Title: Intellectual Property Speakers: Paul Smith, Michael Henry Series: Colloquium Date: December 01, 2021 - 2:00 PM

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Abstract: Understanding IP ownership and ensuring that commercialization of research provides broad societal and economic benefit both in Canada and abroad is extremely important. Perimeter Institute is also acutely aware that entrepreneurial oriented faculty and graduate students want to engage in commercial enterprise (i.e., through contract research and licensing opportunities with industry or independently with their own research outcomes). In this colloquium you will learn the basics about the different types of IP protection available and some of the most common pitfalls to avoid. Hear how IP is used to commercialize technology through licensing or start-up creation.

Zoom Link: https://pitp.zoom.us/j/99022008403?pwd=NmEzdFJkNlJiRzUvY0VDVERuY3FlUT09

# HENRY Patent Basics for Innovators

Presented to Perimeter Institute December 1, 2021 Michael Henry

# Outline

- Types of intellectual property
- What are patents, and why are they important?
- Patent ownership vs. inventorship
- Requirements for patentability
- Types of patent filings
- Important things to know about examination/prosecution
- Anatomy of a patent
- Invention Disclosure Records

This presentation is for educational and general informational purposes only and does not contain legal advice or opinions. Engage a licensed attorney for legal advice on your specific circumstances.

# **Types of Intellectual Property**

#### Patent

• Inventions (System, Device, Process, Material)

#### Trade Secret

- Valuable, Confidential Business Information
- Trademark
  - Source Identifiers (Logo, Word Mark, Trade Dress)
- Copyrights
  - Creative Works (Textbooks, Software, Manuals, Artwork)

### What is a Patent?

#### • Limited Monopoly

 Right to Exclude Others from Making, Selling, Using, Importing the Invention (for about 20 years from filing date)

#### Territorial

- Country-by-country (US patent covers US only, etc.)
- International patent applications (WIPO, EPO), but no international patents (maybe someday)

#### Granted by Patent Office

• Examination process for each country (or region)

#### Transferrable Property

Can be sold, licensed, etc.

#### Enforceable, Challengeable Rights

Federal Court, International Trade Commission, Patent Office Procedures

### Why are Patents Important for Businesses?

- Exclusivity → Market Share, Deters Copying
- **Recognition** → Image, Brand
- **Ownership** → Valuation
- Licensing → Revenue, Profits
- Additional Value for Inventors
  - Document contributions
  - Company Incentives / Awards



### What Big Tech Companies Know

	Organization Search	2020 Grants	2019 Grants		% Change	Rank Change
1	International Business Machines Corp	9	,130	9,262		
2	Samsung Electronics Co Ltd	6	,415	6,469		
3	Canon Inc	3	,225	3,548	-9 %	
4	Microsoft Technology Licensing LLC	2	,905	3,081	-6 %	
5	Intel Corp	2	,867	3,020		
6	Taiwan Semiconductor Manufacturing Co TSMC Ltd	2	,833	2,331	22 %	
7	LG Electronics Inc	2	,831	2,805		
8	Apple Inc	2	,791	2,490	12 %	
9	Huawei Technologies Co Ltd	2	,761	2,418	14 %	
10	Qualcomm Inc	2	,276	2,348	-3 %	
11	Amazon Technologies Inc	2	,244	2,427	-8 %	
12	Sony Corp	2	,239	2,142		

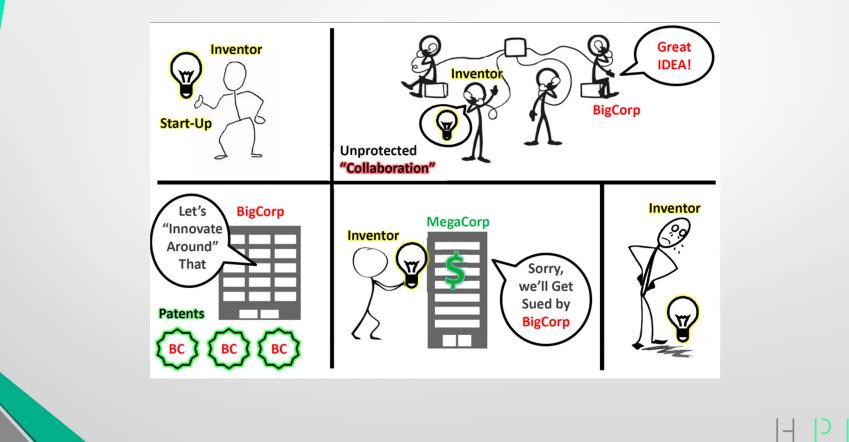
"GAFMA" companies are all in the top 50 for several years running

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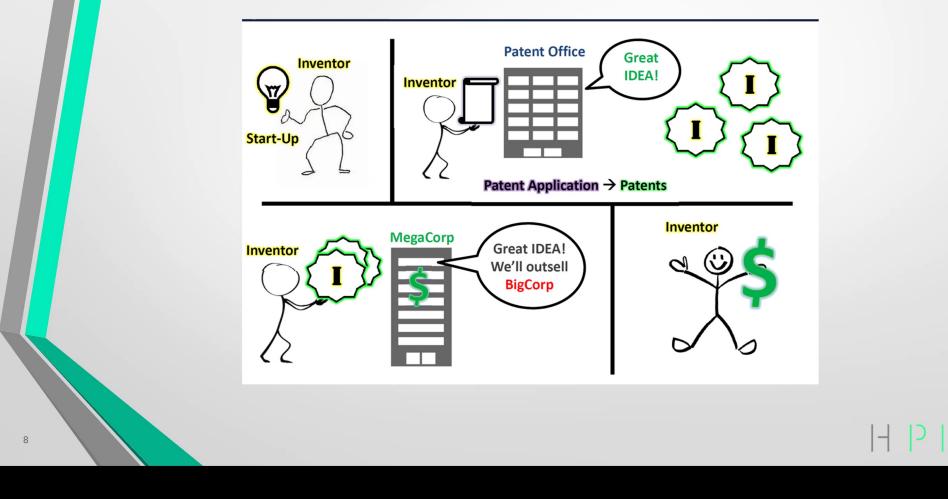
ifi CLAIMS Patent Services



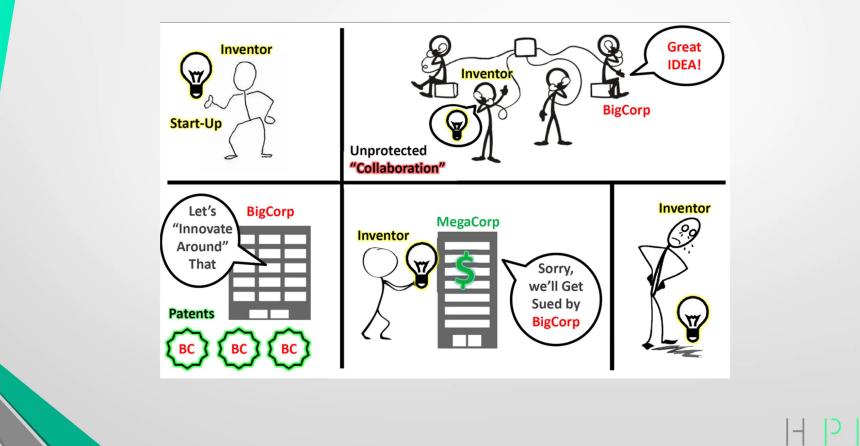
### A Tale of Two Inventors: Round 1



### A Tale of Two Inventors: Round 2



### A Tale of Two Inventors: Round 1



### Patent Ownership vs. Inventorship

#### Inventors:

- Individuals who conceived the claimed invention
  - Does not include reduction to practice
- Determined by legal standards
  - Often differs from journal authorship

#### • Owners:

- Entities that control / receive benefit of patent rights
- Determined by agreement (employment, collaboration, etc.)
  - In absence of agreement, defaults to inventors
- Transferred by "assignment"

Further reading: https://henry.law/blog/patent-ownership-vs-inventorship/



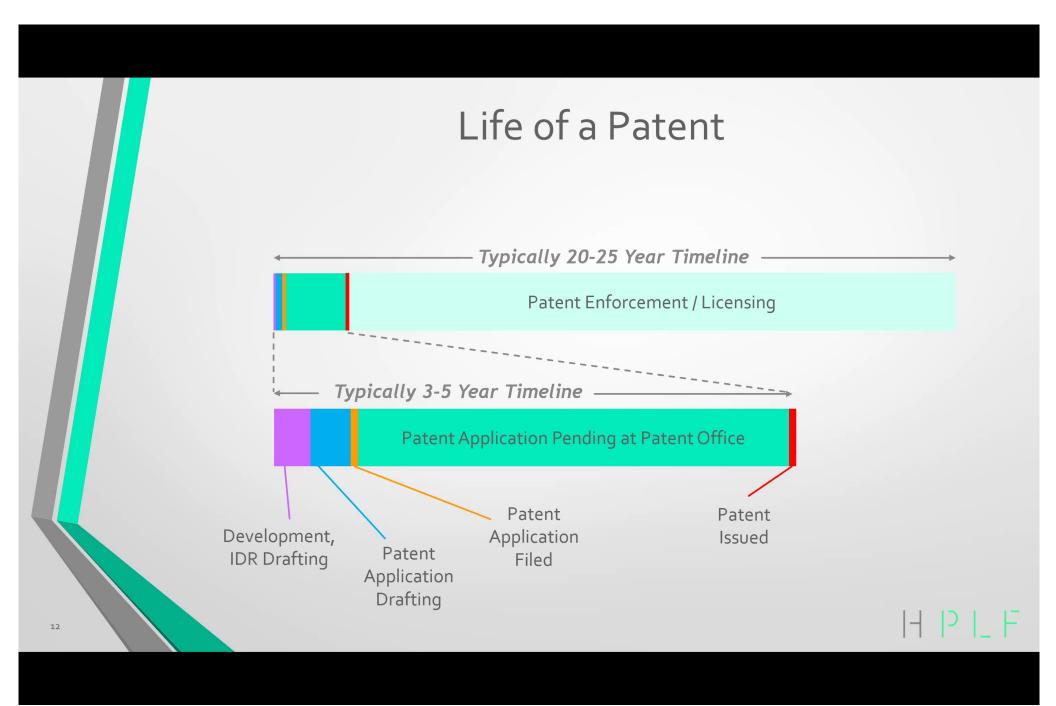
## **Requirements for Patentability**

#### • Patent-Eligible Subject Matter

- Machine, Process, Manufacture, Composition of Matter
- Every country has its own exclusions

#### • Novelty

- Objectively Different from "Prior Art"
- Non-Obviousness (aka Inventive Step)
  - Would Not Have Been Obvious to a Person of Ordinary Skill in the Art (POSITA), in view of "Prior Art"
- Written Description
  - Enable a POSITA to Make and Use the Invention
  - Show Possession of Invention
  - Best Mode
- Not Required
  - "Reduction to Practice", Working Prototype, Data



### **Types of Patent Filings**

- National Filings Canada, China, Japan, US, etc.
- Regional Filings European Patent Office, Gulf Cooperation Council
- International Applications under the Patent Cooperation Treaty (PCT)
  - Further reading: <u>https://henry.law/blog/international-patent-protection-developing-global-strategy/</u>
- Provisional Application (US only)
  - Further reading: <u>https://henry.law/blog/should-we-file-a-provisional-patent-application/</u>

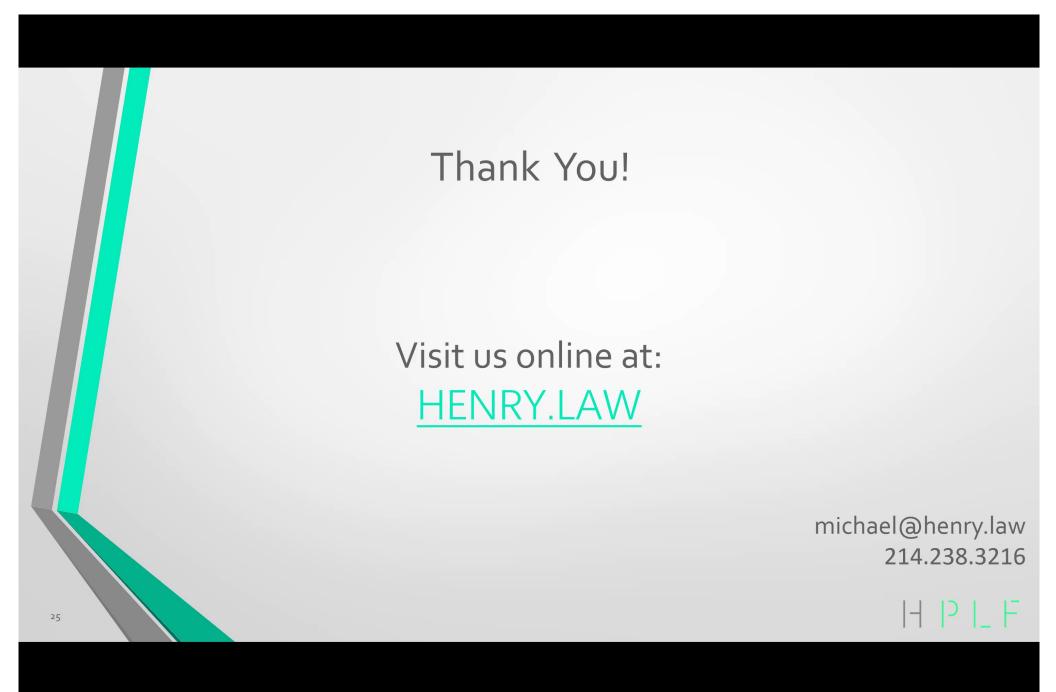
## Important Things to Know About Examination / Prosecution

- Can Amend the Claims, but Cannot Add New Technical Material to the Application
- "New" Prior Art References Emerge
- Patent Office Policy (and Patent Law) Subject to Change
- Each Patent Office Conducts an Independent Examination, with Slightly Different Rules
- Ongoing Duty to Disclose (US)

# Anatomy of a Patent

- Front Page(s)
  - Title, Abstract, Inventors, Assignee, Applicant
  - Filing Date, Priority Information
- Drawings
- Specification
  - Background, Summary, Brief Description of Drawings, Detailed Description
- Claims
  - System, method, etc.
  - Independent, dependent

Further reading: <u>https://henry.law/blog/anatomy-of-a-patent/</u>



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