Patents: Best Practices in Drafting and Filing

January 09, 2008

Presentation Plan

- Introduction
- Best Practices for IP Protection
- Drafting Strategies
- Filing strategies
- Questions

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What is a Patent ?

Sales Executive: A patent is a business tool, that may be used to earn a lot of money. You can easily trade or license a technology using patents.

Scientist: A patent is a proof of one's intellectual creation. It gives you the right credit you deserve when you build a technology

Patent Attorney: A patent conveys the right to **exclude** others from: making, using, or selling the patented invention for the term of the patent.

A patent is a contract between a state and an entity

Why do I need Patents?

- Patents gives you
  - Strategic position
  - Competitive advantage
  - Revenue stream through licensing
  - Greater valuation in case of M&A, raising VC funding etc.
- Your patents can earn you millions
  - CADTRAK had patent in graphics technology
  - Licensed out its patent to 400 companies, inc. IBM
  - 5 people, 2 computers, 1 patent - USD 50 million!!
- Lack of IP can cost you a fortune- Xerox lost over half a billion
  - In 1979, Xerox decided not to patent its invention on GUI
  - GUI formed the basis of Apple's Macintosh and Microsoft's Windows PC operating systems
  - At a conservative royalty rate of 1% of sales, Xerox lost US$500 million during the lifetime of the patent

Nanotechnology and Patents

- US Patent 4343993 on STM by Gerd Binnig and Heinrich Rohrer of IBM
- Nanoimprint lithography (NIL) invented by Prof Stephen Chou (US 5772905) gave rise to nanofabrication
- Carbon nanotubes at NEC by Sumio Iijima (US 5747161) and at IBM by Bethune et al., (US 5424054)
- Quantum dot technology by Paul Alivisatos, at Berkeley (US 5505928) and Moungi Bawendi (US 6322901) at MIT

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Document, document, document

- Regularly maintain well-documented and dated laboratory records during the research process
  - Should be written in ink, in numbered pages bound notebook
  - Avoid using miscellaneous scraps of paper
  - Get it witnessed and signed by a colleague not involved in the discovery
  - Document the detailed information including the date to date detail, right from conceptualization of a new idea, experiments and the results

Avoid Premature Disclosure

- Avoid any form of disclosure which could compromise the patentability of the invention
- Not possible to patent in UK or Europe after the invention is offered for sale or publicly displayed
- One year grace period in US- not possible to file for a patent one year after the offer for sale or public disclosure

Perform background work

- Identify and assess the commercial potential of the research being undertaken as early as possible

- Check for IP Contractual agreements existing between employer and employee with regard to ownership of invention, sharing of benefits, and keeping confidentiality of the know-how and other scientific and technical information

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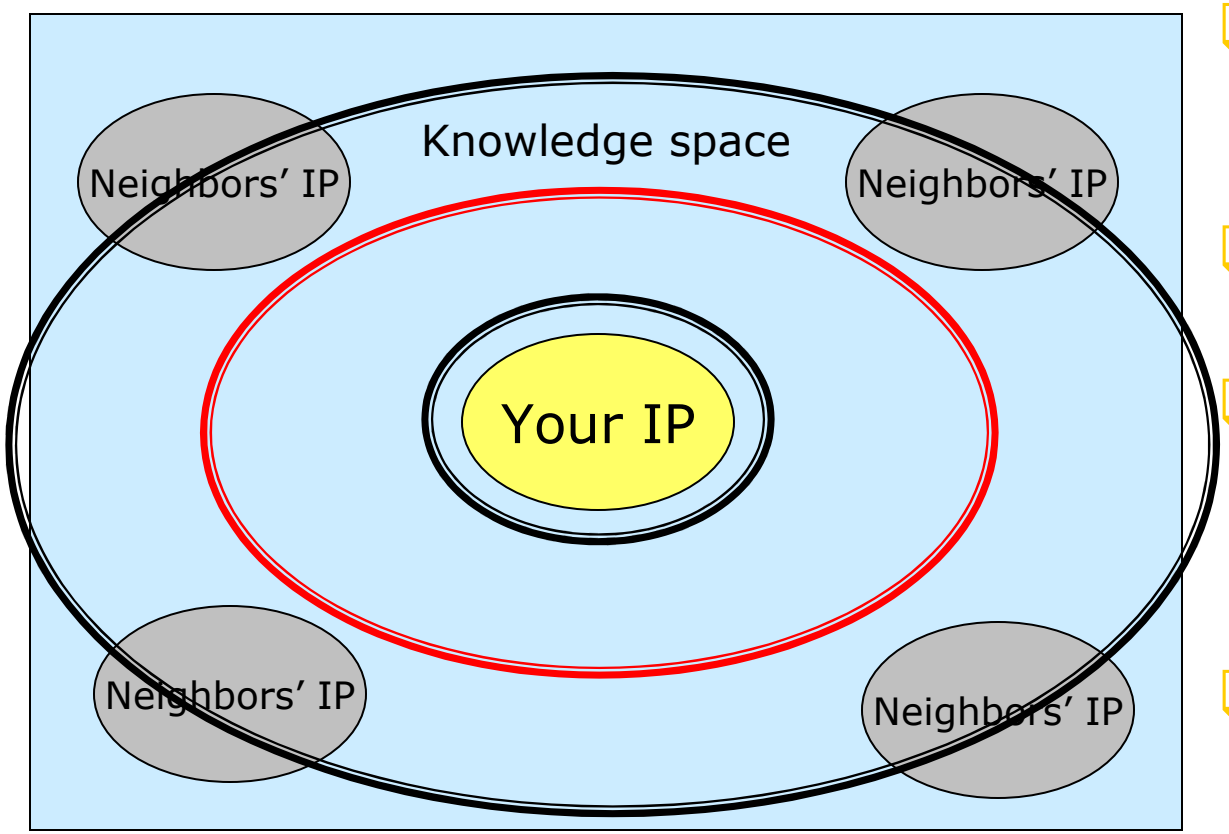
Parts of a patent application

- Background
- Drawings
- Detailed Description
- Claims
- Summary
- Abstract

What are Claims

- Claims provide the precise legal definition of the invention
- Define the boundary of the protected space claimed by the invention
- The grant or rejection of a patent depends largely on the claims of the patent

How should Claims be drafted



- Identify the technological landscape
- Perform a prior art search
- Analyze the prior art to identify 'free space'
- Draft claims so as to cover maximum free space

Drafting Strategies

- Prior Art:
  - Disclose the relevant preexisting technology
  - Make sure to look for prior art in different industries
  - Do not disparage any prior art in the application
- Detailed Specification:
  - Disclose as much as possible for enablement
  - Always Disclose the Best Mode of the invention
- Claims:
  - Always include claims of varying scope
  - Make sure to capture interdisciplinary scope
  - Seek professional help

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Filing Strategies

- Assess the commercial potential of the research and perform a cost benefit analysis
- Define filing geographies early on
- Understand the objective behind filing and decide on the filing strategy based on the objective

Provisional Patent Application (PPA)

- To establish an early filing date for the invention that may later be claimed as a "priority" date in a later-filed regular or foreign patent application
- No formal requirements for the written description or sketches and no examination
- Useful for highly competitive technology fields and for meeting bar date requirements

Regular Patent Application (RPA)

- May take 1-2 months for drafting and filing of a regular patent application
- Allows the inventor to mark the invention "Patent Pending"

Foreign Application

- To gain patent protection in a geography of interest
- Multiple separate applications or PCT application
- Useful for innovations that are commecially very attractive and should therefore be exploited globally

Defensive Publication– Alternative to Patents

- IP strategy to prevent a competitor from obtaining a patent on a patentable product or method
- Disclose an enabling description and drawings of the product so it enters public domain and becomes prior art
- Useful for innovations that do not warrant the high costs incurred in patent applications but to which scientists do want to retain access

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