

# **Understanding Computers in a Changing Society**

**5e**

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## **Chapter 6 Ethics and Intellectual Property Rights**

# Learning Objectives

1. Understand the different types of intellectual property rights and how they relate to computer use.
2. Explain what is meant by the term “ethics.”
3. Provide several examples of unethical behavior in the use of intellectual property and in computer-related matters.
4. Explain what computer hoaxes and digital manipulation are and how they relate to computer ethics.
5. Understand how ethics can impact business practices and decision making.
6. Discuss the current status of legislation related to intellectual property rights and ethics.

# Overview

- This chapter covers:
  - Various types of intellectual property rights
  - A discussion of ethics in the context of computer use and specifically:
    - Ethical use of copyrighted materials
    - Ethical use of resources and information
    - Unethical use of digital manipulation
    - Ethical business practices and decision making
    - Impact of cultural differences
  - Legislation related to these issues

# Intellectual Property Rights

- Intellectual Property Rights
  - Legal rights to which creators of original creative works are entitled
    - Indicates who has the right to use, perform, or display a creative work and what can legally be done with that work
  - Copyrights
    - Form of protection available to the creator of original artistic or literary works

# Intellectual Property Rights

- Can be registered with U.S. Copyright Office

## FIGURE 6-1

### Copyright statements.

Statements such as these are often included on books, Web sites, and other copyrighted works.

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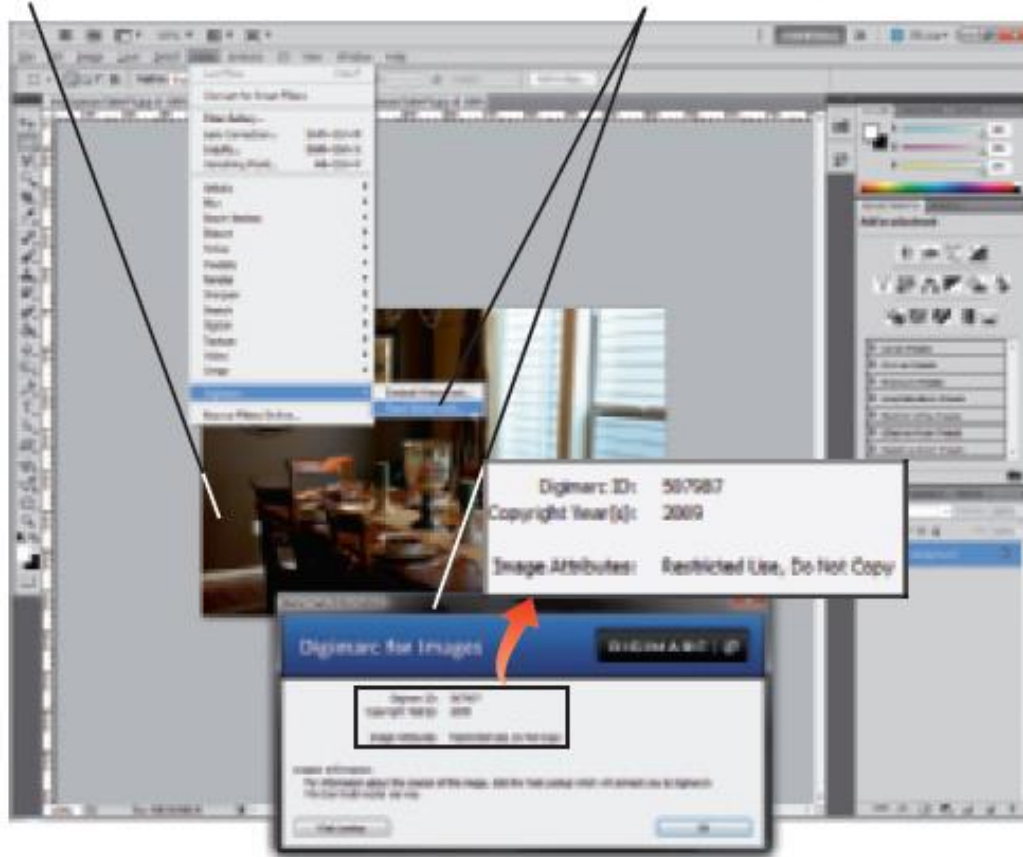
# Intellectual Property Rights

- Once a copyrighted item is purchased, the material cannot be legally duplicated or portrayed as your own creation
- Digital Watermarks
  - Subtle alteration of digital content that is not noticeable but that can identify the copyright holder
- Digital Rights Management (DRM) Software
  - Controls use of the copyrighted work
  - Can limit who can view, print, or copy a document
  - Can control use of downloaded content (number of devices a file can be copied to, expiration of VOD movie, etc.)

# Intellectual Property Rights

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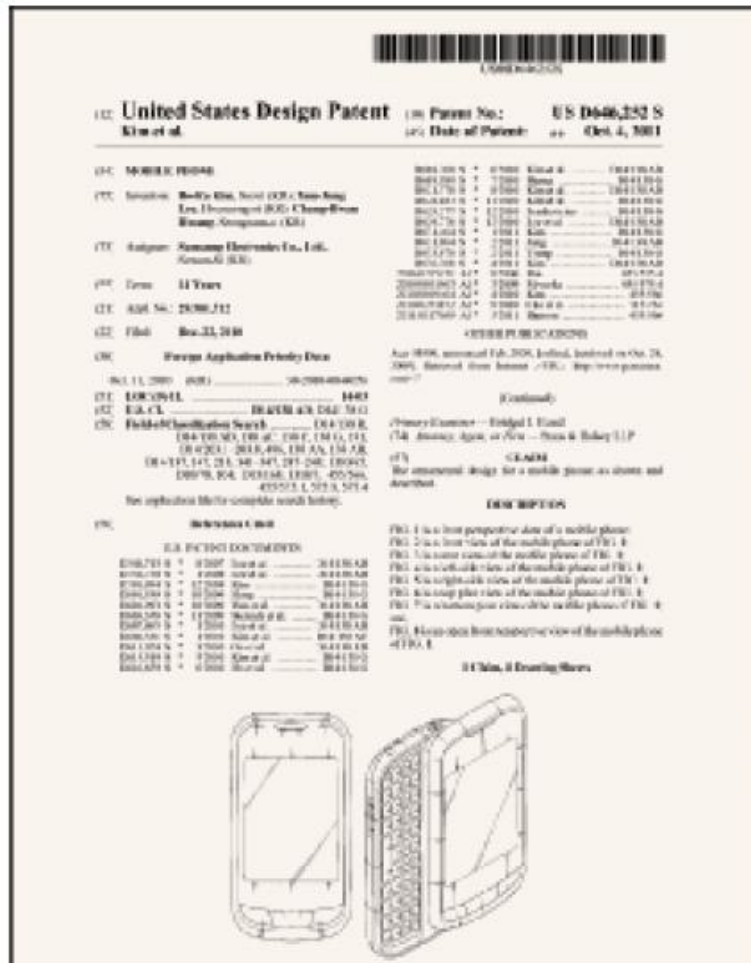
**FIGURE 6-2**  
Digital watermarks.

# Intellectual Property Rights

- Patents
  - Protect inventions
  - Lasts for 20 years
  - Can also protect a business practice or procedure
    - Priceline.com's name-your-own-price
    - Amazon.com's one-click purchase
  - Difficult, expensive, and hard to get but can be very lucrative



# Intellectual Property Rights



Courtesy of the Office of the Chief Communications Officer, United States Patent and Trademark Office

**FIGURE 6-4**  
 Patents. The patent shown here is for a new mobile phone.

# Ethics

- Ethics
  - Overall standards of moral conduct
  - Can vary with individual and religious beliefs, country, race, or culture
  - Personal Ethics
    - Guide an individual's personal behavior
  - Business Ethics
    - Guide a business's policies, decisions, and actions
  - Computer Ethics
    - Concern moral conduct related to computer use
  - Individuals and businesses need to make ethical decisions every day

# Ethics

- Ethical Use of Copyrighted Material
  - Books and Web-based Articles
    - Plagiarism
      - Presenting someone else's work as your own
      - Violation of the copyright law and an unethical act
      - Need to properly credit sources to avoid plagiarism
    - Colleges and universities have strict consequences for plagiarism
    - Online tests for plagiarism are available and widely used by schools

# Ethics

## PLAGIARISM

A student including a few sentences or a few paragraphs written by another author in his term paper without crediting the original author.

A newspaper reporter changing a few words in a sentence or paragraph written by another author and including the revised text in an article without crediting the original author.

A student copying and pasting information from various online documents to create her research paper without crediting the original authors.

A teacher sharing a poem with a class, leading the class to believe the poem was his original work.

## NOT PLAGIARISM

A student including a few sentences or a few paragraphs written by another author in his term paper, either indenting the quotation or placing it inside quotation marks, and crediting the original author with a citation in the text or with a footnote or endnote.

A newspaper reporter paraphrasing a few sentences or paragraphs written by another author without changing the meaning of the text, including the revised text in an article, and crediting the original author with a proper citation.

A student copying and pasting information from various online documents and using those quotes in her research paper either indented or enclosed in quotation marks with the proper citations for each author.

A teacher sharing a poem with a class, clearly identifying the poet.

**FIGURE 6-5**

Examples of what is and what is not normally considered plagiarism.

# Ethics

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## – Music

- Debate began with Napster
- Still concerns surrounding P2P file sharing sites
- Copying purchased songs for personal use usually considered fair use
- In the past, DRM controls were used to prevent downloaded songs from being copied to other devices
- Many downloads today are DRM-free MP3 format
- RIAA is still suing individuals for violating music copyrights

# Ethics

- E-books
  - Relatively new technology that has become widely popular
  - Legal and ethical issues similar to those found in the digital music industry exist
  - Piracy of e-books is growing rapidly

**FIGURE 6-7**  
Legal e-books are widely available online.



# Ethics

- Movies
  - Movie piracy is high (illegal copies, recording pre-release movies to create DVDs, etc.)
  - Distributing bootleg copies of movies is illegal and unethical
    - Often happens via the Internet
  - DRM controls on downloaded movies can slow piracy
  - Legal prosecution for copyright violations for both music and movies is increasing
  - Family Entertainment and Copyright Act of 2005
    - Illegal to transmit or record a movie during a performance at a U.S. movie theatre
    - Typically aimed at bootleggers and cammers

# Ethics

- To help identify and prosecute a cammer, invisible digital watermarks are embedded in each print released to a theatre
- Distributing bootleg copies of movies via the Internet is illegal and unethical
  - FBI Piracy Warning Seal used as a reminder



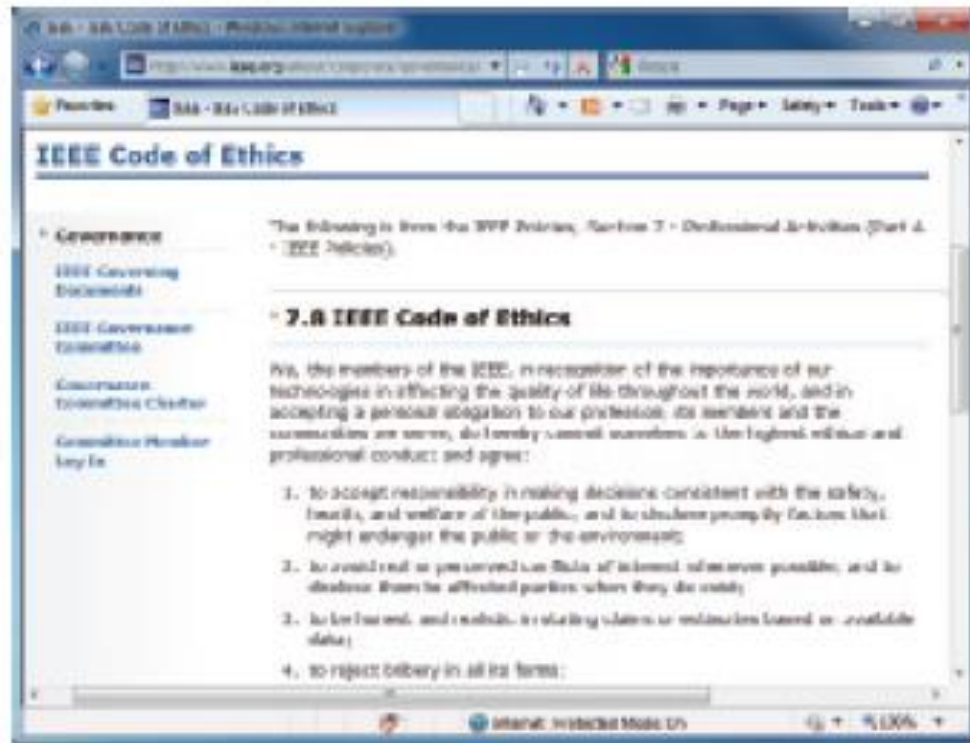
**FIGURE 6-8**  
The FBI Anti-Piracy  
Warning seal.



# Ethics

- Ethical Use of Resources and Information
  - Ethical Use of School or Company Resources
    - Code of Conduct
      - Policy that specifies allowable use of resources by students or employees
      - Students and employees should be familiar with what is considered acceptable use of resources
    - Code of Ethics
      - Policy, typically for an industry or organization, that specifies overall moral guidelines adopted by that industry or organization

# Ethics



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**FIGURE 6-9**

A sample code of ethics.

# Ethics

- Ethical Use of Employee and Customer Information
  - Businesses need to decide what is ethical use of employee and customer information and what is not
  - Business schools are including corporate business ethics in their training
  - Some businesses make ethics training mandatory
- Cheating and Falsifying Information
  - Cheating at high schools and colleges is rampant
  - Can be reduced by academic honor codes
  - Résumé padding is dishonest and unethical and is widespread

# Ethics



Courtesy of University of Denver

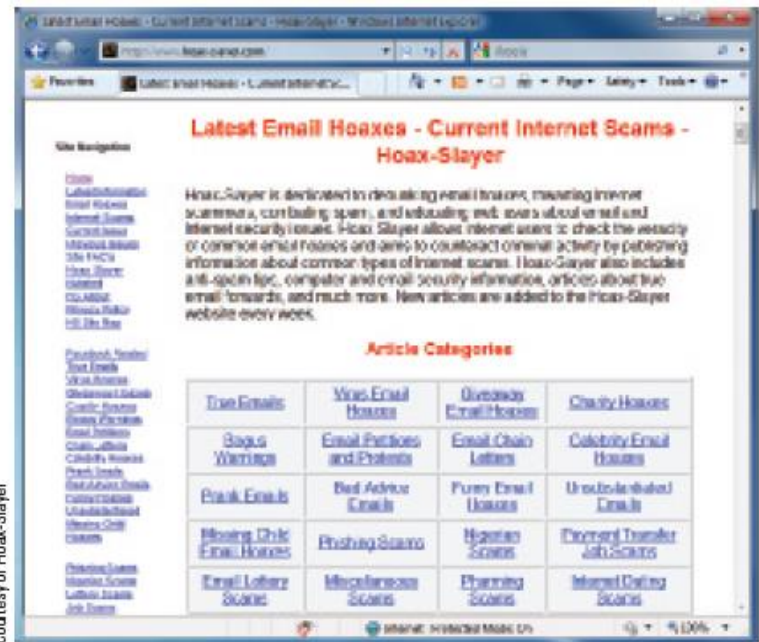
**FIGURE 6-10**

**Academic honor codes.** The honor code at the University of Denver is signed by virtually all incoming students.

# Ethics

- Computer Hoaxes and Digital Manipulation
  - Computer Hoaxes
    - An inaccurate statement or story spread through the use of computers
    - Often sent via e-mail
    - Often related to viruses, health issues, political issues, etc.
    - Double-check information before passing on to others

**FIGURE 6-11**  
**Hoax-Slayer.** This is one site that can be used to research possible computer hoaxes.



Courtesy of Hoax-Slayer

# Ethics

## – Data Manipulation

- Digitally altering text, images, photographs, music, and other digital content
- Some beneficial ethical uses (aging photos of runaways, altering photos of wanted criminals, etc.)
- Use by media is more controversial
- Difficult to tell in the future if a historical photo was manipulated

**FIGURE 6-12**

### Digital manipulation.

The digitally manipulated photo (left) added an additional missile launching to the

real photo (right) and appeared on the front page of many major newspapers.



DIGITALLY ALTERED PHOTO

ORIGINAL PHOTO

# Ethics

- Ethical Business Practices and Decision Making
  - Fraudulent Reporting and Other Scandalous Activities
    - Sarbanes-Oxley Act of 2002
      - Includes provisions to improve the quality of financial reporting, independent audits, and accounting services for public companies
      - Increases penalties for corporate wrongdoing
      - Protects the objectivity and independence of securities analysts
      - Requires CEOs and CFOs to vouch personally for the truth and fairness of their company's disclosures

# Ethics

- Ethically Questionable Products or Services
  - To sell or not sell products or services some individuals find objectionable
  - How, if at all, to monitor customer uploaded content
  - Implementation of age verification systems
    - Social networking sites are strongly encouraged to add such systems to protect children from on-line predators
    - To comply with state and federal laws, adult internet sites should also implement age verification systems



# Ethics



**FIGURE 6-13**

**Ethical e-commerce.** Even if not required by law, businesses selling products or services that are inappropriate or illegal for minors can require proof of age at delivery to ensure the customer is of the required age.

# Ethics

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- Vaporware
  - Announced hardware and software products that are not yet and may never be available
- Workplace Monitoring
  - Majority of businesses monitor employees in some way
  - Ethically, employees should be made aware of such monitoring

# Ethics

## – Cultural Considerations

- Ethics vary within a country as well as from country to country
- Some acts may be socially acceptable or ethical in one country, but not another
- Laws also vary from country to country
- Individuals and businesses need to consider both legal and ethical issues in global transactions
- Some business schools and corporations are including diversity and cross-cultural training

**FIGURE 6-14**

### Cultural considerations.

In some countries, bootleg copies of music CDs and movie DVDs are sold openly, such as this DVD seen recently at a store in China.



# Summary

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- Intellectual Property Rights
- Ethics