Course Overview

- Who am I?
- Who are you?
- Why are we here?
- Where are we going?
- How are we going to get there?

Who am I?

- Currently:
  - Member of Lowe Graham Jones, PLLC
- Previously:
  - JD from UW 2005
  - Lecturer in Dept. of CSE at UW
  - Chief Architect at VocalPoint/Loquendo
  - MS CS from UW 1995

Course Topics (Proposed)

1. (Today) Introduction to course; survey of intellectual property law
2. Patent law overview, how to read a patent
4. Claim drafting
5. Interpreting claims
6. Noninfringement, invalidity, designing around
7. Copyright & open source software
8. Copyright continued
9. Open
10. Open

Intellectual Property

- What is intellectual property?
- What is property?
- Why should you care?
- Primary legal regimes for protecting IP?
  - Patent
  - Trademark
  - Copyright
  - Trade Secret

IP News: Patent Transactions

- Nortel Patent Portfolio Sale, 6000 Patents
  - Google Bids $900M, $1.9B, $2.6B, $3.14B... and lost
  - Winning bid: $4.5B to Apple/Microsoft/RIM
  - $750K per patent
- Google buys Motorola Mobility for $12.5B
  - Access to 17,000 patents
- Microsoft buys portfolio from AOL
  - $1.18B for 800 patents plus license to 300 still held by AOL
  - $1.25M per patent
  - 2 weeks later sells 650 of these to Facebook for $550M...
More IP News

- Patent reform: America Invents Act of 2011
  - Fully implemented as of March 16, 2013

- Litigation
  - Oracle v. Google: Java patent and copyright issues
  - Mobile phone “patent war”: Apple, Motorola, Samsung, HTC, etc.

- Trivia Question: How many patents does Twitter have?

Yearly Patent Filings and Grants

% Applications Granted by Decade

Patent Basics

- Subject matter: process, machine, manufacture, or composition of matter (or improvement thereof)
  “Anything under the sun made by man.” Diamond v. Chakrabarty

- Conditions: new, useful, non-obvious

- Exclusive rights: make, use, sell, offer for sale, import the invention

- Duration: 20 years (from filing)

Patents – Legal Basis

- Constitutional basis in Art. I, Sec. 8, Clause 8:
  To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries


- Code of Fed. Regulations: Title 37

Patent Policy

- Quid pro quo:
  - Inventor discloses invention and enriches public knowledge
  - Government grants a limited monopoly

- Idea is to encourage investment in inventive activity, by enabling inventors to exploit fruits of their labor

- Getting scope/duration right:
  - Too broad/long → patent stifles innovation
  - Too narrow/short → system under-incentivizes innovation
Patent Policy - Limitations

- Patents have a limited duration: 20 years from filing
- Scope is limited in various ways:
  - Some subject matter is off limits: laws of nature, abstract ideas, natural phenomena
  - Inventions must be new
  - Inventions must be non-obvious to one having skill in the art at the time the invention was made
- The scope of an individual patent is defined by its claims
  - The claims determine validity and infringement

Patent Policy – Claims

- A claim is a single sentence that defines the metes and bounds of the invention. Example:
  
  An apparatus for cutting a lawn, comprising:
  - an electric lawn mower;
  - a solar panel configured to provide power to the electric lawn mower; and
  - a motion controller configured to autonomously navigate the electric lawn mower about a lawn.

What Can You Patent?

- Devices and apparatus
- Software
  - Cannot patent an algorithm per se, but can patent a computer configured to execute the algorithm, a process for performing the algorithm
- Biotech
  - Compositions of matter (e.g., chemicals)
  - Processes (e.g., for isolating or synthesizing genes or other compositions of matter)
  - Genetically modified organisms
  - Genes

Patents – How do I get one?

- Invent something
- Prepare patent application
- File application with Patent Office
  - Pay the fee: $1600 / $800 / $400
  - Wait
  - Negotiate with Patent Office
  - If all goes well, patent issues
- Cost: $30,000 +/- $15,000
- Time: 3 to 7 years

Design Patents

- A design patent protects a new, non-obvious ornamental design for an article of manufacture
- Obtain a design patent via the USPTO
- Term: 14 years from issue
- Cost: substantially cheaper than utility patents

- Design patents are frequently overlooked, but can offer substantial protection for relatively low cost

Copyright – Legal Basis

- Constitutional basis in Art. I, Sec. 8, Clause 8:
  To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;
- Copyright Act: Title 17 of the US Code
- Code of Federal Regulations: Title 37
Copyright Basics

- Subject matter: works of authorship
- Conditions: original, fixed in a tangible medium of expression
- Exclusive rights: copy, distribute, perform, display, make derivative works
- Duration: life of author + 70 years

Copyright - Underlying Policy

- Again, the idea is to encourage investment in creative activity, by enabling authors to exploit their works
- Again, there are issues with the scope and duration of protection
  - If it is too broad/long → creative activity may be stifled
  - If it is too narrow/short → creative activity may be under-incentivized

Copyright - Limitations

- Minimum standard of originality
- Independent creation
- Subject matter limitations: ideas vs. expression:
  - In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, ... 17 USC 102(b)
- Fair use
- “Limited” term...

Copyright - How do I get one?

- Much easier than patents: fix your work in a tangible medium of expression
- BUT: if you want to enforce in Federal Court, you must register the copyright with the Copyright Office.
- Cost: $40 per registration

Software Copyrights

- Copyright is often the cheapest/easiest way to protect software products
- However, there are pitfalls:
  - Lack of registration
  - Independent creation
  - Protection is limited to the non-functional aspects of a program

Trademark

- Common law basis: passing off / misrepresentation
- Federal law: Lanham Act (Title 15 of the US Code)
- Protects indicators of source for products or services, including symbols, words, logos, colors, trade dress
- Indicator must be distinctive (cannot be generic or descriptive)
- Term: If the trademark is policed, it can last indefinitely
Trademark Policy

- Policy basis includes consumer protection, efficiency of transactions
- Limitations:
  - Fair use
  - Geographic limitations
  - Generic indicators ineligible
  - Field of use limitations
  - Requirement to police mark

Mark Distinctiveness

- Fanciful:
  - KODAK, XEROX, LEXUS
- Arbitrary:
  - APPLE, CAMEL, RABBIT
- Suggestive:
  - FRUIT LOOPS, GREYHOUND, 7-ELEVEN
- Descriptive:
  - WINDOWS
- Generic:
  - BEER, BREAD, CAR

Marks Not Limited to Words

Trade Dress is Also Protectable

Trademark - How do I get one?

- Harder than copyright, easier than patents.
  - Identify a "good" mark
  - Use the mark
  - File trademark application with the Trademark Office
  - Negotiation with Office
  - Oppositions
  - Registration certificate issues
- Cost/Time: $500-2000 and ~2 years
- Alternatives: Intent to use applications, state registrations, common law

Trade Secret

- Protects (1) valuable business information that (2) is not generally known, and (3) which is subject to reasonable efforts to preserve secrecy
- State law basis: Uniform Trade Secrets Act
- How to get one? Easy:
  - Make a secret
  - Keep the secret – use NDAs!
- Notice the tension between patents and trade secrets
### Regimes Compared

<table>
<thead>
<tr>
<th>Type</th>
<th>Term</th>
<th>Subject Matter</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility Patent</td>
<td>20 years</td>
<td>New and useful machines, processes, compositions of matter</td>
<td>High</td>
</tr>
<tr>
<td>Design Patent</td>
<td>14 years</td>
<td>Ornamental designs</td>
<td>Medium</td>
</tr>
<tr>
<td>Trademark</td>
<td>Indefinite</td>
<td>Indicators of source</td>
<td>Medium</td>
</tr>
<tr>
<td>Copyright</td>
<td>Life + 70</td>
<td>Original works of authorship fixed in tangible mediums of expression</td>
<td>Low</td>
</tr>
<tr>
<td>Trade secret</td>
<td>Indefinite</td>
<td>Secret information</td>
<td>Low</td>
</tr>
</tbody>
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### Example Products

- What sort of IP protection is available for the following:
  - A smart phone
  - A piece of software
  - A new medical device
  - A customer list
  - Your company Website
  - Documentation
  - A collection of traffic, census, demographic data