Lecture - 08

ETHICAL AND SOCIAL ISSUES
IN THE DIGITAL FIRM

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OBJECTIVES

- What ethical, social, and political issues are raised by information systems?

- Are there specific principles for conduct that can be used to guide decisions about ethical dilemmas?

- Why does contemporary information systems technology pose challenges to the protection of individual privacy and intellectual property?

- How have information systems affected everyday life?

- How can organizations develop corporate policies for ethical conduct?

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MANAGEMENT CHALLENGES

- Understanding the moral risks of new technology

- Establishing corporate ethics policies that include information systems issues

UNDERSTANDING ETHICAL AND SOCIAL ISSUES RELATED TO SYSTEMS

Ethics

- Principles of right and wrong

- Can be used by individuals acting as free moral agents to make choices to guide their behavior

UNDERSTANDING ETHICAL AND SOCIAL ISSUES RELATED TO SYSTEMS

**Five Moral Dimensions of the Information Age**

- Information rights and obligations

- Property rights

- Accountability and control

- System quality

- Quality of life

UNDERSTANDING ETHICAL AND SOCIAL ISSUES RELATED TO SYSTEMS

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

THE RELATIONSHIP BETWEEN ETHICAL, SOCIAL, AND POLITICAL ISSUES IN AN INFORMATION SOCIETY

The introduction of new information technology has a ripple effect, raising new ethical, social, and political issues that must be dealt with on the individual, social, and political levels. These issues have five moral dimensions: information rights and obligations, property rights and obligations, system quality, quality of life, and accountability and control.
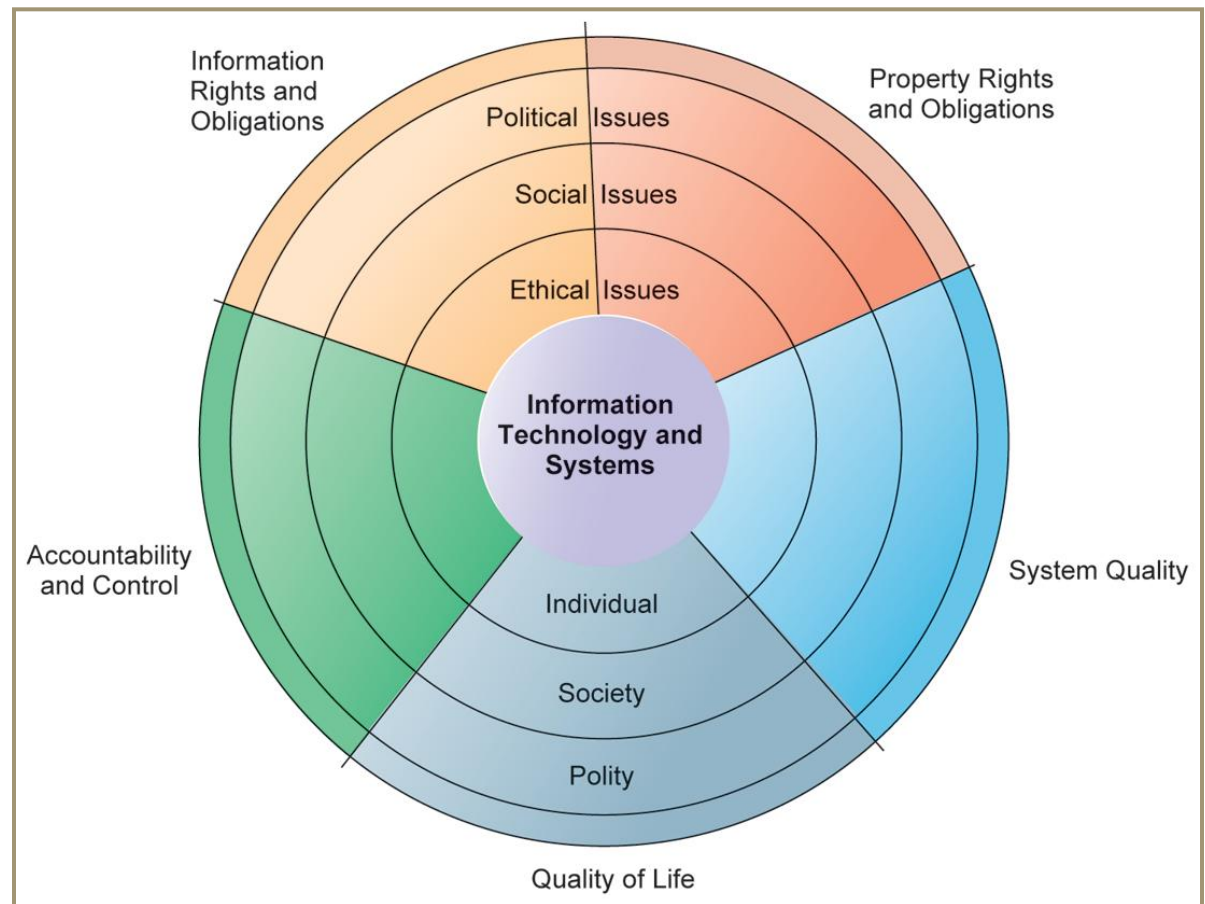
UNDERSTANDING ETHICAL AND SOCIAL ISSUES RELATED TO SYSTEMS

Key Technology Trends that Raise Ethical Issues

- Key technology trends that raise ethical issues-

  1. **Doubling of computer power**
     More organizations depend on computer systems for critical operations
  2. **Rapidly declining data storage costs**
     Organizations can easily maintain detailed databases on individuals
  3. **Networking advances and the Internet**
     Copying data from one location to another and accessing personal data from remote locations is much easier

UNDERSTANDING ETHICAL AND SOCIAL ISSUES RELATED TO SYSTEMS

Key Technology Trends that Raise Ethical Issues (cont.)

4. Advances in data analysis techniques
   - Companies can analyze vast quantities of data gathered on individuals for:
     - **Profiling**
       » Combining data from multiple sources to create dossiers of detailed information on individuals
     - **Nonobvious relationship awareness (NORA)**
       » Combining data from multiple sources to find obscure hidden connections that might help identify criminals or terrorists

UNDERSTANDING ETHICAL AND SOCIAL ISSUES RELATED TO SYSTEMS

NORA Technology

NONOBVIOUS RELATIONSHIP AWARENESS (NORA)

NORA technology can take information about people from disparate sources and find obscure, nonobvious relationships. It might discover, for example, that an applicant for a job at a casino shares a telephone number with a known criminal and issue an alert to the hiring manager.
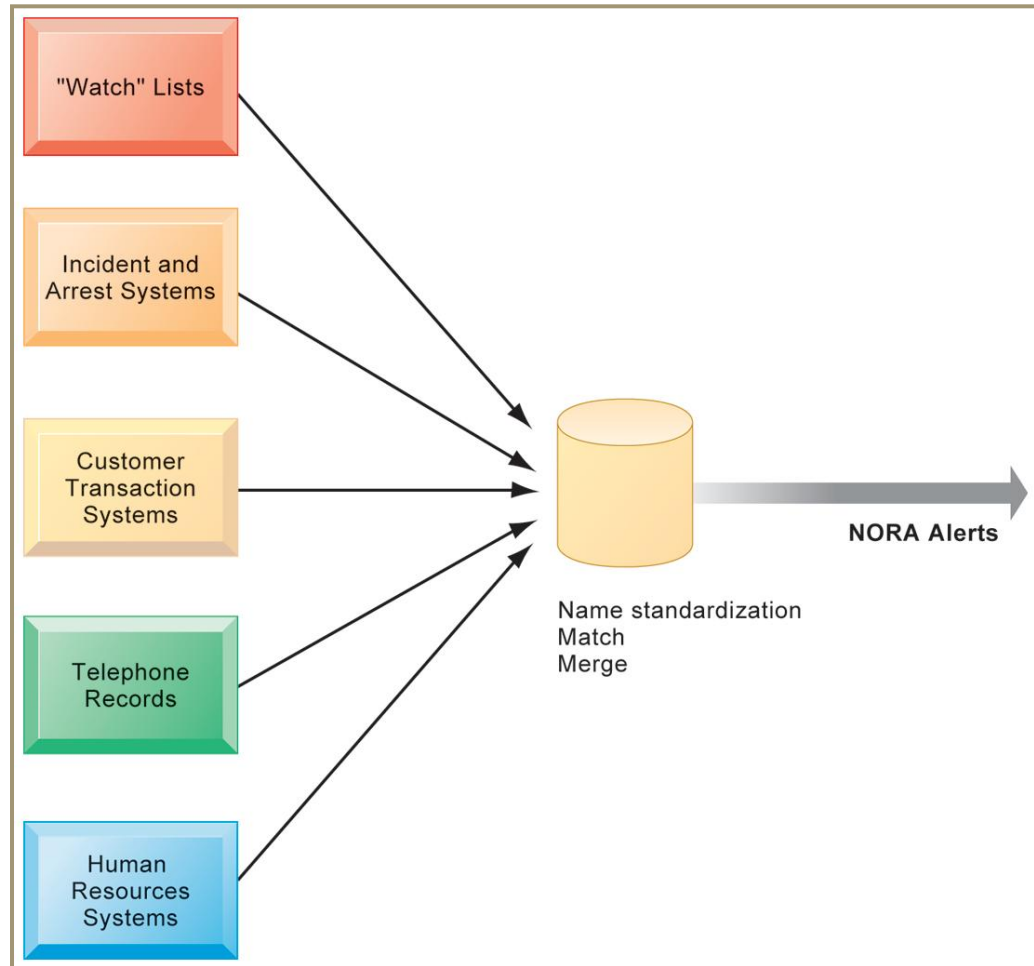
Basic Concepts: Responsibility, Accountability, and Liability

- **Basic concepts for ethical analysis**
  - **Responsibility:**
    - Accepting the potential costs, duties, and obligations for decisions
  - **Accountability:**
    - Mechanisms for identifying responsible parties
  - **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

Ethical analysis

- **A five-step process:**
    1. **Identify and clearly describe the facts**
    2. **Define the conflict or dilemma and identify the higher-order values involved**
    3. **Identify the stakeholders**
    4. **Identify the options that you can reasonably take**
    5. **Identify the potential consequences of your options**

Six Candidate Ethical Principles

1. **Golden Rule**

   • Do unto others as you would have them do unto you

2. **Immanuel Kant's Categorical Imperative**

   • If an action is not right for everyone to take, it is not right for anyone

3. **Descartes' Rule of Change**

   • If an action cannot be taken repeatedly, it is not right to take at all

4. **Utilitarian Principle**

   • Take the action that achieves the higher or greater value

5. **Risk Aversion Principle**

   • Take the action that produces the least harm or least potential cost

6. **Ethical "no free lunch" Rule**

   • Assume that virtually all tangible and intangible objects are owned by someone unless there is a specific declaration otherwise

Professional codes of conduct

- A code of professional conduct is a necessary component to any profession to maintain standards for the individuals within that profession to adhere.

- It brings about accountability, responsibility and trust to the individuals that the profession serves.

The Moral Dimensions of Information Systems

- Privacy

- Fair information practices

  1. Notice/awareness (core principle)

     -Web sites must disclose practices before collecting data

  2. Choice/consent (core principle)

     - Consumers must be able to choose how information is used for secondary purposes

  3. Access/participation

     - Consumers must be able to review, contest accuracy of personal data Security

Fair information practices (cont.)

4. Security

   - Data collectors must take steps to ensure accuracy, security of personal data

5. Enforcement

   - There must be a mechanism to enforce FIP principles

Internet Challenges to Privacy

- Cookies
  - Tiny files downloaded by Web site to visitor's hard drive to help identify visitor's browser and track visits to site
  - Allow Web sites to develop profiles on visitors

- Web beacons/bugs
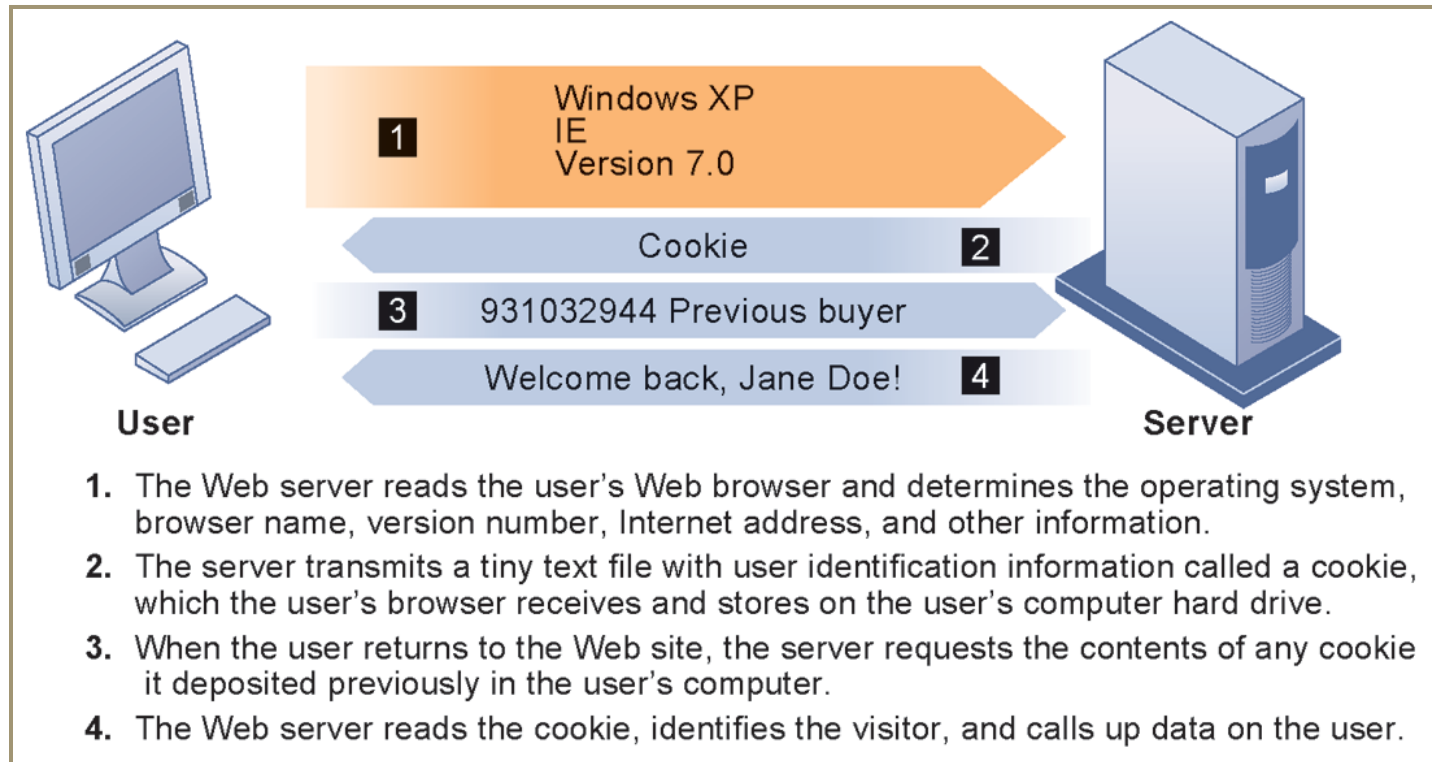 - Tiny graphics embedded in e-mail and Web pages to monitor who is reading message

- Spyware
  - Surreptitiously installed on user's computer
  - May transmit user's keystrokes or display unwanted ads

- Google's collection of private data; behavioral targeting

HOW COOKIES IDENTIFY WEB VISITORS

Cookies are written by a Web site on a visitor's hard drive. When the visitor returns to that Web site, the Web server requests the ID number from the cookie and uses it to access the data stored by that server on that visitor. The Web site can then use these data to display personalized information.

Technical solutions
Platform for Privacy Preferences (P3P)

Request for Web page

- Web page
- Compact P3P policy
- Pointer to full P3P policy
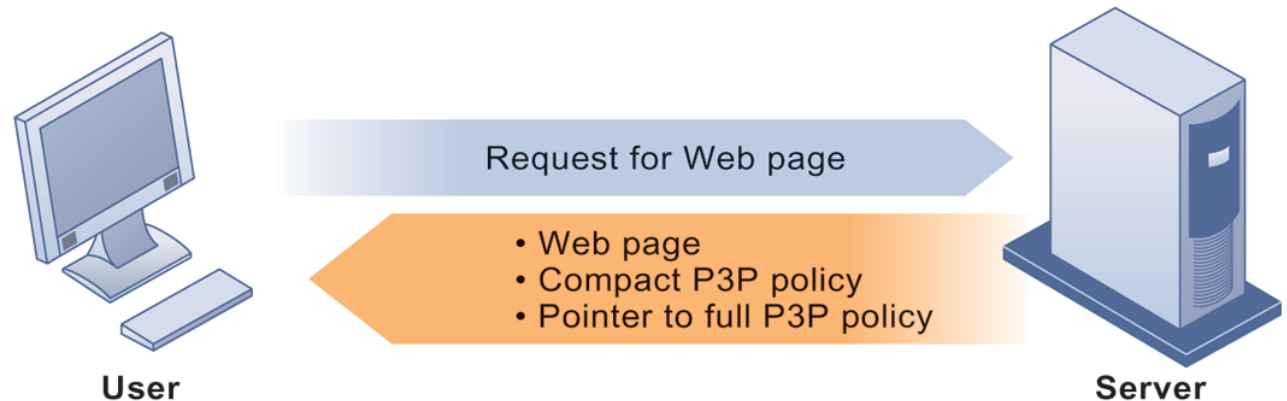
User   Server

- Allows Web sites to communicate privacy policies to visitor's Web browser – user

- User specifies privacy levels desired in browser settings

1. The user with P3P Web browsing software requests a Web page.
2. The Web server returns the Web page along with a compact version of the Web site's policy and a pointer to the full P3P policy. If the Web site is not P3P compliant, no P3P data are returned.
3. The user's Web browsing software compares the response from the Web site with the user's privacy preferences. If the Web site does not have a P3P policy or the policy does not match the privacy levels established by the user, it warns the user or rejects the cookies from the Web site. Otherwise, the Web page loads normally.

- P3P enables Web sites to translate their privacy policies into a standard format that can be read by the user's Web browser software. The browser software evaluates the Web site's privacy policy to determine whether it is compatible with the user's privacy preferences.

Property rights: Intellectual property

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

– Three main ways that protect intellectual property

1. **Trade secret:** Intellectual work or product belonging to business, not in the public domain
2. **Copyright:** Protecting intellectual property from being copied for the life of the author, plus 70 years
3. **Patents:** Grants creator of invention an exclusive monopoly on ideas behind invention for 20 years

Property rights: Intellectual property (cont.)

- Challenges to intellectual property rights
  - Digital media different from physical media (e.g. books)
    - Ease of replication
    - Ease of transmission (networks, Internet)
    - Difficulty in classifying software
    - Compactness
    - Difficulties in establishing uniqueness

- Digital Millennium Copyright Act (DMCA)
  - Makes it illegal to circumvent technology-based protections of copyrighted materials

Computer-related liability problems

If software fails, who is responsible?

- – If seen as part of machine that injures or harms, software producer and operator may be liable
- – If seen as similar to book, difficult to hold author/publisher responsible
- – What should liability be if software seen as service? Would this be similar to telephone systems not being liable for transmitted messages?

Computer crime and abuse

– Computer crime: Commission of illegal acts through use of compute or against a computer system – computer may be object or instrument of crime

– Computer abuse: Unethical acts, not illegal
  • Spam: High costs for businesses in dealing with spam

Health Risks: RSI, CVS, and Technostress

1. Repetitive stress injury (RSI)

    – Occupational disease
    – Muscle groups are forced through repetitive actions with high-impact loads or thousands of repetitions with low impact loads

2. Carpal Tunnel Syndrome (CTS)

    – Type of RSI
    – Pressure on the median nerve through the wrist's bony carpal tunnel structure produces pain

Health Risks: RSI, CVS, and Technostress

1. Computer vision syndrome (CVS)

- Eyestrain condition
- Related to computer display screen usage
- Symptoms include headaches, blurred vision, and dry and irritated eyes

2. Technostress

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