

MKTG 955 – Economic / OR Models in Marketing Part B

Time:

Tuesday, 1:30pm – 4:30pm (Except for when as noted).

Location:

JMHH 7th floor, small conference room.

Team:

Instructor: Ron Berman, ronber@wharton.upenn.edu

TA: Uppal, Abhinav, auppal@wharton.upenn.edu

Description:

The goal of the course is to introduce students to advanced analytical methods and models used in the Economics and Marketing literature.

The focus of the course will be primarily on topics that apply to research of “online” markets and competition and as such may yield testable hypotheses in existing (online) data. A secondary focus is a methodological focus introducing students to research using specific approaches and techniques in each session.

Students from non-marketing disciplines will benefit from this course through exposure to applied and recent research that uses economic theory in an online setting. In addition, we will discuss open problems that may be applicable to the student’s work.

In each session we will cover 3-4 research papers (and some book chapters). Students will be asked to read all papers and submit a 1-page summary of a paper of their choice in each session.

There will be two guest speakers in the course:

- Prof. Jagmohan Raju (Wharton Marketing)
- Prof. Zsolt Katona (Berkeley-Haas Marketing)

Requirements:

A student taking the course should have good knowledge of game theory and be familiar with the topics of mechanism design, pricing, competition and basic Bayesian learning. Good knowledge of classic industrial organization topics can be beneficial.

Assessment:

The course will have a written assignment due after 5 weeks and a final paper proposal due after the semester.

Textbook:

- 1) [EK] Easley, D. and Kleinberg, J., 2010. *Networks, crowds, and markets: Reasoning about a highly connected world*. Cambridge University Press.
Available at: <https://www.cs.cornell.edu/home/kleinber/networks-book/>

Sessions:

- 1) Consumer Search & Product Design (3/15/2016)
 - a) Diamond, P.A., 1971. A model of price adjustment. *Journal of economic theory*, 3(2), pp.156-168.
 - b) * Weitzman, M.L., 1979. Optimal search for the best alternative. *Econometrica: Journal of the Econometric Society*, pp.641-654.
 - c) Stahl, D.O., 1996. Oligopolistic pricing with heterogeneous consumer search. *International Journal of Industrial Organization*, 14(2), pp.243-268.
 - d) * Kuksov, D., 2004. Buyer search costs and endogenous product design. *Marketing Science*, 23(4), pp.490-499.
 - e) * Armstrong, M., Vickers, J. and Zhou, J., 2009. Prominence and consumer search. *The RAND Journal of Economics*, 40(2), pp.209-233.
- 2) Learning, Herding & Word of Mouth (3/22/2016)
 - a) * Observational Learning – EK Sections 16.5 – 16.6
 - b) * Zhang, J., 2010. The sound of silence: Observational learning in the US kidney market. *Marketing Science*, 29(2), pp.315-335.
 - c) * Mayzlin, D., 2006. Promotional chat on the Internet. *Marketing Science*, 25(2), pp.155-163.
- 3) Signaling and Cheap Talk (3/29/2016)
 - a) Milgrom, P. and Roberts, J., 1986. Price and advertising signals of product quality. *The Journal of Political Economy*, pp.796-821.
 - b) * Mayzlin, D. and Shin, J., 2011. Uninformative advertising as an invitation to search. *Marketing Science*, 30(4), pp.666-685.
 - c) * Crawford, V.P. and Sobel, J., 1982. Strategic information transmission. *Econometrica: Journal of the Econometric Society*, pp.1431-1451.
 - d) * Gardete, P.M., 2013. Cheap-talk advertising and misrepresentation in vertically differentiated markets. *Marketing Science*, 32(4), pp.609-621.

- 4) Guest Lecture (4/5/2016) – Jagmohan Raju
 - a) Session will be between 4pm – 7pm and include dinner.
- 5) Guest Lecture (4/12/2016) – Zsolt Katona
- 6) Externalities, Network Effects & Platforms (4/19/2016)
 - a) Holmstrom, B., 1982. Moral hazard in teams. *The Bell Journal of Economics*, pp.324-340.
 - b) * Berman, R., 2015, “Beyond the Last Touch: Attribution in Online Advertising”, *Working Paper*.
 - c) * Kamada, Y. and Oery, A., “Encouraging Word of Mouth: Free Contracts, Referral Programs, or Both?”, *Working Paper*.
 - d) * EK Ch. 17
- 7) Matching and Summary (4/26/2016)
 - a) * Gale, D. and Shapley, L.S., 1962. College admissions and the stability of marriage. *The American Mathematical Monthly*, 69(1), pp.9-15.
 - b) * Shapley, L.S. and Shubik, M., 1971. The assignment game I: The core. *International Journal of game theory*, 1(1), pp.111-130.
 - c) * Halaburda, H., Piskorski, M.J. and Yildirim, P., 2015. Competing by restricting choice: The case of search platforms. *Working Paper*.
 - d) * Hitsch, G.J., Hortaçsu, A. and Ariely, D., 2010. Matching and sorting in online dating. *The American Economic Review*, pp.130-163.