Markets for Patents:
Toward a Research Agenda

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The Late-1800s Challenge

- Railroad cos. had few patents (territorial monopolies + mechanical expertise)
- Proliferation of outside patents
  - Pro-patent shift in judicial rulings
  - Advent of electricity
    - enabled “tinkerers” to devise novelties with a “modicum” of investment
- “Expanded minefield of potential lawsuits and financial liabilities”
The Response?

Stage 1: Denial
The Response?

Stage 1: Denial

Stage 2: Delay
The Response?

Stage 1: Denial

Stage 2: Delay

Stage 3: Join Forces!
Western Railroad Association

- Formed in 1876 as a “patent defense” organization for major railroads

- **Structure:**
  - Railroad lines pay annual $ as % earnings
  - In return, the WRA provides
    - Legal services on patent cases
    - Analysis of all inventions

- Designed to undercut “divide and conquer” strategy of patentee litigants
Parallels in Modern IT Sector?

➢ The Challenge:
  - Pro-patent era (1983-2005)
  - Proliferation of external invention
    - Increased value of exclusionary right
    - Emergence of “technology specialists”
    - Decreased cost of invention??

➢ One Response:
  - “Patent Portfolio” races (Hall and Ziedonis, 2001; Hall, 2005)
Did “portfolio racing” reduce baseline litigation risk?

(unexplained by portfolio size & R&D spending)

Source: Figure 4 from Hall and Ziedonis (2007) working paper
Unresolved Issues

➢ How should firms most effectively respond patent hold-up problems?
   • What are the limits to unilateral “portfolio racing”?
   • Are patent defense funds a “solution” or a cheaper option with new problems?
   • Why has a WRA-type organization failed to emerge?

➢ How should the rights of patent owners be balanced with those of users?
Other Questions to Answer

- Who captures the lion’s share of value created from trade in patent markets?
- What are the implications of greater “liquidity” in patent markets on...
  - The nature of hold-ups & organizational attempts to resolve them?
  - The cost and structure of entrepreneurial financing?
  - The organization of R&D?
  - Innovation incentives?