# Ryan Dew

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## ACADEMIC APPOINTMENTS

The Wharton School, University of Pennsylvania 2018 - Present Assistant Professor of Marketing

## **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

### **Publications**

1. **Dew, Ryan** and Asim Ansari (2018), "Bayesian Nonparametric Customer Base Analysis with Model-based Visualizations," *Marketing Science*.

This work was a finalist for the 2019 Frank M. Bass Award.

2. **Dew, Ryan**, Asim Ansari, and Yang Li (2020), "Modeling Dynamic Heterogeneity Using Gaussian Processes," *Journal of Marketing Research*.

This work was a finalist for the 2020 Paul Green Award.

3. **Dew, Ryan**, Asim Ansari, and Olivier Toubia, "Letting Logos Speak: Leveraging Multiview Representation Learning for Data-Driven Logo Design," Forthcoming, *Marketing Science*.

Available online at: http://ssrn.com/abstract=3406857

## WORKING PAPERS

4. **Dew, Ryan**, Eva Ascarza, Oded Netzer, and Nachum Sicherman, "Detecting Routines in Ridesharing: Implications for Customer Management"

Working paper available by request.

5. **Dew, Ryan** and Yuhao Fan, "A Gaussian Process Model of Cross-Category Dynamics in Brand Choice"

Available online at http://ssrn.com/abstract=3832290

6. Fan, Yuhao, **Ryan Dew**, Eric T. Bradlow, and Peter S. Fader, "The Impact of a Free Cancellation Program on Customer Booking Behavior and Firm Performance"

Working paper available by request.

## RESEARCH IN PROGRESS

7. "Preference Measurement with Unstructured Data, with Applications to Adaptive Customer Onboarding Surveys."

Conference-style short paper available by request.

- 8. "Winning the Attention Race: Analyzing Video Popularity And Content Evolution On TikTok," with Zijun Tian and Raghu Iyengar
- 9. "Causal Reasoning for Unified Marketing Measurement under Privacy Regulations," with Nicolas Padilla
- 10. "Learning Cross-market Style Diffusion with Representation Learning," with Anuj Kapoor
- 11. "Touchstreams: Learning Preferences from Feed Navigation," with Yoonduk Kim

#### TEACHING

#### Full courses:

Wharton Data and Analysis for Marketing Decisions (Undergrad and MBA)

Years taught: 2019-2021

Awarded the Excellence in Teaching Award in all years taught.

Most recent instructor rating: 3.7/4

(Historical average for the course: 2.6/4)

#### Tutorials and seminars:

Wharton Representation learning (Guest lecture, Ph.D. seminar, 2021)

Machine learning and text analysis (Guest lecture, Ph.D. seminar, 2019)

Columbia Estimating Bayesian Models with Stan (Ph.D. tutorial)

Introduction to Programming in R (Ph.D. tutorial)

Marketing Insights with Regression Analysis (MBA tutorial)

Conjoint Analysis (MBA tutorial)

## **DOCTORAL SUPERVISION**

#### Advisor or co-advisor:

- Yuhao (Jeremy) Fan, The Wharton School, University of Pennsylvania, 2021 Dissertation: *Marketing Applications of Bayesian Nonparametrics*
- Zijun Tian, Economics Department, University of Pennsylvania, anticipated 2023.

## Grants, Honors, and Awards

- Paul Green Award Finalist, 2020
- Wharton Teaching Excellence Award, 2020
- Analytics at Wharton Grant (\$17,000), 2020
- Frank M. Bass Award Finalist, 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**

- Boston University (Questrom), May 2022 (Upcoming)
- University of Chicago (Booth), May 2022 (Upcoming)
- University of Colorado, Boulder (Leeds), Nov 2021 (Upcoming)
- University of Texas, Austin (McCombs), Nov 2021 (Upcoming)
- 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

- Machine Learning for Consumers and Markets Workshop, KDD 2021, Virtual, August 2021 "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding"
- 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."
- Marketing Science, Rome, Italy, June 2019
  "Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design."
- 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."

- 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"
- 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"
- Marketing Science, Baltimore, MD, June 2015
  "Bayesian Semiparametric Modeling of Cohort Lifecycles"

## SCHOLARLY SERVICE

- Marketing Science Editorial Review Board, 2022-2024
- Ad hoc reviewer, Management Science, Journal of Marketing Research, Journal of Marketing.
- American Statistical Association Section on Marketing, Council of Sections Representative, 2020-2022

## **OTHER**

#### Languages:

- Computer: R, Python, Stan, Mathematica, PyTorch, Tensorflow, Julia (basic), SQL (basic)
- Human: English (native), Mandarin (intermediate), Spanish (basic)

Citizenship: United States

Last update: November 9, 2021