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# Good and Bad Licensing

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# The Model and the Results (1)

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- This paper analyzes the role of innovations' specialists on the market for patents.
- There are two types of firms:
  - Established manufacturers with scarce R&D opportunities who practice their innovations.
  - Emerging IP business players, non practicing entities (NPE).
- Each NPE has a patent and seek to license it (ex ante or ex post).
  - When NPE and manufacturer meet, the manufacturer propose to buy the license (the fee makes the NPE indifferent between selling the license and going to Court)
  - There is a random search process (Pissarides, 2000) where parties meet according to a matching function which only depends on the tightness of the market for licensing.
- NPE can go to Courts in order to protect IP.
  - Courts will find the NPE's patent valid with some probability.
  - If the NPE wins the case, she gets some damages
  - All cases settle out-of-court.

# The Model and the Results (2)

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- The authors compute the valuation of litigation, the prices of licenses and the value of innovations using dynamic optimization and Bellman equations.
- They then analyze the steady state equilibria of the model.
  - The equilibrium license fee, proportion of manufacturers buying an ex ante or an ex post license, and the optimal R&D intensity are determined.
- In a previous draft with a modified version of the model, the authors got equilibrium results and comparative statics about:
  - NPE entry.
  - The different kinds of licensing agreements arising in equilibrium and the corresponding licensing fees .
  - R&D intensity.
  - Patenting activity of the manufacturers when they innovate and of the industry (depending on the entry of NPEs).

# Questions and Suggestions (1)

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- Court Process

- How are informed the parties and the Courts about the similitude between the NPE's patent and the manufacturer's product?
- If parties are perfectly informed and Courts make no judgment errors, there is no rationale for uncertainty in the litigation process ( $\alpha$ ).
- In a slightly modified version of your model, you may allow the NPEs to use the Court process in a strategic way. If there is asymmetric information between the parties and imperfect courts, the threat of litigation may induce manufacturers to buy ex-post licenses more frequently.

- Even if going to court is costly, why non liable parties accept to settle?

- Usually, in the Law and Economics literature, liable defendants accept to settle and non liable defendants go to Courts.

# Questions and Suggestions (2)

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- Due to the title of the paper, I was expecting results about “strategic patenting” from the NPEs.
  - Innovators may choose to patent their innovation either in order to produce, or in order to license but also in a defensive way, i.e. in order to block competitors.
  - This may raise the costs of innovations.
- What would be the changes in your results if you remove the assumption that NPEs only seek Exclusive Licensing deals?
  - Possibility to form a cartel to reduce the licenses’ fees.
  - Rey and Salant (2008) show that the unique owner of a single essential technology may want to issue too many licenses.
- I don’t understand if you assume that damages,  $d$ , are lower than the flow revenue for the innovation,  $y$ , (and therefore make treble damages impossible) or if there is no equilibrium with  $d > y$ ?

# Questions and Suggestions (3)

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- What are the predictions of your model concerning the effects of the number of patents on competition and entry in the market?
  - Cockburn and McGarvie (2009) estimate that a 10% increase in the number of patents in the software industry is associated with a reduction in entry of 7%.
- Schmalensee (2009) shows that Competition Policy should not favor patent-holders who practice their patents against innovation specialists who do not. How is this related with your results?
- Bessen and Hunt (2004) find that patents and R&D are substitutes in the software industry. An increase in the patents propensity is thus associated with lower R&D intensity while you show the opposite. You should justify this.