



IP and related issues

Brian (not a lawyer) Fisher

Overview

- Types of protection
 - Trade secrets
 - Patent (design, utility)
 - Copyright
 - Trademark
- Concentrate on US and Canada
- Establishing software IP
 - Basic protection: copyright and trade secret
 - Patents for (expensive, messy) stronger protection
 - Trademark and Industrial design for look-and-feel
- Infringing other people's IP
- Pragmatics of IP in business context (opinions!)

Trade secret

- Default protection for software
- Requires minimal effort on your part
- Requires cooperation by collaborators
- Difficult in many cases
- Practically impossible in university context-- do algorithms inside, real development outside! (IMHO)

Keeping IP secret provides legal protection

- US Economic Espionage Act of 1996
 - Individuals sent to prison for 10 years, fined \$500,000
 - Corporations fined \$5 million
- Lawsuit to recover damages
- Easy to do (in theory)
 - Must document "due diligence" to protect IP (e.g. through confidentiality agreements with employees etc.)
 - Maintain legal rights through documenting protection efforts
 - **confidentiality agreements** AKA **nondisclosure agreements**
- Competitive intelligence (using public information source) is OK
- Can license them, just like patents (next topic)

Trade Secret example

- Formula for Coca-Cola
 - Kept locked in a bank vault in Atlanta
 - Board of directors must pass a resolution to open vault
 - Only two Coca-Cola employees ever know the formula
 - Their identities are never disclosed to the public
 - They are not allowed to fly on the same airplane.
- Most companies settle for NDAs (CAs)

NDAs

- Contractual agreement between parties
 - Confidentiality of specific materials for a given time
 - Return of materials, no copies
 - Agree to injunction without bond
- Their NDA
 - Protects their proprietary information: business, technical
 - Should not stop you from consulting for others
 - Should be clear on what is being protected
 - Consultants, smaller companies typically sign
- Your NDA
 - Potential investors, larger companies will not sign your NDA
 - Decide in advance what you will disclose if they don't sign
 - Consider what to keep in reserve even if they do sign
- Some NDAs are overbroad-- be careful!!!

NDA phobia

- Decision to sign overbroad NDA is hard
- Example(poss apocryphal): IBM and Digital Research
 - IBM wants to license CP/M
 - Gets in kerfluffle with CEO Gary Kildall
 - Purportedly over NDA, source release
- Approaches Microsoft
 - Just makes BASIC
 - Gates offers \$50K for Seattle Computer Products' 86-DOS
 - QDOS (*Quick and Dirty Operating System*) w same commands as CP/M

NDA may have exceptions for information that...

- Was in the public domain at the time it was disclosed
- Becomes part of the public domain without breach of this Agreement
- Is disclosed with the written approval of the Applicant
- Is disclosed after three years from Recipient's receipt of the information
- Was independently developed by Recipient
- Is or was disclosed by the Applicant to a third party without restriction
- Is disclosed pursuant to the provisions of a court order.
- Information is not used to compete with company

Enforcement example

- S. J. Mercury News 4/27/01
 - A Fremont company and one of its executives Thursday pleaded guilty in federal court to stealing trade secrets from Mountain View-based Acuson... In court papers, Wang has admitted obtaining confidential Acuson documents that contain the architecture for one of Acuson's flagship ultrasound products, the Sequoia ultrasound machine. Wang obtained the documents from his wife, Qinhua Zhou, an Acuson engineer... both Wang and his wife were charged with federal crimes; the charges have since been dismissed against Zhou.... Bell Imaging faces as much as a \$5 million fine when the corporation is sentenced in October by U.S. District Judge Jeremy Fogel. Wang, scheduled to be sentenced at the same time, could face several years in prison.

Patents

- Strong protection
- Country-specific, rules differ
- Always complex and confusing
- Costs money to file (more to write application!)
- No common law protection (all statute law)
- Time out after 20 years

Patents

- Patents intended to allow inventor to reap fruits
- Must be original inventor, invention must be
 - Novel-- never before disclosed to public
 - Useful-- can be built from patent **disclosure**
 - Unobvious-- to "the unimaginative skilled technician"
- Scope of protection determined by patent **claims**
- May be invention or process (includes "use patents")

Patents

- Patents designed as a defensive measure to protect inventor from illegal competition
- Patents don't protect the ability to commercialize a product, but only prevent others from doing so
- Example
 - I patent stool, declare 4 legs
 - You patent 3 leg stools
 - I can make 4 leg stools, not 3 leg stools
 - You can't make either
- Patents can be used offensively
 - "Bracketing" an invention-- patent modifications to restrict original patent domain

What can you patent?

- New door lock
- Apparatus for building door locks
- Method for lubricating door locks
- Method for making door locks
- Improvements on above...

What can't you patent?

- Aggregation of items
- Algorithms or theorems
- Plants and seeds (in Canada)
- Computer programs (in theory, in Canada)

Can you patent...

- Pencil with eraser?
- Method for holding eraser on pencil?
- Improvement in mechanical pencil?
- Software algorithm?
- Functional nature of software?

Software Patents

- Patents extended to software in US
- In US also business processes, plants, animals, business plans and concepts
- Spurious patents from big companies ignore prior art
 - One click ordering (Amazon)
 - Multiple menu selection (Microsoft)
- Big companies routinely cross-license patents
- Software patents often used offensively, to tie up small companies, exhaust their resources

Patent process excerpts

- Many steps here are a few!
- Write declaration and claims, submit and pay fee
 - Search for prior art PATSCAN at UBC library
 - Claims are especially tricky
- Request examination, pay fee (can be up to 5 years later, take 2 more to finish)
 - Special order requests (more fees)
 - Patent examiner checks prior art, issues
 - Earliest filing of idea wins
- May file provisional patent in US &/or WIPO to get foot in door
- Expect ~ \$10 k plus annual maintenance fees

International Patents

- Chose countries to patent in, e.g. US and Canada
 - Different rules, e.g. US "first to invent" vs. rest of world
- Filing deadline set by publication
 - < 12 months after publication in US, Japan, Canada
 - 0 months after publication in most countries!
- Patent Cooperation Treaty
 - file placeholder with World IP org.,
 - must be followed by formal application w/in 20 months
 - no improvements allowed
- US patents allow modification (example later)

Challenging a patent

- Prior art invalidation
- Opposition procedures (some countries) allow public to examine patent applications or granted patents for a limited period of time
- EU limits to 9 months
- Canada and US have re-examination procedure where anyone can request the re-examination of a granted patent by the patent office, ...but only on the grounds of prior art not considered by the examiner during the patenting process.

Patents as legal strategy

- Jerome Lemelson: 500 patents, broad claims, few prototypes, fewer licenses
 - Machine vision, broadly defined
 - Image processing, broadly defined
- “Submarine patents” exploit secrecy of disclosure prior to issue of patent
 - Step 1: File patent
 - Step 2: Modify it before it is granted, while others unknowingly infringe it
 - Step 3: Allow patent to surface...

Patents cont.

- Step 3: Sue everybody
 - Hire burly law firm
 - Burn a CDROM, mail it out
 - Make \$500,000,000
 - Japanese car companies for using robots: \$100,000,000
 - Lucent, Compaq, Xerox, and General Electric
 - Anybody that use barcodes (e.g retail stores)
 - Lawyer fees: \$150,000,000
- Lemelson died, but his foundation continues to sue
 - <http://www.gcwf.com/arttoc/lemelson/> has current info

Trade Secrets (vs patents)

- Advantages of trade secrets:
 - No time limit (e.g. formula for Coca Cola)
 - Cheap
 - Worldwide (but legal rights differ betw. countries)
 - Can't be ruled invalid (like patents can)
 - Less restrictive (prior art OK)
 - No tech disclosure needed
- Disadvantages of trade secrets
 - Must find out (and prove) that IP is being used by competitor
 - Must prove IP was stolen, not discovered through legal means
 - Failure to protect IP invalidates legal rights

Copyright provides limited protection

- Protects form of a work: text, music, software
- Automatic protection for software as well as art
 - Prevents code from being used
- Workaround: Cleanroom method
 - One team (usually consultants) analyzes code, creates very detailed specs
 - Second team writes new code to specs
 - No contact between them

US Digital Millennium Copyright Act

- Watermarks for tracking electronic music on Web
 - RIAA proposes contest
 - Princeton group breaks all 4 watermarks
 - RIAA threatens to sue to prevent presentation of paper
- DeCCS for DVD encryption
 - Code broken to create Linux DVD driver
 - Motion Picture Association of America sues everybody
- Geeks respond with multiple forms
 - T-shirts, interpretive readings, mathematical formulae, etc:

IP protection

- Types of protection
 - Trade secrets
 - Patent (design, utility)
 - Copyright
 - Trademark
- Domains of all 4 are expanding, infringement penalties more severe
- If you have IP
 - Seek overlapping protection from as many as possible
 - Be prepared to defend your IP

Layering IP protection

- Patent critical aspects of technology (easy for hardware, harder for software)
 - VCs love patents
- Copyright (automatic)
- Trade secret (protect through NDAs)
- Trademark GUI elements, colour schemes etc.
- Industrial Design if appropriate

Licensing IP

- You can license any protected IP
- License domain
 - Application area
 - Geographic area
 - Duration of agreement
- Exclusive vs. non-exclusive
- Rights to derivatives
 - First look
 - First refusal
 - Exclusive/non-exclusive
- Performance clause clawback

Licensing cont.

- Exclusive licenses can attract investment
- Inventors hate broad licenses
 - Negotiate areas
 - Performance clause
- University technology licenses
 - Better bet than that 14 year old "undiscovered genius"
 - Usually UBC will license for equity slice
 - Better deal if it is "UBC spinoff"

Dealing with UILO

- UILO owns your invention
 - Must license through them even if it is your own company!
- UILO licensing process can be difficult and time consuming
 - Understaffed
 - Intrinsically difficult, esp for software
 - Sometimes attitude is more protectionist than entrepreneurial
 - Lots of lawyers

Lawyers & patent agents

- Patent agents write claims, do prior art research
- Patent lawyers
 - Will cheerfully act as (expensive) business consultants
 - Will identify all aspects of risk
- Your job is assessing level of tolerable risk
- You will make mistakes on your own
 - Illegal agreements
 - Failure to fulfill contract

More information

- <http://www.library.ubc.ca/patscan/training.html>