Ethical and Social Issues Surrounding Information Technology

MBA 8120 – Week 4

Course Overview

Objectives

• Identify ethical, privacy, and social issues involved in the introduction of new technology
• Understand intellectual property, copyright, and patent issues related to software development
• Identify the societal impacts of information systems on business and social activities
Personal Information
Privacy Concerns

• Case examples?
• Personal experiences?
• Impact?

What Privacy?

<table>
<thead>
<tr>
<th>Company</th>
<th>Consumer files lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CardSystem Solutions</td>
<td>40,000,000</td>
</tr>
<tr>
<td>Citigroup/UPS</td>
<td>3,900,000</td>
</tr>
<tr>
<td>Bank of America</td>
<td>676,000</td>
</tr>
<tr>
<td>LexisNexis</td>
<td>310,000</td>
</tr>
<tr>
<td>HSBC</td>
<td>180,000</td>
</tr>
<tr>
<td>San Jose Medical Gp</td>
<td>185,000</td>
</tr>
<tr>
<td>Tufts University</td>
<td>105,000</td>
</tr>
<tr>
<td>Time Wamer</td>
<td>600,000</td>
</tr>
<tr>
<td>Ameritrade</td>
<td>200,000</td>
</tr>
<tr>
<td>Department of Justice</td>
<td>80,000</td>
</tr>
<tr>
<td>ChoicePoint</td>
<td>160,000</td>
</tr>
<tr>
<td>Bank of America</td>
<td>1,200,000</td>
</tr>
<tr>
<td>Berkeley</td>
<td>98,000</td>
</tr>
<tr>
<td>Cal State</td>
<td>23,000</td>
</tr>
<tr>
<td>Total (and growing…..)</td>
<td>47,717,000</td>
</tr>
</tbody>
</table>

Data spills abound!

$10,000,000 fine

Consumer files lost

Outline

• Ethics
  – What is it?
  – Options
• Social Issues in Information Systems
  – Privacy
  – Intellectual Property Rights
  – Accountability, Liability, and Control
  – System Quality
  – Quality of Life
• Management Challenges and Considerations
Ethics

"The principles of right and wrong that individuals, acting as free moral agents, use to make choices to guide their behavior."
Laudon & Laudon, 2006

- Ethical dilemma
  - two opposing courses of action
  - both support worthwhile causes

Why concerned with ethics and information technology?

Ethics

Standards of conduct & moral behavior people expected to follow

- Personal versus business
  - Personal ethics – actions in private life
  - Business ethics – actions in business

- Ethical versus Legal behavior
  - Ethical behavior – expected actions
  - Legal behavior – required actions

- Action
  - Legal but not ethical
  - Ethical but not legal

Source: J. Senn 2004

Ethics: Guidelines for Technology Use
Technology Trends Raise Ethical Issues

**TREND**
- Computing power continues to increase
- Declining data storage costs
- Data mining advances
- Networking advances

**IMPACT**
- Depend on information systems for critical operations
- Maintain detailed databases on individuals
- Analyze data to develop detailed profiles
- Copy data from one location to another; access from remote locations

Laudon & Laudon, 2006

Impact of Ethics (or lack thereof)?

**Events**
- Andersen (out of business) [http://www.bbc.co.uk/1/hi/business/2147015.stm]
- White-Collar Crime: Who Does Time? [http://www.businessweek.com/magazine/content/06_06/b3970083.htm]
- Sarbanes-Oxley [http://www.accountingweb.com/cgi-bin/item.cgi?id=101713&d=815&h=817&f=816&dateformat=%25B%20%25e,%20%25Y]

NonObvious Relationship Awareness (NORA)

See [http://www.eweek.com/article2/0,1895,1567700,00.asp]
The Privacy Paradox

Consumers:
Consumers want a personalized experience and multi-channel availability
But, they do not want to divulge personal information

Businesses:
Businesses want to target & personalize to drive sales and build deeper, more valuable relationships
But, that requires rich data profiles, and data collection raises privacy concerns

The Goal:
Respectfully reach customers at the very time and place they need your product or service or want to transact business

There Is A Privacy Paradox

* Consequences of the Paradox . . .
  * consumers lie, complain and buy less
There Is A Privacy Paradox

Consequences of the Paradox . . .
consumers lie, complain and buy less

 Consumers lie
– 67% of users admit providing false information

 They pressure legislatures
Consumers shy away if they’re unsure
– 83% will stop doing business if they hear or read a company is using information improperly
– 68% consider privacy before doing business
– 58% would recommend companies who protect data
– 91% would do more business with companies that have their privacy policies independently verified

Privacy Bottom Line

• Implications
  For a consumer, “Privacy is What You Call It When You Do It Wrong”
  Privacy is a means to build “trusting” relationships, not just a compliance issue
  Turn privacy into a competitive advantage and a long-term customer value

• Business Impact
  Failure to implement explicit privacy programs places a company’s brand or image in peril.
  This may result in the loss of customer loyalty and repeat business.

• Bottom Line
  Companies that build a “trust relationship” with customers will gain competitive advantage and improved effectiveness of loyalty of customers.

Privacy

• The right to be let alone

• Fair Information Practices (FIP)
  Notice/Awareness: consumers should have notice of an organization’s online information practices
  Choice/Consent: consumers should have a choice about the use and dissemination of information they reveal, usually through an opt-in or opt-out mechanism
  Access/Participation: consumers should have access to the information businesses collect about them to help ensure accuracy and completeness
  Integrity/Security: consumers should have the personal information collected about them adequately secured from outside parties and from corruption of the data
  Enforcement/Redress: consumers should have a way to ensure that businesses and organizations comply with these core privacy principles either through external regulation (audits) or certification programs
Data Privacy

Self-determination of when and what personal information is communicated to others

(balanced with society’s right to know)

Internet Challenges to Privacy

- Cookies – files stored on computer that save information and track visits to a website.
- Web Bugs – graphic files embedded in email and web pages to monitor visitors
- Spyware – applications secretly installed on computer to report user activities on Internet

Tracking . . . Evil or Necessary

<table>
<thead>
<tr>
<th>Form</th>
<th>Technology</th>
<th>Data Collected</th>
<th>Good</th>
<th>Bad</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>Spyware &amp; Tracking</td>
<td>Software Usage/Places Visited</td>
<td>Diagnose Problems, Personalize Content/Offer</td>
<td>Know Software, Used, Viewing Habits</td>
</tr>
<tr>
<td>Wireless</td>
<td>GPS</td>
<td>Location</td>
<td>Emergency</td>
<td>Track, Movements</td>
</tr>
<tr>
<td>TV</td>
<td>iTV</td>
<td>Programs Watched</td>
<td>Tailored Programming &amp; Ads</td>
<td>Knows You’re Home, Viewing Habits</td>
</tr>
<tr>
<td>Retail</td>
<td>Biometrics</td>
<td>Images</td>
<td>ID Shoplifters &amp; Better Customers</td>
<td>ID Shoplifters &amp; Better Customers</td>
</tr>
</tbody>
</table>

Sources: Forrester Research
**Customer Relationship Funnel**

- In Time (Anonymous Visitor)
- Repeat Visitor
- Registered User
- 1st Time Customer
- Valued Customer

**Intellectual Property Rights**

Intangible property created by individuals or corporations

**Types**

- **Trade Secret**
  - Novel ideas not in public domain.
  - Employees sign nondisclosure agreement
- **Copyright**
  - Prevents copying
  - Does not protect underlying ideas
- **Patent**
  - Exclusive monopoly for 20 years
  - Idea must be disclosed publicly
Digital Millennium Copyright Act (DMCA)

- World Intellectual Property Organization treaty 1998
- Illegal to circumvent technology-based protections of copyrighted materials.
- ISPs required to take down sites of copyright infringers once notified.

Who owns the pieces? Anatomy of a Web page

Crime and Abuse

- Computer Crime
  - illegal acts through the use of computer or against a computer system
    - Stealing files
    - Crippling computers
    - Altering records
- Computer Abuse
  - unethical acts involving a computer
Types of Computer Crime

- **Spamming** – Marketers send out unsolicited mass-email to unwilling recipients
- **Hacking** – Exploiting weaknesses in security to gain access to machines and data
- **Jamming** – Denial of service, tie up resources to make them unavailable
- **Worms/viruses** – Malicious software that spreads and may be destructive
- **Sniffing** – Placing software for electronic eavesdropping
- **Spoofing** – fraudulent misrepresentation of identity

See Computer Crime Cases

Social Issues: Quality of Life

- **Balancing Power**
  - Decentralized computing
  - Decentralized decision-making?
- **Increased Response Time**
  - Speed of competition increased
  - Organizations less stable
- **Blurred Work/Family Boundaries**
  - Dependence and Vulnerability

Quality of Life

- **Employment Changes**
  - Nature of jobs have changed
  - Difficult to re-skill some segments of population for new jobs
- **Equity and Access**
  - Digital Divide – haves vs. have-nots
- **Health Risks**
  - Repetitive Stress Injuries
  - Carpal Tunnel Syndrome
  - Computer Vision Syndrome
  - Technostress
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- Management Challenges and Considerations

Clear Ethics Policies

- Consideration of information systems when creating ethics policies
  - Does technology create new issues?
  - Examples?

Costs of Non-Work Related Internet Access

- What are they?
  - Lost employee time
  - Consumption of valuable bandwidth
- Concerns:
  - Firm’s reputation, legal responsibilities
  - Loss of trade secrets
  - Reduction of network performance
  - Lost revenue / overcharge to clients for personal time
What are Employers Doing?

- Monitor e-mail and personal use of Internet
- Create policy regarding Internet usage to protect against employee lawsuits
  - Explicit ground rules in easily understood language
  - Who has what rights and under what circumstances.
  - Vague terminology cannot be applied fairly.
  - Zero tolerance vs. modified usage policy options.

Discussion

Accountability, Liability, and Control

- When information systems fail, who is responsible?
- In eyes of law, software products are like books
- Should ISP’s be responsible for content transmitted through their service?

More than 30 US Federal Laws Affect Privacy

2. Cable Communications Policy Act (47 U.S.C. § 151)
16. Fair Housing Act (42 U.S.C. §§ 3601, 2029)
20. Health Research Data Statute (42 U.S.C. § 242m)
23. Privacy Act (5 U.S.C. § 552a)
32. Wiretap Statute (10 U.S.C. § 2711, et seq.)
33. Wiretap Statute (10 U.S.C. § 2711, et seq.)
34. Wiretap Statute (10 U.S.C. § 2711, et seq.)
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Recent privacy legislation (Australia, Hong Kong, Canada) trending toward EU-style privacy regulation and away from U.S. sectoral/data elements-based models.

The EU Data Protection Directive & comparable privacy legislation by 15 member states.
- Based on -- OECD Organisation for Economic Cooperation and Development 7 principles
  - Notice, Choice, Onward Transfer, Security, Data Security, Data Integrity, Access, Enforcement
- Switzerland - Federal Act on Data Protection (1992)
- Hungary - Protection of Personal Data and Disclosure of Data of Public Interest (1992)
- Canada - Personal Information Protection and Electronic Documents Act (2000)
- Argentina - Personal Data Protection Act (2000)
- Chile - Law for the Protection of Private Life (1990)
- Australia - Privacy Amendment (Private Sector) Act (2000)
- Hong Kong - The Personal Data (Privacy) Ordinance (1996)
- New Zealand - Federal Privacy Act (1993)

Jim Koenig, PwC

Additional Resources
- AICPA/CICA Privacy Framework
  http://www.aicpa.org/innovation/baas/ewp/privacy_framework.asp
- Deloitte & Touche Privacy Primer
- Internet Privacy from NCSU
  http://digitalenterprise.org/privacy/privacy.html
- More Deloitte
  http://www.deloitte.com/dtt/section_node/0,1042,sid%
  %253007115,00.html
- http://accounting.smartpros.com/x43515.xml
And many more.....
Summary

• Ethics and Information Systems
• Privacy & Social Issues in the Digital Firm
• Management Challenges

Complex issue!