

Marketing
Course Number: 26:630:675
Course Title: Marketing Models

COURSE DESCRIPTION

This course teaches PhD students the recent research topics and techniques in analytical and empirical modeling in marketing research. The students read and discuss 4-5 papers each week from very recent and important research topics which employ analytical or empirical modeling. The topics include behavioral analytical and empirical modeling, digital marketing, Bayesian Persuasion, search, machine learning, structural models, behavior-based pricing/targeting and channel strategies.

COURSE MATERIALS

Assigned papers for each week. Please see the weekly schedule below. Some of the papers we will read are working papers and I will post them on Canvas.

LEARNING GOALS AND OBJECTIVES

The goals of the course are: 1. to make PhD students familiarize with the most updated and interesting research topics and methods and 2. to encourage them to come up with their own research question relevant to the topics covered and initiate a new research paper.

COURSE REQUIREMENTS AND GRADING

Paper Discussion Write ups	40%
Attendance	10%
Final Paper	50%

Final course grade will be based on curve.

Students are expected to deliver a discussion write up for each paper they will read each week. This write up should cover the brief summary of the research idea and technique used in the paper, the key results, and the critique of the paper.

ACADEMIC INTEGRITY

I do NOT tolerate cheating. Students are responsible for understanding the RU Academic Integrity Policy (<http://academicintegrity.rutgers.edu/>)

I will strongly enforce this Policy and pursue *all* violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, “On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment.” I will screen all written assignments through *SafeAssign* or *Turnitin*, plagiarism detection services that compare the work against a large database of past work. Don’t let cheating destroy your hard-earned opportunity to learn. See business.rutgers.edu/ai for more details.

CLASS ORGANIZATION & ADMINISTRATION

Course Format

The course will be based on discussions.

Communication

For any questions or suggestions, students are strongly encouraged to use email communication with the instructor. The office hour will be arranged per request of students.

Please pay attention to the announcements sent through Canvas as well.

COURSE SCHEDULE

Week 1:

Camerer, Colin (1999), “Behavioral Economics: Reunifying Psychology and Economics,” Proceedings of the National Academy of Sciences, 96 (19), 10575–77.

Camerer, Colin (2005), “Three Cheers—Psychological, Theoretical, Empirical—for Loss Aversion,” *Journal of Marketing Research*, 42 (May), 129–33.

Ho, T. H., N. Lim, and C. F. Camerer (2006), “Modeling the psychology of consumer and firm behavior with behavioral economics,” *Journal of Marketing Research*, 43(3), 307-331.

Narasimhan, C., C. He, E. T. Anderson, L. Brenner, P. Desai, D. Kuksov, P. Messinger, S. Moorthy, J. Nunes, Y. Rottenstreich, D. Staelin, G. Wu, and Z. J. Zhang (2005). “Incorporating behavioral anomalies in strategic models”, *Marketing Letters* 16(3).

Goldfarb, Avi and Ho, Teck H. and Amaldoss, Wilfred and Brown, Alexander L. and Chen, Yan and Cui, Tony Haitao and Galasso, Alberto and Hossain, Tanjim and Hsu, Ming and Lim, Noah and Xiao, Mo and Yang, Botao, “Behavioral Models of Managerial Decision-Making”, *Marketing Letters*, Vol. 23, pg. 405-421, 2012

Kamenica, E “Behavioral Economics and Psychology of Incentives”, *Annual Review of Economics*, Volume: 4 Pages: 427-452, 2012

Jagabathula, S. and Paat Rusmevichientong, P. “The Limit of Rationality in Choice Modeling: Formulation, Computation, and Implications”, *Management Science*, Volume 65, Issue 5, Pages: 1949-2443, 2019

Evangelidis, I. and Levav, J., “Process Utility and the Effect of Inaction Frames”, *Management Science*, Volume 65, Issue 5, Pages: 1949-2443, 2019 Jagabathula, S and Rusmevichientong, P. “The Limit of Rationality in Choice Modeling: Formulation, Computation, and Implications”, *Management Science*, Volume 65, Issue 5, Pages: 1949-2443, 2019

Week 2:

“Points of (Dis)parity: Expectation Disconfirmation from Common Attributes in Consumer Choice”, by: EVANGELIDIS, IOANNIS; VAN OSSELAER, STIJN M. J. *Journal of Marketing Research (JMR)*. Feb2018, Vol. 55 Issue 1, p1-13.

“The Asymmetric Impact of Context on Advantaged Versus Disadvantaged Options”, by: EVANGELIDIS, IOANNIS; LEVAV, JONATHAN; SIMONSON, ITAMAR. *Journal of Marketing Research (JMR)*. Apr 2018, Vol. 55 Issue 2, p239-253

“Product Line Design Under Preference Uncertainty Using Aggregate Consumer Data”, by: Xu, Z. and Dukes A., *MARKETING SCIENCE*, Volume 38, Issue 4, Published: 2019

“The Secret Ingredient Is Me: Customization Prompts Self-Image-Consistent Product

Perceptions”, by: Klesse, Anne-Kathrin; Cornil, Yann; Dahl, Darren William; Gros, Nina. *Journal of Marketing Research (JMR)*. Oct2019, Vol. 56 Issue 5, p879-893

“Harmful Effects of Mental Imagery and Customer Orientation During New Product Screening”, by: DeRosia, Eric D.; Elder, Ryan S. Journal of Marketing Research (JMR). Aug2019, Vol. 56 Issue 4, p637-651

Week 3:

Kamenica, E. and Gentzkow, M.(2011). “Bayesian Persuasion”, The American Economic Review, 101(6):2590– 2615.

“Bayesian Persuasion and Information Design”, by: Kamenica, Emir, ANNUAL REVIEW OF ECONOMICS, VOL 11, Pages: 249-272, Published: 2019

“Competition in Persuasion”, by: Gentzkow, Matthew; Kamenica, Emir, REVIEW OF ECONOMIC STUDIES Volume: 84 Issue: 1 Pages: 300-322 Published: JAN 2017

“Influencing the Influencer”, by Pei, A and Mayzlin, D., Working paper

“Recommendations with Feedback”, by Iyer, G and Manso, G., Working paper

Week 4:

“Competitive Information Disclosure in Search Markets”, by: Board, Simon; Lu, Jay, JOURNAL OF POLITICAL ECONOMY Volume: 126 Issue: 5 Pages: 19652010, Published: OCT 2018

“The price of discovering your needs online”, by: Carroni, Elias; Ferrari, Luca; Righi, Simone, JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION, Volume: 164, Pages: 317-330, Published: AUG 2019

“The Power of Rankings: Quantifying the Effect of Rankings on Online Consumer Search and Purchase Decisions”, by: Ursu, R. M, MARKETING SCIENCE, Vol 37, Issue 4, Published: 2018

“Selling Your Product Through Competitors’ Outlets: Channel Strategy When Consumers Comparison Shop” by: Moorthy, S., Chen, Y., and Tehrani, S. S., MARKETING SCIENCE, Vol 37, Issue 1, Published: 2018

Week 5:

“Consumer Search and Retail Market Structure”, by: Rhodes, A. and Zhou, J., MANAGEMENT SCIENCE, Volume 65, Issue 6, Published: 2019

“Search Deterrence”, by: Armstrong, M. and Zhou, J., Review of Economic Studies, 83, 26-57, Published: 2016

“Search for Information on Multiple Products”, by: Ke, T.T., Shen, Z.-J.M, and Villas-Boas, M., MANAGEMENT SCIENCE, Volume 62, Issue 12, Published: 2016

“Speed, Accuracy, and the Optimal Timing of Choices”, by: Fudenberg, D., Strack, P., and Strzalecki, T., American Economic Review, 108 (12), 2018

Week 6:

“Search for differentiated products: identification and estimation”. By: Koulayev, S., Rand Journal of Economics, 45 (3), Published: 2014

“Testing Models of Consumer Search Using Data on Web Browsing and Purchasing Behavior”, by: De Los Santos, B., Hortacsu, A., and Wildenbeest, M. R., American Economic Review, 102 (6), Published: 2012

“Opinion Leaders and Product Variety”, by: Kuksov, D. and Liao, C., MARKETING SCIENCE, Vol 38, Issue 5, Published: 2019

“Multimarket Value Creation and Competition”, Fu, Q and Iyer, G. Liao, C., MARKETING SCIENCE, Vol 38, Issue 1, Published: 2019

Week 7:

“Pennies for Your Thoughts: Costly Product Consideration and Purchase Quantity Thresholds”, by: Huang, Y. and Bronnenberg, B. J., MARKETING SCIENCE, Vol 37, Issue 6, Published: 2018

“A Model of Two-Sided Costly Communication for Building New Product Category Demand”, by: Lu, M. Y. and Shin, J., MARKETING SCIENCE, Vol 37, Issue 3, Published: 2018 “Consumer Choice and Market Outcomes Under Ambiguity in Product Quality”, by: Yoo, O. S. and Sarin, R., MARKETING SCIENCE, Vol 37, Issue 3, Published: 2018

“A Dynamic Model of Repositioning”, by J. Miguel Villas-Boas, MARKETING SCIENCE, Vol 37, Issue 2, Published: 2018

“The Bright Side of Having an Enemy”, by: Harutyunyan, Mushegh; Jiang, Baojun. Journal of Marketing Research (JMR). Aug2019, Vol. 56 Issue 4, p679-690

“Dynamic Pricing in a Distribution Channel in the Presence of Switching Cost”, by: Cosguner, K., Chan, T. Y., and Seetharaman, S., Management Science, 64 (3), Published: 2016

Week 8:

“How Effective Is Third-Party Consumer Profiling? Evidence from Field Studies”, by: Nico

Neumann , Catherine E. Tucker , Timothy Whitfield, *MARKETING SCIENCE*, Volume 38, Issue 6, Published: 2019

“Advertising Strategy in the Presence of Reviews: An Empirical Analysis”, by: Hollenbeck, B., Moorthy, S., and Proserpio , D., *MARKETING SCIENCE*, Volume 38, Issue 5, Published:

2019

“Recommending Products When Consumers Learn Their Preference Weights”, by: Daria Dzyabura, D. and Hauser, J. R., *MARKETING SCIENCE*, Volume 38, Issue 3, Published: 2019

“Effectiveness of Product Recommendations Under Time and Crowd Pressures”, by:

Kawaguchi, K. , Uetake, K., and Watanabe, Y., *MARKETING SCIENCE*, Volume 38, Issue 2, Published: 2019

Week 9:

“Identifying Customer Needs from User-Generated Content”, by: Timoshenko, A. and Hauser,

J. R., *MARKETING SCIENCE*, Volume 38, Issue 1, Published: 2019

“Cooperative Search Advertising”, by: Cao, X. and Ke, T., *MARKETING SCIENCE*, Volume 38, Issue 1, Published: 2019

“Tailored Cheap Talk: The Effects of Privacy Policy on Ad Content and Market Outcomes”, by: Gardete, P. M. and Bart, Y., *MARKETING SCIENCE*, Volume 37, Issue 5, Published: 2018

“Some Customers Would Rather Leave Without Saying Goodbye”, by: Ascarza, E., Netzer, O., and Hardie, B. G. S., *MARKETING SCIENCE*, Volume 37, Issue 1, Published: 2018

Week 10:

“When and How to Diversify—A Multicategory Utility Model for Personalized Content Recommendation”, by: Song, Y, Sahoo, N, and Ofek, E., *MANAGEMENT SCIENCE*, Volume 65, Issue 8, Published: 2019

“The Value of Personal Information in Online Markets with Endogenous Privacy”, by: Montes,

R., Sand-Zantman, W., and Valetti, T, *MANAGEMENT SCIENCE*, Volume 65, Issue 3, Published: 2019

“Modeling Consumer Footprints on Search Engines: An Interplay with Social Media”, by:

Ghose, A, Ipeirotis, P. G., and Li, B, MANAGEMENT SCIENCE, Volume 65, Issue 3, Published: 2019

“Optimal Design of Free Samples for Digital Products and Services”, by: Li, Hongshuang

(Alice); Jain, Sanjay; Kannan, P.K. Journal of Marketing Research (JMR). Jun2019, Vol. 56 Issue 3, p419-438

Week 11:

“What Happens Online Stays Online? Segment-Specific Online and Offline Effects of Banner

Advertisements”, by: LOBSCHAT, LARA; OSINGA, ERNST C.; REINARTZ, WERNER J. Journal of Marketing Research (JMR). Dec2017, Vol. 54 Issue 6, p901-913

“Behavior-Based Advertising”, by: Villas-Boas, M. and Shen, Q., MANAGEMENT SCIENCE, Volume 64, Issue 5, Published: 2018

“Consumer Search and Purchase: An Empirical Investigation of Retargeting Based on Consumer Online Behaviors”, by: Jian, Z., Chan, T., Che, H., and Wang, Y., Working Paper

“The Design and Price of Information”, by: Bergemann, D., Bonatti, A., and Smolin, A., American Economic Review, 108, 1-48, Published: 2018

Week 12:

“Effects of Internet Display Advertising in the Purchase Funnel: Model-Based Insights from a Randomized Field Experiment”, by Hoban, P. R. and Bucklin, R. E., J. Journal of Marketing Research (JMR), 52 (3), 2015

“Personalized online advertising effectiveness: The interplay of what, when, and where”, by:

Bleier, A. and Eisenbeiss, M., Marketing Science, 34 (5), Published: 2015

“Consumer Search Activities and the Value of Ad Positions in Sponsored Search Advertising”, by: Chan, T. Y. Park, Y-H., Marketing Science, 34 (4), Published: 2015

“Behavior-Based Pricing in Marketing Channels”, by: Li., K. J, MARKETING SCIENCE, Volume 37, Issue 2, Published: 2018

Week 13:

“The Charm of Behavior-Based Pricing: When Consumers' Taste Is Diverse and the Consideration Set Is Limited”, by: Amaldoss, Wilfred; He, Chuan. Journal of Marketing Research (JMR). Oct2019, Vol. 56 Issue 5, p767-790.

“Scalable Price Targeting”, by: Dube, J-P. and Misra, S., Working paper

“Quantifying the Benefits of Individual-Level Targeting in the Presence of Firm Strategic Behavior”, by: Dong, X., Machanda, P., and Chintagunta, P. K., Journal of Marketing Research (JMR), Vol. 46, 207-221, 2009

“The Perils of Behavior-Based Personalization”, by: Zhang, J., MARKETING SCIENCE, Volume 30, Issue 1, Published: 2011

Week 14: Your Terms Papers are Due!!!

“Pricing with Cookies: Behavior-Based Pricing Discrimination and Spatial Competition”, by

Choe, C., King, S., and Matsushima, N, Management Science 64 (12), Published: 2018

“Behavior-Based Pricing in Vertically Differentiated Industries”, by: Rhee, K-E. and Thomadsen, R., Management Science, 63 (8), Published: 2017

“Collusion by Algorithm: Does Better Demand Prediction Facilitate Coordination Between Sellers?”, by: Miklós-Thal, J. and Tucker, C., MANAGEMENT SCIENCE, Volume 65, Issue 4, Published: 2019

“Large-Scale Cross-Category Analysis of Consumer Review Content on Sales Conversion Leveraging Deep Learning”, by: Liu, Xiao; Lee, Dokyun; Srinivasan, Kannan. Journal of Marketing Research (JMR), Dec2019, Vol. 56 Issue 6, p918-943.

SUPPORT SERVICES

If you need accommodation for a *disability*, obtain a Letter of Accommodation from the Office of Disability Services. The Office of Disability Services at Rutgers, The State University of New Jersey, provides student-centered and student-inclusive programming in compliance with the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments of 2008, Section 504 of the Rehabilitation Act of 1973, Section 508 of the Rehabilitation Act of 1998, and the New Jersey Law Against Discrimination. More information can be found at ods.rutgers.edu.

[Rutgers University-New Brunswick ODS phone (848)445-6800 or email dsoffice@echo.rutgers.edu]

[Rutgers University-Newark ODS phone (973)353-5375 or email ods@newark.rutgers.edu]

If you are *pregnant*, the Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy.

[Rutgers University-New Brunswick Title IX Coordinator phone (848)932-8200 or email jackie.moran@rutgers.edu]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email TitleIX@newark.rutgers.edu]

If you seek *religious accommodations*, the Office of the Dean of Students is available to verify absences for religious observance, as needed.

[Rutgers University-New Brunswick Dean of Students phone (848)932-2300 or email deanofstudents@echo.rutgers.edu]

[Rutgers University-Newark Dean of Students phone (973)353-5063 or email DeanofStudents@newark.rutgers.edu]

If you have experienced any form of *gender or sex-based discrimination or harassment*, including sexual assault, sexual harassment, relationship violence, or stalking, the Office for Violence Prevention and Victim Assistance provides help and support. More information can be found at <http://vpva.rutgers.edu/>.

[Rutgers University-New Brunswick incident report link: <http://studentconduct.rutgers.edu/concern/>. You may contact the Office for Violence Prevention and Victim Assistance at (848)932-1181]

[Rutgers University-Newark incident report link: https://cm.maxient.com/reportingform.php?RutgersUniv&layout_id=7 . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at TitleIX@newark.rutgers.edu. If you wish to speak with a staff member who is confidential and does **not** have a reporting responsibility, you may contact the Office for Violence Prevention and Victim Assistance at (973)353-1918 or email run.vpva@rutgers.edu]

If students who have experienced a temporary condition or injury that is adversely affecting their ability to fully participate, you should submit a request via <https://temporaryconditions.rutgers.edu> .

If you are a military *veteran* or are on active military duty, you can obtain support through the Office of Veteran and Military Programs and Services. <http://veterans.rutgers.edu/>

If you are in need of *mental health* services, please use our readily available services.

[Rutgers University-Newark Counseling Center: <http://counseling.newark.rutgers.edu/>]

[Rutgers Counseling and Psychological Services–New Brunswick: <http://rhscaps.rutgers.edu/>]

If you are in need of *physical health* services, please use our readily available services.

[Rutgers Health Services – Newark: <http://health.newark.rutgers.edu/>]

[Rutgers Health Services – New Brunswick: <http://health.rutgers.edu/>]

If you are in need of *legal* services, please use our readily available services: <http://rusls.rutgers.edu/>

Students experiencing difficulty in courses due to *English as a second language (ESL)* should contact the Program in American Language Studies for supports.

[Rutgers–Newark: PALS@newark.rutgers.edu]

[Rutgers–New Brunswick: eslpals@english.rutgers.edu]

If you are in need of additional *academic assistance*, please use our readily available services.

[Rutgers University-Newark Learning Center: <http://www.ncas.rutgers.edu/rlc>]

[Rutgers University-Newark Writing Center: <http://www.ncas.rutgers.edu/writingcenter>]

[Rutgers University-New Brunswick Learning Center: <https://rlc.rutgers.edu/>]

[Optional items that many faculty include:

- Students must sign, date, and return a statement declaring that they understand the RU Academic Integrity Policy.

- Students must sign, date, and return a statement declaring that they understand this syllabus.]