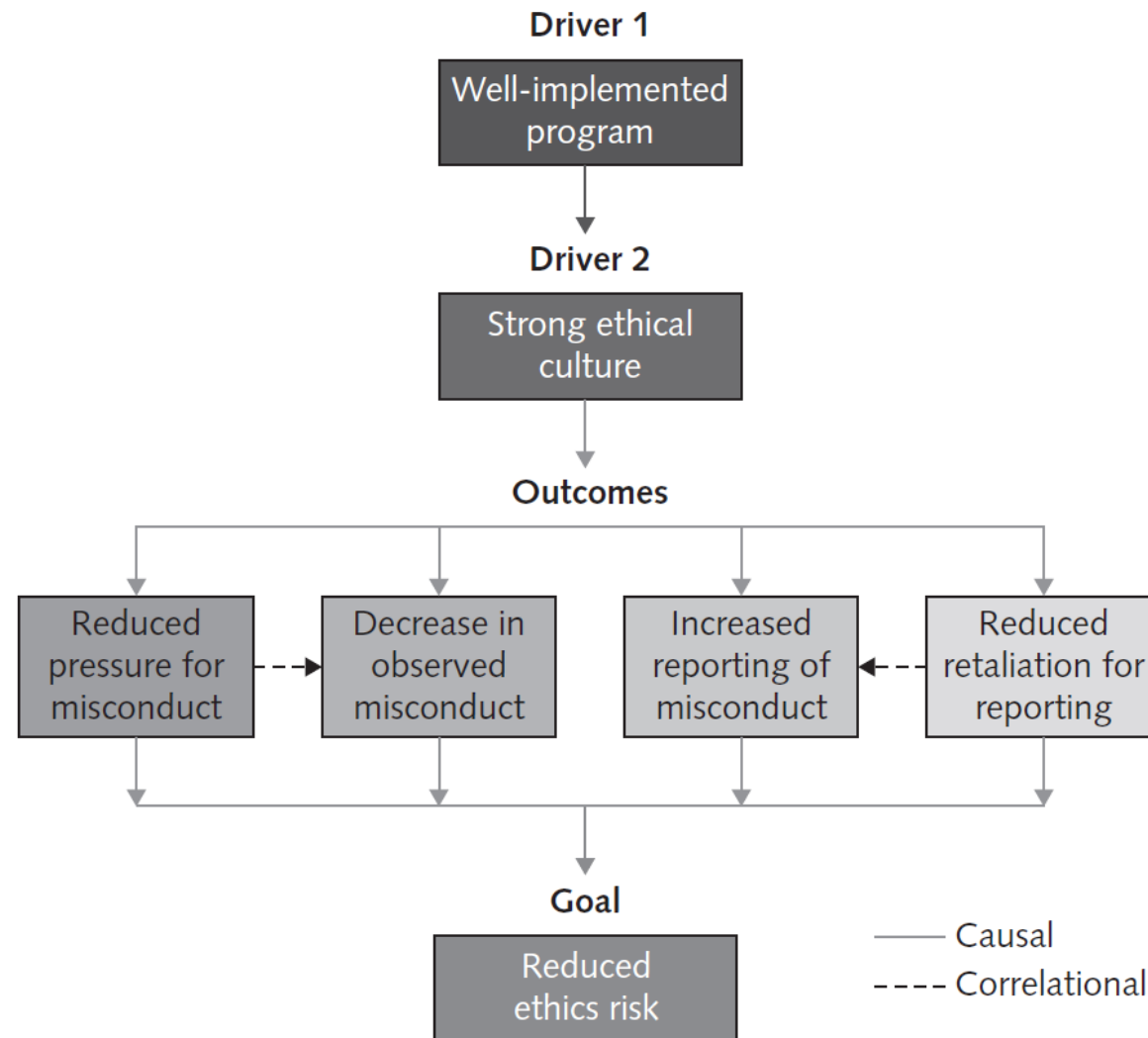
- Organization taking responsibility for the impact of its actions on the:
 - Environment
 - Community
 - Welfare of its employees
- **Supply chain sustainability:** Developing and maintaining a supply chain that meets the needs of the present without compromising the ability of future generations to meet their needs

Why Fostering Corporate Social Responsibility and Good Business Ethics Is Important 12

- To gain the good will of the community
- To create an organization that operates consistently
- To foster good business practices
- To protect organization/employees from legal action
- To avoid unfavorable publicity

Figure 1.2 - Reducing Ethics Risk

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Credit: Courtesy Ethics Resource Center, "2011 National Business Ethics Survey: Workplace Ethics in Transition"

Characteristics of a Successful Ethics Program

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- Employees are willing to seek advice about ethics issues
- Employees feel prepared to handle situations that could lead to misconduct
- Employees are rewarded for ethical behavior
- Organization does not reward success obtained through questionable means
- Employees feel positively about their company

Corporate Ethics Officer

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- Provides an organization with vision and leadership in the area of business conduct
- Ideally a senior-level manager who reports directly to the CEO
- Known as **corporate compliance officer**
- Responsibilities
 - Ensuring compliance of ethical procedures
 - Creating and maintaining the ethics culture that the highest level of corporate authority wishes to have
 - Being the key contact person for ethics issues

Ethical Standards Set by Board of Directors

- Conducting themselves according to the highest standards of personal and professional integrity
- Setting the standard for company-wide ethical conduct
- Ensuring compliance with laws and regulations
- Creating an environment in which employees can:
 - Seek advice about business conduct
 - Raise issues
 - Report misconduct

Establishing a Corporate Code of Ethics

- **Code of ethics:** Statement that:
 - Highlights an organization's key ethical issues
 - Identifies the overarching values and principles important to the organization and its decision making
- Organizational code of ethics should:
 - Apply to its directors, officers, and employees
 - Focus on employees in work-roles susceptible to ethical risk
 - Provide mechanisms for reporting unethical conduct
 - Fostering a culture of honesty and accountability

Sarbanes-Oxley Act of 2002

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- Enacted in response to public outrage over several major accounting scandals
- Section 404
 - Annual reports must be signed by the CEO and CFO attesting that the information in the firm's SEC filings is accurate
- Section 406
 - Public companies must disclose whether they have a code of ethics and any waiver of the code for certain members of management

Sarbanes-Oxley Act of 2002

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- Requires listed companies to have code applicable to all employees, senior management, and directors
- Code of ethics
 - Company-wide acceptance requires employee participation and endorsement by the leadership
 - Must be easily accessible by employees, shareholders, business partners, and the public
 - Must continually be applied to a company's decision making and be an important part of its culture

Social Audit

- Organization reviews its ethical and social responsibility goals, and communicates its goals for the upcoming year
- Information is shared with the:
 - Stakeholders
 - Market analysts
 - Government agencies
 - Communities in which the organization operates

Ethics Training for Employees

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- Includes:
 - Showing employees examples of how to apply the code of ethics in real life
 - Comprehensive ethics education program that encourages employees to act ethically
- Goal
 - Encourage employees to report any misconducts
 - Show employees effective ways of reporting incidents
 - Reassure employees that such feedback will be acted on and that they will not be subjected to retaliation

Ethical Criteria in Employee Appraisals

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- Treating others fairly and with respect
- Operating effectively in a multicultural environment
- Accepting personal accountability for meeting business needs
- Continually developing others and themselves
- Operating openly and honestly with suppliers, customers, and other employees

Table 1.4 - Manager's Checklist for Establishing an Ethical Work

Question	Yes	No
Does your organization have a code of ethics?		
Do employees know how and to whom to report any infractions of the code of ethics?		
Do employees feel that they can report violations of the code of ethics safely and without fear of retaliation?		
Do employees feel that action will be taken against those who violate the code of ethics?		
Do senior managers set an example by communicating the code of ethics and using it in their own decision making?		
Do managers evaluate and provide feedback to employees on how they operate with respect to the values and principles in the code of ethics?		
Are employees aware of sanctions for breaching the code of ethics?		
Do employees use the code of ethics in their decision making?		

Source Line: Course Technology/Cengage Learning.

5 Steps in a Decision-Making Process

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Develop Problem statement

- Clear and concise description of the issue

Identify alternatives

- Brainstorming with others will help identify a broad range of alternatives

Evaluate and choose alternative

- Evaluate alternatives based on multiple criteria

Implement the decision

- Requires developing a transition plan to explain to people how the change will be carried out

Evaluate the results

- Observe impact on the organization and stakeholders

Table 1.5 - Summary of Four Common Approaches to Ethical Decision Making

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Approach to dealing with ethical issues	Principle
Virtue ethics approach	The ethical choice best reflects moral virtues in yourself and your community.
Utilitarian approach	The ethical choice produces the greatest excess of benefits over harm.
Fairness approach	The ethical choice treats everyone the same and shows no favoritism or discrimination.
Common good approach	The ethical choice advances the common good.

Source Line: Course Technology/Cengage Learning.

Limitations of Various Approaches to Ethical Decision Making

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Virtue ethics approach

- Does not provide a guide for action
- Virtue cannot be worked out objectively, it depends on the circumstances

Utilitarian approach

- Measuring and comparing the values of certain benefits and costs is difficult

Fairness approach

- Decisions can be influenced by personal bias
- Affected parties may consider the decision unfair

Common good approach

- Arriving at a consensus becomes difficult
- Some groups are required to bear greater costs than others

Ethics in Information Technology

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- Concerns about the ethical use of information technology
 - E-mail and Internet access monitoring at work
 - Downloading in violation of copyright laws
 - Unsolicited e-mail
 - Identify theft by hackers
 - Plagiarism by students
 - Cookies and spyware to track a site's visitors' hard drives

Ethics in Information Technology

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- Requires managers to assume greater responsibility for ethical decisions by:
 - Making broad-minded, objective decisions based on technical savvy, business know-how, and a sense of ethics
 - Creating a working environment in which ethical dilemmas can be discussed openly, objectively, and constructively

Profession

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- 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

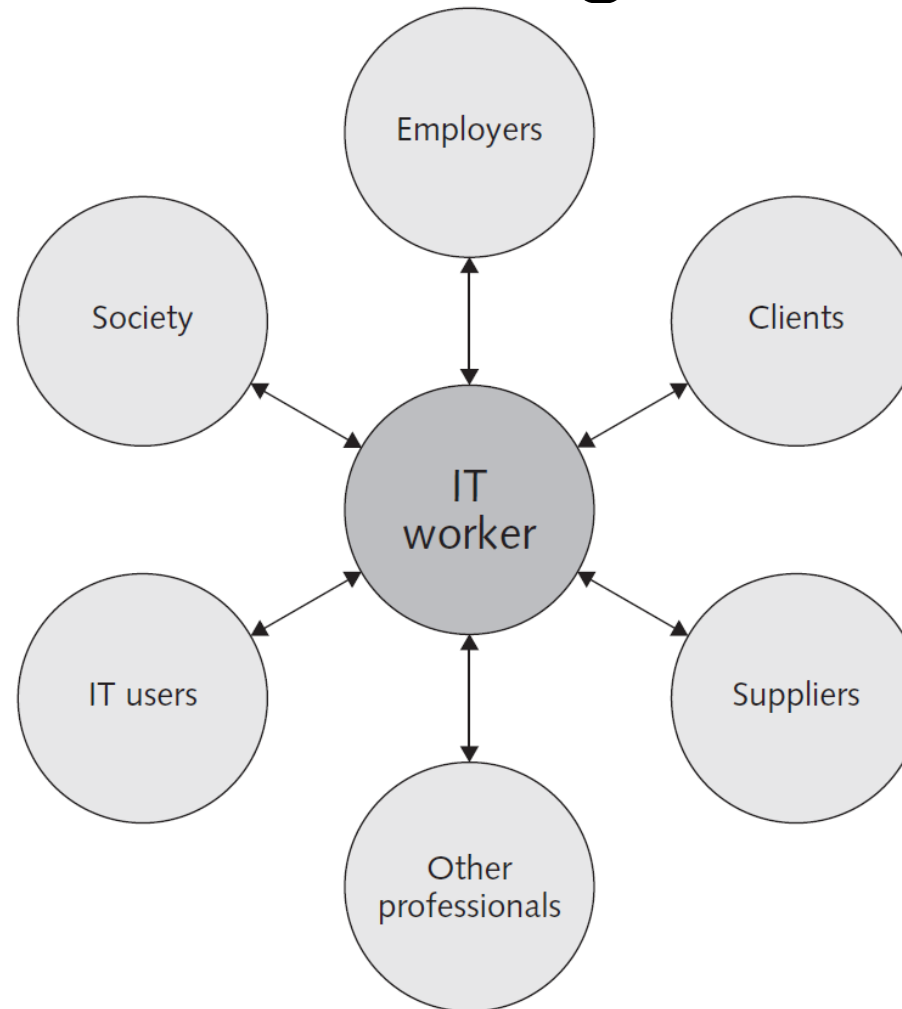
IT Workers

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- 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

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Credit: Course Technology/Cengage Learning.

Ethical Issues between IT Workers and Employers

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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

Ethical Issues between IT Workers and Clients

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Conflict of interest

- Conflict between the IT worker's self-interest and the clients

Fraud

- Obtaining goods, services, or property through deception

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

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- **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

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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

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- 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

Relationships Between IT Workers and Society

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- 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

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

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

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

IT Professional Malpractice

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- **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

Common Ethical Issues for IT Users

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

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"> • 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, blogging, 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 		

Source Line: Course Technology/Cengage Learning.

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

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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

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- 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

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- 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

Summary

- Ethics is important because the risks associated with inappropriate behavior have increased
- Organizations have at least five good reasons for encouraging employees to act ethically
 - To gain the good will of the community
 - To create an organization that operates consistently
 - To foster good business practices
 - To protect the organization and its employees against legal action
 - To avoid unfavorable publicity

Summary

- Organizations require successful ethics programs
- The corporate ethics officer ensures that ethical procedures are installed and followed
- Managers' behaviors and expectations can strongly influence employees' ethical behavior
- Most of us have developed a simple decision-making model that includes five steps
- Ethical considerations must be incorporated into decision making

Summary

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- Four common approaches to ethical decision making
 - Virtue ethics approach
 - Utilitarian approach
 - Fairness approach
 - Common good approach

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

Summary

- 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

Additional Resources

- The Website corporate-ethics.org:
<http://www.corporate-ethics.org/>
- The Coca-Cola Company—Governance and Ethics:
http://www.thecoca-colacompany.com/citizenship/governance_ethics.html
- The website of Ethics Resource Center:
<http://www.ethics.org/>