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INTELLECTUAL PROPERTY LAW

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Software Patent Eligibility - A Post-*Alice* Landscape Discussion

November 10, 2015

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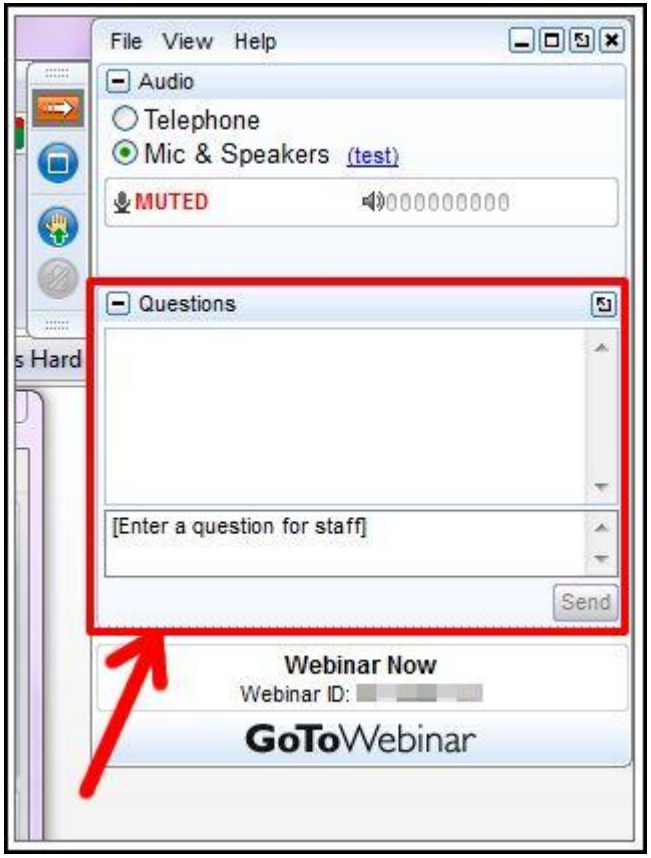

Panelists

Bill Bunker

- BS Aerospace Engineering

Russell Jeide

- BS Electrical Engineering

Ron Schoenbaum

- MS Electrical Engineering

Amy Chun

- MS Computer Science

Section 101 – The Ban On "Abstract Ideas"

- Why are people talking about Section 101/Alice?
  - Under Section 101, only "eligible subject matter" can be patented
    - "Abstract ideas" are not eligible
  - Courts + Patent Office are treating many software and technology patents as "abstract ideas" because they describe "well known" processes performed by a computer
    - Citing the Supreme Court 2014 "Alice" Case
- Overall Affect
  - Software/tech patents are vulnerable to validity attacks under Section 101
  - Obtaining new patents from the Patent Office is more difficult

Section 101 = The End of Software Patents? NO

- Many software/tech patents are not as strong as they were before
- But, software/tech patents still have value
  1. There is still significant value, e.g., for a defensive portfolio
     - Competitor portfolios are weaker, but exist and are growing
     - Portfolios can be used in a counterclaim in litigation against a competitor or leverage during negotiations
  2. Section 101 rules will likely change in the next few years
     - Many believe that Section 101 has gone too far
     - Large companies are pushing to fix the Section 101 rules
- Companies can still get new software/tech patents allowed, even under the current rules

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Ron Schoenbaum

WHAT TYPES OF SOFTWARE INVENTIONS SATISFY 35 U.S.C. § 101 AFTER ALICE?

Overview

- Factors weighing in favor of and against 101 compliance
- Tips for drafting applications to avoid 101 issues

Factors weighing against 101 compliance

1. Invention involves automation of tasks that can (and typically would) be performed by humans

    e.g., calculating a risk score, generating a user profile, matching job candidates with employers

Factors weighing against 101 compliance

2. The claim involves the processing of payments, financial data, or data representing contractual obligations

Factors weighing against 101 compliance

3. The claim includes business lingo
   - e.g., “advertisement,” “customer,” “product,” “monetary amount,” “purchase,” “payment,” “recommendation,” “obligation,” etc.

Factors weighing against 101 compliance

4. Application is assigned to a 36xx (business methods) art unit at USPTO

How to get a non-business-methods classification

- Keep business terminology to a minimum, especially in title, abstract, and claims
- Describe technical problems, and not business problems, in the "background."
  - **Bad**: Customers of online merchants often have difficulty locating products of interest using the merchant's search engine
  - **Better**: Existing search algorithms often fail to adequately take into consideration the preferences and past behaviors of the searcher

How to get a non-business-methods classification

- Draft application to a target specific (non-business-methods) art unit and classification. Example:
  - Class 706 (art units 2121 & 2129): Artificial Intelligence
  - If invention somehow involves artificial intelligence (e.g., machine learning), use "artificial intelligence" in the title and elsewhere.
- Initially present claims focusing on technical features; wait to add business method claims until after application is assigned to art unit

Factors weighing in favor of 101 compliance

1. Problem solved is technical in nature
   - e.g., network security, data entry validation, reduction in processing time

Factors weighing in favor of 101 compliance

2. Problem solved exists only in a computer or networking environment

    - preventing users from being diverted away from a web page that hosts an ad to the advertiser's site (*DDR Holdings)*

Factors weighing in favor of 101 compliance

3. Claim recites novel user interface elements or machine-human interactions. Examples:
   - Generation of composite landing page in *DDR holdings*
   - GUI for relocating obscured text (Abstract Ideas - Example 23)

Factors weighing in favor of 101 compliance

4. Invention involves processing of data representing something physical (e.g., CT or MRI scan data of a patient, or data collected by sensors)

Factors weighing in favor of 101 compliance

5. The processing is part of a low-level process that would not ordinarily be performed by humans. Examples:
   a. Conversion of gray scale image into halftoned image (Example 3)
   b. Removing malicious code from electronic messages (Example 1)
   c. Determining in real time which incoming packets are likely part of a denial-of-service attack

Factors weighing in favor of 101 compliance

6. Tie to process that occurs outside of a computer
   - E.g., controlling rubber molding process; controlling entry of users into a venue; controlling filling of a syringe

Factors weighing in favor of 101 compliance

7. Software runs on something other than a general purpose computing device (e.g., on a medical electronics device or a gaming machine).

Selecting inventions to pursue

- Use the above factors determine which inventions to pursue
- Also consider whether infringing activities will be detectable

Obtaining disclosures from inventors

- Ask inventors:
  - What technical hurdles they encountered (or may encounter)
  - How those hurdles were, or can be, overcome
- Obtain, and include in specification, details of any:
  - algorithms involved
  - interactions between software components
  - security aspects
- Filing too early can result in insufficient technical disclosure

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Russell Jeide

PROSECUTING SOFTWARE APPLICATIONS

PTO's Reaction to *Alice*

- Preliminary Guidelines and Examiner Training
- Updated Guidelines and Examiner Training
- Some willingness to withdraw *Alice*-based rejections, but a tough fight
  - Difficulty in overcoming § 101 rejections is primarily based on the assigned art unit. E.g., compare percentage of actions that include § 101 rejections:
    - >90% in Electronic Commerce art units (3620,3680,3690), while <20% in Computer Architecture, Networks, & Communications art units (2100,2400,2600)

Art Unit Overview

2110 – Computer Architecture

2140/2170 Graphical User Interface and Document Processing

2150/2160 Data Bases & File Management

2430 - Cryptography, Security

2440 - Computer Networks

2450 - Computer Networks

Art Unit Overview

3610 - Surface Transportation

3620 - Electronic Commerce

3630 - Static Structures…

3640 - Aeronautics, … Nuclear Systems, and License and Review

3650 - Material and Article Handling

3660 - Computerized Vehicle Controls and Navigation, Radio Wave, Optical and Acoustic Wave Communication, Robotics and Nuclear Systems

3670 - Wells, Earth …

3680 - Electronic Commerce

3690 - Electronic Commerce

"Analysis Paralysis" in 3600

Since *Alice*, we have had examiners in 3600 say things such as:

- "Do you really want to talk about 101? There's really nothing that is going to work."
- "I want to allow your application but I have to take it to the 101 panel for approval"
- "My hands are tied"

How to respond to a § 101 rejection

- Know the art unit and Examiner
- Interview the Examiner and his SPE
  - If in one of the Ecommerce art units, request § 101 specialist (or POC) attend the interview
- Propose claim amendments. Mine the spec for subject matter that supports § 101 eligibility
- Almost all allowances in the Ecommerce art units have come by way of claim amendments and at least one interview

How to respond to a § 101 rejection

- Amend claims to make analogous with PTO's examples of eligible subject matter
- Argue that the claim is not directed to an abstract idea
- Argue that the claims are directed to significantly more than the alleged abstract idea

The PTO's "Examples"

- **"Inextricably tied to computer technology"**
  - Multiple examples use this as part of § 101 eligibility rationale
    - » Example 1: Isolating and removing malicious code from electronic messages (hypothetical case)
    - » Example 2: e-commerce outsourcing system/generating a composite web page (*DDR Holdings* case)

"Examples" (cont'd)

- **"Improvement to the computer itself"** or "**Improvement to another technical field"**
  - Example 3: Digital image processing (hypothetical claims based on *Research Corp. Technologies vs. Microsoft*; Federal Circuit opinion from 2010)
    - Mathematical algorithm
    - "blue noise mask"

"Examples" (cont'd)

- **Non-standard computing device in communication with another device**
  - Example 4: Global positioning system (hypothetical claims based on *SiRF Technology vs. ITC* case; Federal Circuit opinion from 2010)
    - A separate device – GPS receiver

July 2015 Updated Guidelines

- [E]ven if an element does not amount to significantly more on its own … it can still amount to significantly more when **considered in combination with the other elements of the claim**.
- A claimed concept should not be identified as an abstract idea "unless it is **similar to at least one concept that the courts have identified** as an abstract idea."

July 2015 "Examples" - Example 23

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec facilisis purus quam, sit amet consequat quam viverra vel. Suspendisse potenti. Sed viverra ac felis

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Example 23 (cont'd)

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Proin maximus risus sed enim aliquam rhoncus. Donec commodo, risus quis laoreet hendrerit, nulla lacus luctus massa, tempus mattis lorem augue et dolor.

Example 23 (cont'd)

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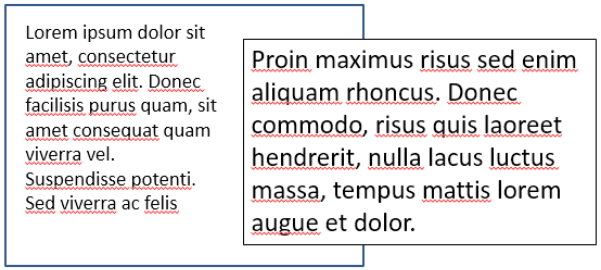
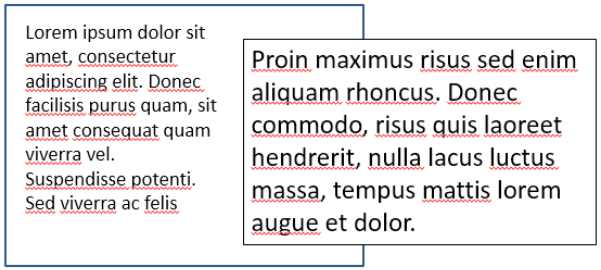
Example 23



- A "scaling factor is ***calculated*** which is proportional to the difference in area between the underlying window and the unobstructed portion of the underlying window."
- The calculations alone are abstract, though.
- Adding "**automatically relocating the scaled textual information … to the unobscured portion of the first window** in a second format during an overlap condition" and other **window display** and **text scaling** limitations make the claim eligible.

Example 23



"[T]hese claim limitations recite **a *specific application*** of the mathematical algorithm that improves the functioning of the basic display function of the computer itself. As discussed above, the scaling and relocating the textual information in overlapping windows ***improves the ability of the computer to display information and interact with the user***."

Example 22 – Not Eligible

- 2. A system of computerized meal planning, comprising:
  - a User Interface;
  - a Database of food objects; and a
  - Meal Builder, which displays on the User Interface meals from the Database and herein a user can change content of said meals and view the resulting meals' impact on customized eating goals.

Example 22 – Not Eligible

- "The interface is also recited at **a high level of generality** with the only required function of displaying, which is a well-known routine function of interfaces."
- Provides an example that can be contrasted with Example 23.

The Significantly More Categories

- Improvements to another technology or technical field;
- Improvements to the functioning of the computer itself;
- Applying the [AI] with, or by use of, a particular machine;
- Transforming particular article to a different state or thing;
- Adding a specific limitation other than what is well-understood, routine and conventional in the field, or
- adding unconventional steps that confine the claim to a particular useful application; or
- Other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment.

Software Patents will survive!

- While we are seeing some patent applications being abandoned by our clients (and our client's competitors!), we are still obtaining many software patent grants.
- For valuable applications that have only 101 rejections remaining, consider appealing the rejection to put the application on hold for a few years while the case law develops.

Software Patents will survive!

- Comments seeking clarification and broader software protection have been submitted to the PTO
  - IBM: "we continue to receive eligibility rejections *void of any clearly articulated reasoning* explaining specifically why the claim or claims are unpatentable. Instead, we receive overbroad statements or form paragraphs *devoid of any findings of fact or specific analysis* of the subject application and claims."
- Subsequent Federal Circuit and/or Supreme Court decisions may clarify

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Amy Chun

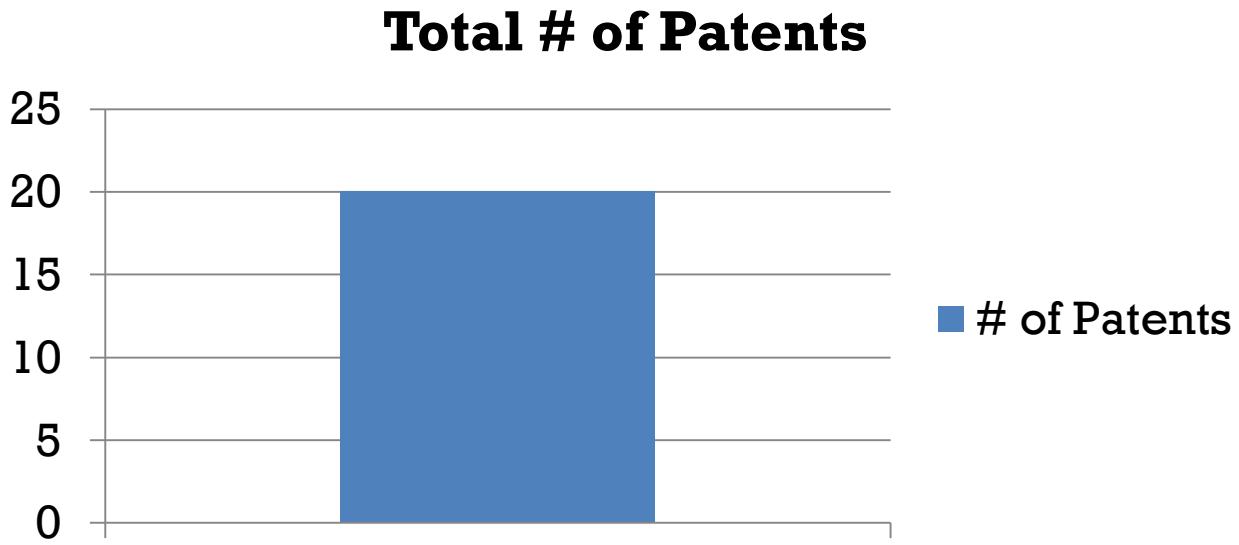
MANAGING YOUR PATENT PORTFOLIO

Managing Portfolios

- Patents are business tools that a company should use to further its strategic vision
- These "business tools" may have value for different reasons
  - Promote marketing
  - Attract capital/meet a VC requirement
  - Prompt voluntary design-arounds by competitors
  - Provide leverage during negotiation/counterclaims
  - Enforce to stop competition
- Key Question: How does the company plan to use its patents?
  - Value may differ based on the patent
- Business strategy is essential!

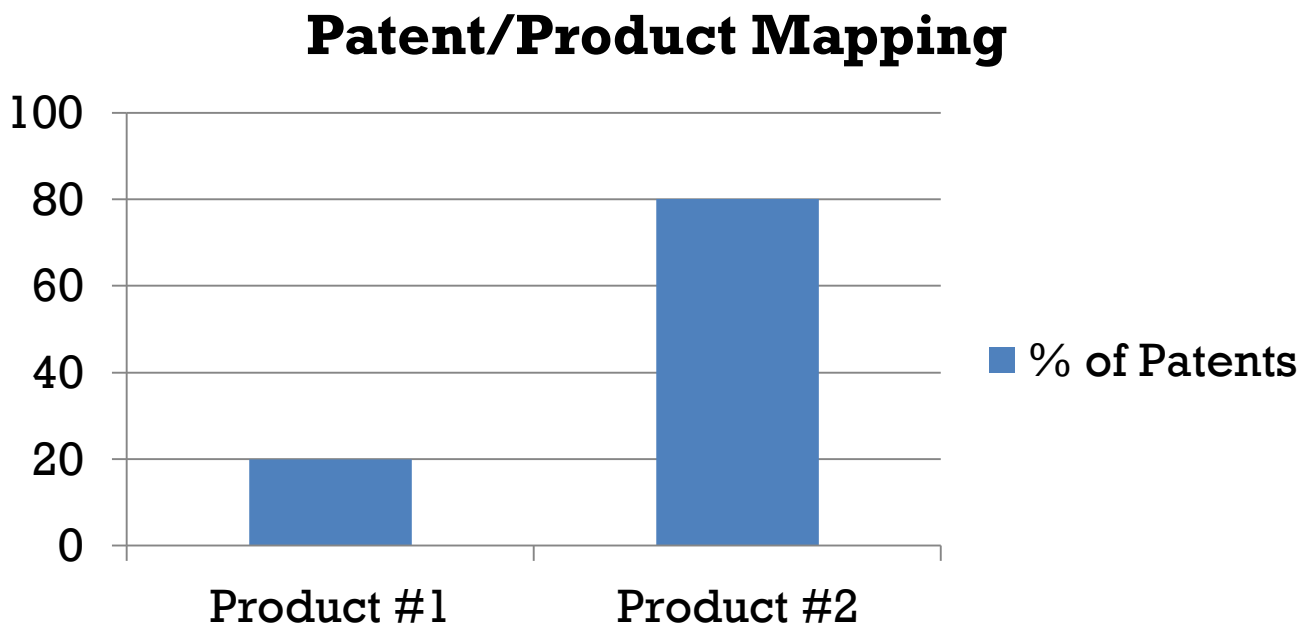
Managing Portfolios – Business Strategy Focus

- Company A has a portfolio of 20 issued patents
  - Where should the money for patent investments be spent?
  - Should not be decided in a vacuum



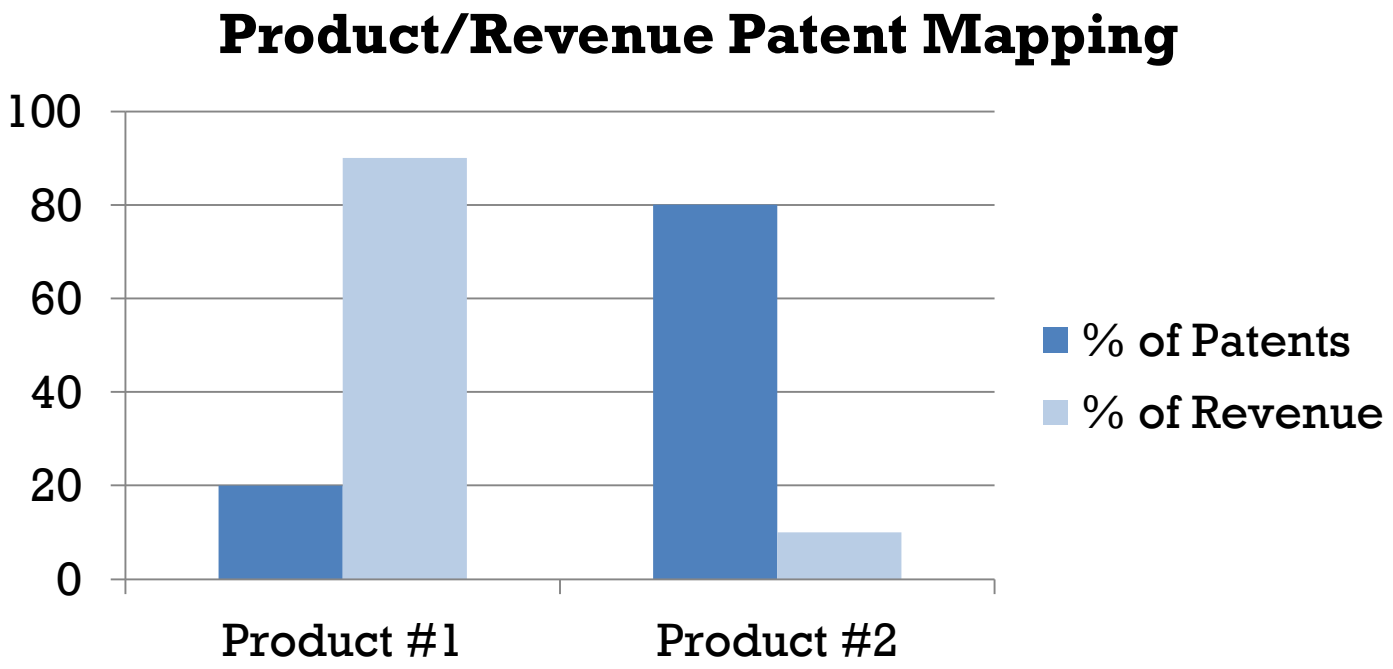
Managing Portfolios – Business Strategy Focus

- Requires an understanding of the company's products/services



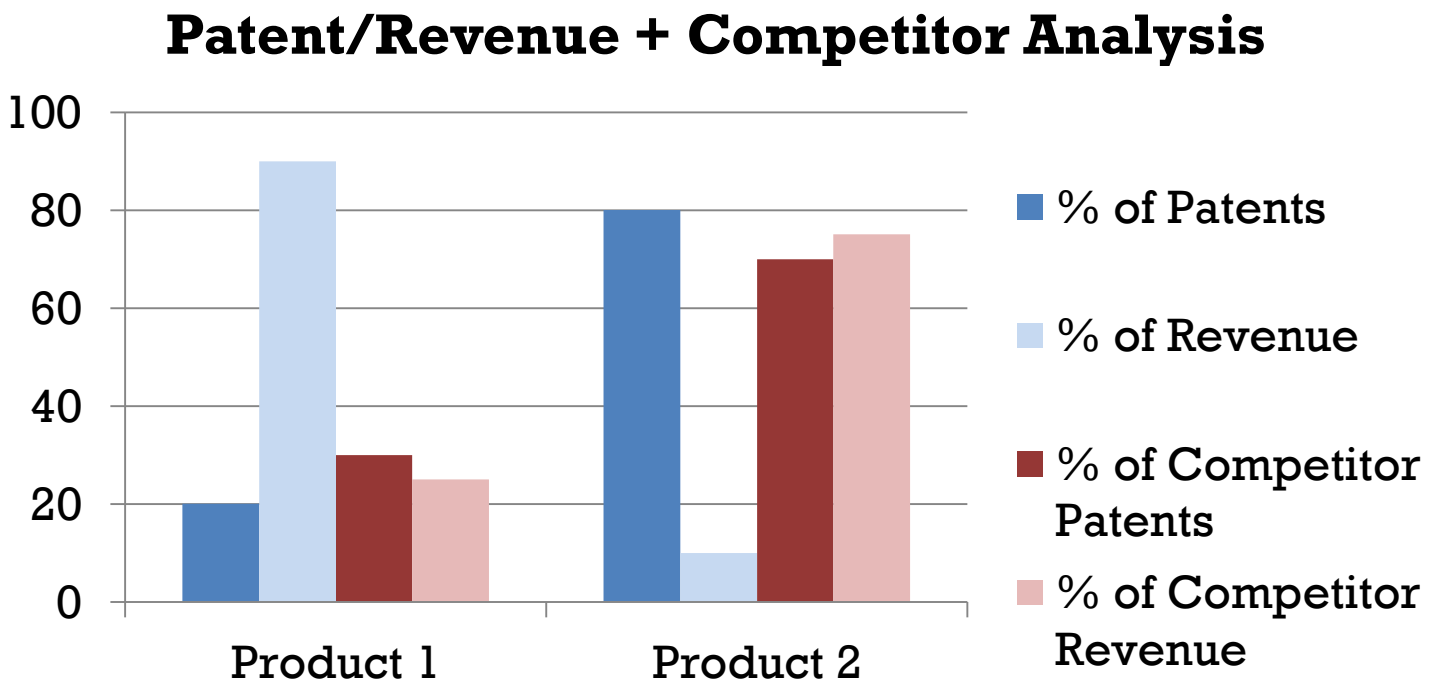
Managing Portfolios – Business Strategy Focus

- Requires an understanding of the company's revenue drivers



Managing Portfolios - Business Strategy Focus

- Requires an understanding of the competitive landscape

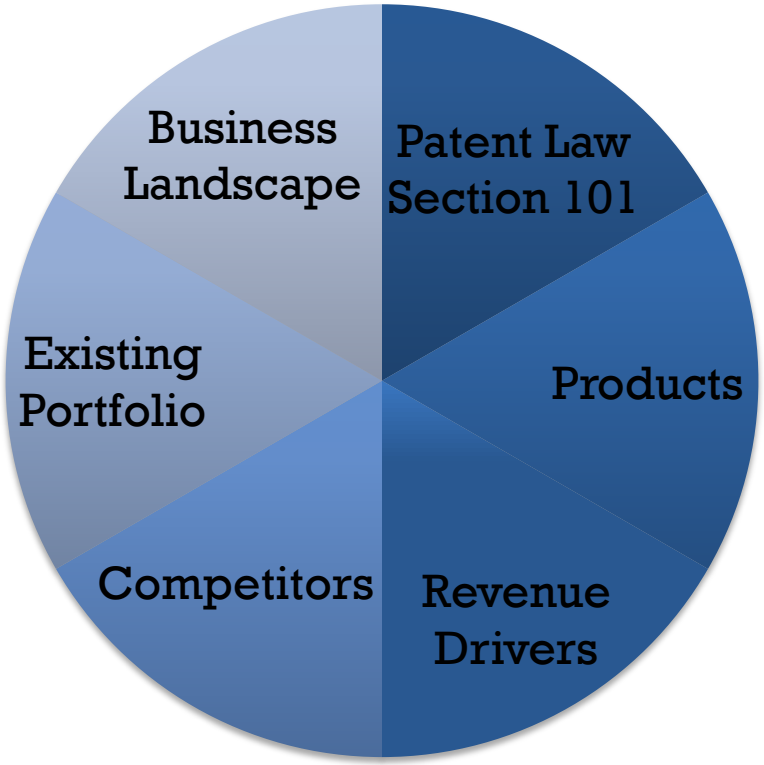


Managing Portfolios – Business Landscape

- Requires an understanding of the business landscape
  - Competitor has been touting several patents that cover its competing product
  - VC is interested in investing, but wants confirmation that Company has preserved its patent rights
  - Company is adding a new feature and a patent minefield to discourage Competitor from adding that feature, at least for a ramp up period
  - Company is renegotiating a patent license and want to reduce its licensing fees
  - Company wants to sue and get an injunction to stop Competitor from selling a competing product

Managing Portfolios – Strategic Considerations

Software/Tech Patent Portfolio Strategy



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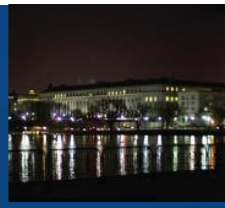
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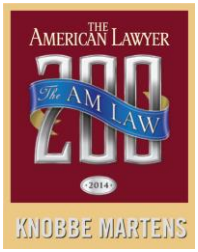
- Copyrights
- Trademarks
  - Domain Name/Website Disputes
  - Trademark Application Prosecution
  - TTAB Proceedings

National Recognition

Patent Prosecution Rankings



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Diversity

Diversity Achievements

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Source: 2014 "Diversity Scorecard" by *The American Lawyer*

Ranked Top 10 in "100 Best Law Firms for Minority Attorneys" and Top 20 in "50 Best Law Firms for Minority Partners"

Source: 2015 "Minority Report" by *Law360*

"Our diversity inspires intellectual creativity."
Steven J. Nataupsky, Managing Partner

William B. Bunker

William B. Bunker is a partner in our Orange County office. He focuses on developing and executing worldwide patent and trademark protection strategies for a wide diversity of clients – from startups to multi-national corporations. He has extensive experience in the many fields of medical devices, as well as computer implemented and internet based inventions such as financial services and various forms of business methods.

Mr. Bunker frequently advises clients on clearance matters (so called "freedom to operate" or "right to practice" analyses) as well as responding to and conducting due diligence in investment and acquisition contexts. Licensing and all forms of business transactions involving IP is a substantial portion of Mr. Bunker's practice.

Mr. Bunker has been a contributing author on intellectual property law for the Los Angeles Daily Journal, including such topics as the GATT amendments to U.S. intellectual property laws, European Community Trade Mark system, color trademarks, doctrine of equivalents, and declaratory judgment practice. Mr. Bunker has served as a legal expert witness in various intellectual property matters.

Mr. Bunker joined the firm in 1978 and became partner in 1980.

Ron Schoenbaum

Ron Schoenbaum is a partner in our Orange County and Silicon Valley offices. He focuses on patent protection for companies in the information technology and medical device areas.

Mr. Schoenbaum's practice includes strategic patent procurement, general counseling on infringement and licensing issues, and intellectual property due diligence studies and related negotiations for mergers and acquisitions. He also frequently conducts in-house seminars to assist clients in identifying and prioritizing patentable inventions.

Mr. Schoenbaum represents a variety of information technology companies in such areas as data caching and streaming, search engines, web analytics, application performance testing and monitoring, medical telemetry, social networks, web site personalization, computer and processor architectures, and digital signal processing. Mr. Schoenbaum also has extensive experience in the areas of cardiac pacing and defibrillation, and medical devices and procedures involving the vascular system.

Mr. Schoenbaum joined the firm in 1993 and became a partner in 1998.

Russell Jeide

Russell Jeide is a partner in our Orange County office. He focuses on several areas of intellectual property law, including patent prosecution, due diligence, legal opinion work, and licensing.

Mr. Jeide has prosecuted patent applications in a variety of technologies including computer software, Internet business methods, data processing, telecommunication systems, computer architecture, and network monitoring and security systems.

Mr. Jeide works closely with Patent Office examiners via frequent trips to the Patent Office in order to secure the most cost effective and valuable patent protection available for his clients. In addition to being skilled in the intricacies of patent prosecution for utility patents, Mr. Jeide has counseled clients regarding, and prosecuted, design patents and trademarks for software clients.

Mr. Jeide works closely with several Southern California business incubators and investment groups, and enjoys counseling entrepreneurs and start-up companies regarding how to cost-effectively develop an intellectual property portfolio.

Amy Chun

Amy is a partner at our Irvine office, where she joined in 1999. In 2002, she left the firm to clerk for the Hon. Mariana J. Pfaelzer, Senior Judge of the U.S. District Court, Central District of California, but then returned to the firm in 2003 and became a partner in 2005.

She represents clients in a variety of intellectual property matters, including patent, trade secret, and copyright disputes, intellectual property license negotiations, due diligence investigations, patent prosecution and strategy, competitor portfolio/product analyses, and open source policy assessment. She has done work in areas such as distributed computing systems, e-commerce, consumer electronics, big data, social media, financial services, and mobile computing.

Education:

- Pepperdine University (B.S. Mathematics & Computer Science 1993), *cum laude*
- Michigan State University (M.S. Computer Science 1995)
- The George Washington University Law School (J.D. 1999), Order of the Coif, Law Review Notes Editor

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