Yu Song

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Education

Stephen M. Ross School of Business, University of Michigan, Ann Arbor, MI

Ph.D. in Marketing 2026 (Expected)

University of Michigan, Ann Arbor, MI

B.S. *Highest Distinction* in Economics (*Highest Honors*); Mathematics 2020

Research Interests

Substantive: Platform Economy, Personalization, Pricing, Social Media, Public Policy

Methodological: Field Experiment, Structural Modeling, Causal Inference, Deep Learning/AI

Job Market Paper

"Optimizing Multi-Stage Personalization in the Customer Journey"

Publications

Song, Yu, and Puneet Manchanda (2025). "Frontiers: Does Carrying News Increase Engagement with Non-News Content on Social Media Platforms?" *Forthcoming, Marketing Science*

Working Papers

"How Effective Is Suggested Pricing?: Experimental Evidence from an E-Commerce Platform" with Jessica Fong and Puneet Manchanda. *Revise & Resubmit, Journal of Marketing Research*

Work in Progress

"How Does Customer Feedback Affect Product Development on Digital Media Platforms?" with Mainak Sarkar and S. Sriram.

"Balancing Short-Run and Long-Run Effects of Personalization" with Puneet Manchanda.

"The Value of Cross-Selling" with Puneet Manchanda.

– Recipient of Wharton AI & Analytics for Business Data Grant

Awards and Honors

AMA-Sheth Foundation Doctoral Consortium Fellow, 2025

ISMS Doctoral Consortium Fellow, 2025

Rackham Predoctoral Fellowship, University of Michigan, 2025

– One of the most prestigious awards at the university level

NBER Digital Economics and AI Tutorial Fellow, 2025

Rackham Research Grant, University of Michigan, 2025

Milton G. and Josephine Kendrick Marketing Award, University of Michigan, 2024, 2025

Stark Award for Academic Excellence, University of Michigan, 2024

Haring Symposium Fellow, Indiana University, 2024

Thomas W. Leabo Memorial Award for Teaching Excellence, University of Michigan, 2024

Wharton AI & Analytics for Business Data Grant, 2023

NBER Economics of Privacy Tutorial Fellow, 2022

Highest Distinction, University of Michigan, 2020

Sims Prize in Economics, University of Michigan, 2020

Highest Honors in Economics, University of Michigan, 2020

Conference Presentations

Wharton Customer Analytics Symposium, University of Pennsylvania, May 2024

Haring Symposium, Indiana University, April 2024

Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Temple University, December 2023

45th ISMS Marketing Science Conference, University of Miami, June 2023

Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Harvard Business School, December 2022

Annual Data Science & AI Summit (Poster), University of Michigan, November 2022

44th ISMS Marketing Science Conference, University of Chicago, June 2022

5th Annual Data for Public Good Symposium (Poster), University of Michigan, March 2022

Platform Strategy Research Symposium, Boston University, July 2021

19th ZEW Conference on the Economics of ICT, June 2021

43rd ISMS Marketing Science, University of Rochester, June 2021

Teaching

Teaching Interests

Digital Marketing, AI/Machine Learning in Marketing, Pricing Analytics and Strategy, Data Analytics, Social Media Marketing, Retail Marketing Management, Marketing Research

Instructor

Marketing Management (Undergraduate), Spring 2023

– Instructor Evaluation: **4.9**/5.0

– Thomas W. Leabo Memorial Award for Teaching Excellence

Teaching Assistant

Marketing Strategy for the Digital Age (MBA), Winter 2024

Empirical Models in Marketing (PhD), Fall 2023

Marketing Research and Analytics (MBA & Undergraduate), Fall 2022, Fall 2023, Fall 2024

New Product and Innovation Management (MBA), Fall 2022, Fall 2023, Fall 2024

Professional Services

Ad Hoc Reviewer

Management Science

Conference Session Chair

Conference on Artificial Intelligence, Machine Learning, and Business Analytics, 2023

ISMS Marketing Science Conference, 2023

Selected Graduate Coursework

Marketing / Business

Choice Theory and Modeling (Fred Feinberg)
Structural Models (S. Sriram)
Empirical Models in Marketing (Puneet Manchanda)
Marketing Empirical Modeling Using Bayesian Methods and Inference (Anocha Aribarg)
Cognition, Memory and fMRI (Richard Bagozzi & Carolyn Yoon)
Judgement and Decision Making (Scott Rick)
Advertising and Branding (Rajeev Batra)
Applied Sensation and Perception (Aradhna Krishna)
Empirical Methods in Operations Management (Jun Li)
Empirical Research Methods (Maggie Yue Zhou)

Economics

Microeconomics Theory (Shaowei Ke)
Game Theory (David Miller)
Applied Microeconometrics I (Melvin Stephens)
Applied Microeconometrics II (Yuehao Bai)
Industrial Organizations and Public Policy (Ying Fan)

Statistics / Computer Science

Probability Theory (Jinho Baik)
Discrete State Stochastic Processes (Joseph Conlon)
Causal Inference (Kevin Quinn)
Bayesian Modeling (Long Nguyen)
Machine Learning (Clayton Scott)
Natural Language Processing (Joyce Chai)
Reinforcement Learning (Lei Ying)
Causal Machine Learning (Max Farrell & Sanjog Misra)

References

For reference letters, please contact Karen Phelps at klweber@umich.edu.

Jessica Fong (Co-Advisor)
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S. Sriram
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Research Abstracts

"Optimizing Multi-Stage Personalization in the Customer Journey" *Job Market Paper*

Firms increasingly leverage personalization to influence product discovery and enhance user engagement throughout the customer journey. However, implementing effective personalization across multiple stages remains challenging, because each stage differs in user intent, attention, and responsiveness. The combined impact of multi-stage personalization remains unclear. This paper examines personalization at two key stages: an early, firm-initiated recommendation stage and a later, user-initiated search stage. Using data from a field experiment on a large e-commerce platform, I find that personalizing recommendations increases immediate revenue but decreases revenue in the later search stage, resulting in no net gain. I then develop and deploy a personalized search-ranking algorithm in a subsequent field experiment. The results show that search-stage personalization lowers search costs, increases transactions, and does not cannibalize earlier recommendation-stage revenue. Since these experiments alone cannot evaluate all combinations of multi-stage personalization, I build a structural consumer search model. I exploit experimental variation to estimate the model using a neural network approach, which helps improve computational efficiency. Counterfactual simulations reveal that personalizing only the search stage leads to higher revenue than personalizing both stages or only the recommendation stage. Moreover, personalizing personalization based on consumers' search costs further increases total revenue. These findings identify the conditions under which personalization is most effective, and offer guidance for firms on how to optimize personalization across stages and consumers.

"How Effective Is Suggested Pricing?: Experimental Evidence from an E-Commerce Platform" with Jessica Fong and Puneet Manchanda. *Revise & Resubmit, Journal of Marketing Research*

Many platforms face the challenge of not being able to directly set prices for products, instead relying on each seller to do so. However, these sellers often lack the experience and information about market conditions to price their products effectively, leading to price inefficiencies. To address this, some platforms offer suggested prices, but the impact of these recommended prices remains uncertain. In this paper, we investigate the effectiveness of platform-suggested prices in influencing sellers' pricing decisions and selling outcomes. In collaboration with an e-commerce platform, we conduct a field experiment that varies whether a seller receives a suggested price, and if so, the suggested price itself. We find that a 30% change in suggested prices leads to a 5% change in listing prices in the same direction. Suggested prices are more influential when pricing is more challenging, such as for new sellers and items in non-new condition. Lower suggested prices improve both the likelihood of sale and the resulting seller revenue. We show, in a subsequent experiment, that these results are likely to generalize to the full equilibrium. Our findings imply that platform-suggested pricing is an effective compromise that guides seller pricing while allowing them to incorporate their private information.

"Does Carrying News Increase Engagement with Non-News Content on Social Media Platforms?" with Puneet Manchanda. *Forthcoming, Marketing Science*

The rapid growth of online news aggregators has intensified the debate over whether they should compensate news publishers for redistributing news content. Regulators worldwide are working to develop policies that balance the interests of both parties. However, there is limited understanding of the impact of carrying news on news aggregators, especially on their non-news content. Our research fills this gap by examining the impact of news on non-news user engagement and content generation on Facebook. We utilize a natural experiment—the Facebook Australia news shutdown in 2021—and apply a difference-in-differences approach to quantify these effects. We find that, in the short run, both user engagement and content generation of non-news content on Facebook decreased after the news shutdown. Moreover, the effects were more pronounced for non-news posts with negative sentiment and higher popularity, as well as for non-news accounts that are more socially active, experienced, and verified. These results highlight the positive spillover effects of news on non-news content, and provide timely and relevant insights for regulators, news publishers, social media platforms that carry news, and content creators on social media platforms.

"How Does Customer Feedback Affect Product Development on Digital Media Platforms?" with Mainak Sarkar and S. Sriram.

Content creators often find it difficult to anticipate and satisfy their audience's needs, but the rise of online reviews offers a valuable source of real-time feedback. However, effectively incorporating feedback requires providers to invest time and leverage their experience. It remains unclear when and how producers should act on feedback during the development of a product series. If feedback reflects the majority point of view, making changes can increase popularity and signal care for customers. Nonetheless, if feedback only represents minority opinions, changes may not resonate with the broader audience. In addition, customers may lack the expertise to suggest changes that are feasible or optimal, and the suggested changes may not be compatible with the

existing product. We examine when and how content producers respond to customer feedback shared through reviews, the consequences of those responses, and how feedback can be effectively used. Our study uses data from a major podcast platform. As episodes are released continuously, creators have repeated opportunities to respond to listener feedback. We first employ state-of-the-art natural language processing and large language models to extract actionable suggestions from unstructured review text, such as audio quality, content topic, voice-to-music balance, and speaking speed. We then apply deep learning methods and draw on behavioral and pedagogical theories to analyze audio data to examine whether those suggestions are implemented. Our results show that producers are most responsive to feedback delivered mid-series and on their most popular episodes. Moreover, early incorporation of listener input leads to significant increases in engagement in later episodes. We aim to identify the optimal timing and strategy for incorporating feedback. The findings will inform how platforms can solicit and present reviews, and guide content creators on how and when to incorporate feedback.

"The Value of Cross-Selling" with Puneet Manchanda.

For companies with broad product portfolios, understanding consumer behavior across categories becomes essential for effective cross-selling. However, the mechanisms behind cross-category consumption remain underexplored, especially for non-complementary products. This paper asks two questions: When and why do consumers purchase products across distinct categories? How does a purchase in one category spill over into another? Leveraging individual-level data on grocery, insurance, financial-services, and vehicle purchases, we first document reduced-form cross-category patterns. For example, we find a complementarity between grocery promotions and credit-card ownership. A Causal Forest analysis shows that the promotional spillovers on purchase quantity and variety are strongest among younger, childless consumers. We then develop a structural model of consumer cross-category consumption decisions for both complementary and non-complementary products. Through counterfactual simulations, we aim to explore cross-category discount and bundling designs. Firms could use our findings to maximize the returns on their cross-selling efforts.

"Balancing Short-Run and Long-Run Effects of Personalization" with Puneet Manchanda.

We investigate how platforms can balance the short-term and long-term effects of personalization. Analyzing data from a long-term personalized recommendation experiment on an e-commerce platform, we find that, in the short run, personalization reduces search friction and boosts platform revenue. However, in the long run, personalization narrows the variety of products displayed to consumers, leading to declines in engagement and retention. Sellers also strategically adjust their product assortments and pricing to compete for visibility in recommendations. These seller responses, in turn, impact consumer welfare and platform performance. We examine the long-run effects of personalization by accounting for both consumer responses and sellers' strategic behavior. We aim to propose a personalization design that maximizes short-run conversion while promoting long-run consumer exploration and seller participation.

Last updated: May 2025