## **UH Technology** Bridge

Office of Technology Transfer and Innovation

### Introductions



**Brian Shedd, PhD**Director of Technology Commercialization
Office of Technology Transfer and Innovation (OTTI)



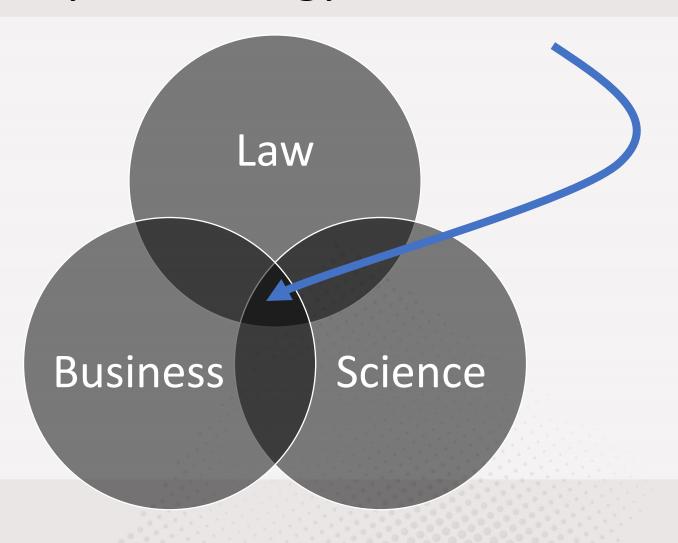
Andrew Grand-Pierre
Commercialization Strategist
Office of Technology Transfer and Innovation (OTTI)



**Rick James**Commercialization Strategist
Office of Technology Transfer and Innovation (OTTI)



## **University Technology Transfer**





## **University Technology Transfer**



Intellectual Property Management









Patent	Protects ideas, concepts, inventions, function, compositions of matter, and design
Copyright	Protects expression and communication of ideas reduced to a tangible form
Trademark	Protects identifying symbols, used in trade to indicate origin or distinguish products and services
Trade Secret	Protects proprietary material which, if kept secret provides a commercial advantage to the owner
Right of Publicity	Protects an individual's image and name from being misappropriated



Туре	Patent
Advantage	Clear Protection Position
Disadvantage	Costly

- Provides a monopoly on the invention that is claimed in the patent
  - Utility patent 20 year monopoly
  - Design patent 14 year monopoly
  - Plant patent 20 year monopoly
- You don't have to practice your invention, but you can stop others from practicing it
- Requirements for Patentability
  - Useful
  - Novel
  - Non-Obvious



Туре	Patent
Advantage	Clear Protection Position
Disadvantage	Costly

- What is Patentable?
  - Composition of Matter
  - Machine/Device
  - Method/Process
  - Item of Manufacture
  - An Improvement Technology
- What is NOT Patentable?
  - Laws of nature
  - Physical phenomena
  - Abstract ideas
  - Products of nature that are not altered by human intervention



Туре	Copyright
Advantage	Cheap to Register & Maintain
Disadvantage	Potentially Difficult to Enforce

- Protection of an original work of authorship fixed in a tangible medium
- Protects the expression of the idea, not the idea itself
- Copyrights are a SET of rights:
  - Reproduction
  - Distribution
  - Adaptation
  - Performance
  - Display



Туре	Copyright
Advantage	Cheap to Register & Maintain
Disadvantage	Potentially Difficult to Enforce

- Copyrightable works include the following categories:
  - literary works
  - musical works, including any accompanying words
  - dramatic works, including any accompanying music
  - pantomimes and choreographic works
  - pictorial, graphic, and sculptural works
  - motion pictures and other audiovisual works
  - sound recordings
  - architectural works



Туре	Copyright
Advantage	Cheap to Register & Maintain
Disadvantage	Potentially Difficult to Enforce

- Copyright Considerations
  - Patentability
  - Ownership
  - Coding Language
  - Open Source
  - Executables



Type	Trademark
Advantage	Never Expires
Disadvantage	Less Valuable at Early Stage

- Word, symbol, name, device, color or combination thereof that identify the origin of goods or services
  - Trademarks identify goods
  - Servicemarks identify services
  - Trade dress identifies the look of the brand
- Designed to protect the CONSUMER and prevent confusion in the marketplace
- Most likely are only going to be part of an agreement that includes other intellectual property (ex. patents or copyrights)
- Register the trademark before starting any marketing activity



Туре	Trade Secret
Advantage	Competitive Market Advantage
Disadvantage	Limited Protection

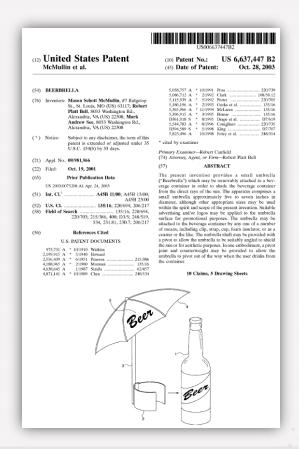
- Information that is generally not known and is not discoverable, which, if kept secret, provides an economic advantage to the owner
- Examples:
  - Formula for KFC chicken
  - Chanel No. 5
  - Coke Recipe
  - Software distributed in Object Code form
  - Customer lists
  - Formulas
  - Business plans
  - University, as a public institution, cannot have these – we must disclose information
- May be the only IP available
- Monetization is difficult unless you can tie it to other IP



## Protection of Intellectual Property



#### **Patents**



- Requires full disclosure (enablement) so that someone of ordinary skill in the art could practice it
- 3 main sections
  - a cover page which presents bibliographic information,
  - a specification, which describes the invention and the best way of making or using it, and
  - claims, which define the scope of the invention from which the patent owner has the right to exclude others



## Legal Requirements for Patenting

#### The Invention Must Be ALL of the Following:

- Useful
  - the invention has "utility" or has "industrial application"
- Novel
- Non-Obvious
  - to one of ordinary skill, taking into account what was known in the technical field at the time (the "prior art")



## Statutory Bars to Patenting

#### **US Applications**

- A US patent is barred if any of the following occurs before the application is filed:
  - Invention is patented or described in a printed publication anywhere in the world
    - Unless the publications are made by the inventors, in which case there is a one year grace period whereby the inventors own publications cannot count as prior art against their application
  - Invention is in public use
  - Invention is offered for sale

#### **Foreign Applications**

- Require absolute novelty
- Patent application must be filed before ANY enabling public disclosure, public use, or offer for sale

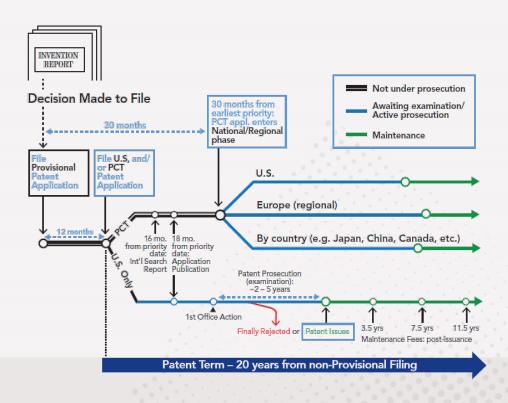


#### What Constitutes a Public Disclosure?

- Abstract
  - on-line or in print
- Poster presentation
- Public presentations
  - e.g. thesis defense, conference presentation
- Published and shelved thesis
  - potential art even if nobody has taken it off the shelf
- Manuscript
- Awarded Grants
- Public use
- Offer for sale



### **Patent Prosecution Process**





## How do you get a copyright?

- Federal Copyright protection is inherent in creation of a work
  - You create it, you get it
  - Marking with © is not required (but is a good idea)
- Federal registration is optional, but required if you are going to sue for copyright infringement
- Registration gets you additional benefits if you sue for infringement (statutory damages and attorney fees)



## How long does a copyright last?

- For new works (post 1978):
  - Personal works = Life of the author + 70 years
  - Works for hire = Lesser of 95 years from publication, or 120 years from creation
- Protections can go back further, but get complicated!



## Myths about Copyright

- If it doesn't have a copyright notice, it's not copyrighted
- If I give credit I don't need permission
- Since I'm only using a small portion of the original work, I don't need permission
- I don't need permission because I'm going to adapt the original work
- If I don't charge for it, it's not a violation
- If it's posted on the internet it's in the public domain
- If you don't defend your copyright you lose it
- If I make up my own stories, but base them on another work, my new work belongs to me.
- I can always obtain permission later
- I can mail myself something to prove the date I copyrighted it



## How do you get a trademark?

- Start using it! ™ (common law mark)
- Federal registration possible ® (federally registered mark)
- US recognizes rights based upon usage, most other countries base rights upon registration
- Trademark must be used in interstate commerce (or used within 1 year of filing) before it can be federally registered
- As long as you use it, you have it



## How do you lose a trademark?

- Use of a trademark as a verb or a noun to mean a generic version of the product or service
  - Just GOOGLE it...
  - Just TIVO it...
  - Give me a KLEENEX...
- Under U.S. law, genericide is a form of abandonment. A mark will be deemed to be "abandoned" if: (1) its use has been discontinued for three years with intent not to resume such use; or (2) when the mark becomes the generic name for the goods or services on or in connection with which it is used
- Kills a trademark forever very difficult to recapture
  - escalator, aspirin, granola, etc...



## **Protecting Trade Secrets**

- Need to be kept under lock and key
- Once out, value is lost
- Can be used as a marketing tool (ex. Coca-Cola)
- Tremendously valuable as long as private!
- Commonly used with software (object code vs. source code)



# Commercialization of Intellectual Property



## **Commercialization Options**

## Manufacturing & Distribution

- "Self-Publishing"
- Most institutes don't carry the liability!
- Greatest risk/reward

#### Sale or Assignment

- May lose out on ability to conduct additional research
- May lose out on future rights
- Might be the only option in some cases

#### **Licensing of IP Rights**

- Most common institutional commercialization option
- Provides all necessary commercial rights



## Open Source



#### The Open Source Definition

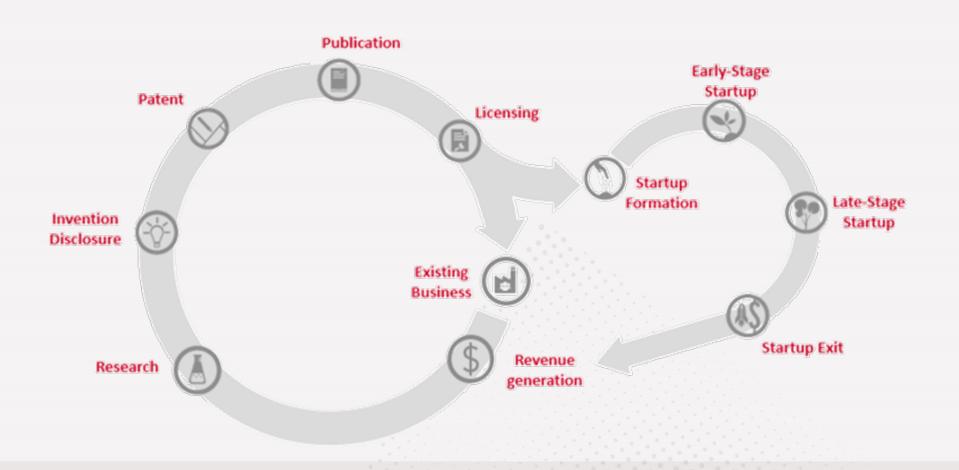
Open source doesn't just mean access to the source code. The distribution terms of open-source software must comply with the following criteria:

- 1. Free Redistribution
- 2. Source Code
- 3. Derived Works
- 4. Integrity of The Author's Source Code
- 5. No Discrimination Against Persons or Groups
- 6. No Discrimination Against Fields of Endeavor
- 7. Distribution of License
- 8. License Must Not Be Specific to a Product
- 9. License Must Not Restrict Other Software
- 10. License Must Be Technology-Neutral

No provision of the license may be predicated on any individual technology or style of interface.



## University Commercialization Cycle





## Why do Technology Transfer?

- Academic research and creativity is critical to a nation's innovation and R&D capacity
- The patent system is the vehicle which permits much delivery of the resource to the public
- It is in the public interest to place stewardship of research results in the hands of institutes and small business
- Strong incentive for research collaborations with industry
- Financial support to faculty and institution
- It is often the law



## Technology Assessment



## Technology Assessment

Technology Market Team



## Come see us! (virtually;)



