



Chapter 4

Ethical and Social Issues in Information Systems

Lecturer:

Richard Boateng, PhD.

- *Lecturer in Information Systems, University of Ghana Business School*
- *Executive Director, PearlRichards Foundation, Ghana*

Email:

richard@pearlrichards.org



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

LEARNING OBJECTIVES

- **Identify the ethical, social, and political issues that are raised by information systems.**
- **Identify the principles for conduct that can be used to guide ethical decisions.**
- **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.**



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

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



@ooohlawrence

don't you think you went far by insulting people who feel offended? Discrimination is a big issue (which is been used by some political parties in Europe. As an African (a Ghanaian living in France), I find it really disappointing that these kind of ideas are been spread in Ghana no matter how it is done (sarcasm or not).

gmgnow 1 month ago

Vodafone could do with some sensitivity training. Regardless of the market, bias and discrimination are the same. The ad was well done except for the blatant size and color bias!!

kimzales87 4 months ago

The commercial was cute (kinda funny too) but I am extremely disturbed about the dark skinned and plump comment. The commercial could have done with out that. Its sad how the media constantly teaches us to hate our beautiful "dark" skin complexion and our beautiful "plump" bodies. smh. smh

Ajoa89 5 months ago

<http://www.youtube.com/watch?v=5DY1clgXqBE>



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

Understanding Ethical and Social Issues Related to Systems

- **A model for thinking about ethical, social, and political issues**
 - Society as a calm pond
 - IT as a rock dropped in pond, creating ripples of new situations not covered by old rules
 - Social and political institutions cannot respond overnight to these ripples — it may take years to develop etiquette, expectations, laws
 - Requires understanding of ethics to make choices in legally gray areas



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

Understanding Ethical and Social Issues Related to Systems

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

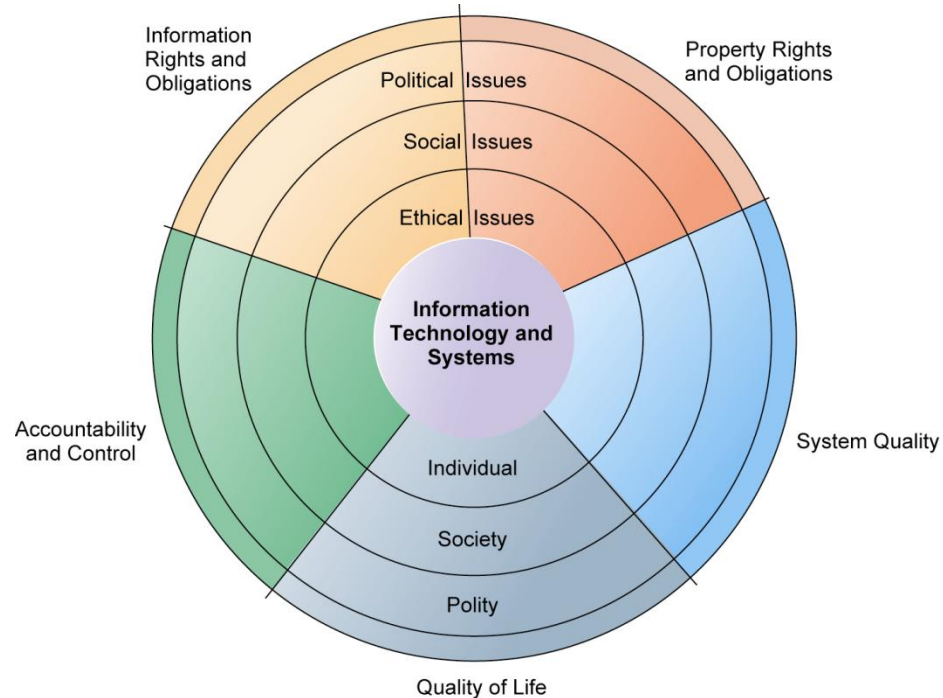


Figure 4-1

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.



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

Understanding Ethical and Social Issues Related to Systems

Nonobvious Relationship Awareness (NORA)

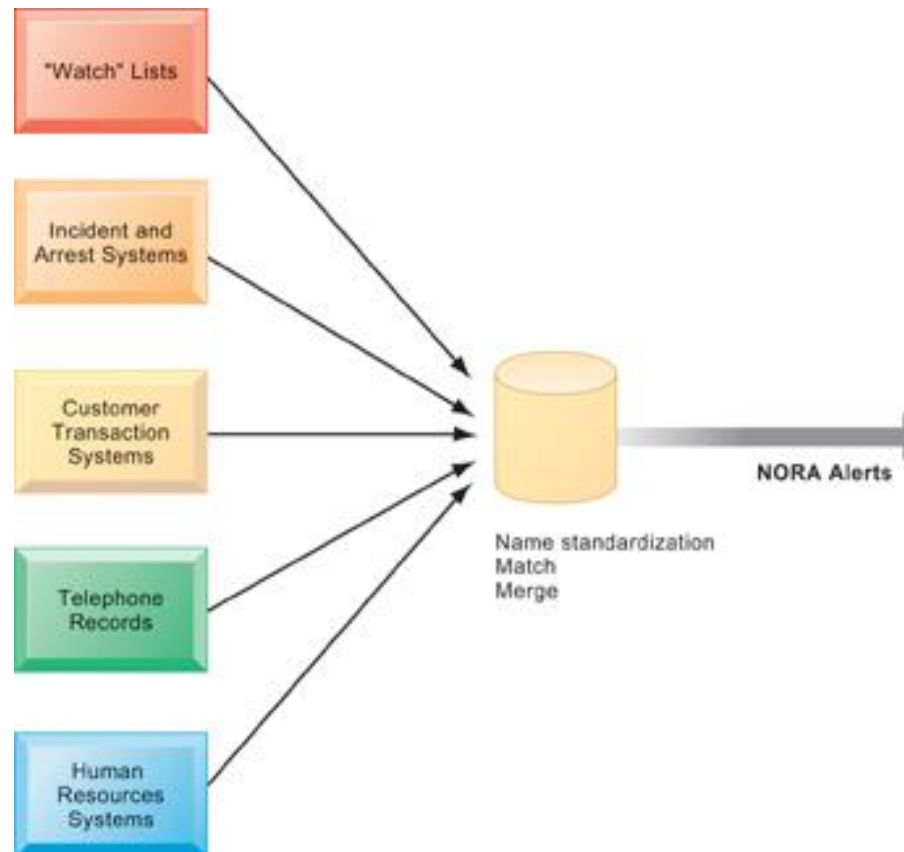


Figure 4-2

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.



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

Ethics in an Information Society

- **Basic concepts form the underpinning of an ethical analysis of information systems and those who manage them**
 - **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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

Ethics in an Information Society

- **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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

Ethics in an Information Society

- **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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

Ethics in an Information Society

- **Professional codes of conduct**
 - Promulgated by associations of professionals
 - E.g. AMA, ABA, AITP, ACM
 - Promises by professions to regulate themselves in the general interest of society
- **Real-world ethical dilemmas**
 - One set of interests pitted against another
 - E.g., Right of company to maximize productivity of workers vs. workers right to use Internet for short personal tasks



Management Information Systems

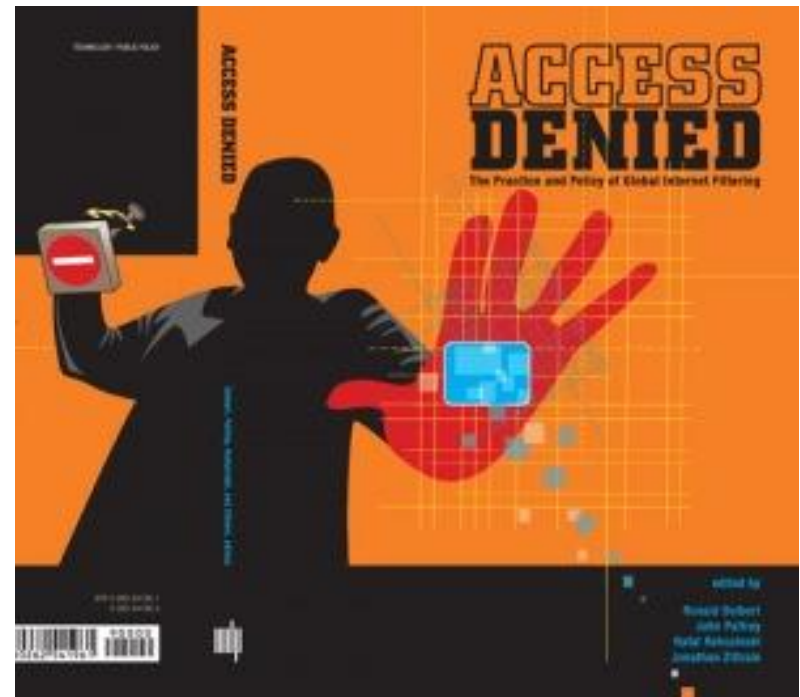
Chapter 4 Ethical and Social Issues in Information Systems

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 statutes
 - Privacy Act of 1974



Ghana Information Rights Bill





Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

- **Fair information practices:**
 - Set of principles governing the collection and use of information
 - Basis of most U.S. and European privacy laws
 - Based on mutuality of interest between record holder and individual
 - Restated and extended by FTC in 1998 to provide guidelines for protecting online privacy
 - Used to drive changes in privacy legislation
 - COPPA
 - Gramm-Leach-Bliley Act
 - HIPAA



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

- **FIP 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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

- **European Directive on Data Protection:**
 - Requires companies to inform people when they collect information about them and disclose how it will be stored and used.
 - Requires **informed consent** of customer (not true in the U.S.)
 - EU member nations cannot transfer personal data to countries without similar privacy protection (e.g. U.S.)
 - U.S. businesses use **safe harbor** framework
 - Self-regulating policy and enforcement that meets objectives of government legislation but does not involve government regulation or enforcement.



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

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

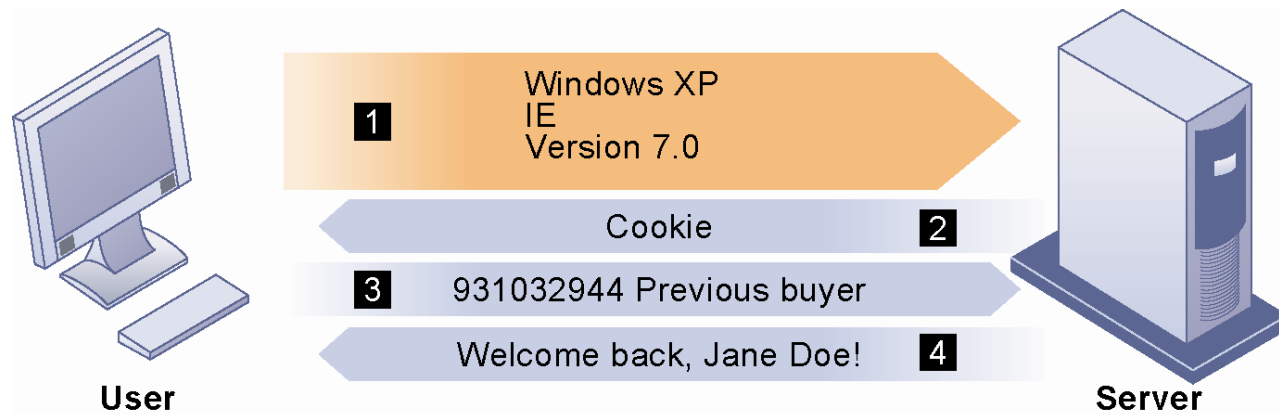


Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

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.

Figure 4-3



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

The screenshot shows a web browser window with the title "InterContinental Hotels & Resorts | Privacy Statement - Mozilla Firefox". The browser's address bar and menu bar are visible. The website's header includes the InterContinental logo, navigation links for "RESERVATIONS", "LOCATIONS", and "INSIDER EXPERIENCES", and links for "Priority Club Sign In", "Customer Care", and "Select Language". The main content area is titled "PRIVACY STATEMENT" and includes the following text:

IHG
InterContinental Hotels Group | Privacy and Security

HOW WE PROTECT YOUR PRIVACY

The privacy and security of your personal information is very important to us. We do not share your personal information in ways not disclosed in our privacy statement or without your informed permission. We value your trust very highly, and will work to protect the security and privacy of any personal information you provide to us and will only use it as we have described in our [Privacy Policy](#).

InterContinental Hotels Group is a licensee of the TRUSTe Privacy Program. TRUSTe is an independent, non-profit organization whose mission is to enable individuals and organizations to establish trusting relationships based on respect for personal identity and information by promoting the use of fair information practices. This privacy statement covers the TRUSTe certified InterContinental Hotel Group Websites. To view a complete list of these validated InterContinental Hotel Group sites please click on the TRUSTe seal.

Because this Web site wants to demonstrate its commitment to our users' privacy, it has agreed to disclose its information practices and have its privacy practices reviewed for compliance by TRUSTe.

If there are questions or concerns regarding this statement, we ask that you first contact:

InterContinental Hotels Group
Attn: Privacy Office
Three Ravinia Drive
Atlanta, Georgia 30346
Phone: 1-770-604-8347
Fax: 1-770-604-5275
Email: privacyoffice@ihg.com

If satisfactory response or resolution is not received within a reasonable timeframe, TRUSTe is available as a contact. Please see additional information at [TRUSTe Watchdog Dispute Resolution Process](#). TRUSTe will serve as a liaison with the Web site to resolve user concerns.

SECURE RESERVATIONS

On the right side of the page, there is a TRUSTe logo with the text "TRUSTe" above a green circular seal containing a white 'e' and the text "CLICK TO VERIFY" below it.

Web sites are posting their privacy policies for visitors to review. The TRUSTe seal designates Web sites that have agreed to adhere to TRUSTe's established privacy principles of disclosure, choice, access, and security.



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

- **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



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

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”)



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

- **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)



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

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
 - **Maintaining boundaries:** Computing and Internet use lengthens the work-day, infringes on family, personal time
 - **Dependence and vulnerability:** Public and private organizations ever more dependent on computer systems



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

The Moral Dimensions of Information Systems

- **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
- **Employment:** Reengineering work resulting in lost jobs
- **Equity and access – the digital divide:** Certain ethnic and income groups in the world are less likely to have computers or Internet access



Management Information Systems

Chapter 4 Ethical and Social Issues in Information Systems

- **Health risks:**

- Repetitive stress injury (RSI)
 - Largest source is computer keyboards
 - Carpal Tunnel Syndrome (CTS)
- Computer vision syndrome (CVS)
- Technostress
- Role of radiation, screen emissions, low-level electromagnetic fields





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