Intellectual and Intangible Property

Professional Ethics in Computing

Lecture 06

(largely based on lecture by John Cartlidge)

Lecture notes – group 6

Teaching Week	Date	*Contents*
2	***26 Sep***	*Lecture 1: Introduction and Administration*
4	***8 Oct***	Lecture 2: Critical Reasoning and Moral Theory 1
5	***15 Oct***	Lecture 3: Critical Reasoning and Moral Theory 2
6	***22 Oct***	Lecture 4: Computing Professionals and Professional Ethics
7	***29 Oct***	Lecture 5: Privacy
8	***5 Nov***	Lecture 6: Intellectual and Intangible Property
9	***12 Nov***	Lecture 7: Critical Thinking
10	***19 Nov***	Lecture 8: Trust, Safety and Reliability
11	***26 Nov***	Lecture 9: How Computing is Changing Who We Are
12	***3 Dec***	Lecture 10: Computing and Vulnerable Groups
13	***10 Dec***	Lecture 11: Autonomous and Pervasive Technologies

1.	Theory	DONE
2.	Professional codes of conduct	DONE
3.	Real World issues	To do

Intellectual & Intangible Property

- The products of creation and invention (e.g., a book, a musical composition, computer software...) are typically called "*intellectual*" property to distinguish them from *tangible* property (e.g., a house, a car, a pair of shoes…)
- Today, we look at:
  - *Types of intellectual property* that are most affected by *computing and the Internet*
  - *New types of intangible property* that arise due to computing, but *do not seem creative* in nature

Additional Reading

- Chapter 4 of the book Ethics in a Computing Culture (Brinkman and Sanders, 2013)
- Chapter 4 of the book A Gift of Fire (Baase, 2013)
- Chapter 3 of the book Ethics for the Information Age (Quinn, 2013)
- Chapter 8 of the book Ethics and Computing (Bowyer, 2001)
- Legally Speaking Mass Digitization as Fair Use. Pamela Samuelson, Communications of the ACM, Vol. 57, No. 3, pp. 20-22, March 2014.
- Does the Patent Office Respect the Software Community? Gregory Aharonian, IEEE Software, pp. 87-89, July/August 1999.

Additional Reading (continued)

- UK Intellectual Property Office
  - https://www.gov.uk/government/organisations/intellectual-property-office
- US Patent and Trademark Office
  - http://www.uspto.gov/
- Hargreaves Review Implementation
  - http://webarchive.nationalarchives.gov.uk/20140603093549/http://www.ipo.gov.uk/ipreview.html
- Creative Commons: Types of Licenses
  - http://creativecommons.org/licenses/

The basic idea / argument…

- The importance of creativity and invention
  - *Protecting innovators and their creation*
- Ultimately to encourage innovation
  - But, *does the opposite happen?*
- Defining *intellectual* and *intangible* property
  - Intellectual property often shortened to IP

INTELLECTUAL PROPERTY

Intellectual Property of Ideas

"Intellectual property is generally characterized as non-physical property that is the product of original thought. Typically, rights do not surround the abstract non-physical entity; rather, intellectual property rights surround the control of physical manifestations or expressions of ideas".

Stanford Encyclopedia of Philosophy

Intellectual Property (IP) Law

- To ensure that people with good ideas can profit from them
  - even once the idea is known to everyone
- To encourage people to get involved in creative arts and invention
  - for the benefit of everyone
- IP Law is very complicated…
  - *I know this first hand!*
- We focus on three key aspects that directly affect computing
  1. Copyright
  2. Patent
  3. Trademark

US 8969254 B2, Mar 3, 2015 - granted
Reinherz, EL, Brusic V, Zhang GL, Keskin DB, Deluca DS, Lin HH., Oligonucleotide array for precise HLA typing.

US 9205144 B2, Dec 2015 - granted
Brusic V. Olsen LR, Reinherz EL, Zhang GL, Identification Of Conserved Peptide Blocks In Homologous Polypeptides.

IP Protection: 5 Key Questions

- For each type of IP protection, we ask:
  1. *What type of thing can be protected?*
  2. *What rights are reserved for the creator of the work?*
  3. *What rights are reserved for the public?*
  4. *How does one obtain protection for a work?*
  5. *How long does the protection last?*

A ***significant*** contributor to developed economies

INTELLECTUAL PROPERTY

The Numbers: UK

Business investment in intellectual property rights

2000 £47 billion (10^9) ~RMB 470 billion

2008 £65 billion

2014 £70 billion

"Particular areas of growth are software and branding"

2014: 0.4% of UK GDP (£7.5bn) came from investment in intangible assets protected by patents.

2014: 0.8% of UK GDP (£15bn) came from investment in intangible assets protected by trademarks.

2015: £56m of infringing goods were seized by officials at the UK border

The Numbers: USA

2016: “IP-intensive industries support at least **45 million** U.S. **jobs** and contribute more than **$6 trillion dollars** ($10^{12}$) to, or **38.2 percent** of, U.S. gross domestic product (**GDP**).”

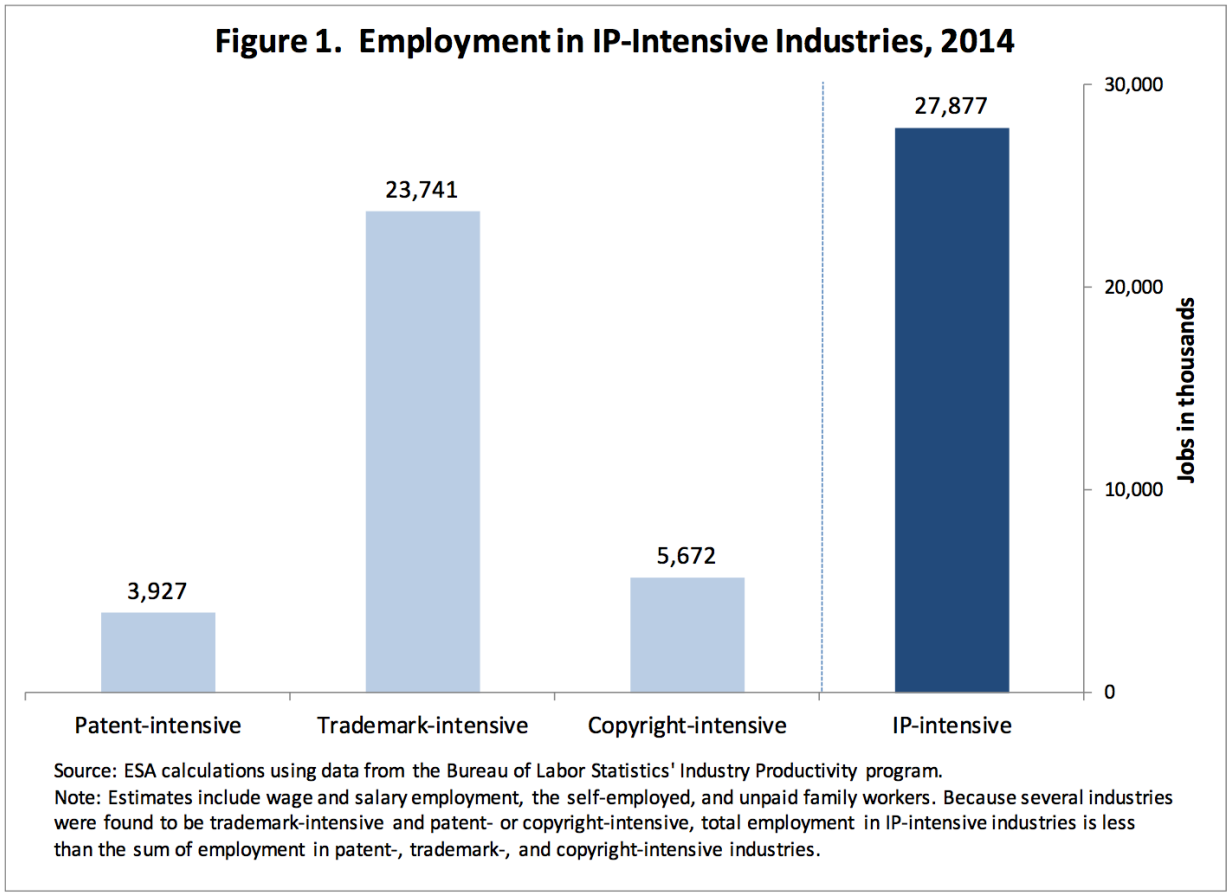
Intellectual Property and the U.S. Economy: Industries in Focus, United States Patent and Trademark Office

https://www.uspto.gov/learning-and-resources/ip-motion/intellectual-property-and-us-economy
[Accessed: March 11, 2018]

GDP of China 2016: 11.2 trillion USD

USA, 2014

- Approx. 10% of **entire US population** employed in IP-intensive industries! (38.2% of GDP)



https://www.uspto.gov/learning-and-resources/ip-motion/intellectual-property-and-us-economy
[Accessed: March 11, 2018]

The Numbers: China?

- Some interesting reports (now a decade old):
  - *China: Intellectual Property Rights - Protecting assets in the information, communications and entertainment market*. The Economist, HK, 2005
    https://www.kpmg.com/CN/en/IssuesAndInsights/ArticlesPublications/Documents/China-Intellectual-Property-Rights-200502.pdf
  - Redefining Intellectual Property Value: The Case of China. PWC, 2005
    https://www.pwc.com/us/en/technology-innovation-center/assets/ipr-web_x.pdf
  - But they don't contain quantitative values.
- IP is an *increasingly important* issue in China
  - International pressure to subscribe to similar IP laws

"In 2015, the added value of China's patent-intensive industries accounted for 12.4 percent of GDP"

Made in China 2025 program –emphasis on development of IP-intensive industries

Intellectual property in China

"Intellectual property rights have been acknowledged and protected in the People's Republic of China since 1979. The People's Republic of China has acceded to the major international conventions on protection of rights to intellectual property. Domestically, protection of intellectual property law has also been established by government legislation, administrative regulations, and decrees in the areas of trademark, copyright, and patent. **This has led to the creation of a comprehensive legal framework to protect both local and foreign intellectual property.** Despite this, copyright violations are common in the PRC, The American Chamber of Commerce in China surveyed over 500 of its members doing business in China regarding IPR for its 2016 China Business Climate Survey Report, and **found that IPR enforcement is improving, but significant challenges still remain**. The results show that the laws in place exceed their actual enforcement, with **patent protection receiving the highest approval rate, while protection of trade secrets lags far behind**".

Wikipedia

The main mechanism for protecting creative works, such as art, music, and writing, that have a fixed and tangible form

1. COPYRIGHT

Copyright

- Main mechanism for **protecting creative works**, e.g., art, music, & literature
- US Law ***DOES PROTECT:***
  - "***Original works of authorship fixed in any tangible medium of expression***" (Title 17, US Code section 102) in the areas of literature, music, drama, pantomime, graphic art, sculpture, motion pictures, sound recordings, and architecture
- US Law ***DOES NOT PROTECT:***
  - Ideas, facts, or common knowledge
  - Creative works that are not in a "tangible" fixed form
  - E.g., dance choreography: to protect work, choreographers often make video recordings of dance during rehearsal
- No "*process*" to obtain copyright – works created are automatically protected once they appear in a fixed medium
- Duration – (Currently) Lifetime of the author + 70 years
  - When Old, Out-of-Copyright Art Becomes Free Art, Virginia Ricci, Motherboard, Feb. 2013 http://motherboard.vice.com/blog/voyaging-into-the-wonderland-of-expired-copyright-artwork

Four main rights for the author

1. The **right to reproduce** the copyrighted work
2. The **right to prepare derivative works** based on the copyrighted work
3. The **right to distribute copies** of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending
4. The **right to perform or display** the copyrighted work **publicly**

Rights for the public

- Most activities not covered by four main rights of the author belong to the public.
  - E.g., if you own a DVD, you have right to display privately in own home
- There are two main rights reserved for public that deserve special attention:
  1. **Fair Use**
  2. **First Sale**

Fair Use

- We can, in certain situations, use parts of copyrighted work without express permission

- Following are **not** an infringement of copyright:
  - Criticism
  - Comment
  - News Reporting
  - Teaching (inc. multiple copies for classroom)
  - Research

  ***Carrier IQ threatened Trevor Eckhard for copyright breach**

  TE published both the analysis of Carrier IQ software, and company training materials he used for research and analysis.

Factors of Fair Use

- Law does not give clear rules
- Four factors considered by court /arbitrator for each case:

1. Purpose and character of use
   - e.g., commercial vs. non-profit educational
   - noncommercial and educational more likely to be fair
2. Nature of the copyrighted work
   - e.g., fiction vs. nonfiction, published vs. non-published
   - use of nonfiction work & published work more likely to be fair
3. Amount and substantiality of used material
   - relative to the copyrighted work as a whole
   - short extracts more likely to be fair, but ***not if substantial***
4. Effect of use on potential market for, or value of, the copyrighted work
   - use more likely fair if copyright holder's ability to make money is not damaged

Not fair use: although apple and face is a small part of original work, it is a vital or recognisable part, and therefore *substantial*

The Son of Man (1964), René Magritte

https://en.wikipedia.org/wiki/The_Son_of_Man

Scenario

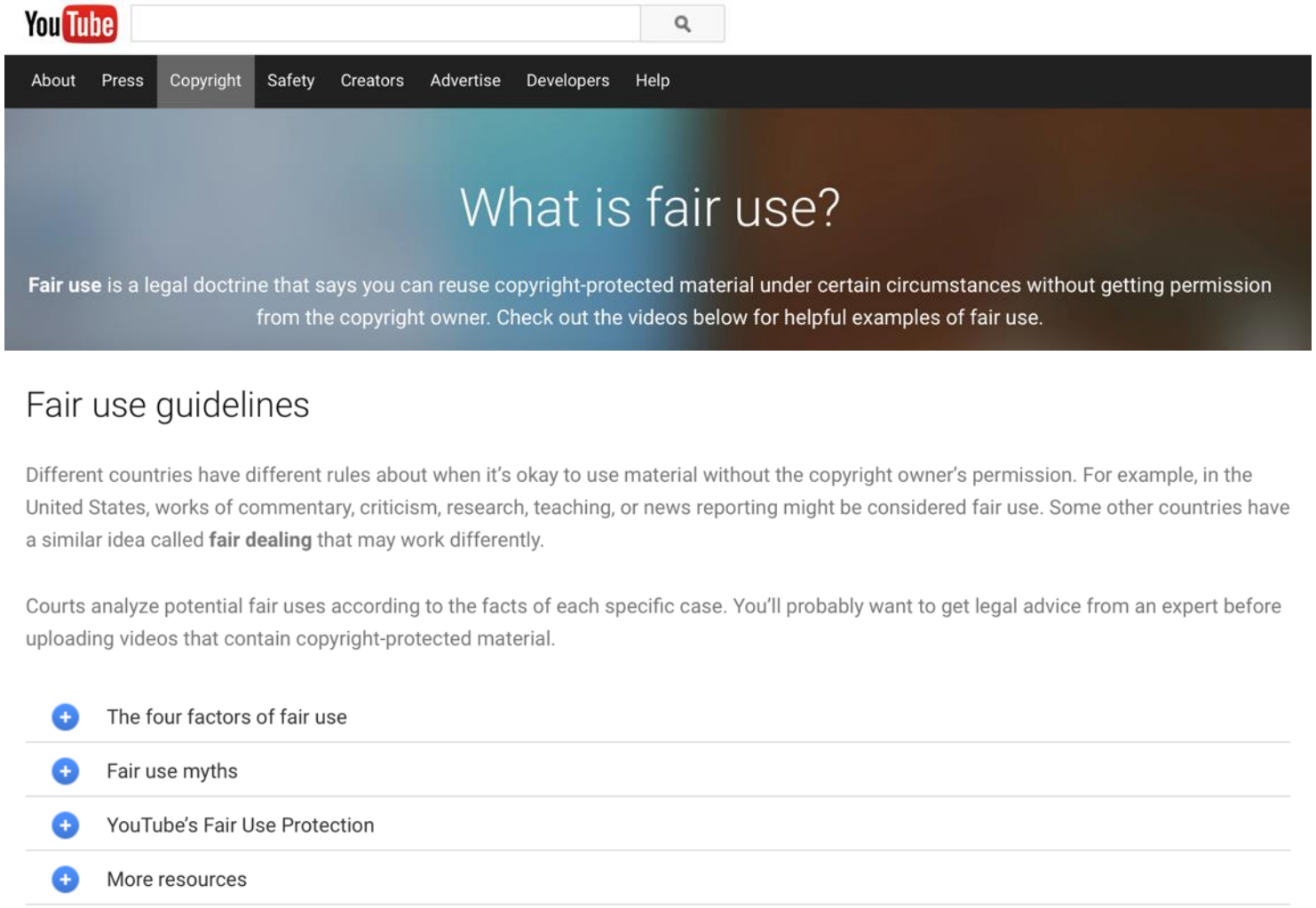
- Prof. Smith wants to provide students with a chapter of a textbook (not authored by him) as supplementary material on a module. Smith posts a PDF file of the chapter and posts it in a public website. **Qu: Is this fair use?**

- What if Smith places on a password-protected site for students only? **Qu: Is this fair use?**

- What if Smith takes a chapter from one book, another chapter from another book, etc. and posts all on a password-protected site for students. **Qu: Is this fair use?**

To consider: Purpose of use (education), type of work (non-fiction), amount / substantiality, effect on market/ value

Fair Use: In the Wild - YouTube



https://www.youtube.com/yt/copyright/fair-use.html#-yt-copyright-four-factors

Fair Use: In the Wild - YouTube

Fair use myths

There is some misinformation out there that might lead you to believe fair use automatically applies if you say a few magic words. There is actually ***no silver bullet*** that will guarantee you are protected by fair use when you use copyrighted material you don't own. Courts will consider all four of the factors described above and weigh them on a case-by-case basis. Here are some common myths:

Myth #1: If I give credit to the copyright owner, my use is automatically fair use.

As you saw above, transformativeness is usually a key in the fair use analysis. Giving credit to the owner of a copyrighted work won't by itself turn a non-transformative copy of their material into fair use. Phrases such as "all rights go to the author" and "I do not own" do not automatically mean you are making fair use of that material -- nor do they mean you have the copyright owner's permission.

Myth #2: If I post a disclaimer on my video, my use is fair use.

As we noted above, there are no magic words that will do this for you. Posting the four factors of fair use in your video or including the phrase "no infringement intended" won't automatically protect you from a claim of copyright infringement.

Myth #3: "Entertainment" or "non-profit" uses are automatically fair use.

Courts will look carefully at the purpose of your use in evaluating whether it is fair, but the three remaining factors also need to be considered. Declaring your upload to be "for entertainment purposes only," for example, is unlikely to tip the scales in the fair use balancing test. Similarly, "non-profit" uses are favored in the fair use analysis, but it's not an automatic defense by itself.

Myth #4: If I add any original material I created to someone else's copyrighted work, my use is fair use.

Even if you've added a little something of your own to someone else's content, you might not be able to take advantage of the fair use defense -- particularly if your creation fails to add new expression, meaning, or message to the original. As with all the other cases discussed here, courts will consider all four factors of the fair use test, including the quantity of the original used.

Fair Use: In the Wild – Google Books

Oct 2015

After 10 Years, Google Books Is Legal

Thanks to a landmark ruling, information just got a little more free.

ROBINSON MEYER | OCT 20, 2015 | TECHNOLOGY

On Friday, a federal circuit court made clear that Google Books is legal. A three-judge panel on the Second Circuit ruled decisively for the software giant against the Authors Guild, a professional group of published writers which had alleged Google's scanning of library books and displaying of free "snippets" online violated its members's copyright.

To some digital-rights followers, the Google Books case had seemed to drag on forever: The Authors Guild first filed suit 10 years ago. But the theory behind the eventual ruling was a quarter-century in the making.

http://www.theatlantic.com/technology/archive/2015/10/fair-use-transformative-leval-google-books/411058/

Doctrine of First Sale

- Copyright Law:
  - Designed to protect something *intangible* (i.e. an *expression* of creativity)
  - Until recently, copyrighted material was purchased in *tangible* form
    - Right to listen to music recording: purchase physical record, or CD
    - Right to read a novel: purchase printed copy of the book
  - This creates confusion in minds of consumers—it's natural to think same set of rules (about resale and copying) apply to CDs and books as to shovels, but that is not the case…
- Consider a textbook you have purchased
  - If you purchased a new copy, then the authors (copyright holders) received a royalty of what was paid
  - Now, if you sell it back to bookstore and they resell it as a used book, do authors get a second royalty?

Doctrine of first sale: No second royalty

- Copyright holders are ***not*** entitled to a second royalty from resale
  - "*The owner of a particular copy ... lawfully made under this title ... Is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possessions of that copy*"
  - i.e., you are free to sell your book without involving the copyright owner *as long as no new **copy** is made*
  - This policy (created 1908) was workable …
    - until books shifted to e-books and CDs shifted to MP3s
    - then, first sale may no longer make sense
    - The reason? Modern copyright protection schemes, collectively called "digital rights management"

Digital Rights Management (DRM)

- Many consumers now buy music, novels, electronically on the Internet
  - You no longer receive physical product
  - You get a virtual computer file that can be played on different devices
- Digital Right Management (DRM):
  - Technologies that work to ensure copyrighted content can only be viewed by the purchaser
  - When you purchase content it is locked to your device
  - ebook purchased for your Amazon Kindle cannot be read on your friend's Kindle
- What happens to Fair Use and Fair Sale rights? (e-book with DRM)
  - You may not be able to cut and paste a quote from a book [can't exercise right to fair use]
  - You cannot give copy to friend and then delete your copy [can't exercise right to resell a book – i.e., doesn't meet first sale doctrine]

Digital Millenium Copyright Act (DMCA)

- Law updated to deal with modern copyright issues (1998)

  No person shall circumvent a technological measure that effectively controls access to a work protected under this title

  (Title 17, US Code, section 1201)

- Law has been criticised on grounds that it *makes **fair use** and **fair sale** legally impossible*
- Copyright law gives public rights to fair use and fair sale…
  - But can only be exercised by breaking DRM system
  - And breaking DRM is illegal under DMCA

Plagiarism vs. Copyright Violation

- Posner's definition of plagiarism
  - "*copying that the copier claims is original with him and the claim causes the copier's audience to behave otherwise that it would if it knew the truth*"

Scenario: Student Alice pays student Bob to write an essay on her behalf. Alive hands in the essay as her own work with the express permission of Bob.

Qu: Copyright infringement, plagiarism, both, neither?

  - *This* ***is plagiarism*** – copier, Alice, claims it is original, and marker would discipline/fail Alice if truth was known
  - *This* ***is not copyright infringement*** – Bob gives Alice permission to use

- Plagiarism does not necessarily imply copyright infringement
- & *Vice-versa*: We can violate copyright by publishing a photograph on our website, even if we give credit

Copyright Piracy

2006

China used to be world “famous” for this kind of CD/DVD counterfeiting

Crackdown on pirated goods sees results

By Wu Yong and Wang Ziyi (China Daily)
Updated: 2006-02-06 06:19

Mr and Mrs Xiao now spend their days watching pirated DVDs leftover from their business that was shut down a month ago. The couple had their licence revoked for selling pirated video products in a market in Shenyang's Sanhao Street.

In order to clean up the audio and video product market and better protect intellectual property rights (IPR), China's State Council launched a large-scale operation last year to crack down on IPR infringements nationwide.

About 500,000 pirated CDs and DVDs are destroyed during a recent crackdown on pirated audio and video products in Shenyang, capital of Northeast China's Liaoning Province. [China Daily]

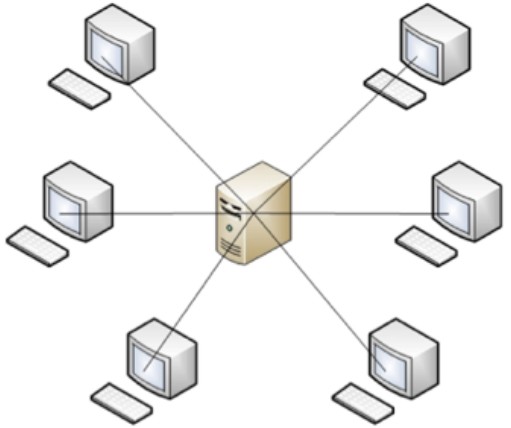
http://www.chinadaily.com.cn/english/doc/2006-02/06/content_517377.htm

Sharing vs. Selling

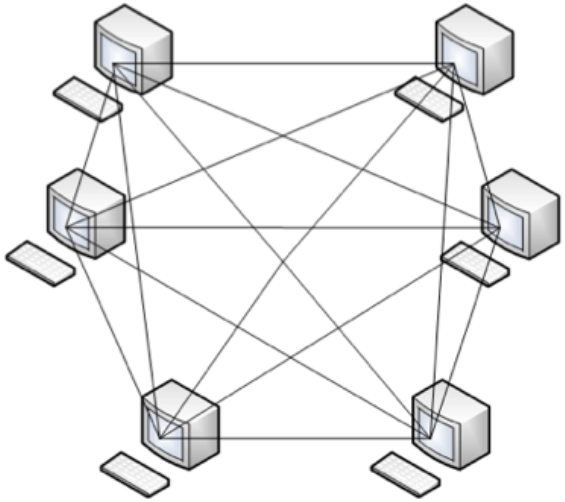
- Until 1990s, copyright piracy involved counterfeiting—illegal duplication of physical media
- Infringement through sharing (e.g., let a friend use your disk to illegally install software) had relatively small business impact (original purchase shared with relatively few friends)
- The internet allows a single legal copy to be shared with thousands/millions of people
- Example case: 1994—MIT Student charged with criminal copyright infringement
  - Allegedly hosting copyrighted software (e.g., Excel) on his website for free download
  - Verdict: no copyright violation
  - Law said criminal only if the act was "for the purpose of commercial advantage or private financial gain"
  - No private or financial gain, therefore infringement not a criminal offense
- Result: 1997 – No Electronic Theft Act (or NET Act)
  - Copyright law amended, so "financial gain" includes receiving copyrighted works for free
  - Now swapping (I'll give you movie A if you give me movie B) is clearly illegal

P2P Sharing & Searching

- Post a whole movie on a website?
  - **Legal? Moral?**
  - Probably not
- What about P2P software?
  - No central server
  - **Search only** – provider helps you search for files on the network – this is hard problem (would not be possible without software application)
  - No hosting from the service provider
  - **Legal? Moral?**
  - **?**



A server based network opposed to peer-to-peer



A peer-to-peer network.

1999-2001

- The first P2P file-sharing software
  - 80 million users at its peak
  - College dorms: 61% of external traffic was MP3 file transfers!
- Found guilty of violating copyright law
  - Despite not hosting any copyrighted material – correct decision?
- Defined as "**Contributory Infringement**"
  - Infringement would not have happened without Napster's help
- There is also "**Vicarious Infringement**"
  - Infringement occurred in an area under Napster's supervision

- Numerous examples since: The Pirate Bay, BitTorrent, etc...

  - Napster: https://en.wikipedia.org/wiki/Napster Very interesting read!
  - The Pirate Bay: https://en.wikipedia.org/wiki/The_Pirate_Bay
  - BitTorrent: https://en.wikipedia.org/wiki/BitTorrent

Recent Example: Banhoff

Swedish ISP Protests 'Site Blocking' by Blocking Rightsholders Website Too

BY ERNESTO ON NOVEMBER 2, 2018 0

Bahnhof has suffered a major defeat against publisher Elsevier after a court ordered the Swedish ISP to block a series of domain names, including Sci-Hub. The decision goes against everything the company stands for but it can't ignore the blocking order. Instead, the ISP has gone on the offensive by blocking Elsevier's own website and barring the court from visiting Bahnhof.se.

As a staunch defender of an open Internet, ISP Bahnhof has repeatedly spoken out against pirate site blocking efforts.

The company has also argued the matter in court recently, after academic publisher Elsevier applied for an order to ban a series of domain names, including Sci-Hub.

Today, Bahnhof announced that it has been ordered to block the sites in question.

This is the worst possible outcome for Bahnhof. TorrentFreak spoke to CEO Jon Karlung who describes it as a "horrifying" decision that "goes against the soul of the Internet."

https://torrentfreak.com/swedish-isp-protest-site-blocking-by-blocking-rightsholders-website-and-more-181102/

Copyright Duration

- Debate: how long should copyright protection last
  - Term has grown steadily over time
  - Since 1998—it is author's lifetime, plus 70 years.
- Arguments for long term:
  - To support author and family for life
- Arguments against very long term:
  - Difficult to track down owner (orphaned work)
  - Social cost: students read Shakespeare at school – what would be annual cost be if works still in copyright!?

The main mechanism for protecting inventions that are novel and non-obvious

2. PATENT LAW

Patents: Definitions

- Intellectual works of invention, value is on its usefulness
  - Covers processes, machines, manufacture, compositions of matter, …
  - Capable of being made or used
- Need to apply for it
  - Can be expensive process (more than $10,000)
- Criteria, invention must be:
  - Novel (not been invented before)
  - Non-obvious (not obvious to another specialist in appropriate area)
- Valid for some fixed period of time
  - (usually 20 years from application date)
- Good investment! No-one can make, use, offer to sell, or sell the invention without the patent holder's permission!

Patent Wars!

Oct 2016

MENU TECH TIMES TECH SCIENCE HEALTH CULTURE REVIEWS FE

Samsung vs Apple Patent Wars: Apple Wins $120 Million Slide-to-Unlock Patent Case

7 October 2016, 8:48 pm EDT By Vamien McKalin Tech Times

http://www.techtimes.com/articles/181422/20161007/samsung-vs-apple-patent-wars-apple-wins-120-million-slide-to-unlock-patent-case.htm

A long history: Billions of Dollars!

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About Wikipedia
Community portal
Recent changes
Contact page

Apple Inc. v. Samsung Electronics Co.

From Wikipedia, the free encyclopedia

Apple Inc. v. Samsung Electronics Co., Ltd. was the first of a series of ongoing lawsuits between Apple Inc. and Samsung Electronics regarding the design of smartphones and tablet computers; between them, the companies made more than half of smartphones sold worldwide as of July 2012.[1] In the spring of 2011, Apple began litigating against Samsung in patent infringement suits, while Apple and Motorola Mobility were already engaged in a patent war on several fronts.[2] Apple's multinational litigation over technology patents became known as part of the mobile device "smartphone patent wars": extensive litigation in fierce competition in the global market for consumer mobile communications.[3] By August 2011, Apple and Samsung were litigating 19 ongoing cases in nine countries; by October, the legal disputes expanded to ten countries.[4][5] By July 2012, the two companies were still embroiled in more than 50 lawsuits around the globe, with billions of dollars in damages claimed between them.[6] While Apple won a ruling in its favor in the U.S., Samsung won rulings in South Korea, Japan, and the UK. On June 4, 2013, Samsung won a limited ban from the U.S. International Trade Commission on sales of certain Apple products after the commission found Apple had violated a Samsung patent,[7] but this was vetoed by U.S. Trade Representative Michael Froman.[8]

"The jury trial … concluded …, awarding Apple $539 million, which includes $399 million for damages of Samsung's products sold that infringed on the patents"

https://en.wikipedia.org/wiki/Apple_Inc._v._Samsung_Electronics_Co.

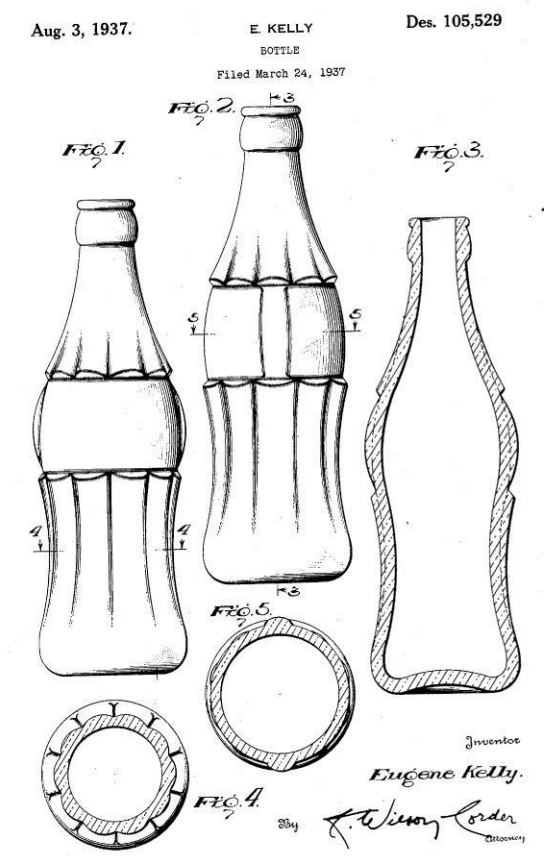
A legally registered word, phrase, symbol, or other item that identifies a particular product, service, or corporation

3. TRADEMARK

Trademarks: Definitions

- Legal registration of word, phrase, symbol, or item that identifies product, service or corporation
- ***Trademark vs. Brand:***
  - Brand refers to the product's identity as a whole
  - Trademark refers to specific element of identity elements
- Usually used to protect word or logo related to a product, so that consumers can be sure products are authentic
- Can register trademark for identifying characters of brand, e.g.,
  - Colours: T-Mobile holds trademark for colour magenta
  - Sounds: Motorola holds trademark on the "Chirp" sound phones make when using direct-connection technology
  - Shapes: Coca-cola holds trademark on "*bottles, jars, or flasks with bulging, protruding or rounded sides*"

Trademarks: Shapes & Colours



Aug. 3, 1937. E. KELLY Des. 105,529

BOTTLE

Filed March 24, 1937

FIG. 1. FIG. 2. FIG. 3. FIG. 5. FIG. 4.

Inventor

Eugene Kelly.

By F. Wilson Corder Attorney

105,529

DESIGN FOR A BOTTLE

Eugene Kelly, Toronto, Ontario, Canada, assignor to The Coca-Cola Company, Wilmington, Del., a corporation of Delaware

Application March 24, 1937, Serial No. 68,391

Term of patent 14 years

To all whom it may concern:

Be it known that I, Eugene Kelly, a citizen of the United States and resident of Toronto, Province of Ontario, Dominion of Canada, have invented a new, original, and ornamental Design for a Bottle, of which the following is a specification, reference being had to the accompanying drawing, forming part thereof.

Fig. 1 is a side view of my bottle.

Fig. 2 is likewise a side view, showing the bottle in Fig. 1 turned through an arc 90°, in order to better illustrate certain features of the instant design.

Fig. 3 is a vertical cross-sectional view of my bottle taken substantially along the line 3—3 of Fig. 2.

Fig. 4 is a horizontal cross-sectional view taken along the line 4—4 of Fig. 1.

Fig. 5 is likewise a horizontal cross-sectional view, taken along the line 5—5 of Fig. 2.

I claim:

The ornamental design for a bottle, as shown.

EUGENE KELLY.

The Switch

Court says T-Mobile owns the color magenta

By Brian Fung February 10, 2014

(paii.hsieh)

https://www.washingtonpost.com/news/the-switch/wp/2014/02/10/court-says-t-mobile-owns-the-color-magenta/

Trademark

- In order to receive TM, you must already be using the mark to represent product or service
- Can register for fee of few hundred dollars
- TM lasts 10 years but can be renewed indefinitely
- As long as you own trademark, no one else can use it in a way that is likely to cause confusion among customers
  - E.g., no other mobile phone company can adopt magenta as company colour, but a soft-drink can could use magenta
- **Trade dress—**look and feel of a product and its packaging
  - Several companies have attempted to use trade dress protection to prevent others from copying look and feel of their Web sites

Secret ideas/information that a company uses to make profit

IP laws not needed to protect trade secrets

TRADE SECRETS

Trade Secrets

- With some products it is possible to keep the intellectual "idea" secret
  - E.g., an Internet company's search algorithm
  - E.g., Coca Cola's secret recipe
- Such secrets are called "trade secrets"
  - They are secrets that are fundamental to business
    - E.g., Customer delivery information for fresh chicken supplier [Faccenda] http://uk.practicallaw.com/books/9781845920418/chapter06#BBECCI-ch06-UID42
    - E.g., Chemical database for mosquito net manufacturer [Vestergaard] https://www.rpc.co.uk/perspectives/ip/vestergaard-guarding-trade-secrets

- IP laws are **not needed** to protect trade secrets
  - If somebody breaks into company and steals the secret, they can be prosecuted for trespassing
  - Employees can be prevented from leaking secrets through use of non-disclosure agreements in their employment contracts
- IP laws needed only for inventions/creations that are *no longer secret*

Copyright, Trademarks, & Patents

IP PROTECTION FOR SOFTWARE

IP Protection for Software

- Copyright, Patents, and Trademark can be used to protect parts of a computer software product, e.g.,
  - source code logic,
    - Source code is a creative work of authorship and is copyrighted
  - look and feel, e.g.,
    - Pac-Man Copyright – arcade software, work of creativity
    - Blue Nile Trademark – trade dress law for jewelry website
  - features, (E.g., Apple's *Slide-To-Unlock* Patent)
  - algorithms, (E.g., Google's *Page Rank* Patent)
- It is *not* a simple question of how to protect software

Copyright & Trademark Protection for Software

- Copyright used to protect parts of computer program that are works of creative authorship, e.g.,
  - source code logic
  - Look and feel of whole game (e.g., Pac-Man)
- Trademark used to protect parts of program that uniquely identify it, and make it distinctive, for the purposes of commerce
  - E.g., BlueNile.com jewelry store sued Ice.com jewelry store for allegedly copying look and feel
- Notice, both copyright and trademark can be used (in some circumstances) to protect look and feel, e.g., Pac-Man

Notes of Software Copyright

- Software copyright:
  - Work can be licensed to others
  - Copyright can be sold or assigned to others
  - Claims for infringement must be proven in court
  - Copyright in work done as part of a job belongs to the employer
  - All digital media are likely to be subject to copyright
  - Creative commons licenses are like open source licenses for digital media rather than software

Patents for Software (Critique)

- Use of patents for software and algorithms controversial, consider:
  - Amazon's *1-click* Patent (novel, but *nonobvious?*)
  - Google's *Page Rank* algorithm (novel, but *non-trivial?*)
- Criticism 1: Patent Office not competent to decide whether software idea is nonobvious
  - This benefits large corporations over small companies / individuals because of prohibitive costs of patent application
  - Also, difficult to develop new and innovative software, because hard to know if new software is violating one of thousands of existing patents
- Criticism 2: Using patents to protect an algorithm
  - You cannot patent a *basic mathematical fact* (it would harm public good)
  - Some algorithms can be viewed as basic mathematical facts (the formulas are simple to write down and can be found on Wikipedia), but perhaps they were hard to discover.

Notes on Patents for Software

- Complex, contentious area
- Legal protection from others exploiting the invention
- Use of invention can be licensed to others
- Typically protected for up to 20 years
- The essence of the invention is disclosed and published
- Claims for infringement must be proven in court
- But there is no agreement

Summary

- Qu: Which type of intellectual property protection should apply to software?
  - This is a trap!
  - There is no clear or obvious answer
  - The experts disagree
- Possible solution – a new legal framework
  - Difficult to map existing law, designed for tangible goods onto intangible ones

Workshop…

- We will cover some real world examples of IP protection for software in the workshop

- We will also discuss other ways of protecting software:
  - Digital watermarks,
  - Region Coding,
  - Virtual Goods

[END]

IP Protection	Copyright ©	Patent	Trademark ™
What type of things can be protected?	Creative works (art, music, drama) in a fixed and tangible form	Inventions (processes, machines, etc.) capable of being made or used	Word, phrase, symbol, or item that identifies product, service or corporation
Rights for the creator?	1. reproduce 2. derive new works 3. distribute copies 4. perform publicly	Exclusive rights to make, use, and sell	Exclusive rights to use TM
Rights for the public?	Rights not covered by author rights, plus: 1. Fair use 2. First sale	Cannot "make, use, offer to sell, or sell" invention without patent holder's permission	Cannot use TM in a way that is likely to cause confusion to customers
How to obtain protection?	Automatic protection, once works appear in a tangible fixed medium. Cost: free	Must apply to Patent Office and meet criteria: • novel & • non-obvious Cost: $10,000+	Register TM, but must already use mark to represent product or service. Cost: few hundred dollars
How long does protection last?	(Current protection is) lifetime of author + 70 years	Usually 20 years from application	10 years, can be renewed indefinitely