Basics of Intellectual Property

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What is Intellectual Property?

Intellectual
  Knowledge
  “Know-How”
  Procedures, formulas, inventions, algorithms
  Scientific and Engineering Secrets
What is Intellectual Property?

- Property
  - Boundaries
  - Description
  - Ownership
  - Use
  - Transactions (bought, sold, leased, used, stolen, granted)
  - Means to control
What is Intellectual Property?

- Means to establish relationships with and teach other organizations new ideas
- Core and essence of many newer companies
- Major component of economy
- Potential source of wealth
- Potential source of dispute
- Means to control distribution of ideas
Why should IP be protected?

- If Intellectual Property is not protected, it is likely that it will not be used
  - *If it isn’t protected, it is difficult to make money selling products based upon it – which makes investment in developing the IP very risky*
  - *For expensive applications (like almost all medical ones), this may kill chances of the results reaching practice*
Why should IP be protected?

- If you are a university researcher, it is the law
  - For federally-funded research, the University (and PI’s and investigators) have certain legal obligations
- Obligations to funding sources
  - For non-governmental funding sources, protection of IP may be a contractual obligation
Why should IP be protected?

- Protect research commons
  - Releasing it freely may allow others to file patents which may block your ability to conduct further research

- Financial considerations
  - Source of funds for future research and research investments by the university or other company
  - Small but nonzero possibility of personal wealth
How to Protect IP

- Patents
- Copyright
- Trade Secrets
- Trademarks
Patent Protection

What is a patent?

- Government-issued document that gives owner the exclusive right to exclude others from practicing the technology defined in patent Claims, for a period of time
- US patent only enforceable against infringing activity in the US
- Patents in other countries, and international patents
Patent Protection

- Requirements for patent: Must be
  - Useful
  - Novel
  - Non-obvious
  - Within statutory subject matter
Patent Protection

- **Statutory subject matter**
  - Limited to means or apparatus by which a result is obtained, and result must be useful
  - What about algorithms, ideas, business methods, organisms?
  - Frequent changes in law and interpretation
Patent Protection

Is invention novel? What is prior art?

If publicly known or used by others in US, or patented or described in a printed publication before invention (conception plus reduction to practice) by applicant—then no patent

Divulgation issues

US vs foreign

First-to-File—recent change
Patent Protection

Non-obvious?

No patent if the differences between the proposed patent and the prior art are such that the invention would have been obvious at the time made to a Person Having Ordinary Skill In The Art

If Mr./Ms. POSITA would found your patent an obvious next step—then not a patent
Patent Protection

- How are patents enforced
  - Civil lawsuits through a federal court
  - Patent owner can obtain court-ordered injunction and damages from infringer who makes, uses or sells the invention covered by patent claims
  - U.S. filings generally cost $25,000+
Copyright

Protection of original works of authorship that are fixed in a tangible form of expression

Many works can be registered with the U.S. government, including

- Literary works
- Software
- Related protection of “masks”—silkscreen, chips
- Now includes non-physical information content (graphics, music and video in electronic form, web pages, apps)
Why copyright?

- Software and technical information can be very effective way to give companies an advantage
- Means to share research results with others
- Duration is very long, and registration inexpensive
Trade Secrets

- Information of any type
- Secrecy creates the value
- Rights are non-exclusive
- Underlying policies: encourage invention, discourage wrongful conduct
- A domain of state law mostly
Trade Secrets

Information that:

- Derives independent economic value from not being generally known to, and not being readily ascertainable by proper means by others
- Is the subject of reasonable efforts to maintain its security
Trade Secrets

Reasonable Efforts

- Physical security
- Limited access
- Confidentiality obligations
- Notice
- Consistent enforcement
Trademarks

- Names and logos associated with research
  - Guarantee a certain level of quality in a good or service
- Must be used consistently
- Rights are acquired through use, and rights last as long as use
- Domain names can establish rights
Issues in Intellectual Property

- Record keeping
- Publication and disclosure
  - Non-disclosure agreements
- Impact on future research
- Rights management
- Revenue management
What to do at UW

http://comotion.uw.edu/