Northeastern University

IP, Invention Disclosures and Commercialization

Center for Research Innovation
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What is Intellectual Property?

“…creations of the mind, such as inventions;…(and) designs…used in commerce. IP is protected in law by…patents, copyright and trademarks.” – WIPO

What is a patent?

A government license conferring the right, for a set period, to exclude others from making, using, or selling an invention.

In return for limited monopoly, applicants must describe in full.

Must be new, useful, and nonobvious.

What types of patents are there?

- Utility patent (~90% of all patents)
- Design patent
- Plants, other...

What is a trade secret?

- Manufacturing or industrial secrets and commercial secrets
Center for Research Innovation

• What is the CRI?
  – Center at Northeastern tasked with protecting and commercializing University IP
  – You will likely work with similar groups throughout your career

• Invention Disclosures
  – Why, When, Who, How

• Commercialization
Invention Disclosures – Why?

• University Policy on Intellectual Property (Faculty Handbook)
  
  – “Inventions resulting from research which has involved significant use of funds, facilities, space, equipment, materials, or other resources of, or administered by, the University (i) shall belong to the University; …shall either be accepted for patenting and commercialization, or, if not accepted for patenting and commercialization, may be released to the inventor upon written request.”

• Paying tuition for credit bearing courses (absent an agreement to the contrary) is not significant use of University resources.

• $$$
Invention Disclosures – When?

• BEFORE Publication or Presentation!
  – Ideally 1 month

• After ideas have been fleshed out
  – Can’t just be an idea
  – Must be novel, non-obvious
  – No need for working prototype
    • Does not need to be perfect, BUT
  – Science must be fairly complete
Invention Disclosures – When?

• Pre-filing publications are not good for your application’s health!
  – In most of the world, you will have lost any chance of patent protection
  – In the US, there is a grace period of one year for disclosures of – or from – an inventor
  – Pre-filing publications can include abstracts at conferences, grant applications, your website

• First to File
  – Previous patent laws – “first to invent”
    • New law effective March 16, 2013
  – We can secure this date!
Invention Disclosures – When?

- Telling others about your invention can cause problems if you do not disclose first
  - Others can work on your idea and come up with improvements
  - You might not be the inventor on the improvements!
  - Others can work on your invention and disclose it before you are ready
    - If more than one year before you file, you could be barred from a patent
    - They can argue that they should be an inventor too if they discussed something with you
Avoid mistakes that damage your patent rights

• How to avoid a pre-filing publication mess
  
  – If you want to publish, students may (but are not obligated to) send an invention disclosure to CRI

  – Once a provisional patent is in place you are free to talk about your work, publish it, inform the media, present at conferences, put on your website…etc.

  • However, if you continue to work on it, alert the CRI to any new developments!
  • If we don’t know about it, we can’t protect you.
Invention Disclosures – Who?

- List who did what
- Authorship is different from inventorship
- Difference between conception and execution
INSTRUCTIONS

I. The Center for Research Innovation (CRI) reviews all complete Invention Disclosure Forms as they are received from members of the Northeastern University (NU) community. Invention Disclosure Forms are reviewed for patentability and for commercial potential. All information on the form must be completed in order for the CRI to perform its review. Typically, the CRI files a provisional patent application on any inventions that may be patentable. Where appropriate, the CRI seeks to license NU inventions to industry for further development and commercialization. Any royalties derived from such licenses are shared with the inventor(s) and their departments according to NU policy (see the Faculty Handbook section on Patents and Copyrights and the Student Handbook).

The purpose of this form is to notify NU of your potential invention and any relevant sponsorship and publication history. The form also serves to establish a legal record of the date of conception of the invention. This form should be submitted to the CRI when something new and useful has been conceived, or when unusual, unexpected or unobvious research results have been achieved and can be used.

II. The following instructions should be used when completing the form.

1. Use a brief descriptive title to aid in identifying the technology.
   
   In describing the technology, attach material which covers the following points. Each needs to be answered completely and separately.
Commercialization Process

IDF Intake
- Signatures
- Complete
- Funding
- Jointly Owned (RIA)

Expedited Review
- Impending publication
- Commercial interest

Provisional Application

Gate 1
1st Patentability Analysis

Gate 2
Commercialization Assessment

Gate 3
Patent Review Committee

Gate 4
Commercialization

Month 1

Month 2-3

Month 4-9
Northeastern University

Realizing Value: Royalty versus Equity

• Northeastern divides royalty income as follows
  – 30% to the inventor(s)
  – 30% to the college
  – 40% to the university

• Licensing to a start-up
  – The university usually takes a small (<5%) equity stake
  – This is done in return for reduced upfront fees and milestone payments, and deferred patent costs
  – Start-up funding focuses on creating value with the licensed IP; it benefits everyone!
Thanks for your time today!

Questions?

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