

IP 101 for Emerging Companies: Protecting Your Ideas Your Way

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Goals of this Presentation

- Help tech entrepreneurs understand the types of IP existing in their businesses and how to think about IP on their own terms
- Provide examples of offensive and defensive management of IP risk
- Offer self-help measures for entrepreneurs to manage IP risks with minimized assistance of external counsel

Spoiler Alert: Your business strategy drives your IP strategy. IP is expensive. All IP decisions should facilitate long-term success of the Company, or else they're a waste of time and money.

A Typical View:
“Deal with IP Later ... When We Have \$\$\$”



What is Intellectual Property?



Most Common Types of IP Protection

- **Patents** protect inventions
- **Copyright** protects original works
- **Trademarks** protect distinctive marks used to advertise goods and services
- **Industrial designs** protect novel designs of industrial goods
- **Trade Secrets** can protect anything commercially valuable, provided it is treated as a secret

Possible Types of IP in Software

- **Copyright** in source code, object code, selection and arrangement of elements in database and/or user interface
- **Trade secret rights** in commercially valuable aspects of software kept strictly confidential
- **Patent rights** in new systems and methods (such as applications of algorithms to improve data acquisition or processing)
- **Know-how** in understanding the best way to solve a problem based on development experience/expertise and evaluation of alternatives, and also in achieving successful deployment
- **Trademark rights** implicated by the branding of the software (such as the name or logo associated with the software)

What is a Patent?

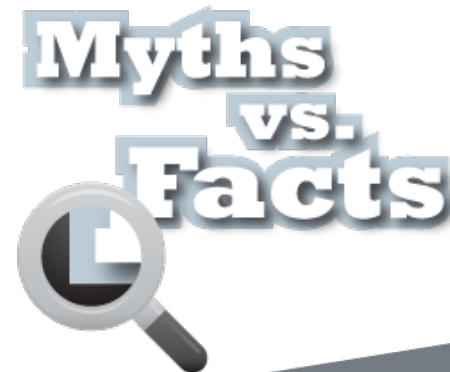
- A two-part document
 - **Disclosure** – telling the public what the inventor has made, how to make it, and how it works
 - **Claims** – the subject matter which the inventor claims as their exclusive property
- Claimed subject matter must be new, useful and inventive
 - A patent issues if a regional or national patent office agrees that the claims are new, useful and inventive and satisfy all other requirements
- A patent confers a 20-year monopoly from the filing date preventing unauthorized making, using or selling of the claimed invention

What Subject Matter Can Be Patented?

- *“any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” (if inventive)*
- **What kinds of patents are currently viewed as controversial?**
 - Software patents defined by function rather than structure
 - Methods of medical treatment and diagnosis
 - Higher-order life forms
- **When can these types of inventions be patentable?**
 - Not directed to an abstract idea or natural phenomenon, or amounts to significantly more than these ineligible concepts
 - Directed to a specific implementation

Setting the Record Straight

1. Algorithms are not patentable *per se*. However, software inventions are patentable.
2. Machine-learning software has a very high patent approval rate.
 - ~87.5% between 2011-2016 for “unsupervised learning”, “machine-learning”
3. Issuance of patents has been correlated with growth in startup sales (51%) and employment (36%).



To Patent or Not to Patent?

- Is my invention even eligible for a patent?
- Can my invention be copied, if released to the public?
- Do I have the money to patent?
- Are my competitors patenting, such that I will be at a disadvantage if I don't?



Pro Tip: Loose lips sink ships. If you decide to maintain an invention as a trade secret, you need contractual, operational and physical controls in place to maintain trade secrecy. Calling something “trade secret” doesn’t make it so.

Patent Filing Strategies

- **Provisional patent application** – a one-year placeholder
- **Country-specific applications** – the fastest way to a patent
- **International (PCT) application** – an application that preserves the option to file nearly anywhere in the world for 2.5 years
- **How to know which approach is right?**
 - Depends on the competitive landscape – case-by-case
 - If in a rush with limited cash, provisional might be best option
 - If only filing in US, a US application might be best option
 - If options around the world need to be preserved, PCT might be best option

The Patent Landscape Tells a Story

- Who are my **competitors or possible partners**?
- How does their **technology** work?
- What do they think is **valuable**?
- What **geographic markets** are they pursuing?
- Am I **ahead or behind** the curve?



What Risks Need Managing?

- **Offensive Risk:** The risk that someone uses my IP without my permission
- **Defensive Risk:** The risk that I am using someone else's IP without their permission, and the risk that I am accused of such unauthorized use



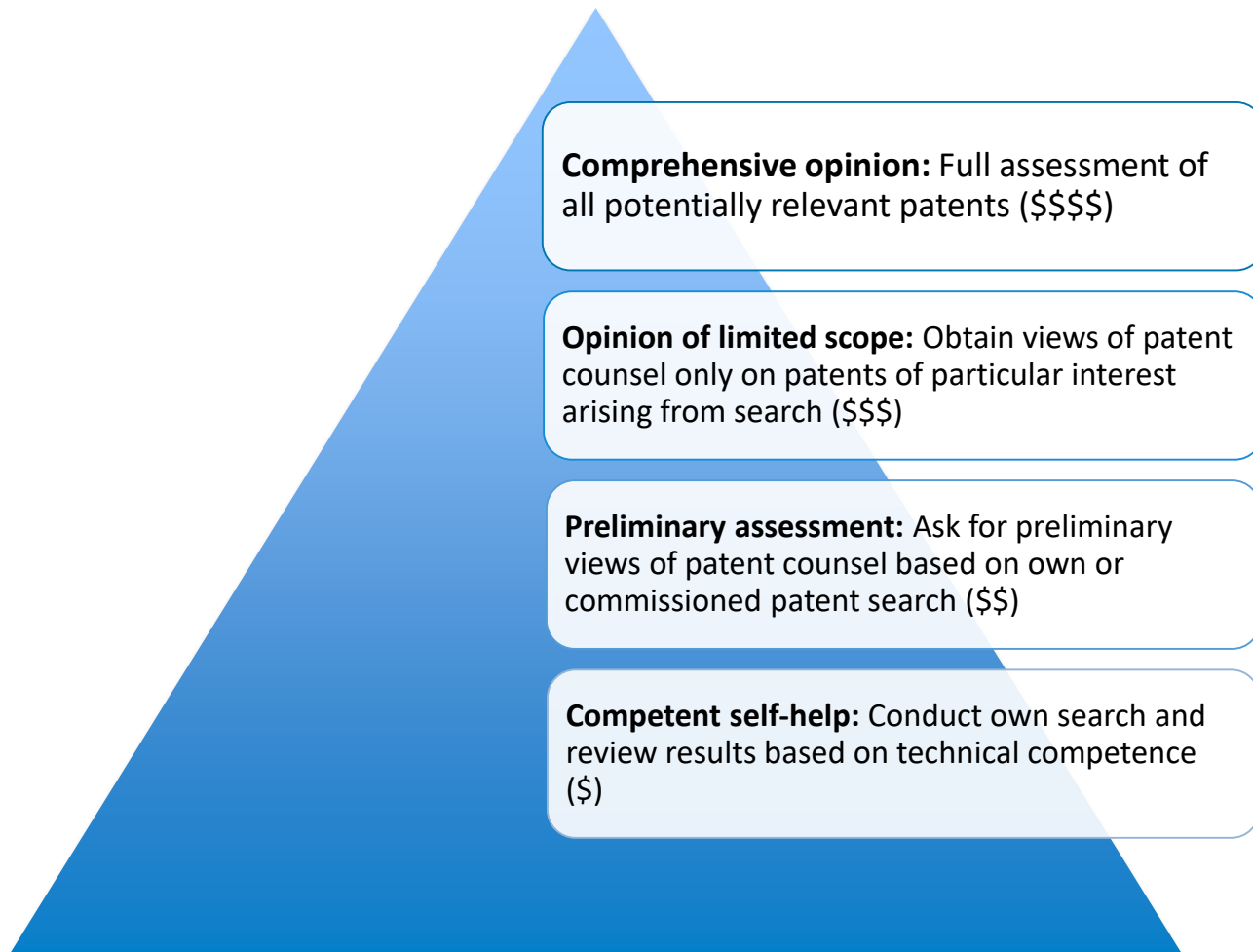
Navigating Defensive IP Risk

- **Blackberry** was almost shut down in the US in 2005 due to a patent lawsuit over wireless email patents
 - Jury found patents valid and infringed, with \$53M in damages and injunction preventing operation in US
 - Injunction was untenable for Blackberry – ended up paying \$612.5M to settle the lawsuit
- When US Patent Office re-examined the patents, they were mostly rejected as invalid – this did not affect the settlement
- **Takeaway:** Blackberry technology was unquestionably innovative, but the company was stuck in a patent thicket that nearly led (and possibly did lead) to its downfall.

What is “Freedom to Operate”?

- **Freedom to Operate (FTO)** refers to the level of risk of patent infringement associated with the making, use or sale of a particular product or service
 - A company has freedom to operate if their proposed offering will not infringe the claims of any patents or potentially issuable patent application
 - A company can obtain freedom to operate by avoiding patent claims or by obtaining rights to those patents
- **Having a patent does not mean you have freedom to operate!**
 - It is possible to have a patent on your own technology, yet also be infringing another company's patent on a subpart or a more general version of the technology

How Do I Ensure I Have Freedom to Operate?



How Do I Prioritize Patents in Evaluating FTO?

- Define the scope of your assessment based on realistic business risk
 - Prioritize competitors that are likely to present a problem
 - Only worry about patents that will still be in force when you launch your product
 - Only worry about patent applications that have a realistic chance of issuing to patent
- Have your internal tech team take a first pass, and do not seek an opinion on patents they can confidently rule out

FTO is a Risk Management Tool – Not Fool-Proof

- Any FTO risk assessment has three critical blind spots:
 - Patent applications are in stealth mode for up to 18 months, meaning recent applications will not be visible in an FTO assessment
 - Patent applications can change – an opinion of non-infringement may need to be revisited if the applicant changes their patent claims
 - If an application is deemed important, then monitor its progress
 - The scope of patent claims is determined by a court and can be enlarged in certain narrow circumstances
- These risks can be managed and minimized over time

What Self-Help Tools are Available for Searching Patents?

- **Google:** www.google.com/patents
 - Quick and easy to search, international scope, but limited info available
- **PAIR:** <http://portal.uspto.gov/pair/PublicPair>
 - Must know what US patent or application you are looking for
 - Up-to-date information about Patent Office's views on strength and scope of a patent
- **ESpaceNet:** <https://worldwide.espacenet.com/advancedSearch>
 - Can search patents globally, with links to full Patent Office files for EU and international applications (on EP Register – <https://register.epo.org>)
 - Even for recent applications, International Search Report and International Preliminary Examination Report provide first look at patent strength
- See also **Canadian Intellectual Property Office** patent search website

When Should I Take Stock of My IP Risk?



1st Time: At
conception (or re-
conception)

2nd Time: At a first
significant
financing event

3rd Time: At the
cusp of meaningful
revenue generation

1st Risk Assessment: At Conception

- Emerging companies come in all shapes and sizes
 - Many emerging companies innovate but do not rely heavily on IP rights
 - However, IP is the lifeblood of other companies – e.g., where a new molecule or leading-edge device is involved
- Invention-driven companies should recognize the importance of IP protection early on to proactively manage IP risk
 - Significant IP decisions are often required in early development and proof-of-concept arrangements
- Putting the right systems in place from the get-go will drastically reduce cost and increase awareness, and will pay dividends down the line

2nd Risk Assessment: Before Financing

- Companies will need to show they own their IP covering business-critical technology
- Companies may need to show they have an IP strategy in order to attract investment, as they reach Series A and beyond
- Understanding IP can improve investment prospects by enabling the following sophisticated decision-making:
 - Developing an IP strategy and incorporating it into company decks and business plan materials
 - Register IP with IP offices in key geographic locations
 - Identify IP risks based on a company's business plan and establish freedom to operate
 - Incorporate IP monitoring into a company's competitive intelligence

How Do I Prove I Own My IP?

- Establish chain of title, with no gaps
 - Employment agreements assign all rights to Company
 - Development agreements assign all rights to Company
 - Moral rights waived in favour of the Company
 - Additional or confirmatory assignments or waivers of IP rights, where appropriate
- Maintain a repository of:
 - all third-party licenses to Company used in developing and requiring for use of your product
 - all third-party licenses from Company that could encumber future conveyance of rights
- Establish freedom-to-operate with respect to known patents (and revisit as needed)

3rd Risk Assessment: At Meaningful Revenue Generation

- Every successful company has an **IP posture**, whether articulated or not, that dictates the types of IP-related measures it is willing to take
- Once a company has become a going-concern, they must understand and develop their IP posture on an ongoing basis, with a view to taking value-added steps driven by their needs
- **What do we mean by IP posture? ...**

What is My IP Posture?

Aggressive

- I use IP as a weapon to keep competitors out, and/or IP is my business

Proactive

- I take steps to protect the IP my business generates and enforce our IP rights as appropriate

Prudently Defensive

- I investigate and understand the IP landscape/risks for my business units

Reactive

- I respond to IP issues as needed when they arise

Passive

- IP is not important to my business

The Goal: Bespoke IP, Tailored to a Client's IP Posture



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Nathaniel is an IP litigator and strategist. Nathaniel's practice focuses on contentious legal issues confronting innovation-intensive industries, with an emphasis on litigation, patent and regulatory issues facing pharmaceutical and biotechnology companies. Nathaniel has litigated patent matters in a variety of industries, including in the oil and gas, software and life sciences fields. He was lead counsel for CHEO in Canada's only patent litigation involving claims to human genes, in which he represented the hospital *pro bono*. Nathaniel is a registered Canadian patent and trademark agent, called to the Bar in Ontario and New York, and is currently a Member of Council of the Intellectual Property Institute of Canada and Chair of its Life Sciences Committee.

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Sydney advises on intellectual property matters in corporate and commercial transactions, including licensing and acquisition, particularly in a variety of innovation-intensive industries and early-stage businesses. Sydney's practice also includes trademark clearance, prosecution and opposition, litigation of infringement involving trademarks and copyright, brand strategy, and online arbitration of domain name disputes.

Sydney is currently a member of multiple committees of the Intellectual Property Institute of Canada, including the Licensing Community. Sydney has spoken and written about developments in trademarks and copyright law at length, including as co-author of a chapter in the 2019 edition of the *Canadian Copyright/Industrial Designs Benchbook*.

THANK YOU!