

Economics of Innovation and Intellectual Property

Doh-Shin Jeon

dohshin.jeon@gmail.com

MF410 (office)

Objectives:

We introduce the students to a selection of important current issues in the economics of intellectual property (IP). After the introduction to the messy current situation of the IP world and firms' IP strategies, we review important economic contribution to topics such as licensing, litigation and injunction, settlement, weak patents, patent pool, patent trolls (or NPEs), cross-licensing, standard setting organizations etc.

Background knowledge:

Students need to have basic knowledge of industrial organization theory; the TSE M1 IO level is fine. This implies that you also need to know basic game theory.

General reading:

- Suzanne Scotchmer, *Innovation and Incentives*, 2004, MIT Press
- Bessen, J., and Meurer, M., 2008. *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk*. Princeton, NJ: Princeton University Press.
- Jaffe, A. B. and J. Lerner, 2004, *Innovation and Its Discontents: How Our Broken Patent System is Endangering Innovation and Progress, and What to Do About It.*, Princeton, N.J.: Princeton University Press.

Grading: Grading will be based on the final exam (70%) and group presentations and participation in the class (30%).

Laptop and Tablet: You should not use them.

Plan

Session 1: Introduction

The major part is based on the slides made by Margaret Kyle on "IP Business Strategy", which will be complemented by the following papers.

- Andrei Hagiu (2011) "Intellectual Property Intermediaries", Harvard Business School, Case study
- Andrei Hagiu, David Yoffie and Alison Berkley Wagonfeld (2011) "Intellectual Ventures" Harvard Business School, Case study
- Michael A. Heller and Rebecca S. Eisenberg (1998) "Can Patents Deter Innovation? The Anticommons in Biomedical Research" Science 280: 698-701

Session 2: Antitrust limits to settlement

- Carl Shapiro (2003) "Antitrust Limits to Patent Settlements" The RAND Journal of Economics Vol. 34, No. 2, pp. 391-411

Session 3: Injunction and weak patents

- Carl Shapiro. (2010). "Injunctions, Hold-Up, and Patent Royalties." American Law and Economics Review. 12:509-557
- Farrell and Shapiro, (2008). "How strong are weak patents?", American Economic Review, 98:1347-69

Session 4: Patent Pool

- Lerner, J., and J. Tirole. 2004. "Efficient Patent Pools." American Economic Review, 94(3): 691-711.
- Choi, Jay Pil and Heiko Gerlach (2015). "Patent Pools, Litigation and Innovation." The RAND Journal of Economics, 46(3): 499-523
- Markus Reisinger and Emanuele Tarantino (2016), "Patent Pools in Input markets" Mimeo

Session 5: NPE or Patent Trolls

- Lemus, Jorge and Temnyalov, Emil, (2017) "Patent Privateering, Litigation and R&D Incentives," The RAND Journal of Economics 48(4)
- Choi, Jay Pil and Heiko Gerlach (2016). "A Model of Patent Trolls." Mimeo

Session 6: Cross-licensing

- Jeon, Doh-Shin and Yassine Lefouili (2018) "Cross-Licensing and competition", Forthcoming, The RAND Journal of Economics

Session 7: Standard setting organization

- Gilbert, R. J., & Newbery, D. M. (1982). Preemptive patenting and the persistence of monopoly. The American Economic Review, 514-526.
- Vickers, John. "The evolution of market structure when there is a sequence of innovations." The Journal of Industrial Economics (1986): 1-12 on increasing dominance.
- Riordan, Michael H., and David J. Salant. "Preemptive adoptions of an emerging technology." The journal of industrial economics (1994): 247-261
- Llanes, Gaston and Joaquin Pobleto (2015), "Technology Choice and Coalition Formation in Standards Wars." mimeo

Session 8: Tying and dynamic leverage

- Choi, Jay Pil (1996) "Preemptive R&D, Rent Dissipation and the Leverage Theory", Quarterly Journal of Economics, 1153-1181

Session 9: other topics

* Sequential Innovations

- Jerry Green and Suzanne Scotchmer (1995) "On the Division of Profit in Sequential Innovation." RAND Journal of Economics, Vol. 26: 20-33
- James Bessen and Eric Maskin (2009) "Sequential Innovation, patents and imitation" RAND Journal of Economics, Vol. 40: 611-635
- * Internet platforms in China (Alibaba, Tencent) and their innovations

Session 10: Student presentations