Chapter 10: Privacy, Security, and Ethics

Chapter summary

• Technology concerns and its impact on privacy
• Online identity
• Computer security threats, crimes and ethics
• Copyrights protection
People

Privacy – threats to personal privacy

Security – access control, hardware and software security

Ethics – companies and users’ actions impact on society
Privacy

Privacy – how individuals data are collected and used?

Three privacy issues:

- Accuracy
- Property
- Access
Large Databases

Governments have over 2,000 databases

Lists of calls we make

Data gatherers

- Information resellers or information brokers
- Electronic profiles
Large Databases - Issues

Your information is valuable, which raises many issues:

- Collecting public, but personally identifying information (e.g., Google’s Street View)
- Identity theft
- Inaccuracy
  - Mistaken identity
  - Freedom of Information Act
Private Networks

Workplace surveillance

- Snoopware
- By law, employer must first notify employees
The Internet and the Web

Illusion of anonymity

Browsing History

Cookies

Spyware

- Ad network or adware cookies
- Web bugs
- Keystroke loggers
Major Laws on Privacy

Privacy protection laws protect:

- Financial information
- Medical records
- Educational test results
Security

Threats

Computer criminals:

- Employees
- Outside users
- Hackers and crackers
- Organized crime
- Terrorists
Computer Crime

**Computer Crimes have tripled in the past two years!**

<table>
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<th>Malicious Programs</th>
<th>Social networking risks</th>
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<td>• Viruses</td>
<td>• Rogue Wi-Fi hotspots</td>
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<td>• Worms</td>
<td>• Theft of computer resources</td>
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<td>• Trojan horse</td>
<td>• Data manipulation</td>
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<td>• Zombies</td>
<td>• Computer Fraud and Abuse Act</td>
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Internet scams
Other Hazards

Natural hazards (e.g., floods and tornadoes)

Civil troubles and terrorism (e.g., riots, wars)

Technological failures (e.g., power surge or spike)

Human errors (e.g., entry or programmer)
Measures to Protect Computer Security

- Restricting access
- Encrypting data
- Anticipating disasters
- Preventing data loss
Ethics

Copyright

- The right to use and control original work

Software piracy

- Unauthorized distribution
- Digital Millennium Copyright Act
- Digital rights management (DRM)

Plagiarism
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