

Economics of Innovation and Intellectual Property

Course title – Intitulé du cours	Economics of Innovation and Intellectual Property
Level / Semester – Niveau /semestre	M2/S1
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Doh-Shin Jeon
Other teacher(s) – Autre(s) enseignant(s)	Heike Blum (Airbus)
Other teacher(s) – Autre(s) enseignant(s)	
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Lecture Hours – Volume Horaire CM	30
TA Hours – Volume horaire TD	
TP Hours – Volume horaire TP	
Course Language – Langue du cours	English
TA and/or TP Language – Langue des TD et/ou TP	

Teaching staff contacts – Coordonnées de l'équipe pédagogique :

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Course Objectives – Objectifs du cours :

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), etc.

The digital technology, big data and AI have created a platform economy, which has been transforming the economy and the society. In particular, generative AIs such as ChatGPT generated huge interests but opportunities from the technology come with risks, which pushed major countries (such as EU, UK and China) to regulate AIs. We will try to understand innovation in platform ecosystems and regulation of AI.

The last session will be taught by Heike BLUM (an IP lawyer from Airbus), who will teach about trademarks and copyrights from practical point of view.

Prerequisites – Pré requis :

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.

Practical information about the sessions – Modalités pratiques de gestion du cours :

Laptop and Tablet: The use of smartphones is strictly prohibited. You can use laptops and tablets only for typing.

Grading system – Modalités d'évaluation :

Grading will be based on the final exam (60%) and group presentations and participation in the class (40%). I will propose papers for presentations.

Bibliography/references – Bibliographie/références :

- 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.

Session planning – Planification des séances :

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
- Joseph Farrell and Nancy Gallini, (1988), "Second Sourcing as a Commitment: Monopoly incentives to attract competition" Quarterly Journal of Economics, 103 (4): 673-694
- Michael Katz and Carl Shapiro, (1985) "On the licensing innovations," the RAND Journal of Economics, 16(4): 504-520

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 (Patent Trolls)

- Lemus, Jorge and Temnyalov, Emil, (2017) "Patent Privateering, Litigation and R&D Incentives," *The RAND Journal of Economics* 48(4)
- Gilbert, R. J., & Newbery, D. M. (1982). "Preemptive patenting and the persistence of monopoly", *The American Economic Review*, 514-526
- Gerard Llobet and Jorge Padilla, (2016). "The Optimal Scope of the Royalty Base in Patent Licensing," *Journal of Law and Economics*, 59 (1), pp. 45-73.

Session 6: Platforms and innovations

- Jay-Pil Choi and Doh-Shin Jeon, (2022), "Platform design biases in ad-funded two-sided markets" forthcoming, *RAND Journal of Economics*
- Doh-Shin Jeon and Patrick Rey, (2022). "Platform Competition and App Development"

Session 7: AI regulation

- Rishi Bommasani et als. (2022), "On the opportunities and risks of foundational models", Center for Research on Foundational Models, Stanford Institute for Human-Centered AI, Stanford University
- A pro-innovation approach to AI regulation, UK, Secretary of State for Science, Innovation and Technology
- EU AI Act,
<https://www.europarl.europa.eu/news/en/headlines/society/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence>

Session 8 & 9: Student presentations on selected topics

- The topics can be about platform liability, platform M&A, autonomous vehicles, licensing in supply chain etc.

Session 10: Special lecture of Heike BLUM (Airbus lawyer): trademarks and copyrights

Distance learning – Enseignement à distance :

- Interactive virtual classrooms / Classe en ligne interactive
- MCQ tests and other online exercises and assignments