Management Information Systems

Ethical and Social Issues in Information Systems

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Chapter 4

Ethical and Social Issues in Information Systems
Class Website

- www.vivafrica.net

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Learning Objectives

Ethical, social, and political issues are closely in the information world. Ethical issues spring up both social and political issues. For one, customer service has become the organisational function or service which attracts the largest ethical challenges. Moreover, the lack of training regarding internet usage has afforded many individuals to participate in conduct that questions their ethics. This session explores these issues.

Learning Objectives include:

1. Identify the ethical, social, and political issues that are raised by information systems.
2. Evaluate the impact of contemporary information systems and the Internet on the protection of individual privacy and intellectual property.
3. Assess how information systems have affected everyday life.
Understanding Ethical and Social Issues Related to Systems

• **Ethics**
  • Principles of right and wrong that individuals, acting as free moral agents, use to make choices to guide their behavior

• **Information systems and ethics**
  • Information systems raise new ethical questions because they create opportunities for:
    • Intense social change, threatening existing distributions of power, money, rights, and obligations
    • New kinds of crime
Vodafone 3030, the complete Love Story

http://www.youtube.com/watch?v=5DY1clgXqBE
Understanding Ethical and Social Issues Related to Systems

• Five moral dimensions of information age
  • Major issues raised by information systems include:
    • Information rights and obligations
    • Property rights and obligations
    • Accountability and control
    • System quality
    • Quality of life
Management Information Systems
Chapter 4 Ethical and Social Issues in Information Systems

Understanding Ethical and Social Issues Related to Systems

• Four key technology trends that raise ethical issues
  • Computing power doubles every 18 months {faster access}
    • Increased reliance on, and vulnerability to, computer systems
  • Data storage costs rapidly declining {storing data online}
    • Multiplying databases on individuals
  • Data analysis advances {easy profiling}
    • Greater ability to find detailed personal information on individuals
    • Profiling and nonobvious relationship awareness (NORA)
  • Networking advances and the Internet {data everywhere}
    • Enables moving and accessing large quantities of personal data
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.
Ethics in an Information Society

• **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, it is not right for anyone
  
  • **Descartes' rule of change**
    
    If an action cannot be taken repeatedly, it is not right to take at all
• Candidate Ethical Principles (cont.)
  • Utilitarian Principle
    • Take the action that achieves the higher or greater value
  • Risk Aversion Principle
    • Take the action that produces the least harm or least potential cost
  • Ethical “no free lunch” rule
    • Assume that virtually all tangible and intangible objects are owned by someone unless there is a specific declaration otherwise
The Moral Dimensions of Information Systems

• Information rights and obligations
  • Privacy
    • Claim of individuals to be left alone, free from surveillance or interference from other individuals, organizations, or the state.
    • Ability to control information about yourself
  • In U.S., privacy protected by:
    • First Amendment (freedom of speech)
    • Fourth Amendment (unreasonable search and seizure)
    • Additional federal statues
      • Privacy Act of 1974
The Moral Dimensions of Information Systems

• **Fair information practices principles:**
  
  • **Notice/awareness (core principle):** Web sites must disclose practices before collecting data
  
  • **Choice/consent (core principle):** Consumers must be able to choose how information is used for secondary purposes
  
  • **Access/participation:** Consumers must be able to review, contest accuracy of personal data
  
  • **Security:** Data collectors must take steps to ensure accuracy, security of personal data
  
  • **Enforcement:** Must be mechanism to enforce FIP principles
The Moral Dimensions of Information Systems

- **Internet Challenges to Privacy:**
  - **Cookies**
    - Tiny files downloaded by Web site to visitor’s hard drive
    - Identify visitor’s browser and track visits to site
    - Allow Web sites to develop profiles on visitors
  - **Web bugs**
    - Tiny graphics embedded in e-mail messages and Web pages
    - Designed to monitor who is reading a message and transmitting that information to another computer on the Internet
  - **Spyware**
    - surreptitiously installed on user’s computer
    - May transmit user’s keystrokes or display unwanted ads
How Cookies Identify Web Visitors

1. The Web server reads the user’s Web browser and determines the operating system, browser name, version number, Internet address, and other information.

2. The server transmits a tiny text file with user identification information called a cookie, which the user’s browser receives and stores on the user’s computer hard drive.

3. When the user returns to the Web site, the server requests the contents of any cookie it deposited previously in the user’s computer.

4. The Web server reads the cookie, identifies the visitor, and calls up data on the user.

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.
The Moral Dimensions of Information Systems

**Property Rights: Intellectual Property**

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

 Three ways that intellectual property is protected

- **Trade secret**: Intellectual work or product belonging to business, not in the public domain

- **Copyright**: Statutory grant protecting intellectual property from being copied for the life of the author, plus 70 years

- **Patents**: Grants creator of invention an exclusive monopoly on ideas behind invention for 20 years
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 Millenium Copyright Act (DMCA)

- Makes it illegal to circumvent technology-based protections of copyrighted materials
The Moral Dimensions of Information Systems

**Accountability, Liability, Control**

• Computer-related liability problems
  • If software fails, who is responsible?
  • If seen as a part of a machine that injures or harms, software producer and operator may be liable
  • If seen as similar to a book, difficult to hold software author/publisher responsible
  • What should liability be if software is seen as service? Would this be similar to telephone systems not being liable for transmitted messages (so-called “common carriers”)}
System Quality: Data Quality and System Errors

What is an acceptable, technologically feasible level of system quality?

- Flawless software is economically unfeasible

Three principal sources of poor system performance:

- Software bugs, errors
- Hardware or facility failures
- Poor input data quality (most common source of business system failure)
The Moral Dimensions of Information Systems

• **Quality of Life**: Negative social consequences of systems
  
  - **Balancing power**: Although computing power is decentralizing, key decision-making power remains centralized

  • **Rapidity of change**: Businesses may not have enough time to respond to global competition

  • **Employment**: Reengineering work resulting in lost jobs

  • **Dependence and vulnerability**: Public and private organizations ever more dependent on computer systems
• **Health risks:**
  
  • Repetitive stress injury (RSI)
    • Largest source is computer keyboards
  
  • Computer vision syndrome (CVS)
  
  • Technostress
  
  • Role of radiation, screen emissions, low-level electromagnetic fields
1. Aggressive mobile networks collect users' email addresses or phone numbers without permission, while others install icons to home screens, track users whereabouts or push ads to notification bar.

   - Mobile users should be assured that their mobile information – names and mobile number – would not be sold or available to a third party institution without prior notice.

2. In 2009, T-Mobile confirmed its biggest mobile phone customer data breach, when an employee stole and sold personal account details of mobile users to rival firms.
'Missed' calls that empty your wallet:

If you are in the habit of returning missed calls from unidentified numbers, it's time to put such instincts on hold. An international crime cartel involved in lottery scams rakes in the money when you call back on these premium numbers, which generally originate abroad. In some cases, even official service providers connive to hatch a revenue-sharing plot.
Mobile Sales Promotion

text messaging contest

1. Should be viewed as quick and easy
2. Opt in procedure
3. Transparency in costs involved

OFTEN MISLEADING
Ethical Analysis

Five-step Process for Analysis

1. Identify and describe clearly the facts
2. Define the conflict and identify the higher-order values involved
3. Identify the stakeholders
4. Identify reasonable options
5. Identify potential consequences of these options