

# Ryan Dew

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## EMPLOYMENT

The Wharton School, University of Pennsylvania  
2018 - Present Assistant Professor of Marketing  
2024 - Present Govil Family Faculty Scholar

## EDUCATION

2019 Ph.D., Marketing, Columbia University  
Dissertation: Machine Learning Methods for Data-Driven Decisions  
*Advisor: Asim Ansari*  
*Committee: Olivier Toubia, Oded Netzer, Kinshuk Jerath, David Blei*

2016 M.Phil., Marketing, Columbia University

2013 B.A., Mathematics, University of Pennsylvania  
Academic honors: Summa cum laude, Phi Beta Kappa

## RESEARCH OVERVIEW

- Topics: customer relationship management, customer analytics, data-driven design, visualization, choice modeling
- Methods: Bayesian statistics and econometrics, Bayesian nonparametrics, unstructured data, scalable inference, computational methods, machine learning

## PEER-REVIEWED PUBLICATIONS

1. **Dew, Ryan** and Asim Ansari (2018), "Bayesian Nonparametric Customer Base Analysis with Model-based Visualizations," *Marketing Science*.  
*Finalist, 2019 Frank M. Bass Award*
2. **Dew, Ryan**, Asim Ansari, and Yang Li (2020), "Modeling Dynamic Heterogeneity Using Gaussian Processes," *Journal of Marketing Research*.  
*Finalist, 2020 Paul Green Award*
3. **Dew, Ryan**, Asim Ansari, and Olivier Toubia (2022), "Letting Logos Speak: Leveraging Multi-view Representation Learning for Data-Driven Logo Design," *Marketing Science*.  
*Winner, 2022 Frank M. Bass Award; Finalist, John D.C. Little Award*
4. **Dew, Ryan**, Eva Ascarza, Oded Netzer, and Nachum Sicherman (2023), "Detecting Routines: Applications to Ridesharing CRM," *Journal of Marketing Research*.

5. Tian, Zijun\*, **Ryan Dew\***, and Raghu Iyengar (2024), "Mega or Micro? Influencer Selection Using Follower Elasticity," *Journal of Marketing Research*.
6. **Dew, Ryan** (2024), "Adaptive Preference Measurement with Unstructured Data," *Management Science*.
7. **Dew, Ryan\***, Nicolas Padilla\*, Lan E. Luo, Shin Oblander, Asim Ansari, Khaled Boughanmi, Michael Braun, Fred Feinberg, Jia Liu, Thomas Otter, Longxiu Tian, Yixin Wang, and Mingzhang Yin (2024), "Probabilistic Machine Learning: New Frontiers for Modeling Consumers and their Choices," *Forthcoming, International Journal of Research in Marketing*  
Available online at <http://ssrn.com/abstract=4790799>

## WORKING PAPERS

8. **Dew, Ryan** and Yuhao Fan (2024), "Correlated Dynamics in Marketing Sensitivities"  
*Revision invited, Journal of Marketing Research*  
Available online at <http://ssrn.com/abstract=3832290>
9. **Dew, Ryan\***, Nicolas Padilla\*, and Anya Schetkina\* (2024), "Your MMM is Broken: Identification of Nonlinear and Time-varying Effects in Marketing Mix Models"  
*Revision invited, Journal of Marketing Research*  
Available online at <https://arxiv.org/abs/2408.07678>

## RESEARCH IN PROGRESS

- "Optimal Product Design Synthesis: Pairing Generative Models with Adaptive Preference Measurement," with Weixin He
- "Using Haptic Response to Understand and Predict Consumer Preferences and Behavior," with Maximillian Gaerth, Cait Lamberton, and Stefano Puntoni
- "Unified Marketing Measurement and Optimal Test Timing," with Nicolas Padilla
- "Graph-based Methods for Inferring Market Structure," with Mingyung Kim
- "Modeling Routine and Habit Formation" with Christophe Van den Bulte
- "How Do Influencers Learn From Feedback?" with Zijun Tian and Raghu Iyengar
- "Bayesian Analysis of A/B Tests with Partially Observed Assignment," with Yuhao Fan, Eric T. Bradlow, and Peter S. Fader

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\*Asterisks indicate equal first authorship.

## TEACHING

### *Full courses:*

- Wharton **Data and Analysis for Marketing Decisions** (Undergraduate and MBA)  
Years taught: 2019-2023  
Awarded the Excellence in Teaching Award in all years taught.  
Average instructor rating: 3.6/4  
(Historical average for the course: 2.6/4)
- Empirical Models in Marketing, Part B** (Doctoral)  
Years taught: 2023

### *Lectures:*

- Bayesian Nonparametrics (Doctoral seminar, The University of Michigan, 2022)
- Representation Learning (Doctoral seminar, Wharton, 2021)
- Machine Learning and Text Analysis (Doctoral seminar, Wharton, 2019)

## DOCTORAL SUPERVISION

### *Advisor or Co-advisor:*

- **Yuhao (Jeremy) Fan**, The Wharton School, University of Pennsylvania, 2021  
Dissertation: *Marketing Applications of Bayesian Nonparametrics*  
Placement: Data Scientist at URBN
- **Zijun Tian**, Economics Department, University of Pennsylvania, 2023  
Dissertation: *Empirical and Theoretical Investigations in Influencer Marketing*  
Placement: Washington University in St. Louis, Marketing Department

### *Committee Member:*

- **Mingyung Kim**, The Wharton School, University of Pennsylvania (Anticipated graduation in 2024)
- **Henrique Laurino Dos Santos**, The Wharton School, University of Pennsylvania (Anticipated graduation in 2025)

## GRANTS, HONORS, AND AWARDS

- Marketing Science Service Award, 2023
- MSI Young Scholar, 2023
- ISMS Early Career Scholar, 2023
- Winner, Frank M. Bass Award, 2022
- Finalist, John D.C. Little Award, 2022
- Wharton Teaching Excellence Award, 2021
- Finalist, Paul Green Award, 2020

- Wharton Teaching Excellence Award, 2020
- Grant from Analytics at Wharton (\$17,000), 2020
- Finalist, Frank M. Bass Award, 2019
- Wharton Teaching Excellence Award, 2019
- Winner, ISMS Doctoral Dissertation Proposal Competition, 2018
- Winner, American Statistical Association's Marketing Section's Dissertation Award, 2018
- Honorable Mention, MSI Alden G. Clayton Doctoral Dissertation Proposal Competition, 2018
- AMA-Sheth Foundation Doctoral Consortium Fellow, 2017
- ISMS Doctoral Consortium Fellow, 2017
- Amanda and Harold J. Rudolph Fellowship, Columbia Business School, 2016
- Deming Center Doctoral Fellowship, Columbia Business School, 2016
- ISMS Doctoral Consortium Fellow, 2016
- Quantitative Marketing and Structural Econometrics Workshop, 2015
- ISMS Doctoral Consortium Fellow, 2015
- Adobe Digital Marketing Research Award (with Kinshuk Jerath and Miklos Sarvary), 2014

## INVITED TALKS

- University of Miami, Miami Herbert Business School, Nov 2024
- WU Vienna University of Economics and Business, Oct 2024
- Hong Kong University of Science and Technology (Marketing Department), June 2024
- Korea University Business School (Marketing Camp), May 2024 (Upcoming)
- Emory University, Goizueta Business School (Marketing Camp), May 2024 (Upcoming)
- Monash University (Marketing Department), April 2024 (Upcoming)
- Santa Clara University (Leavey), April 2024 (Upcoming)
- Purdue University (Krannert), March 2024
- University of Southern California (Quant Marketing Brown Bag), Feb 2024
- Marketing Modelers, Oct 2023
- Northwestern University (Kellogg), Jan 2023
- University of Delaware, Sep 2022
- ETH Zurich, July 2022
- Frankfurt School, AI and Business Workshop, July 2022
- Boston University (Questrom, IS), May 2022
- University of Chicago (Booth), May 2022
- Hong Kong University of Science and Technology, Feb 2022
- University of Colorado, Boulder (Leeds), Nov 2021
- University of Texas, Austin (McCombs), Nov 2021
- City University of Hong Kong, Nov 2021
- Marketing Modelers, Feb 2021
- Stanford University (GSB), Jan 2021

- Temple University (Global Center on Big Data and Mobile Analytics), Nov 2020
- Rutgers University (RBS), Oct 2020
- Temple University (Global Center on Big Data and Mobile Analytics), Sep 2019
- University of Maryland (Smith), Nov 2018
- Drexel University (Lebow), Oct 2018
- Reykjavik University (School of Business), Oct 2018
- Cheung Kong Graduate School of Business Research Camp, July 2018
- University of Pennsylvania (Wharton), Nov 2017
- Cornell University (Johnson), Oct 2017
- University of Colorado Boulder (Leeds), Oct 2017
- New York University (Stern), Oct 2017
- Yale University (SOM), Oct 2017
- Carnegie Mellon University (Tepper), Oct 2017
- University of Rochester (Simon), Oct 2017
- University of Michigan (Ross), Oct 2017
- University of British Columbia (Sauder), Sep 2017
- University of Pittsburgh (Katz), Sep 2017
- Dartmouth College (Tuck), Sep 2017
- Georgetown University (McDonough), Sep 2017
- Duke University (Fuqua), Sep 2017
- The Ohio State University (Fisher), Aug 2017

## CONFERENCE PRESENTATIONS

- ISMS Marketing Science, Hong Kong, June 2024  
“Adaptive Preference Measurement with Unstructured Data”
- MSI Summit, Los Angeles, CA, February 2024  
Panel Discussion: Challenges in Media Measurement
- Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Philadelphia, PA, December 2023.  
Invited keynote speaker: “Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding”
- 12th Triennial Choice Symposium, Fontainebleau, France, August 2023  
Session Co-chair, Probabilistic Machine Learning for Scalable, Flexible, and Interpretable Models of Choice
- ISMS Marketing Science, Miami, FL, June 2023  
“Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding”
- Theory and Practice in Marketing (TPM), Lausanne, Switzerland, May 2023  
“Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding”
- MSI Analytics Conference, Philadelphia, PA, May 2023  
“Mega or Micro? Influencer Selection Using Follower Elasticity”

- Joint Statistical Meeting, Washington D.C., August 2022  
“Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding”
- ISMS Marketing Science, Virtual, June 2022  
“Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding”
- Machine Learning for Consumers and Markets Workshop, KDD 2021, Virtual, August 2021  
“Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding”
- Theory and Practice in Marketing (TPM), Virtual, June 2021  
“Detecting Routines in Ride-sharing: Implications for Customer Management.”
- ISMS Marketing Science, Virtual, June 2021  
“Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding”
- Bass FORMS Conference, UTD (Virtual), Feb 2021  
“Letting Logos Speak: Leveraging Multiview Representation Learning for Data-Driven Logo Design”
- Marketing Science, Virtual, June 2020  
“Detecting Routines in Ride-sharing: Implications for Customer Management.”
- Four Schools Conference (Columbia, NYU, Wharton, Yale), Virtual, May 2020  
“Letting Logos Speak: Leveraging Multiview Representation Learning for Data-Driven Logo Design”
- Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Philadelphia, PA, December 2019. Invited keynote speaker.  
“Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design.”
- ISMS Marketing Science, Rome, Italy, June 2019  
“Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design.”
- ISMS Marketing Science, Philadelphia, PA, June 2018  
“Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design.”
- EMAC, Glasgow, Scotland, May 2018  
“Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design.”
- ISMS Marketing Science, Los Angeles, CA, June 2017  
“Dynamic Heterogeneity: A Bayesian Nonparametric Approach”
- Marketing Dynamics, Hamburg, Germany, July 2016  
“Gaussian Process Dynamic Choice Models”
- AMA Advanced Research Techniques Forum, Boston, MA, June 2016  
“A Bayesian Semiparametric Framework for Understanding and Predicting Customer Base Dynamics”
- ISMS Marketing Science, Shanghai, China, June 2016  
“Gaussian Process Dynamic Choice Models”
- Data Science Day (Poster Session), Columbia University, April 2016  
“Model-based Dashboards for Customer Analytics”
- ISMS Marketing Science, Baltimore, MD, June 2015  
“Bayesian Semiparametric Modeling of Cohort Lifecycles”

## SCHOLARLY SERVICE

- Associate Editor, *Quantitative Marketing and Economics*, 2024-Present
- Editorial Review Board, *Journal of Marketing Research* 2024-Present
- Editorial Review Board, *Marketing Science*, 2022-Present
- Ad hoc reviewer, *Management Science*, *Journal of Marketing*, and *Journal of Consumer Research*.
- American Statistical Association, Marketing Section, Council of Sections Representative, 2020-2022
- Co-organizer, Bayesian Computation in Marketing Interschool Reading Group, 2020-Present

## OTHER

Languages:

- Computer: Python, R (+ Stan, PyTorch)
- Human: English (native), Mandarin (intermediate), Spanish (basic)

Citizenship: United States

*Last update: November 5, 2024*