

4

Personal, Legal, Ethical, and Organizational Issues of Information Systems

Learning Objectives (1 of 2)

- Discuss information privacy and methods for improving the privacy of information
- Explain the privacy of e-mail, data collection issues, and censorship
- Discuss the ethical issues related to information technology
- Discuss the principles of intellectual property and issues related to the infringement of intellectual property

Learning Objectives (2 of 2)

- Discuss information system issues that affect organizations, including the digital divide, electronic publishing, and the connection between the workplace and employees' health
- Describe green computing and the ways it can improve the quality of the environment

Privacy Issues (1 of 7)

- Employers search social networking sites for background information on applicants
- Monitoring systems are adopted by employers to check employee performance
- Healthcare organizations, financial institutions, legal firms, and onlineordering firms gather personal data and enter it in databases

Privacy Issues (2 of 7)

- Information about every aspect of people's lives is stored on various databases
 - Many practices of government agencies, credit agencies, and marketing companies using databases would represent an invasion of privacy
- Several federal laws regulate the collecting and using of information on people and corporations
 - Narrow in scope and contain loopholes

Privacy Issues (3 of 7)

- Concepts of the web and network privacy
 - Acceptable use policy: set of rules specifying legal and ethical use of a system and consequences of noncompliance
 - Accountability: issues involving both the user's and the organization's responsibilities and liabilities
 - Nonrepudiation: method for binding all the parties to a contract

Privacy Issues (4 of 7)

- Guidelines to minimize the invasion of privacy
 - Conduct business only with Web sites that have privacy policies
 - Limit access to personal to those with authorization information
 - Ensure data's reliability and take precautions to prevent misuse of the data

Privacy Issues (5 of 7)

- Make sure data collection has a stated purpose
- Identify ways to prevent personal information gathered from being disclosed without consent
- Use verification procedures to ensure data accuracy
- Ensure records kept on an individual are accurate and up to date
- Review records and correct any inaccuracies

Privacy Issues (6 of 7)

- Do not keep record-keeping systems that store personal data a secret
- Take all necessary measures to prevent unauthorized access to data and misuse of data

Privacy Issues (7 of 7)

- Federal data protection laws
 - Health Insurance Portability and Accountability Act (HIPAA)
 - Fair and Accurate Credit Transaction Act (FACTA)
 - Children's Online Privacy Protection Act (COPPA)

E-mail

- Spam: unsolicited e-mail sent for advertising purposes
 - Sent in bulk using automated mailing software
- Ease of access
 - Individuals should assume that others have access to their messages
 - Any e-mails sent on company-owned computers are the property of an organization

Data Collection on the Web (1 of 3)

- Number of people shopping online is increasing rapidly because of convenience, the array of choices, and lower prices
 - Reluctant to make online purchases because of concerns about hackers
- Information provided on the Web can be combined with other information and technologies to produce new information

Data Collection on the Web (2 of 3)

- Cookies: small text files with unique ID tags that are embedded in a Web browser and saved on the user's hard drive
 - Help Web sites customize pages for users
 - Considered an invasion of privacy when users' information is used without prior consent
 - Installing a cookie manager helps users disable cookies

Data Collection on the Web (3 of 3)

- Log files record a user's actions on a Web site
 - Generated by Web server software
 - Help in identifying cases of identity misrepresentation on Web sites

Ethical Issues of Information Technologies

- Information technology offers opportunities for unethical behavior because of the ease of collecting and disseminating information
 - Increase in cybercrime, cyberfraud, identity theft, and intellectual property theft
- Organizations can reduce unethical behavior of employees by developing and enforcing codes of ethics

Censorship (1 of 2)

- Types of Information on the Web
 - Public information is posted by an organization or public agency
 - Censored for public policy reasons
 - Censored if the content is deemed offensive to a political, religious, or cultural group
 - Private information is posted by a person
 - Uncensored because of constitutional freedom of expression

Censorship (2 of 2)

- Restricting access to the Web
 - Countries such as China, Myanmar (Burma), and Singapore restrict or forbid their citizens' access to the Web
 - Internet neutrality: Internet service providers (ISPs) and government agencies should treat all data on the Internet equally
 - Parents use programs such as CyberPatrol, CyberSitter, Net Nanny, and SafeSurf to prevent children's access to Web sites

Intellectual Property (1 of 5)

 Legal umbrella covering protections that involve copyrights, trademarks, trade secrets, and patents developed by people or businesses

Intellectual Property (2 of 5)

- Categories of intellectual property
 - Industrial property: inventions, trademarks, logos, and industrial designs
 - Copyrighted material: literary and artistic works
 - Online materials such as Web pages, HTML code, and computer graphics
 - Fair Use Doctrine: exception to the copyright law that allows the use of copyrighted material for certain purposes

Intellectual Property (3 of 5)

- Intellectual property protections
 - Trademark: protects product names and identifying marks
 - Patent: protects new processes
 - Advantages of patents to organizations
 - Generates revenue by licensing the patent
 - Attracts funding for research and development
 - Keeps competitors from entering certain market segments

Intellectual Property (4 of 5)

- 1980 revisions to the Copyright Act of 1976 include computer programs
 - Both people and organizations can be held liable for unauthorized duplication and use of copyrighted programs
- Laws covering legal issues related to information technologies in the U.S.
 - Telecommunications Act of 1996
 - Communications Decency Act (CDA)
 - Laws against spamming

Intellectual Property (5 of 5)

- Cybersquatting
 - Registering, selling, or using a domain name to profit from someone else's trademark
- Typosquatting
 - Relies on typographical errors made by Web users when typing a Web site address into a Web browser
 - Variation of cybersquatting
 - Called URL hijacking

Social Divisions and the Digital Divide

- Digital divide: created between the information rich and the information poor by information technology and the Internet
 - Computers still are not affordable for many people
 - Increasing funding for computers at schools and public places helps offset the divide

The Impact of Information Technology in the Workplace (1 of 2)

- Increased consumers' purchasing power
 - Results in a stronger economy by reducing production costs
- Information technologies have a direct effect on the nature of jobs
 - Telecommuting enables people to perform their jobs from home
 - Organizations can use the best human resources in a large geographical region

The Impact of Information Technology in the Workplace (2 of 2)

- Job deskilling: occurs when skilled labor is eliminated by high technology
- Virtual organizations: networks of independent companies, suppliers, customers, and manufacturers connected via information technologies
 - Share skills and cost
 - Have access to each other's markets

Table 4.1 Telecommuting (1 of 2)

Potential Benefits

Can care for small children or elderly parents and spend more time with family

Have fewer restrictions on clothing for work, thereby saving the expense of work wear

No commute, so distance and time factors are reduced as well as the effects of car emissions on air quality

Able to work in more pleasant surroundings

Increased productivity

Decreased neighborhood crime because of more people being home during the day

Easier work environment for employees with disabilities

Reduced costs for office space and utilities

Reduced employee turnover and absenteeism

Able to find and hire people with special skills, regardless of where they are located

Fewer interruptions from coworkers

Table 4.1 Telecommuting (2 of 2)

Potential Drawbacks

Can become a workaholic (no hard boundaries between "at work" and "at home")

No regulated work routine

Less interaction with coworkers

No separation between work and home life

Potential legal issues about workers' injuries

Family interruptions and household distractions

Lack of necessary supplies or equipment

Could create a two-tiered workforce—telecommuters and on-site workers—that affects promotions and raises

Information Technology and Health Issues

- Increasing popularity of touchscreens
 - Result in stress-related injuries of the users' hands, arms, back, and eyes
- Health problems related to computer equipment
 - Vision problems
 - Musculoskeletal problems
 - Skin problems
 - Reproductive problems
 - Stress-related problems

Green Computing (1 of 3)

- Promotes a sustainable environment and consumes the least amount of energy
 - Involves design, manufacture, use, and disposal of computers, servers, and computing devices with minimal impact on the environment
 - Requires cooperation of both private and public sectors

Green Computing (2 of 3)

- Ways to achieve green computing
 - Designing products that last longer and are modular in design
 - Parts can be upgraded without replacing the entire system
 - Designing search engines and computing routines that are faster and consume less energy
 - Replacing underutilized smaller servers with one large server using a virtualization technique

Green Computing (3 of 3)

- Using computing devices that consume less energy and are biodegradable
- Allowing certain employees to work from their homes
- Conducting meetings over computer networks to reduce business travel
- Using cloud computing
- Turning off idle PCs and recycling computer-related materials

Summary (1 of 2)

- Employers search social networking sites, such as Facebook or Instagram, to find background information on applicants
- Spamming presents serious privacy issues
- Two types of information available on the Web are public and private

Summary (2 of 2)

- Many associations promote the ethically responsible use of information systems and technologies
- Information technology has created many new jobs
- Green computing is one of the methods for combating global warming

