

SIU Office of Technology Management and Industry Relations

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OTMIR Essential Functions

1. Work with SIU faculty, students, and staff to protect and commercialize SIU intellectual property
2. Services provided to SIU:
 - Evaluation of IP (assess form of IP, marketability, etc.)
 - Obtain or assist in obtaining IP protection (patent, copyright, trademarks, trade secrets, etc.)
 - Marketing, licensing and financial monitoring
 - Confidential Disclosure Agreements (CDAs)
 - Material Transfer Agreements (MTAs)

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Topics Discussed

1. Intellectual Property in General
2. Patent Protection in the U.S.
3. Intellectual Property Ownership and Confidentiality



*Topic 1: Intellectual
Property in General*

Intellectual Property - Definition

Intellectual property: creative works or ideas embodied in a form that can be shared or can enable others to recreate, emulate, or manufacture them.



Primary Types of Intellectual Property Protection for SIU Researchers

1. Trade Secrets
2. Copyrights
3. Patents

Trade Secrets

- Most commonly applies to formulas
- Also “know-how” (competitive edge if that information were not commonly known or available)
 - Manufacturing process
 - Computer Software
- Good for short-term protection but not long-term because ideas may be reverse-engineered or independently created

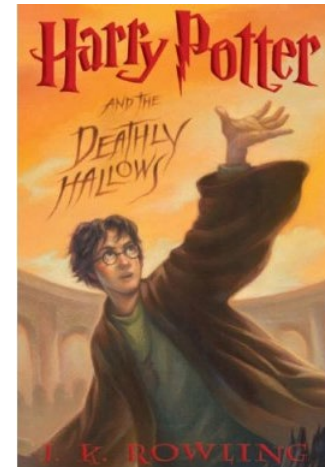


Trade Secrets – Legal Authority and Requirements

- Legal Authority:
 - Illinois law (Illinois Trade Secrets Act, 765 ILCS 1065/)
 - Federal law (Defend Trade Secrets Act, 18 USC 1836/)
- Must treat the information as a trade secret (no filings required)
 - Disclose only to those who “need to know”
 - Disclosure only under a nondisclosure agreement (NDA)

Copyrights

- Designed to protect original artistic or literary works
- Protects structure or presentation, not data or facts
- Protection for life of author plus 70 years
 - 95 years if a corporation



Copyrights – Legal Authority and Requirements

- Federal Law (Copyright Act of 1976, 17 U.S.C. 101-1401)
- Protect original works of authorship that are fixed in a “tangible medium of expression”
 - Paper, electronic storage device and other tangible mediums
- Automatic when fixed in tangible medium of expression
 - Filing copyright registration (USPTO) allows attorney’s fees

Fair Use Exception for Copyrights

- Very limited if for education purposes (can't make mass copies)
 - Parodies (comical expressions, political cartoons)
 - Best if no financial gain



Referencing Information . . .


- Absolutely allowed as “fair use” if the article is properly referenced. Once the data is published, anyone can use that information.
- What is not allowed is “copying” information and passing it off as your own
 - Ethics issues as a researcher
 - Potential legal issues



Data and Copyright Laws

- Copyrights protect works of authorship, such as writings, music, and works of art that have been tangibly expressed.
- How the data is expressed is protectable via copyright
- The underlying data is not protectable via copyright but may be protected via trade secret if efforts taken to keep information secret





*Topic 2: Patent Protection
in the U.S.*

U.S. Patents in General

- Strong protection: monopoly rights to make, use, sell, manufacture, etc.
- Designed to promote disclosure
- Legal Authority (Federal):
 - Article 1, Section 8 of the U.S. Constitution
 - Title 35 of United States Code
- Issued Patents leave the jurisdiction of the Patent and Trademark Office
- Cases involving infringement, validity, etc. go to the U.S. District Courts

Filing and Duration

- Must be first to file a patent application to be protected
- Types of patent applications:
 - Provisional: lasts for 1 year and gives inventor more time to develop and market the idea
 - Non-provisional: can issue into enforceable claims
- For U.S. utility patents, total patent protection life is approximately 20 years from the filing of a non-provisional or PCT application (international application)

3 Main Types of Patents

1. Utility Patents

- Protects useful process, machine, manufacture or composition of matter (including improvements)

2. Design Patents

- Protects ornamental design (e.g., a specific IKEA chair)

3. Plant Patents

- Invented or discovered asexually reproduced plants
- Ex: GMOs, hybrids, plant mutants, and newly-found seeds

Requirements for a Utility Patent in the U.S.

1. Eligible subject matter
2. Useful
3. Adequately enabled
4. Novel
5. Non-Obviousness

Requirements for a Utility Patent in the U.S. (continued)

1. Eligible Subject Matter:

- Processes: step or series of steps to achieve result
- Machines: tangible parts or combinations of devices
- Manufactures: tangible article given new form
- Compositions of matter: combination of substances
- Judicial Exceptions:
 - Abstract ideas: math formula or mental process
 - Laws of nature and natural phenomenon
 - Product of nature: above as a physical product

Requirements for a Utility Patent in the U.S. (continued)

2. Useful:

- Easiest requirement (standard is fairly relaxed)
- Show a need, demand or benefit (saves money, increases efficiency, solve an unmet need, etc.)

3. Adequately enabled:

- One of ordinary skill in the field must be able to create the invention without undue testing or experimenting
- Does not require the invention to be reduced to practice or to be mechanically proven
- Journal article often insufficient

Requirements for a Utility Patent in the U.S. (continued)

4. Novel:

- Compared to public disclosures WORLDWIDE prior to your priority date (or date of filing your patent application)
- Claimed invention may be rejected when anticipated by a disclosure available in the prior art
- Each and every element is found in a single prior art referenced, either expressly or inherently described


Requirements for a Utility Patent in the U.S. (continued)

5. Non-obvious

- The most common issue for rejection and to most practitioners, very subjective in practice
- Even though your idea may be “novel”, if it would be obvious to combine 2 or more items or modify an existing item to get your claimed invention, then it would not be patentable
- Foreign countries like to use the phrase “inventive step” requirement

Prior Art and Public Disclosures

- Prior art: information publicly disclosed by anyone (worldwide)
 - Inventor disclosed/public use/offered for sale: one year to file in US, but lose international protection
- Public disclosure: no reasonable expectation of confidentiality
 - Academic publications
 - Abstracts
 - Master's thesis defense
 - Dissertation defenses
 - Poster sessions
 - Lectures
 - Seminars
 - Information posted online
 - Publicly-available grant proposals
 - Email/oral disclosures



*Topic 3: Intellectual
Property Ownership and
Confidentiality*

Step 1: So whose idea was it?

- If an inventive idea, inventorship is determined by who conceived of the idea
- If it is a copyrightable work, then those who contributed to the work.
- Note: if working under instruction, then idea does not belong to you.

Determining Inventorship

- Look at the claims (scope of patent) to determine if you are an inventor on a patent
- Example of claims for an automobile:
 - A self-propelled vehicle, comprising:
 - (a) a body carriage having rotatable wheels mounted thereunder for enabling said body carriage to roll along a surface
 - (b) an engine mounted in said carriage for producing rotational energy, and
 - (c) means for controllably coupling rotational energy from said engine to at least one of said wheels, whereby said carriage can be self-propelled along said surface.

Step 2: So Who Owns the Idea?

- Determined by contract (3rd parties) or SIU IP Policy (SIU employees)
- Contract: If collaborating, SIU will typically own it “jointly” unless we agree to forfeit certain rights when taking on a new project (which is the rare)
- SIU IP Policy: IP owned by SIU if invention resulted from working on university time and/or using university resources unless it is a scholarly work (e.g., classroom material, articles, books)

Ownership of Scholarly Works

Professor / Student

- Yes, if it is an academic work of scholarly activity – you compile information on your own
- **However**, if you publish, you often assign/forfeit your copyright interests to the publishing company

University

- Yes, if there is a commercial application of that data
 - Yes, if under specific direction to construct a data set (e.g., your boss asks you to count all the light bulbs in the room)
- Not always a clear line when commercial value gets thrown in the mix

Net Income Breakdown for SIUC and SIU School of Medicine

- Net income breakdown for SIUC employees on or after July 14, 2016:
 - 45⁰% to inventor
 - 45⁰% to SIUC
 - 5⁰% to college
 - 5⁰% to department
- Net income breakdown for SIU School of Medicine employees on or after July 14, 2016:
 - 45⁰% to inventor
 - 50⁰% to the School of Medicine
 - 5⁰% to department

Protecting Intellectual Property

- Why might I have to keep some data or research confidential?
 - Protect underlying intellectual property
 - Allows for the sharing of sensitive data before being made aware to the public
- Agreements used for protection:
 - Confidential disclosure agreements
 - Material transfer agreements

Confidential Disclosure Agreements (CDAs/NDAAs)

- Outlines confidential material, knowledge, or information that the parties wish to share with one another for certain purposes, but wish to restrict access and limit use
- Very important in marketing SIU intellectual property
- Required for transferring confidential information into and out of SIU
 - Mutual obligation: SIU has a form

Material Transfer Agreements (MTAs)

- Used to acknowledge ownership of title and limitations of use for reagents, end products, biological materials, genetically modified or unique plants and animals, and other matters.
- Required for transferring material created at SIU or from a 3rd party.
 - Material transferred to SIU: usually the 3rd party has a form
 - Material transferred from SIU: SIU has a form on OTMIR website

Rule of Thumb

- If you are (1) working with a company or (2) received material from a company, check with OTMIR if you are uncertain about your obligations.
- DO NOT execute CDA and MTA (or most agreements) documents yourself . . . You could be personally liable for a breach

