

## 课程大纲 COURSE SYLLABUS

1.	课程代码/名称 Course Code/Title	Advanced MIS Research Seminar						
2.	课程性质 Compulsory/Elective	Compulsory						
3.	课程学分/学时 Course Credit/Hours	3						
4.	授课语言 Teaching Language	English						
5.	授课教师 Instructor(s)	Lu, Tao						
6.	是否面向本科生开放 Open to undergraduates or not	No						
7.	先修要求 Pre-requisites	(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)						
8.	教学目标 Course Objectives	<p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <ol style="list-style-type: none"> <li>1) Learn to think and act as an academic</li> <li>2) Conduct literature review to support a research question</li> <li>3) Understand and be able to apply rigorous methodologies</li> <li>4) Learn to critique academic research works</li> <li>5) Develop, present and write a good econ-of-IS research paper</li> </ol>						
9.	教学方法 Teaching Methods	<p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <p>Seminar</p>						
10.	教学内容 Course Contents	<p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Section 1</td> <td>Introduction</td> </tr> <tr> <td>Section 2</td> <td>Methodology I: Experiments</td> </tr> <tr> <td>Section 3</td> <td>Methodology II: IV and RD designs</td> </tr> </table>	Section 1	Introduction	Section 2	Methodology I: Experiments	Section 3	Methodology II: IV and RD designs
Section 1	Introduction							
Section 2	Methodology I: Experiments							
Section 3	Methodology II: IV and RD designs							

Section 4	Topic (1): IT and Finance
Section 5	Topic (2): Online Reputation Systems, Word-of-Mouth
Section 6	Topic (3): Online Advertising, Keyword Auctions
Section 7	Mid-term discussion
Section 8	Topic (4): Social Media, Social Networks
Section 9	Topic (5): Artificial Intelligence, Machine Learning
Section 10	Final Presentations

11. 课程考核  
Course Assessment

(①考核形式 Form of examination; ②.分数构成 grading policy; ③如面向本科生开放, 请注明区分内容。  
If the course is open to undergraduates, please indicate the difference.)

In-class discussion	20
Weekly two-page write up	30
Presentation	20
Term paper	30
Total	100%

12. 教材及其它参考资料  
Textbook and Supplementary Readings

Kremer, Michael, "Writing papers: A Checklist".  
[http://qed.econ.queensu.ca/pub/faculty/sumon/mkremer\\_checklist\\_paper.pdf](http://qed.econ.queensu.ca/pub/faculty/sumon/mkremer_checklist_paper.pdf)

Mankiw NG. (1994). My Rules of Thumb. *The American Economist*.  
[https://scholar.harvard.edu/files/mankiw/files/my\\_rules\\_of\\_thumb.pdf](https://scholar.harvard.edu/files/mankiw/files/my_rules_of_thumb.pdf)

Varian, H (1999). "How to Build an Economic Model in your Spare Time." In *Passion and Craft: Economists at Work*. Edited by Szenberg, M. Ann Arbor, MI: University of Michigan Press.  
<http://people.ischool.berkeley.edu/~hal/Papers/how.pdf>

Stiglitz, J. (2000). "The Contribution of the Economics of Information to Twentieth Century Economics." *Quarterly Journal of Economics*, 115(4), 1441-1478 (JSTOR).  
<http://www.jstor.org/stable/2586930>

Ellison, Glenn and Sara Fisher Ellison (2005) "Lessons About Markets from the Internet" *Journal of Economic Perspectives*, 19(2): 139-158  
<http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330054048632>

Krugman, P. (2013). "Crib Sheet: How I work (Self-indulgent)" New York Times, July 5; <http://krugman.blogs.nytimes.com/2013/07/05/crib-sheet-how-i-work-self-indulgent/>

**Experiments**

Manski, C. (2000). Economic analysis of social interactions. *Journal of Economic Perspectives*, 115-136.  
<http://www.nber.org/papers/w7580.pdf>

DellaVigna, S., & Malmendier, U. (2006). Paying not to go to the gym. *American Economic Review*, 96(3), 694-719.

<http://www.jstor.org/stable/30034067>

Cai, H., Chen, Y., & Fang, H. (2009). Observational Learning: Evidence from a Randomized Natural Field Experiment. *American Economic Review*.

<http://www.jstor.org/stable/25592485>

Centola, D. (2010). The Spread of Behavior in an Online Social Network Experiment. *Science*, 329(5996), 1194–1197.

<http://image.sciencenet.cn/olddata/kexue.com.cn/upload/blog/file/2010/12/2010122110322935115.pdf>

Zhang, Michael and Feng Zhu. (2011) “Group Size and Incentives to Contribute: A Natural Experiment at Chinese Wikipedia” *American Economic Review*, 101(4), 1601-1615.

<http://www.jstor.org/stable/23045913>

Chen, Yuyu, and David Y. Yang. 2019. "The Impact of Media Censorship: 1984 or Brave New World?" *American Economic Review*, 109 (6): 2294-2332.

Agent-based modeling: Methods and techniques for simulating human systems, Eric Bonabeau, PNAS May 14, 2002 99 (suppl 3) 7280-7287

Tao Lu, Alex Wang, May Yuan and Xiaoquan Zhang, "Skewness Distortion Bias in Consumer Choice"

Optional readings:

Rosenblat, T., & Mobius, M. (2006). Why Beauty Matters. *American Economic Review*.

<http://www.jstor.org/stable/30034362>

\*List, J. (2006). Field Experiments: A Bridge between Lab and Naturally Occurring Data. *Advances in Economic Analysis & Policy*.

<http://s3.amazonaws.com/fieldexperiments-papers2/papers/00083.pdf>

\*Levitt, S., & List, J. (2009). Field experiments in economics: The past, the present, and the future. *European Economic Review*.

<https://pdfs.semanticscholar.org/646e/3d5373e48bd23615dbb0d3a874360a58dd04.pdf>

Catherine Tucker and Juanjuan Zhang, 2011, “How Does Popularity Information Affect Choices? A Field Experiment” *Management Science*, Vol. 57, No. 5, May 2011, pp. 828-842.

<http://www.jstor.org/stable/25835743>

## **Instrument Variable, Regression Discontinuity**

Instrument variable:

Angrist, J., & Krueger, A. (2001). Instrumental variables and the search for identification: From supply and demand to natural experiments. *Journal of Economic Perspectives*, 15(4), 69–85.

<https://dspace.mit.edu/bitstream/handle/1721.1/63775/instrumentalvari00angr.pdf?sequence=1>

Ludwig, J. (2005). Does Head Start improve children's life chances? Evidence from a regression discontinuity design. *Quarterly Journal of Economics*.

<http://www.jstor.org/stable/25098840>

Brown, J. R., Ivkovic, Z., Smith, P. A., & Weisbenner, S. (2008). Neighbors Matter: Causal Community Effects and Stock Market Participation. *Journal of Finance*, LXIII(3), 23.

<http://www.jstor.org/stable/25094479>

Jeremiah Dittmar (2011) Information Technology and Economic Change: The Impact of the Printing Press. *Quarterly Journal of Economics*.

<http://www.jstor.org/stable/23015698>

Regression discontinuity designs:

Imbens, G., & Lemieux, T. (2008). Regression discontinuity designs: A guide to practice. *Journal of Econometrics*, 142(2), 615–635.

[http://ac.els-cdn.com/S0304407607001091/1-s2.0-S0304407607001091-main.pdf?\\_tid=0b4e59fa-8d31-11e7-b9fa-00000aab0f6c&acdnat=1504062931\\_dfa1d1adb0c5137c30ddd9820c27c2a6](http://ac.els-cdn.com/S0304407607001091/1-s2.0-S0304407607001091-main.pdf?_tid=0b4e59fa-8d31-11e7-b9fa-00000aab0f6c&acdnat=1504062931_dfa1d1adb0c5137c30ddd9820c27c2a6)

Luca, Michael. 2016. "Reviews, Reputation and Revenue: The Case of Yelp.com."

<http://go.mainstreethub.com/rs/mainstreethub/images/Yelp%20Study.pdf>

Optional readings:

\*Klaauw. (2007). "Regression-Discontinuity Analysis"

<http://faculty.smu.edu/Millimet/classes/eco7377/papers/van%20der%20klaauw%2008a.pdf>

\*Card, D., Lee, D. S., Pei, Z., & Weber, A. (2015). Inference on Causal Effects in a Generalized Regression Kink Design. *Econometrica*, 83(6), 2453–2483.

<https://www.econstor.eu/bitstream/10419/126277/1/817177515.pdf>

\*Skiera, B., et al., What should be the dependent variable in marketing-related event studies?, *International Journal of Research in Marketing* (2017).

<http://www.sciencedirect.com/science/article/pii/S0167811617300046>

## IT and Finance (FinTech)

Antweiler, W., and Frank, M. Z. 2004. "Is All That Talk Just Noise? The Information Content of Internet Stock Message Boards," *Journal of Finance* (59:3), pp. 1259-1294.

<http://www.jstor.org/stable/3694736>

Tetlock, P. C., Saar-Tsechansky, M., and Macskassy, S. 2008. "More than Words: Quantifying Language to Measure Firms' Fundamentals," *Journal of Finance* (63:3), Pp. 1437-1467.

<http://www.jstor.org/stable/25094477>

Da, Z., Engelberg, J., and Gao, P. 2011. "In Search of Attention," *Journal of Finance* (66:5), pp. 1461-1499.

<http://www.jstor.org/stable/41305167>

Juanjuan Zhang and Peng Liu, 2012, "Rational Herding in Microloan Markets" *Management Science*, Vol. 58, No. 5, May 2012, pp. 892-912.

<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.1110.1459>

Xu, Sean Xin, and Zhang, Xiaoquan (Michael), "Impact of Wikipedia on Market Information Environment: Evidence on Management Disclosure and Investor Reaction," *MIS Quarterly*, 37, 4, 2013, 1043-1068.

<http://www.rccm.tsinghua.edu.cn/u/cms/www/201501/14092405it3s.pdf>

Chen, Hailiang, Prabuddha De, Yu Jeffrey Hu, Byoung-Hyoun Hwang (2014), "Wisdom of Crowds: The Value of Stock Opinions Transmitted Through Social Media", *Review of Financial Studies*, 27, 5, 1367-1403.

<http://www.hedgechatter.com/wp-content/uploads/2014/09/wisdom-of-crowds.pdf>

Forman, C., Goldfarb, A., & Greenstein, S. (2016). Agglomeration of Invention in the Bay Area: Not Just ICT. *American Economic Review*. 106:146-151.

[http://siepr.stanford.edu/system/files/FormanGoldfarbGreenstein\\_notjustict.pdf](http://siepr.stanford.edu/system/files/FormanGoldfarbGreenstein_notjustict.pdf)

Machina, Mark J. 2014. "Ambiguity Aversion with Three or More Outcomes." *American Economic Review*, 104 (12): 3814-40.

Optional readings:

\*Tetlock, P. C. 2007. "Giving Content to Investor Sentiment: The Role of Media in the Stock Market," *Journal of Finance* (62:3), pp. 1139-1168.

<http://www.jstor.org/stable/4622297>

\*Bogan, V. 2008. "Stock Market Participation and the Internet," *Journal of Financial and Quantitative Analysis* (43:1), pp. 191-212.

<http://www.jstor.org/stable/27647344>

\*Hendershott, T., Jones, C. M., and Menkveld, A. J. 2011. "Does Algorithmic Trading Improve Liquidity?," *Journal of Finance* (66:1), pp. 1-33.

<http://www.jstor.org/stable/29789770>

\*Brogaard, J., Hendershott, T., & Riordan, R., (2014). High-Frequency Trading and Price Discovery, *Review of Financial Studies*, Vol. 27(8), pp. 2267-2353.

<https://www.econstor.eu/bitstream/10419/154035/1/ecbwp1602.pdf>

\*Zhang, Michael, and Zhang, Lihong. 2015. "How Does the Internet Affect the Financial Market? An Equilibrium Model of Internet Facilitated Feedback Trading," *MIS Quarterly*, 39, 1, 17-38.

<http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=b54707cf-a73b-4eb7-8f08-f4045341222e%40sessionmgr4010>

\*Ekkehart Boehmer, Dan Li, and Gideon Saar, 2016, Correlated High-Frequency Trading, SMU, HKU, Cornell Working Paper.

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2745367](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2745367)

\* Brogaard, J., Carrion, A., Moyaert, T., Riordan, R., Shkilko, A., & Sokolov, K., High Frequency Trading and Extreme Price Movements, (2016). *Journal of Financial Economics*.

<https://www.aeaweb.org/conference/2016/retrieve.php?pdfid=702>

## Online Reputation Systems, Word-of-Mouth

Chevalier, Judith and Dina Mayzlin. 2006. "The Effect of Word-of-Mouth on Sales: Online Book Reviews," *Journal of Marketing Research*, 43(3), 345-354.

<http://www.jstor.org/stable/30162409>

Dellarocas, C., Zhang, X., and Awad, N. F., 2007, "Exploring the Value of Online Product Reviews in Forecasting Sales: The Case of Motion Pictures," *Journal of Interactive Marketing*, 21, 4, 2-20.

<http://www.sciencedirect.com/science/article/pii/S1094996807700361>

Zhu, Feng, and Michael Zhang. 2010. "Impact of Online Consumer Reviews on Sales: The Moderating Role of Product and Consumer Characteristics." *Journal of Marketing* 74(2): 133-148.

<http://www.jstor.org/stable/20619095>

Monic Sun, 2012. How Does the Variance of Product Ratings Matter? *Management Science*, 58(4), 696-707.

<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.1110.1458>

Mayzlin, Dina, Yaniv Dover, and Judith Chevalier. 2014. "Promotional Reviews: An Empirical Investigation of Online Review Manipulation." *American Economic Review*, 104(8): 2421-55.

<http://www.jstor.org/stable/pdf/42920894.pdf>

Wang, Alex, Zhang, Xiaoquan (Michael), and Hann, Il-Horn, 2015 "Socially Nudged: A Quasi-Experimental Study of Friends' Social Influence in Online Product Ratings," *Information Systems Research*.

<https://pdfs.semanticscholar.org/a85f/b4605a58dd67c22b81af1ca1a82b88a51d84.pdf>

Michael Luca, Georgios Zervas (2016) Fake It Till You Make It: Reputation, Competition, and Yelp Review Fraud. *Management Science* 62(12):3412-3427.

<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.2015.2304>

Optional reading:

\*Dellarocas, C., and Wood, C. A. 2008. "The Sound of Silence in Online Feedback: Estimating Trading Risks in the Presence of Reporting Bias," *Management Science* (54:3), pp. 460-476.

<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.1070.0747>

\*Gao, Guodong Gordon, Brad N Greenwood, Jeff McCullough, Ritu Agarwal. 2015. Vocal minority and silent majority: How do online ratings reflect population perceptions of quality? *MIS Quarterly*.  
<http://community.mis.temple.edu/greenwood/files/2015/08/Gao-et-al-2015.pdf>

## Online Advertising, Keyword Auctions

Varian, Hal. 2007. "Position Auctions." *International Journal of Industrial Organization*, 25, 1163-1178.  
<http://www.sciencedirect.com/science/article/pii/S0167718706001317/pdf?md5=d198befb33e37fc530b0fb2219e661b7&pid=1-s2.0-S0167718706001317-main.pdf>

Edelman, Benjamin, Michael Ostrovsky, and Michael Schwartz. 2007. "Internet Advertising and the Generalized Second Price Auction: Selling Billions of Dollars Worth of Keywords." *American Economic Review*, 97(1), 242-259.  
<http://www.jstor.org/stable/30034393>

Avi Goldfarb, Catherine Tucker (2011) Advertising Bans and the Substitutability of Online and Offline Advertising. *Journal of Marketing Research*: April 2011, Vol. 48, No. 2, pp. 207-227.  
<http://www.jstor.org/stable/23033426>

Lee, Young Han and Ulrike Malmendier. 2011. "The Bidder's Curse." *American Economic Review*, 101(2), 749-787.  
<http://www.jstor.org/stable/29783689>

Zhang, Xiaoquan (Michael), and Feng, Juan, 2011, "Cyclical Bid Adjustments in Search-Engine Advertising," *Management Science*, 57, 9, 1703-1719.  
<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.1110.1408>

Juanjuan Zhang, Shiyang Gong, Ping Zhao & Xuping Jiang, 2016 "Tweeting as a Marketing Tool – Field Experiment in the TV Industry" *Journal of Marketing Research*, forthcoming  
[http://jjzhang.scripts.mit.edu/docs/Gong\\_Zhang\\_Zhao\\_Jiang\\_2017.pdf](http://jjzhang.scripts.mit.edu/docs/Gong_Zhang_Zhao_Jiang_2017.pdf)

Overby, E., & Forman, C. (2015). The Effect of Electronic Commerce on Geographic Purchasing Patterns and Price Dispersion. *Management Science*. 61:431-453.  
<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.2014.1977>

\*Sun, Monic, and Feng Zhu. 2013. "Ad Revenue and Content Commercialization: Evidence from Blogs." *Management Science* 59, no. 10: 2314–2331.  
<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.1120.1704>

\*Ostrovsky, Michael and Michael Schwarz. 2016. "Reserve Prices in Internet Advertising Auctions: A Field Experiment," Stanford University.  
<http://web.stanford.edu/~ost/papers/rp.pdf>

## Social Media, Social Networks and Online Community

Garg, Rajiv and Rahul Telang. 2012. "To Be or Not to Be Linked on LinkedIn: Online Social Networks and Job Search."  
<https://www.krannert.purdue.edu/academics/mis/workshop/2013/Garg%20-%20Linking%20on%20LinkedIn.pdf>

Zhang, Xiaoquan (Michael), and Wang, Alex, "Network Positions and Contributions to Online Public Goods: The Case of Chinese Wikipedia," *Journal of Management Information Systems*, 29, 2, 2012, 11-40.  
<http://www.tandfonline.com/doi/pdf/10.2753/MIS0742-1222290202>

Catherine E. Tucker (2014) Social Networks, Personalized Advertising, and Privacy Controls. *Journal of Marketing Research*. Vol. 51, No. 5, pp. 546-562.  
[https://scholar.google.com/hk/scholar?q=Social+Networks%2C+Personalized+Advertising%2C+and+Privacy+Controls&btnG=&hl=zh-CN&as\\_sdt=0%2C5](https://scholar.google.com/hk/scholar?q=Social+Networks%2C+Personalized+Advertising%2C+and+Privacy+Controls&btnG=&hl=zh-CN&as_sdt=0%2C5) Click [PDF] mit.edu

Bapna, R., J. Ramprasad, G. Shmueli, and A. Umyarov, "One-Way Mirrors in Online Dating: A Randomized Field Experiment", *Management Science*, vol. 62, issue 11, pp. 3100-3122, 2016.

<http://pubsonline.informs.org/doi/pdf/10.1287/mnsc.2015.2301>

Daniel Mochon, Karen Johnson, Janet Schwartz and Dan Ariely. (2017) What Are Likes Worth? A Facebook Page Field Experiment. *Journal of Marketing Research* 54:2, 306-317.

Ravi Bapna, Liangfei Qiu, and Sarah Rice, "Repeated Interactions Versus Social Ties: Quantifying the Economic Value of Trust, Forgiveness, and Reputation Using a Field Experiment," *MIS Quarterly* (2017), 41(3), 841-866.

Qin, Bei, David Strömberg, and Yanhui Wu. 2018. "Media Bias in China." *American Economic Review*, 108 (9): 2442-76.

Sun, M., Zhang, X., and Zhu, F. "U-shaped Conformity in Online Social Networks," *Marketing Science*, forthcoming.

## Artificial Intelligence, Machine Learning

Liran Einav and Jonathan Levin, The Data Revolution and Economic Analysis, NBER.

<https://web.stanford.edu/~jdlevin/Papers/BigData.pdf>

Shmueli, G., "To Explain or To Predict?", *Statistical Science*, vol. 25, issue 3, pp. 289-310, 2010.

[https://projecteuclid.org/download/pdfview\\_1/euclid.ss/1294167961](https://projecteuclid.org/download/pdfview_1/euclid.ss/1294167961)

Shmueli, G., and O. Koppius, "Predictive Analytics in Information Systems Research", *MIS Quarterly*, vol. 35, issue 3, pp. 553-572, 2011.

<http://www.jstor.org/stable/23042796>

Lin, M., H. C. Lucas, and G. Shmueli, "Too Big To Fail: Large Samples and the P-Value Problem", *Information Systems Research*, vol. 24, issue 4, pp. 906-917, 2013.

<http://pubsonline.informs.org/doi/pdf/10.1287/isre.2013.0480>

Varian, Hal R. 2014. "Big Data: New Tricks for Econometrics." *Journal of Economic Perspectives*, 28(2): 3-28.

<http://www.jstor.org/stable/23723482>

Brynjolfsson, Erik, Tomer Geva, and Shachar Reichman. 2015 "Crowd-Squared: Amplifying the Predictive Power of Search Trend Data." *MIS Quarterly*, 40(4): 941-961.

Yahav, I., G. Shmueli, and D. Mani, "A Tree-Based Approach for Addressing Self-Selection in Impact Studies with Big Data", *MIS Quarterly*, vol. 40, issue 4, pp. 819-848, 2016.

Mitchell, Tom and Erik Brynjolfsson. "Track How Technology Is Changing Work." *Nature*, 544(7650): 290-291. April 20, 2017.

<https://www.nature.com/news/track-how-technology-is-transforming-work-1.21837>

Brynjolfsson, Erik and Andrew McAfee. "The Business of Artificial Intelligence: What it Can—and Cannot—Do for Your Organization." *Harvard Business Review*, July 2017.

<https://hbr.org/cover-story/2017/07/the-business-of-artificial-intelligence>

Bloom, Nicholas, Erik Brynjolfsson, Megha Patnaik, Itay Saporta-Eksten, and John Van Reenen. 2017. "The Importance of Structured Management Practices." *MIT Sloan Management Review*.

<http://sloanreview.mit.edu/article/the-importance-of-structured-management-practices/>

Optional readings:

\*Ghose, Anandya, Panos Ipeirotis, and Beibei Li. "Estimating Demand for Hotels by Mining User-Generated and Crowdsourced Content on the Internet."

<https://pdfs.semanticscholar.org/a64f/948268ddef35f4895470425e5b709f5deea6.pdf>

\*Benjamin Shiller, First Degree Price Discrimination Using Big Data, Brandeis University.

[http://benjaminshiller.com/images/First\\_Degree\\_PD\\_Using\\_Big\\_Data\\_Jan\\_27,\\_2014.pdf](http://benjaminshiller.com/images/First_Degree_PD_Using_Big_Data_Jan_27,_2014.pdf)

\*Brynjolfsson, Erik and Andrew McAfee. "What's Driving the Machine Learning Explosion?" *Harvard Business Review*, July 18, 2017.

<https://hbr.org/2017/07/whats-driving-the-machine-learning-explosion>

\*Shmueli, G., "Analyzing Behavioral Big Data: Methodological, Practical, Ethical, and Moral Issues", *Quality Engineering*, vol. 29, issue 1, pp. 57-74 and 88-90, 2017.

<http://www.tandfonline.com/doi/abs/10.1080/08982112.2016.1210979?journalCode=lqen20>