Chapter 5

Ethical and Social Issues in the Digital Firm

OBJECTIVES

• Analyze the relationship among ethical, social, and political issues that are raised by information systems
• Identify the main moral dimensions of an information society and specific principles for conduct that can be used to guide ethical decisions

OBJECTIVES (Continued)

• Evaluate the impact of contemporary information systems and the Internet on the protection of individual privacy and intellectual property
• Assess how information systems have affected everyday life
• Identify the principal management challenges posed by the ethical and social impact of information systems and management solutions

UNDERSTANDING ETHICAL AND SOCIAL ISSUES RELATED TO SYSTEMS

Ethics

• Principles of right and wrong (for individuals)
• Assumes individuals are acting as free moral agents to make choices to guide their behavior
• Even if someone else tells you what is right/wrong, you choose to follow that advice (or not).

Management Information Systems
Chapter 5 Ethical and Social Issues in the Digital Firm

Table 5-1: Recent Examples of Failed Ethical and Social Issues

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
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<tbody>
<tr>
<td>Enron</td>
<td>High three executives and several middle managers, currently indicted for misleading earnings using illegal accounting schemes. Bankruptcy declared in 2001.</td>
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<tr>
<td>Merrill Lynch</td>
<td>Indicted for missing billions in the creation of financial vehicles that tied to business坚持以，能力Modeling.</td>
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<tr>
<td>Parmalat</td>
<td>Italy’s eighth largest industrial group indicted for missing over $3 billion in revenues, earnings, and assets over several years, senior executives indicted for bankruptcy.</td>
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<tr>
<td>Blockbuster</td>
<td>Pharmaceutical firm agreed to pay a fine of $130 million for misleading its revenues by $1.5 billion, and violating its stock value.</td>
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• Since the late 1980s in the United States, and worldwide, legislation has been passed that mandates severe penalties for managers who are found guilty of a wide variety of financial, reporting, and computer crimes

Management Information Systems
Chapter 5 Ethical and Social Issues in the Digital Firm

Information technology creates ethical issues because:

(a) IT changes the distribution of decision-making rights, power and other resources.

Example: IT makes it possible for millions of people to download video files, weakening the exclusive rights of movie studios to control distribution for their own profit.
Information technology creates ethical issues because:

(b) IT creates new opportunities to commit crimes.

Example: E-mail creates the conditions for extensive "phishing" or online con games designed to defraud ordinary citizens.

Five Moral Dimensions of the Information Age

- Information rights and obligations
  - Organizational obligations to honor an individual’s privacy
- Property rights and obligations
  - Organizational obligations to honor intellectual property
- Accountability and control
  - Who is held accountable and liable for harm to privacy/property?
- System quality
  - What standards are demanded for software quality & safety? Who is accountable when software causes harm?
- Quality of life
  - What values are affected by the new information-based society?

Key Technology Trends that Raise Ethical Issues

- Changes in technology have some obvious positive consequences, but also create some potentially or actual negative consequences.
- Computing power doubles every 18 months: Dependence on computer systems increases, and it becomes more cost effective to process massive amounts of personal information.

A IS Model for Thinking About Ethical, Social, and Political Issues

- Illustrates the dynamics connecting ethical, social, and political issues
- Identifies the moral dimensions of the "information society," across individual, social, and political levels of action

The Relationship between Ethical, Social, and Political Issues in an Information Society

Key Technology Trends Raise Ethical Issues (Continued)

- Rapidly declining data storage costs: Lowers the cost of creating huge national databases composed of private information; lowers the cost of storing and using illegal music files
- Data-mining advances: Increases the ability of firms and governments to track the movement of citizens throughout life
- Networking advances and the Internet: Remotely accessing personal data
ETHICS IN AN INFORMATION SOCIETY

Basic Concepts: Responsibility, Accountability, and Liability

- Responsibility: Accepting the potential costs, duties, and obligations for decisions
- Accountability: Social mechanisms in-place for identifying responsible parties -- who (what happens if you cannot identify who responsible?)
- Liability: Permits individuals (and firms) to recover damages done to them
- Due process: Laws are well known and understood, with an ability to appeal to higher authorities

Candidate Ethical Principles

- Golden Rule: Do unto others as you would have them do unto you
- Immanuel Kant's Categorical Imperative: If an action is not right for everyone to take, then it is not right for anyone
- Descartes' rule of change: If an action cannot be taken repeatedly, then it is not right to be taken at any time ("slippery slope" argument)

Candidate Ethical Principles (Continued)

- Utilitarian Principle: Take the action that achieves the greatest value for all concerned
- Risk Aversion Principle: Take the action that produces the least harm or incurs the least cost to all concerned (mini-max, maxi-min, etc.)
- Ethical "no free lunch" rule: Assume that all tangible and intangible objects are owned by someone else, unless shown the contrary. If someone has created something of value to you, that person probably wants compensation for its use

Some Real-World IT Ethical Dilemmas

- Using huge databases to aggregate consumer information, reducing the costs of granting credit, but increasing the chance of losing personal data to criminals, terrorists, or others
- Using systems to increase efficiency, and causing layoffs and personal hardships
- Using systems to monitor employee e-mail to protect valuable assets, but decreasing employee privacy
- Monitoring employee use of the Internet at work, decreasing employee privacy

Some Real-World IT Ethical Dilemmas (Continued)

- Privacy: Claim of individuals to be left alone, free from surveillance or interference from other individuals, organizations, or the state. The claim to be able to control information about yourself
- Fair information practices: Set of principles governing the collection and use of information on the basis of U.S. and European privacy laws
Cookies:
- Tiny files deposited on a hard drive
- Used to identify the visitor and track visits to the Web site
- May or may not be used to gather personal private information
- In some cases, only a visitor's customer number is maintained, not any personal information. In other cases, personal information can be gathered.

Internet Challenges to Privacy

How Cookies Identify Web Visitors

Spyware:
- Software downloaded onto a user's computer—usually without knowledge—that tracks Web behavior and reports that behavior to a third-party server
- Spyware is also used to call for ads from third-party servers, or to divert customers from one site to a preferred site. For example, you enter www.LLBean.com and the spyware program takes you to www.eddiebauer.com and displays a discount coupon for Eddie Bauer.

Spyware: (Continued)
- LL Bean sued. The adware manufacturer Gator.com changed the software, and stopped the marketing campaign. They settled out of court.
- Typically downloaded by file-sharing programs like Kazaa, who make money selling advertising to large consumer products, retailing, and clothing companies.

Ethical Issues

What ethical principles can we use to analyze these situations?
- Under what conditions should the privacy of others be invaded?
- What legitimates intruding into others' lives through unobtrusive surveillance, through market research, or by whatever means?
- Do we have to inform people that we are eavesdropping? (wire tap, email, cell phone, cordless?)
- Do we have to inform people that we are using credit history information for employment screening purposes? (hospital admission, insurance, ...?)

Property Rights: Intellectual Property

- Intellectual property: Intangible property of any kind created by individuals or corporations.

Three main ways that intellectual property is protected:
- Trade secret: Intellectual work or product belonging to business, not in the public domain.
Property Rights: Intellectual Property
Three main ways that intellectual property is protected:
(Continued)

- **Copyright:** Statutory grant protecting intellectual property from being copied for the life of the author, plus 70 years
  - Underlying ideas not protected, only manifestation
- **Patents:** A grant to the creator of an invention granting the owner an exclusive monopoly on the ideas behind an invention for 20 years

Challenges to Intellectual Property Rights

- Perfect digital copies cost almost nothing.
- Sharing of digital content over the Internet costs almost nothing.
- Courts have generally not interfered with the commercialization of technology that creates perfect copies of protected works as long as the manufacturer could not control how customers use its products.
- How has this issue affected the introduction of technologies such as digital VCRs, DVD recorders, digital back-up software?

IT: Accountability, Liability, and Control

- IT can challenge our ability to identify who is responsible for actions involving systems that injure people. (Is it the software programmer, manager, firm, QA, marketing, training?)
- IT can make it difficult to assign liability and restore injured persons.
- IT raises issues about who should control information systems that have the potential for injuring citizens.

Ethics and System Quality: Data Quality and System Errors

- No software program is perfect, “errors” will be made, even if the errors have a low probability of occurring.
- Errors in Windows operating systems were notorious. At what point should software “be shipped?” What kind of disclaimer statements might be appropriate?

Ethics and System Quality: Data Quality and System Errors (Continued)

- No database is without errors.
- In fact, most consumer and government personal information databases have errors ranging from 10-20% of the data records being either inaccurate, incomplete, or ambiguous. How should decision makers treat this kind of information in order to be fair to data subjects?

IT and Quality of Life Issues: Equity, Access, and Boundaries (Continued)

- Equity and access: While 500 million people worldwide are on the Internet, billions of others are not. Within the United States, the digital divide has declined among ethnic groups, but still persists. The divide between men and women has largely disappeared.
## Computer Vision Syndrome (CVS):
- Eyestrain condition
- Related to computer display screen usage
- Symptoms include headaches, blurred vision, and dry and irritated eyes

## Technostress:
- Stress induced by computer use
- Symptoms include aggravation, hostility toward humans, impatience, and enervation

### Management Opportunities:
Managers have the opportunity to use information technology to create an ethical business and social environment. This does not mean management actions will always please all stakeholders, but at least management actions should take into account the ethical dimensions of IT-related decisions.

### Management Challenges:
- Understanding the moral risks of new technology
- Establishing corporate ethics policies that include information systems issues

### Solution Guidelines:
Management should devise policies and ethical standards specifically for IT areas that cover the 5 major moral dimensions:
- Spell out privacy and due process policies (information rights and obligations)
- Clarify actions to preserve SW rights (property rights and obligations)
- Document quality standards (system quality)
- Corporate policy for RSI (quality of life)
- Clarify who is responsible/accountable/liable for mishandling company info (accountability and control)