Econ 8747: Industrial Organization Theory

Fall 2022

Professor Yongmin Chen
Office: Econ 108
Class Time: TTH: 2:00-3:15 PM
Office Hours: Wednesday: 11:15-3:15 PM.

Recommended books: (1) *The Theory of Industrial Organization* by Jean Tirole (1988), MIT Press, (2) *Industrial Organization: Contemporary Theory and Practice* by Pepall, Richards, and Norman, and (3) *Handbook of Industrial Organization, Vol. 3* (*HIO 3*, 2007, Mark Armstrong and Robert Porter edits). *HIO 3* surveys the major developments in IO after Tirole's book and can be downloaded electronically through CU library. Tirole (1988) remains as the classic graduate IO textbook. You are encouraged to read the entire book and work out theinap1.49 Tdinshould c ontain a title, ab
double spaced.

A tentative course schedule is as follows. There
semester, which will be announced in class. Yo
according to announcements made in class. The
should also read additional assigned articles (at l
like to explore more. You will be asked to write

review/discussion is about 2 pages long, double spaced; but occasionally you may do a longer review). When you review a paper, you may provide a summary, discuss the research question(s),

Carl Shapiro (2021), "Vertical Mergers and Input Foreclosure Lessons from the *AT&T/Time Warner* Case", *Review of Industrial Organization*.

*"Horizontal Merger Guidelines", FTC and DOJ, 2010.
https://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf

Assignment 6 (due 10/11): Reviews: Salop and Scheffman (1983); Moresi and Salop (2021).

Student Presentation 2 (10/11): "Horizontal Merger Guidelines" by FTC and DOJ, 2010; Moresi and Salop (2021).

5. Dynamic Competition

10/13, 10/18, 10/20, 10/25

Strategic Behavior: Ideas and Applications
Dynamic Price Competition
Repeated Interactions and Collusion

*Fudenberg, D and J. Tirole, “Consumer Poaching and Brand Switching,” RAND (2001), 634-657

Assignment 7 (due 10/20): Exercise 6.1-6.10 in Tirole.

Assignment 8 (due 10/27): Reviews: Taylor (2003), and Bernheim and Madsen (2017).

Student Presentation 3 (10/27): Taylor (2003); Bernheim and Madsen (2017)

Planning for Term Paper

6. Privacy, Data, and Information Security

10/28, 11/1, 11/3

Readings:

*Acemoglu, D., Makhdoumi, A., Malekian, A.&Ozdaglar, A. (2019), ‘Too much data: Prices and inefficiencies in data markets’, NBER Working Paper No. 26296.

Daron Acemoglu, Azarakhsh Malekian, Asu Ozdaglar, “Network security and contagion”, JET, 2016.

*Bergemann, D., Bonatti, A. & Gan, T. (2019), ‘The economics of social data’, Cowles Foundation Discussion Paper.

Shota Ichihashi, “Online Privacy and Information Disclosure by Consumers”, AER, 2020.

Richard Posner, “The Economics of Privacy”, AER, 1981.

Alessandro Acquisti, Curt Taylor and Liad Wagman, “The Economics of Privacy,” Journal of Economic Literature, June 2016.

*Curt Taylor, “Consumer Privacy and the Market for Customer Information”, RAND, 2004.

Athey, S. and J. Gans (2010). The impact of targeting advertising technology on advertising markets and media competition. AER, 100 (2), 608–613.

Anderson, R. and T. Moore (2006). The economics of information security. Science 314 (5799), 610–613.

Goldfarb, A. and C. Tucker (2011). Privacy regulation and online advertising. Management Science 57 (1), 57–71.

Haan, M. A. and Moraga-González, J. L. (2011). "Advertising for Attention in a Consumer Search Model." Economic Journal, Vol. 121, pp. 552--579.

Sanjeev Goyal and Adrien Vigier, “Attack, Defence, and Contagion in Networks”, REStud., 2014.
Chen, Y. “Marketing Innovation”, JEMS, 2006.
Chen, Y., X. Hua, and K. Maskus, “International Protection of Consumer Data”. Journal of International Ecoomics, 2021.

Assignment 9 (due 11/1): Reviews: Bergemann et al. (2019); Taylor (2004); Ichihashi (2020).

Student Presentations 4 (11/4): Two of the three papers abo

Justin Johnson, “The Agency Model and MFN”, Review of Economic Studies, 2017
Hagiu, A., and B. Jullien, "Search Diversion and Platform Competition," IJIO, 2014.
Armstrong, M, Vickers, J, and Zhou, J., “Prominence and Consumer Search”, RAND, 2009.

Assignment 10 (due 11/10): Reviews: de Cornière and Taylor (2013); Johnson (2017); Rhodes et al. (2021).

Presentations 5 (11/10): two of the three papers above.

Working on the Term Paper

8. Innovation and Intellectual Property Rights

11/15, 11/27, 11/29, 12/1, 12/6

A. Overview

Basic Questions for the Economic Analysis of Innovation
Some Statistics about Innovation Inputs and Outputs
Analytical Framework

B. Market Structure and Innovation Incentive

The Schumpeterian View (1942)
Arrow’s Analysis (1962): Process Innovation
Preempting Monopoly: Gilbert and Newbery (1982)
Product Innovation: When is Arrow’s Ranking Reversed?
Vertical Organization and Innovation Incentive
Exclusive Contracts and Innovation

C. Intellectual Property Rights (IPRs) and Innovation

The Fundamental Trade-off: Static v

Antitrust and Innovation

Patent Damages/Remedies

IPRs and Continual Innovation

IPRs and Innovation in Developing Countries

Readings:

U.S. National Science Board. "Science and Engineering Indicators 2014". http://www.nsf.gov/statistics/seind14/

Arrow, K. (1962). "Economic Welfare and the Allocation of Resources for Innovations," R. Nelson ed. The Rate and Direction of Inventive Activity, Princeton University Press.

Chen, Y and T. Puttitanun (2005). "Intellectual Property Rights and Innovation in Developing Countries", Journal of Development Economics, 78: 474-493.

*Gilbert, R. and Newbery, D. (1982). "Preemptive Patenting and the Persistence of Monopoly," American Economic Review, 72: 514-526.

Chen, Y and M. Schwartz (2013). "Product Innovation Incentives: Monopoly vs. Competition", Journal of Economics and Management Strategy.

Chen, Y and D. Sappington (2010). "Innovation in Vertically Related Markets", Journal of Industrial Economics.

Chen, Y and D. Sappington (2011). "Exclusive Contracts, Innovation, and Welfare", American Economic Journals: Microeconomics.

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Scotchmer, Suzanne. 2004. *Innovation and Incentives*. Cambridge: MIT Press.

*Segal, I. and M. Whinston. (2007) “Antitrust in Innovative Industries”. American Economic Review.

Shapiro, C. (2016). "Patent Remedies," American Economic Review, 106: 198-202.

University Policies

Classroom Behavior

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the classroom behavior policy, the Student Code of Conduct, and the Office of Institutional Equity and Compliance.

Requirements for COVID-19

As a matter of public health and safety, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements and all public health orders in place to reduce the risk of spreading infectious disease. CU Boulder currently requires COVID-19 vaccination and boosters for all faculty, staff and students. Students, faculty and staff must upload proof of vaccination and boosters or file for an exemption based on medical, ethical or moral grounds through the MyCUHealth portal.

The CU Boulder campus is currently mask-optional. However, if public health conditions change and masks are again required in classrooms, students who fail to adhere to masking requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct and Conflict Resolution. For more information, see the policy on classroom behavior and the Student Code of Conduct. If you require accommodation because a disability prevents you from fulfilling these safety measures, please follow the steps in the "Accommodation for Disabilities" statement on this syllabus.

If you feel ill and think you might have COVID-19, if you have tested positive for COVID-19, or if you

environment. Information on requesting accommodations is located on the Disability Services website. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see Temporary Medical Conditions on the Disability Services website.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the Honor Code may include, but are not limited to: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution (honor@colorado.edu); 303-492-5550). Students found responsible for violating the Honor Code will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found on the Honor

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. See the campus policy regarding religious observances for full details.