

# IOWA STATE UNIVERSITY

Iowa State University Research Foundation, Inc.  
Office of Intellectual Property and Technology Transfer

## **Don't Patent Your Trademark: IP Basics Overview**

**Craig Forney**

Assistant Director, Licensing and Business Development  
ceforney@iastate.edu

Website: <http://www.techtransfer.iastate.edu>

Twitter: @ISURFTech

LinkedIn: iowa-state-university-research-foundation

# ISURF is a Technology Transfer Organization

- **Mission: To commercialize technologies for the benefit of society**
- **Owner of Intellectual Property generated at ISU and the Ames Laboratory**
- **Formed in 1938**

# Categories of Intellectual Property

- Patents – Utility, Design, Plant
- Copyright – Creative Works (including software)
- Trademarks
- Trade dress
- Trade secrets/know-how/confidential information

# Patents-Utility, Design, Plant

- **Utility Patents-** protect the functional aspects of an invention. Machines, processes, methods, compositions and improvements may be patentable.
- **Design Patents-** protects the ornamental appearance of an object not the useful function of the object.
- **Plant Patents-** protects a new and distinct, asexually propagated plant.

# Copyright

- For creative works-protects original work of authorship in a fixed tangible format.
- Copyright does not protect the idea of a sunrise but protects the specific expression of such sunrise.
- Software
  - Be careful of open source software that you incorporate into your work
  - Most restrictive license will dictate the license that you can use for your software

(More about open source software later)

# Copyright

- Protection is automatic; registration is not required but does convey some benefits
- Protects against copying of your created work
- Does not prevent independent creation by another
- Likely will release software with one of a variety of open source licenses

# Trade Dress

- Protects visual appearance
- Applies to products and packages
- Must be distinctive and non-functional



# Trademarks

- Trademarks identify products or services as belonging to or originating from a common source
- Useful to protect consumers from confusion and deception
- Useful to protect branding for the trademark holder
- Must continue to be used to be protected
- Success of the trademark can actually weaken the protection (facial tissues = Kleenex)



# Trade Secrets

- Trade Secrets generally are any confidential business information, process, formula, design, proprietary material which gives a business or individual an advantage or benefit over competition.
- Trade Secrets remain as long as 1) it is a secret; 2) it offers competitive advantage
- Misappropriation of a trade secret is a crime under federal law (and many state laws) - prison up to 10 years, fines up to \$5 Million.

	Pros	Cons
<b>Patents (utility)</b>	Monopoly 20 years from Utility application filing date (not from priority date)	Publishes, rights end in 20 years, formal process takes 4-5 years in US, expensive
<b>Copyrights</b>	Retain rights for Author's life plus 70 years, or if work for hire 95 years from first publication or 120 years from creation, whichever is shorter. No formal process necessary to use ©	Others may create same or similar work; fair use rights limit; infringement
<b>Trademark</b>	Rights for life of continuous use. No formal process necessary for ™ but formal registration for ® use	Descriptive- to describe User's product or Nominative-to refer to trademarked goods
<b>Trade Secret</b>	Rights for life of secrecy	Others may also discover secret; reverse engineering of legally obtained product is OK, need established security procedures

# Patents

- Established in the Constitution
  - Article 1, Section 8, Clause 8
- In exchange for disclosing inventions, inventors given a monopoly on the invention for a specified amount of time
- Under current law, time period is 20 years from utility application filing date

# Patents

- Patentable invention
  - Composition, process or machine
  - Must be novel
  - Must have utility
  - Must be not obvious to one skilled in the art
  - Disclosure must be enabling
- Territorial in nature – all patents are on a country by country basis
- Must be maintained (through escalating fees)

# US Patent Law

- On a first to file basis
- Different types of applications
  - Provisional – establishes priority date, but is not examined and does not issue as a granted patent
  - Utility – Includes claims
- Patents are a “negative” right
  - Can be used to prevent others from practicing the claims

# US Patent Law

- Prosecution
  - Examination of claims
  - Restriction requirements
  - Office Actions
  - Rejection or amendment of claims
  - Allowance – results in issued patent

# Claims

- Could be viewed as a fence
  - Claims are inside the border, separate from the prior art
  - Compositions
  - Process used to make, including temperature, pressure, reaction conditions, etc.

# Freedom to Operate

- Patents are a “negative” right
  - Do not provide a right to practice for the owner
  - Other patents may restrict the practice
  - Can only be used to prevent others from practicing the claims



# Why do we patent?

- ISU's goal is to have our discoveries utilized for the benefit of the public
- Might be accomplished simply by publishing
- Without the ability to exclude others, many companies will not invest in maturing the technology
  - Important for early stage technology
  - Important for technologies that require large capital investment to bring to market

# What about international filings?

- Patents are issued by countries
- Patents enforceable only in the countries where issued
- Can only file internationally prior to public disclosure
  - US may still file for up to one year post disclosure
  - May file a PCT application (analogous to a US Provisional filing)
- Expensive - ISURF only files internationally working with a licensee

# When to Disclose

- Err on the early side
- Proof of principle
  - Demonstrate purpose and functionality
- If possible, before public disclosure
  - Public disclosure creates bar dates
- Before filing, need an enabling writeup, ideally in the form of a nearly complete manuscript draft

# Commercializing Intellectual Property

- Use for commercial purposes
- Form a joint venture
- Sell to third party
- License to third party

# Licensing

- License on exclusive or non-exclusive basis
  - Does not provide freedom to operate
  - Covenant not to sue licensee as long as they abide by terms of the contract
  - Involve various forms of payment to licensor
  - Includes milestones to help ensure that licensee is making diligent efforts to commercialize and not just to litigate
- Goal is to make the license terms wins for both parties

# More on Software/Copyrights

- **A copyright:** Gives the owner rights to exclude others from reproducing the work, preparing derivative works, distributing copies, performing, displaying.
- **Software:** can describe computer programs, or generally describe both programs, apps, scripts and operating information used to execute.

# Software- Types of Code

- **Source Code:** A text listing of commands to be compiled into an executable computer program.
- **Compiled Code:** A compiler creates object code, which may many cases is executable.
- **Executable Code:** Object code that can run or is linked with other object code to create an executable program.

# What isn't Code?

- **Script and Algorithms:** These are neither source of object code. Javascript is an example of a script. Algorithms are a set of rules to be followed in a problem solving operation. Algorithms can be put into a code but it isn't a code.



# What is Patentable? What is Copyrightable?

- Copyright automatically exists in fixed expressions of ideas with some minimum creativity. White Pages were not copyrightable.
- Patentability of software depends on a variety of factors.

# Are Artificial Intelligence or Software Invention Patentable?

- First – is the claim to the invention a process, machine, article of manufacture or composition of matter? (you want this to be yes)
- Is the claim directed to an abstract idea: math formulas, mental processes, organizing human activity processes? (you want this to be no)
- But is the claim a practical application which is integrating the abstract idea
- And does the claim add elements that is more than the abstract idea?

# Types of Software Licenses

- Site License
- Shrink or Click Wrap
- Firmware
- 3<sup>rd</sup> Party Software
- Derivative work

# Open Source

- **Source Code under license in which the owner gives rights to develop, modify and distribute software to anyone for any purpose.**
- **Open source licenses fit in two boxes: 1) copyright and 2) copyleft.**
- **End users can infringe even though license is free if violated the terms of license.**

# Copyleft Open Source Software Licenses

- License states software can be used, changed and distributed freely, any derivative work under this type of license must also be freely distributed.
- Most restrictive license of embedded code limits the license choices
- Copyleft licensed Software may require the entire code it is embedded in to be freely distributed also.

# Types of Copyleft licenses

- **GNU- Not Unix**
- **GPL-strong Copyleft license**
- **LGPL- Lesser General Public License- Less strong Copyleft license**

# Questions?