

# Intellectual Property Overview

## Past and Future

- > Tuesday
  - > Overview of IP – Not all
    - What is IP?
    - Why is it important?
    - Modes of IP
- > Next Tuesday
  - > Communication handout
  - > Mootcorp Video
  - > Business concept pitches

## Thursday

- > Course organization
  - > Updates to webpage
  - > Industry report selection today
- > Modes of IP cont.
- > How to
- > Feasibility analysis
- > Common IP strategies
  - > Pharma industry example by Nachiket

# Group formation

## Still need to join a team

- > Find a team
  - > Dr. Sweet – surgery simulation
    - Up to seven spots left
  - > Dr. Papanikolopoulos – algorithms for image processing
    - Up to four spots left
  - > S-MED – one spot left

## Those with a team

- > Group norms
  - > Meetings: At what time, how often, where?
  - > How do I get a hold of you?
  - > How will we communicate?
  - > What are our goals for the project?
  - > How will we share writing?
    - Write individual sections, one person (who?) compiles
  - > What do I expect from you for me to give you a good group participation grade?

# Owning property



- > Would you like to own this?
- > Do you know what property this is?
- > Is this Bill Gates' most valuable piece of property?

# What is Intellectual Property (IP)?

- > Can be any product of the human intellect, such as an idea, invention, expression, unique name, business method, industrial process, or chemical formula, which the courts are willing to protect against unauthorized use by others.

IP law is the collection of legal rules, procedures, and remedies that are available to owners of IP for the purpose of obtaining such protection. IP rights are identifiable, protectable, enforceable, and licensable.

**Your Competitors Want Your Ideas and Solutions—for Free! Your ideas and solutions are *your intellectual property (IP)*.**

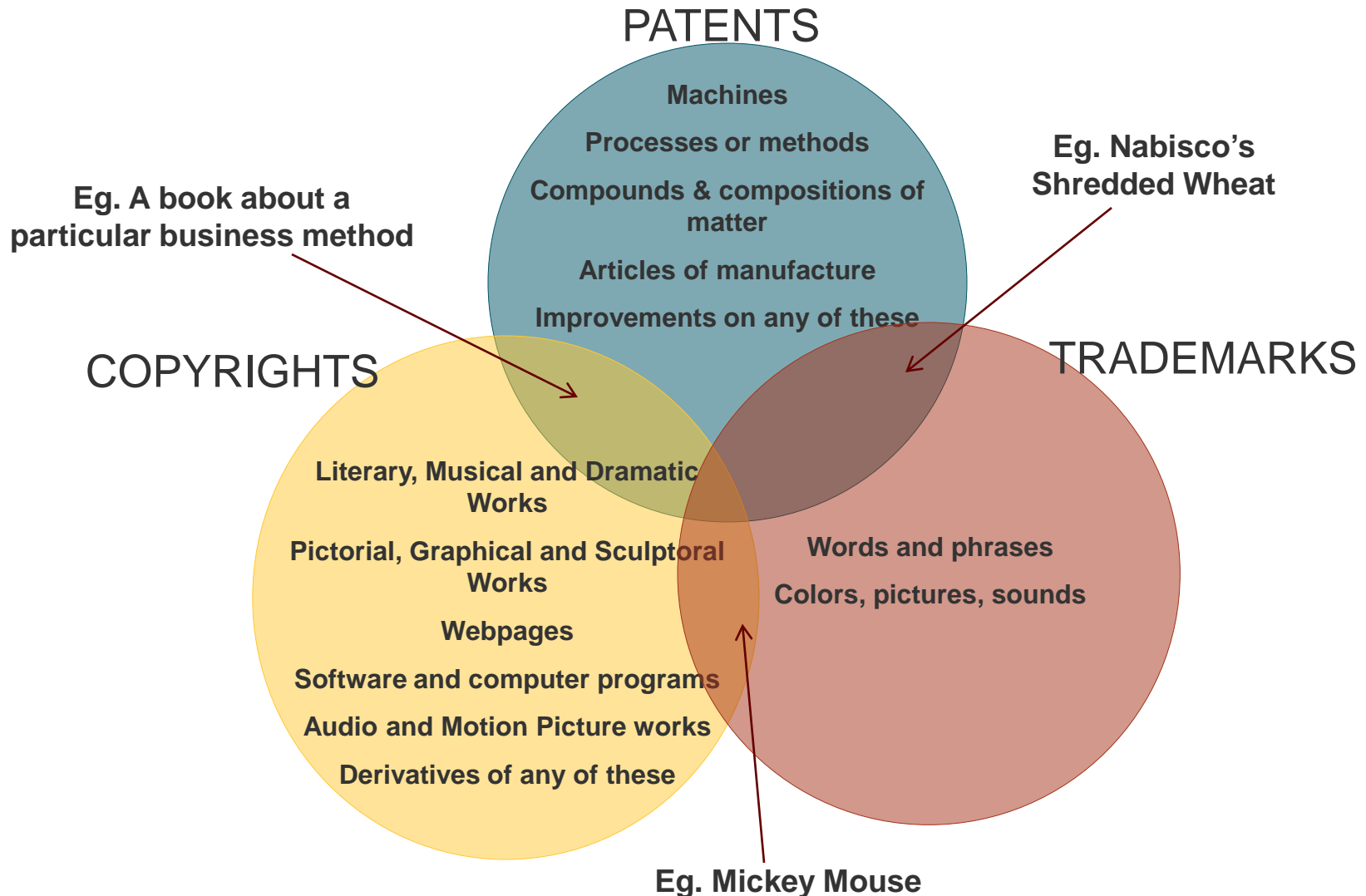
# What is special about IP?

1. IP is non-rivalrous - one person's use does not diminish another's use. E.g. a brand name
  1. Just like you can own or lease other types of property, you can own or license intellectual property. Depending on negotiations, you can license to several recipients.
    - > We will talk about this further in another class
2. IP is non-excludable - may not be possible to prevent others from using your work without permission. E.g. a software program

# Types of Intellectual Property (IP)

- > Legally-protected in the form of
  - > Patents
  - > Copyright ©
  - > Trademarks™, ®
  - > Contracts
  - > Trade Secrets

# What are you protecting?



# Patents

- > Must Be:
  - > Useful (not necessarily used)
  - > Novel
  - > Non-obvious
  - > Legal
  - > Practicable
- > Must File Before
  - > U.S.: One year from first public disclosure or offer for sale
  - > Everywhere Else: publicly available (absolute novelty)

# Patent Rights

- > The nationwide right to **exclude** others from “practicing” the invention
  - > *Making, Using, Selling, Offering to Sell, Importing*
- > For a limited time (20 years from filing)
  - > subject to certain adjustments, extensions for FDA review, PTO delay, interferences, etc.
- > In exchange for complete disclosure

# Even Big Companies get it wrong

- > 1993 – Stac Electronics (US) sued Microsoft (US) for software patent infringement of Stac’s patent involving software data-compression technology, used in Microsoft’s then-standard DOS operating system
  - > **Verdict:** US\$120mil against Microsoft awarded in 1994
  - > Microsoft’s patent applications jumped from 6 to 60 per year!
- > Priceline (US) sued Expedia (US) in 1999 for infringement on it’s “name-your-own-price” business model
  - > The dispute was subsequently settled out-of-court, with Expedia agreeing to pay royalties to Priceline.

# Patent Quick Facts

- > Patents do not have to be valuable ([US Patent 4344434](#))
- > A patent does not imply that you have a working model (10% patents are invalid since invention does not work)
- > A provisional patent is valid for 1 year
  - > There is no such thing. It must be completed into an application or it is abandoned.
- > You can patent an idea
  - > A patent is granted for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” 35 USC § 101

# Patent Quiz

- > Patent gives you the exclusive right to make use and/or sell the invention
  - > “right to exclude others from making, using, offering for sale, or selling the invention throughout the United States” (35 USC § 154).
  - > *Not* a right to practice the invention (freedom to operate), and there are no “patent police!”
- > You must have made or used the invention to patent it
  - > The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains and shall set forth the best mode contemplated by the inventor of carrying out his invention.’ 35 USC § 112

# Patent Quiz

- > Business methods can be patented
  - > Amazon's "one-click" purchasing
  - > eBay's patent on information presentation and management in an online trading environment
  - > Business methods are not currently patentable under the EU system
    - > Causes problems in e-commerce because users of US-patented technology, accessed through a US Web site that used the technology
- > First to invent first to file
  - > Only in the US. EU and Japan follow first to file.

# Patenting statistics/trivia

- > How are patenting statistics useful?
  - > Researching competitors' R&D activity (in last 5 years)
  - > Selecting a location to work or to locate your firm
  - > Competitive intelligence
  - > Researching an industry (might be helpful for your report)
- > What pre-existing patent reports exist?
  - > Geographic origin, technology, organization
  - > Did you have any questions about the tutorials searching Dell's patents or by country?
- > Any other questions on these tutorials?

# Patent front page (cover)

- > Patent No
- > Date of patent
- > Title
- > Inventors
- > Assignee (owner)
- > Filing Date
- > Related U.S. Application Data
- > International classification codes
- > U.S. classification codes
- > Prior Art References Cited
- > Other Publications cited
- > Abstract
- > Front Page Illustration



US006004596A

**United States Patent** [19] [11] **Patent Number:** **6,004,596**  
**Kretchman et al.** [45] **Date of Patent:** **Dec. 21, 1999**

[54] **SEALED CRUSTLESS SANDWICH** 5,853,778 12/1998 Mayfield ..... 426/99

[75] Inventors: **Len C. Kretchman**, Fergus Falls, Minn.; **David Geske**, Fargo, N. Dak.  
**OTHER PUBLICATIONS**  
 "50 Great Sandwiches", Carole Handslip, pp. 81-84, 86, 95, 1994.

[73] Assignee: **Menusaver, Inc.**, Orrville, Ohio  
*Primary Examiner*—Lien Tran  
*Attorney, Agent, or Firm*—Vickers, Daniels & Young

[21] Appl. No.: **08/986,581**

[22] Filed: **Dec. 8, 1997**

[51] **Int. Cl.<sup>5</sup>** ..... **A21D 13/00**

[52] **U.S. CL.** ..... **426/94; 426/274; 426/275; 426/297**

[58] **Field of Search** ..... 426/94, 274, 275, 426/297, 138

[56] **References Cited**

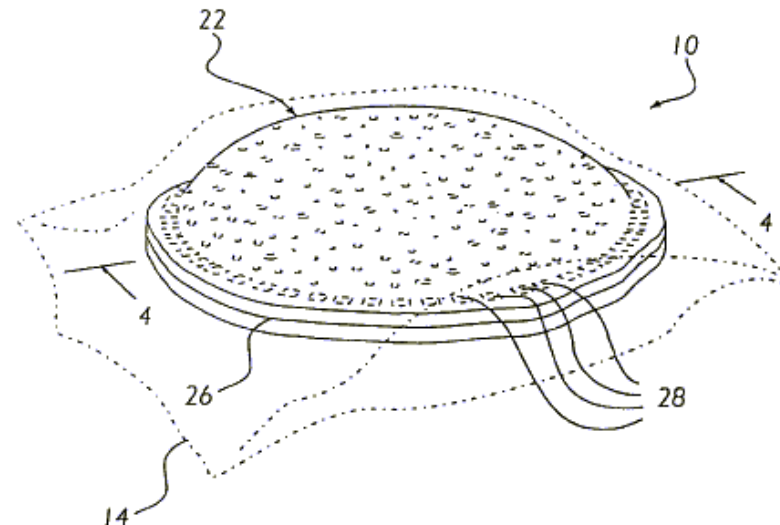
**U.S. PATENT DOCUMENTS**

3,083,651	4/1963	Cooper	.....	426/275
3,690,898	9/1972	Partyka	.....	426/275
3,767,823	10/1973	Wheeler et al.	.....	426/275
3,769,035	10/1973	Kleiner et al.	.....	426/275
3,862,344	1/1975	Zobel	.....	426/244
4,382,768	5/1983	Lifshitz et al.	.....	426/275

[57] **ABSTRACT**

A sealed crustless sandwich for providing a convenient sandwich without an outer crust which can be stored for long periods of time without a central filling from leaking outwardly. The sandwich includes a lower bread portion, an upper bread portion, an upper filling and a lower filling sealed between the lower and upper bread portions, a center filling sealed between the upper and lower fillings, and a crimped edge along an outer perimeter of the bread portions for sealing the fillings therebetween. The upper and lower fillings are preferably comprised of peanut butter and the center filling is comprised of at least jelly. The center filling is prevented from radiating outwardly into and through the bread portions from the surrounding peanut butter.

**10 Claims, 4 Drawing Sheets**



# Patent Anatomy cont. from 1<sup>st</sup> page

- > Specification - “teach” one skilled in the art how to practice, make or recreate the invention
  - > Related applications
  - > Government Rights
  - > Technical Field
  - > Background
  - > Summary
  - > Detailed Description
    - Drawings
    - Brief Description of Drawings
  - > Examples
- > Claims –define the legal scope of the patent

See [http://www.goodwinprocter.com/~media/Files/Publications/Attorney%20Articles/2008/The Anatomy of a Patent.ashx](http://www.goodwinprocter.com/~media/Files/Publications/Attorney%20Articles/2008/The_Anatomy_of_a_Patent.ashx)

# Patent searching

- > Why search?
  - > Assess patentability of your invention
  - > Refine the scope of your claimed invention
  - > Accelerate patent prosecution – quicker review
  - > Find alternative approaches to technological problems
  - > Assess “Freedom to Operate” – Are there “Keep Out” signs already posted
  - > Identify potential licensees, business partners or infringers

# How to: Patent searching

## *Preparation*

- > Summarize your invention
- > Be familiar with essential keywords and their synonyms
- > Multiple databases provide data
  - USPTO.gov
  - Google
  - Free patents online
  - Delphion
- > ***BRAINSTORM!***

## Have a system

- > Keep track of search terms used, dates of searches, numbers of hits
- > Search front pages, abstracts, claims full text
- > Once you have hits (between 500-3000) skim titles, then abstracts, then claims, then specification

# Multiple ways of searching – triangulate!

- > Identify keywords
    - > Abstract
    - > Specific
    - > Specialized
  - > Identify key inventors
  - > Study pioneering IP
  - > Classifications –
  - > Do it again and again and again
- > name:  
<http://www.uspto.gov/web/patents/classification/uspcindex/indextpc.htm>
  - > Classification #:  
<http://www.uspto.gov/web/patents/classification/>

# Trade Secrets

- > “Trade secret” means **information**, including a formula, pattern, compilation, program, device, method, technique, or process, that: (i) **derives independent economic value**, actual or potential, from **not being generally known to**, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the **subject of efforts** that are reasonable under the circumstances to **maintain its secrecy.**” Uniform Trade Secret Act:



# Trade Secrets, a different approach

- > Only protected when secret is not disclosed?
- > Why would you rely on trade secrets?
  - > If your IP cannot be reverse engineered/ copied without your secret
- > How do you protect trade secrets?
  - > Non-compete and non-disclosure contracts
- > From whom can you protect your trade secrets?
  - > Employees, potential/existing partners or investors

# Appropriate IP protection

## Patent

- > New and useful inventions
- > Processes for manufacturing
- > Methods of doing business
- > Non-human life forms
- > Plant varieties
- > Ornamental designs

## Trade Secret

- > Almost anything a business maintains as secret that is not generally known to competitors that gives it a competitive advantage in the marketplace such as:
  - > Manufacturing processes
  - > Software
  - > Customer lists

# Pick one

- What would you use? A Patent or Trade Secret
- Pick one, not both.
- Patent and trade secret protection are mutually exclusive because:
  - > A patent requires full disclosure of the invention including the best mode of practicing the invention
  - > A trade secret requires secrecy

# Differences

## Patents

- > 20 year term of protection
- > Exclusive right
- > Limited subject matter is patentable
- > Cost of single patent \$10K to \$30K
- > Average 25 months between filing and issuance

## Trade Secrets

- > Indefinitely as long as its secrecy is maintained
- > Non-exclusive right (reverse engineering or independent development possible)
- > Broad subject matter as long as secrecy is maintained
- > Costs related to maintaining secrecy
- > Immediate

# Enforcement

## Patents

- > Federal Courts ONLY
- > Presumption of Validity of plaintiff's patent
- > Temporary injunctions against infringing activity available at onset of litigation but not always granted

## Trade Secrets

- > State Courts and Federal only if diversity requirements are met (may be fed. crime if disclosed to a foreign gov't)
- > Plaintiff must prove secrecy, competitive advantage, improper means of appropriation
- > Injunctions more often granted at onset of litigation because of risk of secrecy

# Enforcement cont.

## Patents

- > Expert Witness intensive
- > Damages: May include Plaintiff's lost profits, the amount of an established royalty or a reasonable royalty
- > 3X damages enhancer in case of willful infringement

## Trade Secrets

- > Not as Expert Witness intensive
- > Damages: Plaintiff's actual loss and Defendant's unjust enrichment if not duplicative
- > 2X damages enhancer for "willful and malicious" misappropriation

# Enforcement cont.

## Patents

- > Attorneys' fees in the "exceptional case"
- > Median cost of litigation in Central Region\*:
  - > \$975,000 (\$1-25 million at risk)
  - > \$1,350,000 (>\$25 million at risk)

## Trade Secrets

- > Attorneys' Fees if violation is willful and deliberate
- > Cost of Litigation in Central Region\*:
  - > \$425,000 (\$1-25 million at risk)
  - > \$800,000 (>\$25 million at risk)

\*\*Data from 2003 American Intellectual Property Law Report of the Economic Survey

# Let us apply our trade secret knowledge

Entrepreneur 2: We need you to sign a non-disclosure agreement since our idea is not patentable

Form 3 groups. You are a potential investor in this startup.

1. What is your response? Explain why?
2. How would you approach an investor if your idea cannot be patented. Give 2 recommendations and explain why they should work.

# IP Considerations

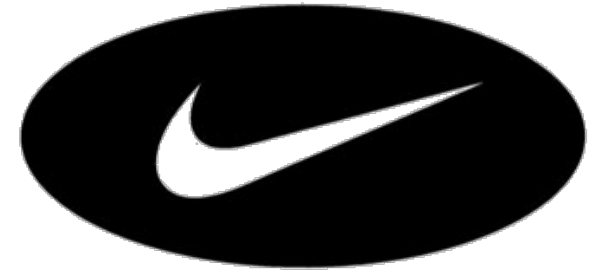
- > Barriers to patenting, e.g. need to present/publish, cost, transparency to competitors, etc.
- > Ability to enforce (cost, time)
  - > Have you thought about technology licensing?
- > Likelihood that the invention will be independently invented (reverse engineered), e.g., R & D expenditures in industry.
- > “Shelf-life” of the invention – how long will it be useful?
- > Number of people internally who have access to the invention?

# Trademarks Quiz



# Trademarks & Service marks

- > *Anything That Implies An Origin/Source or Nature/Quality of Goods or Services*
- > Statutory/Regulatory (Title 15 U.S.C.) and Common Law
- > Owned by User, and Can be Assigned With Goodwill
- > Marks can be just about anything
- > Must identify the source and quality of goods or services
- > Rights last indefinitely



# Trademark Rights

- > Can last **forever** with appropriate renewal registrations.
- > The owner of a trademark can prevent others from using the mark for similar goods or services.
- > Can be issued by a state or federal office
- > Protection does not prevent misappropriation of the underlying product
- > Must maintain some control over quality of good/ service
- > Can lose the right to enforce a trademark by not enforcing the mark or through “genericising”

# Trademark infringement litigation

- > Based on likelihood of confusion
  - > Means that you **first** have to have something of value to the consumer that would make them want to buy your product
    - Much more important for established companies or for marks that are easily remembered
- > Damages
  - > Infringer's Profits
  - > Damages Sustained
  - > Treble Damages For Willful Infringement
- > Strict Liability

# How To: Trademarks

> Follow the instructions:

<http://www.uspto.gov/web/trademarks/workflow/start.htm>

- > Choose your mark
- > Search the Trademark database to see if anyone else claims trademark rights in that mark
- > Draft a description of goods and/or services, including a “statement identifying the goods and/or services with which the mark is used or will be used” and a clear “representation of the mark”
- > File a trademark application online
  - Pay by credit card , a USPTO deposit account, or electronic funds transfer

# Copyrights

- > Protect an **EXPRESSION** of an idea
- > Encourage creative efforts by securing the exclusive right to reproduce works and derive income from them
- > Created automatically once an original effort has created in a fixed form
- > Only the author or those deriving their rights through the author can rightfully claim copyright.
- > Each work needs copyrighted.
- > No publication or registration or other action in the Copyright Office is required to secure copyright.

# Copyrights – Automatic, but...

- > Registration is simple and inexpensive (\$45) **protection** and notice to potential infringers
- > There is no copyright police, so your only protection is to file a **lawsuit** if your copyright is infringed
  - > A copyright has to be registered **before** an infringement suit may be filed. This is always possible, but takes extra time.
  - > If you file within three months of the date of publication, in addition to actual damages (hard to demonstrate) you can get: attorney fees and court costs, statutory damages (up to \$100K) without establishing damages

# Copyrights continued

- > Lasts 70 years past authors life
- > Can be transferred, but rights have to be conveyed in writing and signed by the author or their agent
  - > Transfers are normally made by contract
- > Co-authors are co-owners unless specified otherwise
- > “If the work is an unpublished or published computer program, the deposit requirement is one visually perceptible copy in source code of the first 25 and last 25 pages of the program. For a program of fewer than 50 pages, the deposit is a copy of the entire program. For more information on computer program registration, including deposits for revised programs and provisions for trade secrets, see [Circular 61, Copyright Registration for Computer Programs](#).”

# How to: copyrights

- > Follow the steps: <http://www.copyright.gov/circs/circ1.pdf>
- > Publication no longer required, but important
- > For visually perceptible copies - © *2008 John Doe*
  - > ©, “Copyright” or “Copr”
  - > Year of publication
  - > Name of owner
- > Apply for copyright registration – no attorney needed
  - > Completed application, filing fee, nonreturnable deposit
    - Three registration options: Online, Fill-In Form CO, Paper Forms

# Application to software

## Patent law

- > May prevent others from utilizing a certain algorithm (eg GIF image compression algorithm) without permission, or may prevent others from creating software programs that **perform a function in a certain way**.
- > basic tenet of copyright law is that **copyright will protect only the expression of an idea**, and not the idea itself.

## Copyright law

- > can only prevent the copying of a “particular expression of an idea” (eg. total duplication of a software program, copying of a portion of software code) - "literal infringement").
- > Some protection against non-literal infringement, such as the near duplication of screen displays, and the creation of "cloned" software
- > will not prevent the creation of a competing program that utilizes the same ideas as an existing program

## II. Early Stage IP Recommendations

- > Make a clean separation from former employer
  - > Can't import prior inventions
  - > Can't use confidential information
  - > Can't exploit business plan
- > Assign IP to Newco
  - > All IP is typically assigned
  - > Founders/key employees usually assign
  - > Consultants/contractor usually assign
  - > Newco should maintain incentives to invent/create

# Avoiding potential problems

- > Prepare for typical investment reps and warranties
  - > Newco owns all necessary IP. Newco/Founders do not infringe or misappropriate 3rd party IP rights
- > Use Non-disclosure Agreements
  - > Don't disclose any patentable, or other competitive information without NDA
  - > Avoid (or minimize) contamination from others
- > Be Diligent About Invention Disclosures/Patent Applications
- > File Patent Applications Before Disclosure, Use or Offer to Sell

# Checklist -- Patents

- > Avoid Patent Self-Diagnosis
  - > Have patent counsel do patentability or infringement searches
  - > Get written legal opinions where recommended
  - > Have counsel periodically review potential inventions
- > Document Inventions
  - > Keep development logs
  - > Countersign periodically
- > Consider Issues/Strategies Before Applying
  - > New Patent Law requires applications to become public after 18 months (previously - never).

# Checklist -- Trademarks

- > Get Clearance on Marks -- Before use
  - > Have Counsel do search
  - > Get written legal opinion where recommended

# IP Registration Applications

## Copyrights

- Collect the Work
- Evaluate w/ lawyer
- Prepare application
- Prosecute ( cursory examination)
- Mark work with notice
  - “© year-date of publication and author” -- use with all copyrighted works, whether or not registered

## Patents

- Keep development records
- Complete Disclosure Form
- Evaluate form with lawyer (consider prior art search)
- Prepare formal application
- Prosecute the case
- Appeal if necessary
- Mark Goods Covered by Patent
  - “Patent Pending” -- after filing patent application
  - “U.S. Patent No. xxx” -- use after patent issuance

## Trade Secrets

- Identify
- Document
- Provide notice
- Preserve secrecy

## Trademarks

- Intent to Use
- Actual Use
- Consider legal clearance search
- Prepare application
- Prosecute the case
- Appeal if Necessary
- Use Notice
  - “TM” -- use with all non-registered marks
  - “®” -- use with all registered marks

# Takeaways

- > Intellectual property is valuable for technology companies
- > Use proper documentation
- > Be diligent about growing IP assets (logs, disclosures, applications)
- > Be conservative in dealings — avoid litigation of IP issues