

Changes in US Patent Law: How it Affects Researchers/Inventors

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What is KT4TT?

- KT4TT in the Context of NIDRR Technology grantees means the application of KT theory & practice in R&D to more effectively apply TT processes and generate TT outputs.
- Goal is to have NIDRR technology grantees increase the application of their outputs by manufacturers, clinicians, researchers, policy makers, brokers, and consumers.



What is the Overall Mission of the KT4TT Center?

- Mission is to Provide Resources and Technical Assistance to Improve Both the KT and TT Skills of NIDRR Technology Grantees



Presentation Focus

- America Invents Act (AIA) – What is It? Signed into law September 16, 2011
- Enactment of Provisions staggered over 18 month period
- Full Implementation March, 16, 2013
- Changes US from a ‘First to Invent’ to a ‘First to File’ System!! What’s the Difference? What are the significant changes to US patent law?
- Confidential disclosures, 1 year grace period for inventor disclosures, publications, prior art, provisional patents, and projected costs for patents and provisional patents



Presentation Focus (2)

- What is Intellectual Property?
- What are the Types of Intellectual Property Protection Available in the U.S.?
- What are Patents?
- What are the Types of Patents?



Presentation Focus (3)

- Priority of Invention – Patents
- Patent Application Process
- Provisional Patent Applications
- What a Patent Does Not Do!!!
- Patent Facts
- Patent Costs



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. New and useful processes, machine, article of mfg. or any new or useful improvement, thereof.

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

3. Plant Patents

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



Priority of Invention - Patents

- Currently the United States is a 'First-to-Invent' system rather than a 'First-to-File' system
- Under 'First to Invent' system, a person conceptualizes an invention and then diligently proceeds to reduce it to practice. When filing for a patent the date of conception of the idea will become the date of invention for that person. Hence, signed, dated log books have been a necessity for all inventors.
- If two people invented 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 a patent application.



Priority of Invention - Patents

- On March 16, 2013 the United States becomes a 'First-to-File' system rather than a 'First-to-Invent' system – and what does this mean?
- Basically the U.S. is finally joining the rest of world! Now it's a race to the Patent Office!!!! To a point....
- No longer can you claim and prove an invention that you have kept secret is yours based on your signed dated log books and documentation that you have been diligently reducing it to practice.
- What matters now is first disclosure, prior art and the date you filed for a patent.



Priority of Invention - Patents

- AIA attempts to eliminate a patent applicants' ability to rely on anything other than a fixed application in proving priority of invention.
- Under AIA the filing date is important as a 3rd party disclosure prior to that date will qualify as prior art which will negate patentability.
- However, a 3rd party disclosure made within 1 year of the applicant's filing date does not count if the inventor had disclosed it prior to the 3rd party's disclosure or if the 3rd party disclosure was somehow derived from the inventor.
- However, now disclosure to the public becomes an even cheaper way than a provisional patent of staking your claim to priority.



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

Patent Application Process (PCT Cont.)

- 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

Provisional Patent Applications

- Low cost way of establishing a filing date
- Provisional Applications for patent may not be filed for design inventions
- Provisional applications are not examined on their merits
- Provisional applications for patent cannot claim the benefit of a previously filed application

Provisional Patent Applications

- Should make Provisional Application as complete as possible – why?
- By filing a provisional Application first, and then filing a non-provisional patent application referencing the provisional application within one year, you can gain almost 12 months of patent life.
- That means 12 months of claiming patent pending while trying out the market before incurring patent costs!!!

Prior Art

- What is it? Any information that is in the public domain (e.g. other patents, publications, drawings, invention itself) in any form before a given date that might be relevant to a patent's claims of originality
- Under AIA a prior public use or prior sale ***anywhere*** in the world now qualifies as prior art (no longer limited to U.S.). U.S. patents and patent applications are effective as prior art as of their priority date.
- AIA did away with the 'swear back' provision. Swearing back was a process in which, through an affidavit, you could get rid of 1 reference by stating that you had invented before the reference date.



What a Patent Does Not Do!

- Patent does not ensure overall functional uniqueness of your device. Example
- Patent does not ensure marketability. Example
- Patent does not ensure someone won't steal your invention. Example
- Patent does not automatically cover ancillary products. Example



Patent Facts

- 50-65% of invention disclosures from U.S. universities are converted into U.S. patent applications (AUTM 2008)
- 30-50% of U.S. Patent applications are converted into Utility patents. (AUTM 2008)
- 99.8% of inventions fail. Only 3,000 patents out of 1.5 million are commercially viable. (Richard Maulsby, Director of Public Affairs USPTO)

Patent Costs

- How much does a Utility Patent Cost?
 - Basic Mechanical \$7-\$10k
 - Complex Electrical/Software = \$10-\$15k
- How much does a Design Patent cost?
 - Basic Mechanical \$3k
 - Complex Mechanical \$4k
- How much does a Provisional Patent cost?
 - \$250 is the application fee for large organizations and it's \$125 for small entities or an individual.

Patent Costs

- Patent Maintenance Fees for an Individual Inventor
 - At 3.5 years = \$575
 - At 7.5 years = \$1450
 - At 11.5 years = \$2405

Fees are doubled for larger entities (e.g. Universities) – over 500 employees

Patent Costs

- America Invents Act (AIA) provides a fast track option for patent processing – 12 months as compared to the current 3 years) **Cost \$4800 or \$2400 for small entities**
- Electronic Filing Incentive – Additional \$400 (\$200 for small entities) fee for paper submissions (93% filed electronically)
- There is also a Priority Examination for important technologies – important to the national economy or national competitiveness. Can now jump to the front of the line. Current patent application backlog stands at 642,000 down from 700,000 just a year ago.



Summary

1. Start with the early steps to protect your intellectual property
2. Funded Researcher or Independent Inventor? Different Paths. Contact TTO Or IP Atty.
3. Can my invention or idea be protected? Will it be worth the patenting costs?
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.



Summary

- Visit the US Patent and Trademark Office's web site at uspto.gov for additional information.
- Visit the kt4tt.buffalo.edu web site for more examples and a chronological step by step guide for inventors.
- Electronic handouts are available on the ATIA web site and there are also a few hard copy handouts available here too.

Thank you!