

Intellectual Property

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Intellectual Property

- Term used to describe works of the mind
 - Distinct and “owned” or created by a person or group
- Copyright law
 - Protects authored works
- Patent laws
 - Protect inventions
- Trade secret laws
 - Help safeguard information critical to an organization’s success

Copyrights

- Grants creators of original works the right to
 - Distribute
 - Display
 - Perform
 - Reproduce work
 - Prepare derivative works based upon the work
 - Author may grant exclusive right to others

Copyrights (continued)

- Types of work that can be copyrighted
 - Architecture
 - Art
 - Audiovisual works
 - Choreography
 - Drama
 - Graphics
 - Literature
 - Motion pictures

Copyrights (continued)

- Types of work that can be copyrighted
 - Music
 - Pictures
 - Sculptures
 - Sound recordings
 - Other intellectual works...

Copyrights (continued)

- Work must fall within one of the preceding categories
- Must be original
 - Evaluating originality can cause problems
- Fair use doctrine
 - Factors to consider when evaluating the use of copyrighted material

Copyrights (continued)

- Fair use doctrine factors include:
 - Purpose and character of the use
 - Portion of the copyrighted work used
 - Effect of the use upon the value of the copyrighted work
- Copyright infringement
 - Copy substantial and material part of another's copyrighted work
 - Without permission

Patents

- Grant of property rights to inventors
- Permits an owner to exclude the public from making, using, or selling the protected invention
- Allows legal action against violators
- Prevents independent creation
- Extends only to the issuing country

Patents (continued)

- Applicant must file with the Patent Office
 - Patent Office searches prior art
 - Takes an average of 25 months (in the U.S.)
- Prior art
 - Existing body of knowledge
 - Available to a person of ordinary skill in the art

Patents (continued)

- An invention must pass four tests
 - Must be in one of five classes of items (processes, machines, manufactures, compositions of matter, new uses in any of the four)
 - Must be useful
 - Must be novel
 - Must not be obvious to a person having ordinary skill in the same field
- Items cannot be patented if they are
 - Abstract ideas
 - Laws of nature
 - Natural phenomena

Patents (continued)

- Patent infringement
 - Someone makes unauthorized use of a patent
 - No specified limit to the monetary penalty
- Software patent
 - Feature, function, or process embodied in instructions executed on a computer
- 20,000 software-related patents per year have been issued in the U.S. since the early 1980s
- Example: Amazon.com “one-click shopping”
- Example: Cygnus “document-preview icons”

Patents (continued)

- Before obtaining a software patent, do a patent search
- Software Patent Institute is building a database of information
- Cross-licensing agreements
 - Large software companies agree not to sue others over patent infringements
 - Small businesses have no choice but to license patents to large companies
- IBM donated 3000 patents in 2009

Patents (continued)

- Defensive publishing
 - Alternative to filing for patents
 - Company publishes a description of the innovation
 - Establishes the idea's legal existence as prior art
 - Thus prevents others from filing for that patent
 - Costs mere hundreds of dollars
 - No lawyers
 - Fast
- Patent Trolls: companies that acquire patents to license them to others

Trade Secret Laws

- Trade secret
 - Business information
 - Represents something of economic value
 - Requires an effort or cost to develop
 - Some degree of uniqueness or novelty
 - Generally unknown to the public
 - Kept confidential
- Computer hardware and software can qualify for trade secret protection

Trade Secret Laws (continued)

- Information is only considered a trade secret if the company takes steps to protect it
- Greatest threat to loss of company trade secrets is employees
- Nondisclosure clauses in employee's contract
 - Enforcement can be difficult
 - Confidentiality issues are reviewed at the exit interview

Trade Secret Laws (continued)

- Noncompete agreements
 - Protect intellectual property from being used by competitors when key employees leave
 - Require employees not to work for competitors for a period of time
 - Example: Mark Papermaster moving from IBM to Apple
- Safeguards
 - Limit outside access to corporate computers
 - Guard use of remote computers by employees

Trade Secret Laws (continued)

- Trade secret law has a few key advantages over patents and copyrights
 - No time limitations
 - No need to file an application
 - Patents can be ruled invalid by courts
 - No filing or application fees
- Law doesn't prevent someone from using the same idea if it is developed independently
- World Trade Organization (WTO)
 - TRIPs Agreement provides for a minimum level of protection for intellectual property

Key Intellectual Property Issues

- Issues that apply to intellectual property and information technology
 - Plagiarism
 - Reverse engineering
 - Open source code
 - Competitive intelligence
 - Cybersquatting

Plagiarism

- Theft and passing off of someone's ideas or words as one's own
- Many students
 - Do not understand what constitutes plagiarism
 - Believe that all electronic content is in the public domain
- Plagiarism detection systems
 - Check submitted material against databases of electronic content

Reverse Engineering

- Process of taking something apart in order to
 - Understand it
 - Build a copy of it
 - Improve it
- Applied to computer
 - Hardware
 - Software
- Convert a program code to a higher level design
- Convert an application that ran on one vendor's database to run on another's

Reverse Engineering (continued)

- Compiler
 - Language translator
 - Converts computer program statements expressed in a source language to machine language
- Software manufacturer
 - Provides software in machine language form
- Decompiler
 - Reads machine language
 - Produces source code

Reverse Engineering (continued)

- Courts have ruled in favor of using reverse engineering
 - To enable interoperability
- Software license agreements forbid reverse engineering
- Semiconductor Chip Protection Act (SCPA)
 - Established a new type of intellectual property protection for mask works

Open Source Code

- Program source code made available for use or modification
 - As users or other developers see fit
- Basic premise
 - Software improves
 - Can be adapted to meet new needs
 - Bugs rapidly identified and fixed
- High reliability
- GNU General Public License (GPL) was a precursor to the Open Source Initiative (OSI)

Competitive Intelligence

- Gathering of legally obtainable information
 - To help a company gain an advantage over rivals
- Often integrated into a company's strategic plans and decision making
- Not industrial espionage
- Nearly 25 colleges and universities offer courses or programs
- Without proper management safeguards it can cross over to industrial espionage
 - Example: Proctor & Gamble spying on Unilever

Cybersquatting

- Trademark is anything that enables a consumer to differentiate one company's products from another's
 - May be
 - Logo
 - Package design
 - Phrase
 - Sound
 - Word

Cybersquatting (continued)

- Trademark law
 - Trademark's owner has the right to prevent others from using the same mark
 - Or confusingly similar mark
- Cybersquatters
 - Registered domain names for famous trademarks or company names
 - Hope the trademark's owner would buy the domain name
 - For a large sum of money

Cybersquatting (continued)

- To curb cybersquatting
 - Register all possible domain names
 - .org
 - .com
 - .info
- Internet Corporation for Assigned Names and Numbers (ICANN)
 - Current trademark holders are given time to assert their rights in the new top-level domains before registrations are opened to the general public