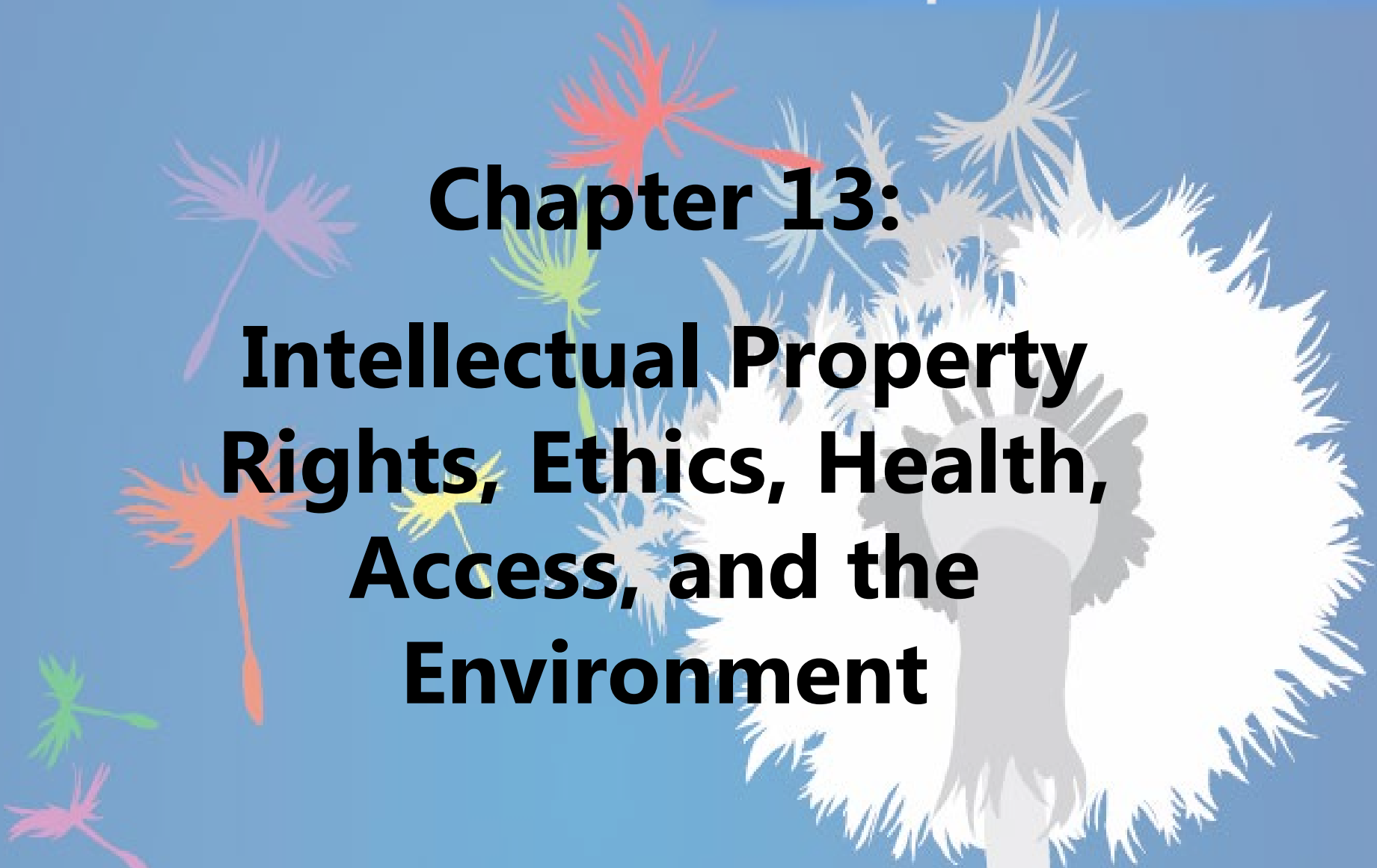


# Understanding Computers Today and Tomorrow

## **Chapter 13:**

# **Intellectual Property Rights, Ethics, Health, Access, and the Environment**





# Intellectual Property Rights

- Intellectual Property Rights
  - Rights to which creators of original creative works are entitled
    - Who has the right to use, perform, or display a creative work
    - How long the creator retains rights to the property
      - Music, movies, paintings, books of art and poetry, etc.

Protections => Copyrights, Trademarks, Patents, Trade Secrets (not in text), DRM Software, Digital Watermarks, Other Legislation



# Copyrights

- Copyrights
  - Protection available to the creator artistic or literary works
  - Lasts 70 years after creator's death
  - Corporate copyrights/anonymous works, lasts 95 years from date of publication or 120 years from date of creation, whichever is shorter
  - Can be registered with U.S. Copyright Office

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## BOOK COPYRIGHT NOTICES

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## WEB SITE COPYRIGHT NOTICES

## FIGURE 16-1

Copyright statements.




# Trademarks

- Trademarks
  - Word, phrase, symbol, or design that identifies goods or services
    - Trademark that identifies service => service mark  
service marks not registered may use the <sup>sm</sup> mark
    - Trademarks claimed but not registered use the <sup>TM</sup> mark
    - Registered trademarks use the <sup>®</sup> mark
    - Includes protection for domain names
      - Cybersquatting and typosquatting
    - Domain name disputes can be brought to the World Intellectual Property Organization (WIPO)

# Patents

- Patents
  - Protect inventions
  - Last for 20 years
  - Can also protect a business practice or procedure
    - Priceline.com's name-your-own-price
    - Amazon.com's one-click purchase
  - Expensive and difficult to obtain but can be very lucrative

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



US00D646252S

(12) **United States Design Patent** (10) Patent No.: **US D646,252 S**  
 Kim et al. (45) Date of Patent: **Oct. 4, 2011**

(54) **MOBILE PHONE** D618,200 S \* 6/2010 Kim et al. D14 138 AD  
 D619,989 S \* 7/2010 Hwang D14 138 G  
 D621,378 S \* 8/2010 Kim et al. D14 138 AD  
 D626,183 S \* 11/2010 Kim et al. D14 138 G  
 D629,377 S \* 12/2010 Imbervicini D14 138 G  
 D629,776 S \* 12/2010 Lee et al. D14 138 AD  
 D631,464 S \* 1/2011 Kim D14 138 G  
 D631,864 S \* 2/2011 Jung D14 138 AB  
 D631,070 S \* 2/2011 Tang D14 138 G  
 D636,368 S \* 4/2011 Kim D14 138 AD  
 2006-0205451 A1\* 9/2006 Pan 455-575.4  
 2009-0601965 A1\* 3/2009 Miyosaka 455-575.4  
 2010-0909464 A1\* 4/2010 Kim 455-566  
 20100221152 A1\* 9/2010 Cho et al. 715-765  
 2011-0117969 A1\* 5/2011 Hansen 455-566

(45) Date of Patent: **Oct. 4, 2011**

(75) Inventors: **Bo-Ra Kim, Seoul (KR); Yun-Jung Lee, Hwasong-si (KR); Chang-Hwan Hwang, Seongnam-si (KR)**

(73) Assignee: **Samsung Electronics Co., Ltd., Suwon-Si (KR)**

(\*\*) Term: **14 Years**

(21) Appl. No.: **29/381,712**

(22) Filed: **Dec. 22, 2010**

(30) **Foreign Application Priority Data**  
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(51) **LOC (9) Cl.** D14 138 AD, D14 138 G  
 (52) **U.S. Cl.** D14 138 AD, D14 138 G  
 (58) **Field of Classification Search** D14/138 R, D14/138 AD, 138 AC, 138 C, 138 G, 191, D14/203:1-203 R, 496, 138 AA, 138 AB, D14/137, 147, 218, 341, 347, 247-248, D10165, D1078, 104, D13/168, D187; 455/566, 455/575.1, 575.3, 575.4  
 See application file for complete search history.

(56) **References Cited**  
**U.S. PATENT DOCUMENTS**  
 D548,713 S \* 8/2007 Lee et al. D14 138 AD  
 D558,729 S \* 1/2008 Lee et al. D14 138 AD  
 D581,894 S \* 12/2008 Kim D14 138 G  
 D601,539 S \* 10/2009 Hwang D14 138 G  
 D601,993 S \* 10/2009 Yun et al. D14 138 AD  
 D603,356 S \* 11/2009 Sztrank et al. D14 138 G  
 D607,805 S \* 1/2010 Lee et al. D14 138 AD  
 D608,311 S \* 1/2010 Kim et al. D14 138 AC  
 D611,974 S \* 3/2010 Ooi et al. D14 138 AD  
 D615,519 S \* 5/2010 Kim et al. D14 138 G  
 D616,859 S \* 6/2010 Hwang et al. D14 138 G

**OTHER PUBLICATIONS**  
 Acer M900, announced Feb. 2009, [online], [retrieved on Oct. 28, 2009]. Retrieved from Internet <URL: http://www.gsmarena.com>\*

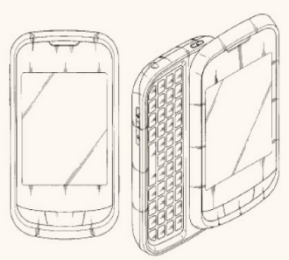
(Continued)

**Primary Examiner**—Bridget L. Eland  
**(74) Attorney, Agent, or Firm**—Stuss & Halsey LLP

(57) **CLAIM**  
 The ornamental design for a mobile phone, as shown and described.

**DESCRIPTION**  
 FIG. 1 is a front perspective view of a mobile phone;  
 FIG. 2 is a front view of the mobile phone of FIG. 1;  
 FIG. 3 is a rear view of the mobile phone of FIG. 1;  
 FIG. 4 is a left-side view of the mobile phone of FIG. 1;  
 FIG. 5 is a right-side view of the mobile phone of FIG. 1;  
 FIG. 6 is a top plan view of the mobile phone of FIG. 1;  
 FIG. 7 is a bottom plan view of the mobile phone of FIG. 1;  
 and,  
 FIG. 8 is an open front perspective view of the mobile phone of FIG. 1.

**1 Claim, 8 Drawing Sheets**



**FIGURE 16-4**  
**Patents.** The patent shown here is for a new mobile phone.



# Trade Secret (not in text)

- Trade secrets are intellectual property
  - May be formulas, practices, processes, designs, instruments, etc.
  - Not generally known to the public
  - Has economic benefit
  - Holder makes efforts to maintain secrecy



# Extra Protections

- Protections
  - Digital Watermarks
    - Subtle alteration of digital content
      - not noticeable
      - identifies the copyright holder
  - Digital Rights Management (DRM) Software
    - Protects and manages the rights of creators of digital content such as art, music, photographs, movies
    - Limits who can view, print, or copy a document
    - Control use of downloaded content
      - number of devices a file can be copied to
      - expiration of video-on-demand movie, etc.



# Ethics – Definition/Classifications

- Ethics
  - Overall standards of moral conduct
  - 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
- Ethical legislation is difficult to pass
  - The 1998 amendment to Section 508 of the Rehabilitation Act requires federal agency information be accessible to persons with disabilities



# Personal Ethical Use

- Ethical Use of Copyrighted Material
  - EULAs
  - Academic Integrity
    - Books and Web-based articles
    - Need to properly credit sources to avoid plagiarism
    - Strict consequences for plagiarism
    - Online tests for plagiarism are available and widely used by schools

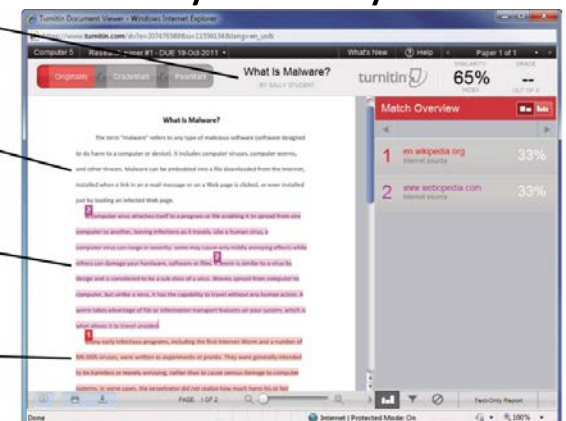
**FIGURE 16-6**  
Results of an online  
originality test.

Instructor submits electronic versions of student papers; the results are usually available online almost immediately.

The black text was correctly identified as being original.

The purple text was correctly identified as being taken from a Wikipedia online article.

The red text was correctly identified as being taken from a Webopedia.com definition.





# Resume Padding

- Résumé padding is considered unethical by most companies
  - Many companies will terminate employees who were hired based on falsified résumés or applications
  - Other possible consequences include blacklisting from a industry or being sued for breach of contract



# Resources – Ethical Use

- Ethical Use of Resources and Information
  - EULAs
  - Ethical Use of School/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
    - Code of Ethics
      - Policy, typically for an industry or organization, that specifies overall moral guidelines adopted by that industry or organization
    - Whistleblowers have some protection under the law



# Music

- Music
  - Debate began with Napster
    - DRM controls can impact downloaded files, purchased CDs, etc.
  - Concerns still exist about P2P file sharing sites
    - Downloading a music file from a P2P site without compensating the artist and record label is violation of the copyright law and an unethical act

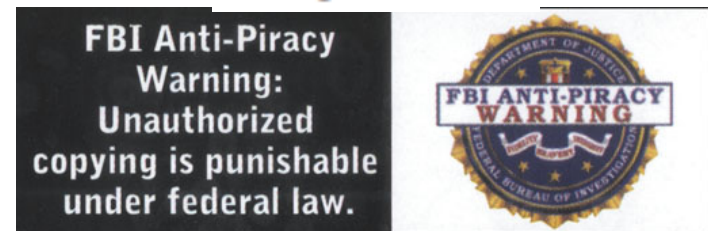
# Movies, Ebooks, Software

## – Movies

- Piracy is high (illegal copies, recording pre-release movies to create DVDs, etc.)
- Distributing bootleg copies of is illegal and unethical
  - Often happens via the Internet
  - FBI Anti-Piracy Seal is used with movie DVDs, music CDs, and other intellectual properties commonly pirated

**FIGURE 16-8**

The FBI Anti-Piracy Warning seal.





# Digital Rights Management (DRM)

- DRM controls are found on many legally downloaded files.
  - Can prevent file from being copied to another medium
  - Can allow file to be used only for a specified period of time
- MPAA (Motion Picture Association of America) recently began pursuing civil litigation for copyright violations for against movie pirates
  - Mainly goes after those who create illegal DVDs
  - Also pursues people sharing movies illegally on the Internet



# Digital Manipulation

- Digital Manipulation
  - Digitally altering text, images, photographs, music, and other digital content
    - Copyright concern
    - Can be used to misquote people, repeat comments out of context, create false or misleading photographs
  - Some beneficial ethical uses (aging photos of runaways and missing children, altering photos of wanted criminals, etc.)
  - Use by media is more controversial
- Recommend exploration of YouTube DeepFake videos



# Business Ethics & Reporting

- 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
  - Ethically Questionable Products or Services
    - Decisions regarding selling products or services some individuals find objectionable
    - How, if at all, should businesses that allow users to upload content to their Web sites monitor the content posted
- Additional legislation to protect intellectual property rights, such as:
  - Family Entertainment and Copyright Act of 2005 (FECA)
  - U.S. Anticybersquatting Consumer Protection Act
  - Digital Millennium Copyright Act (DMCA)
    - Protects Website content





# Ethics

- Censoring & Misinformation
- Workplace Monitoring
  - Inform employees of the types of monitoring that may occur
  - Especially in countries other than the United States



# Cultural 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 16-14**

### 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.

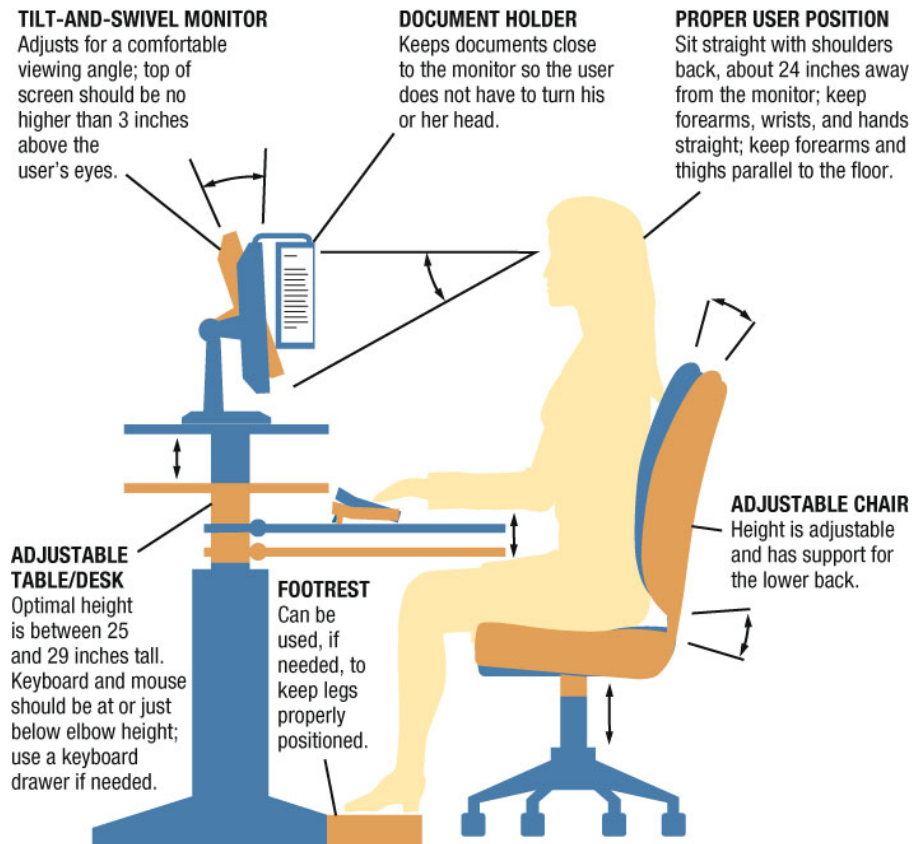


Image courtesy of AP Images

# Computers and Health

## – What is Ergonomics?

- The science of fitting a work environment to the people who work there
- Using good workspace design principles can help avoid physical problems



**FIGURE 16-16**  
Workspace design.



# Physical Health

- Physical Health
  - Computer use can cause physical injuries
    - Computer vision syndrome (CVS)
      - Eyestrain
      - Blurred vision
      - Fatigue
      - Headaches
      - Back, wrist and finger pain
    - Repetitive Stress Injury (RSI)
      - Carpal tunnel syndrome (CTS) (keyboard use)
      - DeQuervain's tendonitis (mobile device keyboard and thumbpad use)



# Emotional Health

- Emotional Health
  - Stress of Ever-Changing Technology
    - Knowledge of and ability to use technology is becoming a necessity in many jobs
    - Technology changes at a rapid pace
    - Workers must regularly learn new skills which can create stress for many individuals
    - 24/7/365 expectations
    - Internet and Technology Addiction



# Access to Technology

- The Digital Divide
  - The gap between those who have access to technology and those who don't
- Assistive Technology
  - Hardware and software designed for use by individuals with physical disabilities
  - American with Disabilities Act



# Technology Acceptance Model (TAM)

- Assessing Accessibility/Assistive Tech/etc.
- Perceived Ease of Use (PEU)
  - If it is easy/straightforward, users will adopt and use
  - E.g. iPad
- Perceived Usefulness (PU)
  - If it is useful, certain users will adopt regardless of PEU
  - CAD has steep learning curve but professionals will learn and adopt



# Green Computing - Power

- Energy Consumption and Conservation
  - Power consumption and heat generation by computers are key concerns for businesses
    - More powerful computers use more energy and run hotter, which makes increases cooling costs
    - Servers are especially power-hungry
  - Energy-saving tactics
    - Consolidating servers
    - Powering down computers when not in use
    - Using desktop virtualization
    - Using cloud computing
  - Proper recycling is essential
    - Think security when disposing





# Summary

- Intellectual Property Rights
- Ethics
- Computers and Health
- Access to Technology
- Environmental Concerns
- Related Legislation