

Intellectual Property Basics for Researchers and Inventors

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Presentation Focus

- What is Intellectual Property(IP) and what are the four different types of Intellectual Property protection available in the US?
- What is a patent and what are the three main types of US patents an inventor may obtain?
- What are the differences between Copyright, Trademark and Trade Secret types of intellectual property protection?
- What are the early steps to protecting their Intellectual Property (IP)?
- Other considerations regarding a patent such as Prior Art searching, Marketability Assessment, IP ownership in a University setting, and IP ownership of Assistive Technology.

What is Intellectual Property?

- “Creations of the mind – creative works or ideas embodied in a form that can be shared or can enable others to recreate, emulate, or manufacture them” (USPTO)

Types of Intellectual Property Protection

- Four primary types of intellectual property protection in the United States:
 1. Patent
 2. Copyright
 3. Trademark
 4. Trade Secret

Patents

- Patents are property rights granted to an inventor to exclude others from:
 - Making
 - Using
 - Offering for sale
 - Selling the invention
 - For a limited time
 - In exchange for public disclosure of the invention when the patent is granted

Types of Patents

1. Utility Patents

- Essentially protects how the invention works
- Issued for inventions that are useful, novel, and nonobvious
 - “Useful” – Invention must be minimally useful for some purpose
 - Few cases in which a new invention with no real use is created
 - “Novel” – Invention must be truly new and unique
 - i.e. not previously invented, not previously discussed in a publication even though not created, etc.
 - It does not matter that you may not have been aware of the previous invention or publication – it’s still not patentable
 - “Nonobvious” – “Nonobviousness asks whether a development is a significant enough technical advance to merit the award of a **patent**”*
 - Likely the most important of the patent requirements, and it may also be the most difficult to satisfy

*Merges, Robert Patrick, et al. *Patent Law and Policy: Cases and Materials*. Newark: LexisNexis, 2002 (p. 644)

Types of Patents

2. Design Patents

- Granted to inventors that create a novel and nonobvious ornamental design for an article of manufacture
- Only protects how the invention looks, not how the invention works

Types of Patents

3. Plant Patents

- Protects the development of new varieties of both sexually and asexually produced plants

Priority of Invention - Patents

- The United States is a “first-to-invent” system rather than a “first-to-file” system
 - If two people invent the same device, priority in awarding a patent is given to the first person to invent the device rather than the first person to file an application
 - Therefore, it is important to use logbooks or laboratory notebooks to document the dates of invention, experiments, and other information about the invention process
 - Please refer to module for more information on laboratory notebooks

Patent Application Process

- Three main types of applications:
 1. Non-provisional Application for Patent
 - This is the application to use when you wish to be granted all rights associated with a patent
 - If granted, will result in a utility patent with a 20-year term from the filing date of the application
 - It is highly recommended that you contact a qualified patent attorney to assist you in drafting a patent application

Patent Application Process

2. Provisional Application for Patent

- Relatively low-cost way of postponing the cost and effort of drafting and filing a non-provisional patent application
- Provides the applicant one-year to determine whether they wish to proceed with the non-provisional application
- The 20-year utility patent term also does not begin with the filing of a provisional application for patent

Patent Application Process

3. Patent Cooperation Treaty (PCT) Application

- Used when the inventor is considering pursuing patents outside of the United States
- Application is a “placeholder” that reserves a priority filing date in all of the countries that are a party to the PCT
- It is recommended that you speak with a qualified patent attorney if you wish to pursue a PCT Application to ensure that all legal requirements are satisfied
- However, before filing for patent applications in other countries, it is important to consider what the potential market for the invention is in each country. If potential profits in those countries does not outweigh the patent prosecution fees, then you may not wish to pursue patents there

Patents – One-Year Time Bar

- A person is not entitled to a patent if more than one year prior to the application, the invention was:
 - Patented
 - Described in a printed publication
 - In public use
 - On sale
 - Disclosed publicly
- Therefore, one must be careful when showing or describing the invention in public. Once you do, you only have one year to file your application.

Copyright

- Applies to many different works, including, but not limited to:
 - Literary works
 - Musical works
 - Pictures
 - Graphics
 - Dramatic works
 - Sound recordings
 - Computer software

Copyright

- Copyright protection is automatically afforded to the author of the materials previously listed upon creation, so long as it is “fixed in a tangible medium of expression”
 - Therefore, you do not need to apply to the government for copyright protection
 - However, registering your copyright may have some benefits for the author

Copyright

- Copyright only protects the expression of an idea, not the idea itself
 - For example, copyright protection cannot extend to theories about gravity or a new accounting method.
 - Copyright only protects the expression of those ideas on gravity and accounting, such as the books and articles that describe those ideas
- The term of a copyright is for the life of the author plus 70 years
 - For works of corporate authorship, the term is 120 years after creation or 95 years after publication, whichever end point is earlier

Trademark

- A trademark is a:
 - Word
 - Phrase
 - Symbol
 - Design
 - Or any combination of the above
- “... which identify and distinguish the source of the goods or services of one party from those of others”

Trademark

- Trademarks do not expire as long as they are being used in commerce
 - You do not need to register your trademark in order to have trademark protection, but it is beneficial in some circumstances

Trade Secret

- Information that a company keeps secret to allow the company to compete effectively in the marketplace.
- Can include:
 - Customer identities and preferences
 - Vendors
 - Product pricing
 - Marketing strategies
 - Company finances
 - Manufacturing processes
 - Other competitively valuable information

Trade Secret

- Trade secrets are not protected by federal law
 - Protected through common law and the Uniform Trade Secrets Act (UTSA) in the states that have chosen to adopt it
- Trade secret rights do not need to be applied for or approved by any agency

Trade Secret

- In UTSA jurisdictions, information must meet three criteria to qualify as a trade secret:
 1. Must not be “generally known or readily ascertainable” through proper means
 2. Must have “independent economic value due to its secrecy”
 3. Trade secret holder must use “reasonable measures under the circumstances to protect” the secrecy of the information
- Therefore, as long as the information is kept secret, trade secrets can potentially be protected in perpetuity

Early Steps to Protect Your Intellectual Property

1. Logbooks/laboratory notebooks

- Complete, detailed dated records
- Recommended to use a bound logbook with pre-numbered pages
- All drawings, notes, dates, and any information about the development of your invention should be included in the notebook
- Each entry should be dated and signed
- Each entry should also be signed by at least one other person who is not a co-inventor
 - This person should be bound by a non-disclosure agreement to protect your concepts and to avoid triggering the one-year time bar

Early Steps to Protect Your Intellectual Property

2. Non-disclosure Agreements

- Legal document that states the person signing the agreement will not disclose or use any of the information that is shared for any reason
- Anyone who is not a co-inventor should sign a non-disclosure agreement before you share any information with them

Early Steps to Protect Your Intellectual Property

2. Non-disclosure Agreements (continued)

- If you are a university-based researcher, check with your University Technology Transfer office for approved agreements for you to use.
- If you are an independent inventor, you should contact an intellectual property attorney to have an agreement drafted for specifically for your invention and your situation

Other Considerations

1. Prior Art Searching

- If someone else has already invented or published information about your device, you may not be able to get a patent on the device
- Searches can save you a significant amount of time and money in both development and pursuit of intellectual property protection
 - Will ensure your invention isn't already in the marketplace

Other Considerations

2. Marketability assessment

- This is a very complicated process that is best left to Technology Transfer Offices in the University setting
- It will help determine whether you could potentially make a profit (and how much profit) on your device
 - If you find that you will not be able to make enough profit on the device prior to development to justify the potential costs, you may be better off not going through the invention process
 - Potential costs include the time and cost of development, manufacturing costs, the time and cost to pursue intellectual property protection, etc.

Other Considerations

3. Intellectual Property ownership in a University setting

- If you are a university researcher and develop your invention as part of your employment at a university, you do not have exclusive ownership rights to your development
 - The legal rights to the invention belong to the university and to any funding agency that may be helping to pay for the development
 - This information should have been included in the terms you agreed to upon being hired at the University
- However, you will still remain eligible for some royalties from your invention
- If the government and your university decline ownership of the invention, all legal rights to the invention will revert to the inventors
 - The inventors are third in line to claim ownership for the invention

Other Considerations

4. Assistive technology development

- Expected returns on your invention may be very low since the potential market size for most assistive technologies is very small
- Therefore, in many cases the University Technology Transfer Office may decide that it is not worth investing time and resources to bring the product to market

Summary

1. Start with the early steps to protect your intellectual property
2. Funded Researcher or Independent Inventor?
Different Paths.
3. Can my invention or idea be protected?
 - a) Selling Hangover medicine packets in Bars cannot be protected

Summary (continued)

4. Choose the Appropriate IP protection
 - a) Invent a New Medicine – Patent it
 - b) Choose a distinctive name for a medicine – Trademark it
 - c) Create a Unique picture for the package of a medicine – Copyright it.