ERIC M. SCHWARTZ

Ross School of Business University of Michigan 701 Tappan Street Office R5472 Ann Arbor, MI 48109-1234 734-936-5042 (office) ericmsch@umich.edu ericmichaelschwartz.com SSRN.com/author=1192670 Google Scholar BibTeX Press and Media

Academic employment

Ross School of Business, University of Michigan
Associate Professor of Marketing, July 2020-present
Assistant Professor of Marketing, July 2013-2020
Arnold M. and Linda T. Jacob Faculty Fellow, July 2018-June 2019

Education

Ph.D. Marketing, Wharton School, University of Pennsylvania, May 2013 B.A. Mathematics and Spanish, College of Arts and Sciences, University of Pennsylvania, May 2008

Highlighted awards

Finalist, Paul E. Green Award for Best Paper in *Journal of Marketing Research* (2020) Finalist, John D. C. Little Award for Best Marketing Paper (2019) Winner, John D. C. Little Award for Best Marketing Paper (2017) AMA Seenu Srinivasan Award, Young Quantitative Scholar in Marketing (2019) Poets & Quants, Best 40 Under 40 Professors (2019) Marketing Science Institute, Young Scholar (2019) KDD Best Student Paper Award, Applied Data Science (2018)

Published peer-reviewed papers

Braun, Michael, Bart de Langhe, Stefano Puntoni, and Eric M. Schwartz (2024). Leveraging Digital Advertising Platforms for Consumer Research. Forthcoming at *Journal of Consumer Research*. PDF.

Aribarg, Anocha and Eric M. Schwartz (2020). Native advertising in online news: Tradeoffs among clicks, brand recognition and website trustworthiness, *Journal of Marketing Research*, 57(1), 20-24. Journal Link. PDF.

Finalist for Paul E. Green Award (2020) for best paper in Journal of Marketing Research

Proserpio, D., Hauser, J. R., Liu, X., Amano, T., Burnap, A., Guo, T., Lee, D., Lewis, R. A., Misra, K., **Schwartz, E. M.,** Timoshenko, A., Xu, L., and Yoganarasimhan, H., (2020) Soul and Machine (Learning), *Marketing Letters*, 31(4), Special Issue for 11th Triennial Invitational Choice Symposium, 393-404. <u>Journal Link</u>. <u>PDF.</u>

Misra, Kanishka, Eric M. Schwartz, Jacob D. Abernethy (2019). Dynamic online pricing with incomplete information using multi-armed bandit experiments, *Marketing Science*, 38(2), 226-252. Journal Link. PDF.

Finalist of the John D. C. Little Award (2019) for the best marketing paper in *Marketing Science*, *Management Science*, and all *INFORMS* journals.

Abernethy, Jacob D., Alex Chojacki, Arya Farahi, **Eric M. Schwartz**, Jared Webb* (2018). ActiveRemediation: The Search for Lead Pipes in Flint, Michigan. *KDD 2018, Proceedings of SIGKDD Conference on Knowledge Discovery and Data Mining*, London, England, U.K. *Alphabetical order. PDF on Arxiv. Video

Winner of Best Student Paper Award, KDD 2018 Applied Data Science Track

Chojnacki, Alex, Chengyu Dai, Arya Farahi, Guangsha Shi, Jared Webb, Daniel T. Zhang, Jacob Abernethy, **Eric M. Schwartz*** (2017). A Data Science Approach to Understanding Residential Water Contamination in Flint. *KDD 2017, iProceedings of SIGKDD Conference on Knowledge Discovery and Data Mining*, Halifax, NS, Canada. *Students first, then faculty; alphabetical order. PDF on Arxiv

Schwartz, Eric M., Bradlow, Eric T., and Fader, Peter S. (2017). Customer acquisition via display advertising using multi-armed bandit experiments. *Marketing Science*, 36(4), 500-522. <u>Journal Link</u>. PDF.

Winner of the <u>John D. C. Little Award (2017)</u> for the best marketing paper in *Marketing Science*, *Management Science*, and all *INFORMS* journals.

Schwartz, Eric M., Bradlow, Eric T., and Fader, Peter S. (2014). Model selection using database characteristics: Developing a classification tree for longitudinal incidence data. *Marketing Science*, 33(2), 188-205. <u>Journal Link</u>. <u>PDF</u>. <u>Press Release</u>.

Berger, Jonah, and Eric M. Schwartz (2011). What drives immediate and ongoing word of mouth? *Journal of Marketing Research*, 48 (5), 869-880. <u>Journal Link</u>. <u>PDF</u>. Featured in <u>Contagious</u>.

Working papers

Braun, Michael, and Eric M. Schwartz (2024). Where A-B Testing Goes Wrong: How Divergent Delivery Affects What Online Experiments Cannot (and Can) Tell You About How Customers Respond to Advertising. PDF on SSRN.

Submitted 2nd revision at *Journal of Marketing*.

Rajaram, Prashant, Puneet Manchanda, and Eric M. Schwartz (2024). Finding the Sweet Spot: Ad Scheduling on Streaming Media. <u>PDF on SSRN</u>.

Submitted 1nd revision at *Marketing Science*.

Earlier short version appeared in AAAI 2018, Workshop on AI and Marketing Science. PDF.

Ahn, Gwen, Fred Feinberg, and **Eric M. Schwartz** (2023). Customizing Bundles of Experiential Goods: An Application to Performing Arts Ticket Sales. <u>PDF on SSRN</u>.

Invited for 2st revision at *Journal of Marketing Research*.

Schwartz, Eric M., Jacob D. Abernethy, and Jared Webb (2024). Active Learning for Customerlevel Targeted Remediation of Service Quality Failures: An Application to Find Lead Pipes. PDF. Preparing for resubmission to *Marketing Science* (2024 update)

Press about this work in practice finding Flint's lead pipes.

Schwartz, Eric M., Kenneth Fairchild, Bryan Orme, Alexander Zaitzeff (2019). Active Learning for Ranking and Selection: *Bandit MaxDiff* for Idea Screening. <u>PDF.</u>

Preparing for resubmission to *Management Science*. Developed in collaboration with Sawtooth Software. *Bandit MaxDiff* available in <u>Sawtooth Software Lighthouse Studio v9.6</u> (<u>Documentation</u>).

Work in progress

"Sequential Allocation for Customer Acquisition: Delayed Bandits with Partial Monitoring Feedback" with Liangbin Yang and S. Fader (2021) https://goo.gl/Z6xOC7.

Other published conference proceedings

Rajaram, Prashant, Puneet Manchanda, and **Eric M. Schwartz** (2018), "Bingeability and Ad Tolerance: New Metrics for the Streaming Media Age," *Workshops of the 32nd AAAI Conference on Artificial Intelligence*, pp. 93 – 99. <u>PDF</u>.

Abernethy, Jacob, Cyrus Anderson, Chengyu Dai, Arya Farahi, Linh Nguyen, Adam Rauh, **Eric M. Schwartz**, Wenbo Shen, Guangsha Shi, Jonathan Stroud, Xinyu Tan, Jared Webb, Sheng Yang* (2016), "Flint Water Crisis: Data-Driven Risk Assessment Via Residential Water Testing" in *Proceedings of Bloomberg Conference Data for Good Exchange*, NY, NY. <u>PDF</u>. *alphabetical order

- In collaboration with Michigan Data Science Team, University of Michigan

Abernethy, Jacob, Cyrus Anderson, Alex Chojnacki, Chengyu Dai, John Dryden, Eric M. Schwartz, Wenbo Shen, Jonathan Stroud, Laura Wendlandt, Sheng Yang, Daniel Zhang* (2016), "Data Science in Service of Performing Arts: Applying Machine Learning to Predicting Audience Preferences," in *Proceedings of Bloomberg Conference Data for Good Exchange*, NY, NY. PDF. *alphabetical order

- In collaboration with Michigan Data Science Team and University Musical Society, University of Michigan

Fairchild, Kenneth, Bryan Orme, **Eric M. Schwartz** (2015), "Bandit Adaptive MaxDiff Designs for Huge Number of Items," *Proceedings of 2015 Sawtooth Software Conference*, 105-117. PDF.

Research interests

Substantive: adaptive marketing experiments, digital advertising, dynamic pricing, customer acquisition and lifetime value, media consumption, public health policy, environmental justice,

Methodological: statistical machine learning, adaptive sampling, multi-armed bandits, active learning, reinforcement learning, Bayesian data analysis and econometrics, and dynamic programming

Research seminars, invited talks, competitive conferences

(in person unless otherwise indicated)

Emory, Goizueta Marketing, Research Camp (May 2024)

WU Vienna University of Economics and Business, Marketing (April 2023)

London Business School, Marketing Camp (June 2022)

University of Delaware, Lerner Marketing Camp (April 2022)

Bocconi University, Marketing (March 2022)

Virtual Quantitative Marketing Seminar – Panelist (March 2022, remote)

University of Georgia, Terry Marketing (2022, remote)

Marketing Modelers (September 2021, remote)

UT Dallas Bass FORMS (February 2021, remote)

University of Colorado, Boulder, Leeds Marketing (January 2021, remote)

Northwestern University, Kellogg Marketing (2020, COVID cancellation)

Washington University-St. Louis, Olin Marketing (2020, COVID cancellation)

University of Florida, Marketing (February 2020)

Duke University, Fuqua Marketing (January 2020)

Southern Methodist University, Cox Marketing (October 2019)

Temple University, Fox Marketing (October 2019)

Marketing Effectiveness Conference, Bologna, Italy (June 2019)

Choice Symposium, co-organizer (May 2019)

University of Miami, Marketing (April 2019)

Boston University, Questrom Marketing (March 2019)

MSI Marketing Analytics Conference, Columbia, NY (February 2019)

MSI Young Scholars, Park City, Utah (January 2019)

Frontiers in Empirical Marketing, Miami (November 2018)

University of Miami, PhD Seminar, remote (October 2018)

Economics of Advertising Workshop, Columbia (July 2018)

Notre Dame, Mendoza Marketing (April 2018)

UT Dallas Bass FORMS, Presenter (March 2018)

Emory, Goizueta Marketing (March 2018)

UT Dallas, Marketing (February 2018)

Chicago Booth Marketing (February 2018)

Michigan, School of Information Seminar (October 2017)

Carnegie Mellon Tepper (September 2017)

Erasmus University, Rotterdam School of Management (April 2017)

UT Dallas Bass FORMS, Discussant (March 2017)

Hosmer-Hall Seminar, Michigan Ross (January 2017)

Management Science Workshop, Chile (January 2017)

Quantitative Marketing and Economics (October 2016)

Michigan, School of Public Health (September 2016)

Michigan, Computer Science Engineering Faculty Seminar (September 2016)

Dartmouth, Tuck Marketing Camp (June 2016)

Texas A&M Marketing (April 2016)

Marketing in Israel 15 Conference (December 2015)

NYU Conference on Big Data and Marketing Analytics (October 2015)

Hosmer-Hall Seminar, Michigan Ross (March 2015)

Temple, Fox Global Center for Big Data and Mobile Analytics (November 2014)

Microsoft Research, Seattle (June 2014)

Cornell Johnson Marketing (February 2014)

Electronic Arts, Redwood City (February 2014)

Google Play, Mountain View (February 2014)

Stanford GSB Marketing (January 2014)

London Business School (November 2012)

INSEAD (November 2012)

University of Michigan (November 2012)

UCLA (October 2012)

NYU (October 2012)

Carnegie Mellon (October 2012)

Northwestern (October 2012)

Yale (October 2012)

Boston University (October 2012)

Emory (September 2012)

University of Pittsburgh (September 2012)

University of Washington (September 2012)

Rotterdam School of Management / Erasmus School of Economics (January 2012)

Tilburg University (January 2012)

Marketing in Israel 11 Conference (December 2011)

Other talks and conference presentations

MSI Young Scholars, Boulder – Host (June 2022)

Smart Water Analytics Network (SWAN) Forum (May 2022)

Marketing Science Conference, Simon, Rochester (June 2021, remote)

- Recommendation and Machine Learning, Special Track

U.S. EPA Briefing, Conference Call (July 2019)

State of Michigan, Department of Environmental Quality (July/August 2019)

Marketing Science Conference, Rome, Italy (June 2019)

- Machine Learning in Marketing, Special Track

Ross Talks, Alumni Event, Michigan Ross (May 2019)

Smart Water Analytics Network (SWAN) Forum, Keynote, Miami (May 2019)

Alumni Board of Governors, Michigan Ross (October 2018)

LEAD Summer Institute, Michigan Ross (July 2018)

Marketing Science Conference, Philadelphia (June 2018)

- Machine Learning in Marketing, Special Track, Co-organizer

American Marketing Association Conference, New Orleans (February 2018)

Marketing Science Conference, Los Angeles (June 2017)

- Machine Learning in Marketing, Special Track, Co-organizer

Customer Analytics in Retail Marketing, Los Angeles (May 2017)

Michigan Student Symposium for Interdisciplinary Statistical Sciences, Keynote (March 2017)

Quicken Loans Data Science, MIDAS Collaboration (January 2017)

Water @ Michigan Conference (January 2017)

Artificial Intelligence Lab, Michigan (October 2016)

Customer Analytics in Retail Marketing, New York (October 2016)

SPARK Machine Learning Workshop, Ann Arbor (October 2016)

Kickstart Computer Science, Ann Arbor (September 2016)

Bloomberg Data for Good Exchange (Presenter and Panelist), New York (September 2016)

Big Data Summer Institute Symposium, Ann Arbor (July 2016)

SPARK Workshop for Startups, Ann Arbor (March 2016)

INFORMS Annual Meeting, Philadelphia (November 2015), session co-organizer

Marketing Science Conference, Baltimore (June 2015)

Sawtooth Software Conference, Orlando (March 2015)

American Marketing Association Conference, San Antonio (February 2015)

Joint Statistical Meetings, Montreal (August 2013), Session Organizer

ART Forum, Chicago (June 2013)

Capital One, Webinar (June 2013)

Marketing Science Conference, Boston (June 2012)

Wharton Customer Analytics Initiative, Webinar with Elea Feit (September 2012)

Marketing Science Conference, Houston (June 2011)

Marketing Science Conference, Cologne (June 2010)

Jay H. Baker Retailing Initiative Board Meeting (November 2009)

Marketing Science Conference, Ann Arbor (June 2009)

Awards, honors, and grants

Highlighted awards

Finalist, Paul E. Green Award for Best Paper in Journal of Marketing Research (2020)

Finalist, John D. C. Little Award for Best Marketing Paper (2019)

Winner, John D. C. Little Award for Best Marketing Paper (2017)

AMA Seenu Srinivasan Award, Young Quantitative Scholar in Marketing (2019)

Poets & Quants Best 40 Under 40 Professors (2019)

Marketing Science Institute Young Scholar (2019)

KDD Best Student Paper Award, Applied Data Science (2018)

Other awards

40 Under 40, Crain's Business Detroit (2022)

AMA-Sheth Consortium Faculty Fellow (2019)

MCubed Grant (\$60,000) with Elizabeth Bruch and Fred Feinberg (2019)

MCubed Grant (\$60,000) with Laura Balzano and Al Hero (2016)

20 in Their 20s, Crain's Business Detroit (2016)

Golden Apple Teaching Award Nominee, University of Michigan (2014, 2015)

Top 25 Reviewer for Marketing Science (2015)

MSI Clayton Dissertation Proposal Competition, Honorable Mention (2012)

ISMS Doctoral Dissertation Proposal Competition, Sheth Winner (2012)

AMA-Sheth Foundation Doctoral Consortium, Fellow (2011)

Workshop on Quantitative Marketing and Structural Econometrics, Fellow (2010)

Russell Ackoff Award for Doctoral Student Research, Recipient (2009-12)

Jay H. Baker Retailing Initiative Research Grant, Recipient (2009)

Lauder CIBER Grant, Recipient (2009)

University of Pennsylvania Class of 1939 Fellowship, Recipient (2008-2009)

INFORMS Marketing Science Doctoral Consortium, Fellow (2009,2010,2011,2012)

Wharton Doctoral Fellowship, Recipient (2008-12)

Summa Cum Laude, Dean's List, University of Pennsylvania, GPA: 3.9/4.0 (2004-08)

Benjamin Franklin Scholar, University of Pennsylvania (2004-08)

Media coverage

Latest Press

TIME Best Inventions 2021, "Lead Pipe Finder" TIME Magazine, Nov 2021

We don't know where all the lead pipes are. This tool helps find them, Fast Company, Oct 4, 2021

An Algorithm Is Helping a Community Detect Lead Pipes, WIRED, Sidney Fussell, Jan 14, 2021

After Flint's Crisis, An Algorithm Helps Citizens Find Lead Pipes, NPR Science Friday (radio/podcast), Jan 22, 2021

Pandemic Paved the Way for Sim Racing, but Will It Last? New York Times, Roy Furchgott, Jan. 18, 2021

For more press and media coverage, see www.ericmichaelschwartz.com.

Teaching

Instructor at Michigan Ross

Marketing Management (MBA Core, MKT 503), F 2017, 2018, 2019, 2021, 2022, 2023

Customer Analytics: Measuring and Managing Customer Value (MBA) W 2021

Customer Analytics: Measuring and Managing Customer Value (BBA) W 2020, W 2021,

Marketing Management (BBA, MKT 300), F 2013, 2014, 2015, 2016

Data Consulting Studio (MBAn), W 2024

Living Business Leadership Experience (MBA and BBA) 2018-19, 2019-20, 2020-21

Teaching materials developed

"Blue Apron: Turning Around the Struggling Meal Kit Market Leader" (2018) Case study by Daniel M. McCarthy and **Eric M. Schwartz**. <u>Michigan WDI Publishing (#5-177-309)</u>.

Also available at <u>Harvard Business School Publishing (#W73C09-PDF-ENG)</u>.

2nd Most selling WDI case 2023

Over 6,000 units sold across 17 countries

Teaching interests

Customer-base analysis and customer lifetime value; model building, and statistical machine learning for customer analytics; marketing research and experimental design in marketing practice; action-based learning.

Advising

PhD Dissertation Committee Member

Joseph Golden, Economics, 2015

Jangwon Choi, Marketing, 2023
Gwen Ahn, Marketing, 2023
Prashant Rajaram, Marketing, 2021
Nicolas Padilla, Marketing (Columbia), 2021
Mengzhenyu (Zhenyu) Zhang, Technology and Operations, 2021
Baekjin Kim, Statistics, 2021
Aravind Govindarajan, Technology and Operations, 2019
Longxiu Tian, Marketing, 2019
Aniket Anand Deshmukh, Electrical and Computer Engineering, 2019
Yanzhe (Murray) Lei, Technology and Operations, 2018
Evgeny Kagan, Technology and Operations, 2018
Eunsoo Kim, Marketing, 2017
Qi George Chen, Technology and Operations, 2017
Guy Benedict Wilkinson, Sports Management, 2017

Service

To the marketing field

Editorial Review Board member

Marketing Science (2019-present)

Reviewing activity as ad hoc reviewer

Journal of Marketing Research
Management Science
Quantitative Marketing and Economics
Journal of Consumer Research
Information Systems Research
Marketing Letters
Journal of the American Statistical Association
Journal of Applied Econometrics

Conference activity

2020-21

Ross Marketing Seminar Organizer

Co-Host, Marketing Science Institute, Young Scholars (June 2022)
Session co-organizer, "Consumer Choice, Big Data, and Machine Learning,"
Choice Symposium (May 2019)
Track co-organizer, "Machine Learning in Marketing,"
Marketing Science Conference, Philadelphia (June 2018)
Track co-organizer, "Machine Learning in Marketing,"
Marketing Science Conference, Los Angeles (June 2017)
Session co-organizer, "Machine Learning in Marketing,"
INFORMS Annual Meeting, Philadelphia (November 2015)

To Ross School of Business and the University of Michigan

Ross MBA Marketing Club Advisor
2023-24
Ross Marketing MBA Core Course Instructor
2017, 2018, 2019, 2020, 2021, 2023
Coordinator: 2020 F, 2021 F, 2023 F
Ross Community Values Committee
2023-24
School of Information, Theme Year of Water Advisor
2023-24
Ross Marketing Faculty Recruiting Committee
2023 F
Ross Centennial Committee
2023
Ross Marketing Internal Renewal Committee
2021, 2023, 2024
Ross MBA Faculty Council

2018-19, 2019-20, 2020-21

Ross Marketing Student Awards Committee

2013-14, 2014-15, 2016-17, 2017-18, 2018-19, 2019-20

Ross MBA Data Insights and Analytics Club Co-Advisor

2015-16, 2016-17, 2017-18, 2018-19, 2019-20

Michigan Data Science Team (MDST), Faculty Co-Advisor

2015-16, 2016-17, 2017-18, 2019-20

Michigan Initiative for Data Science (MIDAS), Education and Training Committee 2018-19

Ross Marketing Undergrad Core Course Coordinator

(2015 Fall, 2016 Fall)

Ross Undergraduate Marketing Club Advisor

2014-15, 2015-16, 2016-17

School of Kinesiology, Sports Marketing Faculty Search Committee

2016 Winter

Ross Marketing Internal Seminar Coordinator

2014-15

Marketing Undergraduate Case Competition Coach

2014, First place at national L'Oreal Brandstorm Competition

Google Online Marketing Challenge Advisor

2015, 2016

Professional affiliations

American Marketing Association INFORMS Society for Marketing Science American Statistical Association Phi Beta Kappa

Other affiliations

Co-Founder, BlueConduit, LLC.

- Company providing data science software and consulting to identify homes with hazardous lead drinking water pipes for water utilities spanning 300 cities and towns in US and Canada.
- Charitable work in under-resourced communities funded by from Google.org, Rockefeller Foundation and Kresge Foundation.
- Launched through University of Michigan's Office of Innovation Partnerships (fka. Tech Transfer).

Computer and natural languages

Fluent: R, Spanish, SQL, Tidyverse Proficient: Catalan, Matlab, Python, SAS