

Xiaojie Li

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Research Interests

- Substantive: Platforms Economy, Digital Marketing, Influencer Marketing
- Methodological: Structural Models, Causal Inference, Machine Learning

Education

Simon Business School, University of Rochester, 2019 - 2025 (Expected)

Ph.D., Quantitative Marketing

Committee: Profs. Paul B. Ellickson (Co-chair), Yufeng Huang (Co-chair), Mitchell J. Lovett, Takeaki Sunada

M.S., Business Research

The London School of Economics and Political Science, 2018

MSc (with *Distinction*), Economics

Extended Essay Supervisor: Prof. John Sutton

Boston College, 2017

B.S., Mathematics, B.A., Economics (Honors), *Cum Laude*

Honors Thesis Advisor: Prof. Christopher F. Baum

Working Paper

- “Data Preferences in Firm Learning: Evidence from an Online Auction Platform” (**Job Market Paper**)
- “Shaping the Influencers: The Role of Multi-Channel Networks”, with Yulin Hao
 - Revise and Resubmit at *Journal of Marketing Research*

Work in Progress

- “Consumers as Helping Hands: The Value of Incentives in Mitigating Demand Fluctuations under Capacity Constraints”, with Yufeng Huang and Takeaki Sunada
- “Optimal Design of Credit Card Discounts: Monetizing Discount Synergy Across Products”, with Bowen Luo and Ruiqi Wu
 - Data access through collaborating with Wharton AI & Analytics for Business (AIAB)

- “Bargaining in New Product Launch (tentative title)”, with Mitchell J. Lovett and Bowen Luo
 - Rochester IRB #00008505 (Exempted)
 - Awaiting data collection by the industry collaborator

Presentations

- “Shaping the Influencers: The Role of Multi-Channel Networks”
 - 2023: EARIE Annual Conference
- “Consumers as Helping Hands: The Value of Incentives in Mitigating Demand Fluctuations under Capacity Constraints”
 - 2023: Marketing Science Conference

Honors and Awards

- AMA-Sheth Foundation Doctoral Consortium Fellow, 2023
- ISMS Doctoral Consortium Fellow, 2023
- Graduate Fellowship, Simon Business School, University of Rochester, 2019 - Present
- Undergraduate Research Fellowship (x2), Boston College, Summer & Fall 2016
- Omicron Delta Epsilon (economics honors society)

Research Experience

- Research Associate in Economics, School of Management and Economics, the Chinese University of Hong Kong - Shenzhen, 2018 - 2019
- Research Assistant to Prof. Julie Holland Mortimer, Department of Economics, Boston College, 2016 - 2017

Teaching Experience

- Simon Business School, University of Rochester
 - Lab Instructor
 - * GBA424 Analytics Design and Applications
 - Ratings: 4.59/5.00 (2020 Fall); 5.00/5.00 (2021 Summer); 4.81/5.00 (2021 Fall).
 - Teaching Assistant
 - * MKT436R/GBA436R Predictive and Causal Analytics (2021 Summer, 2022 Fall)
 - * MKT440 Pricing Analytics (2022 Spring, 2023 Spring)
 - * GBA412 Data Analytics (2022 Fall)

- School of Management and Economics, the Chinese University of Hong Kong - Shenzhen
 - Teaching Assistant
 - * ECO3121 Introductory Econometrics (2018 Fall)
 - * MAT3010 Calculus for Economic Analysis II (2018 Fall)
 - * ECO3021 Intermediate Macroeconomics (2019 Spring)
 - * ECO4020 Advanced Macroeconomics (2019 Spring)
- The Connors Family Learning Center, Boston College
 - Tutor in Mathematics and Economics

Services

- Organizer, Quant Marketing Student Reading Group at Simon Business School, University of Rochester, 2021 - 2023

Personal

- Programming: Julia, R, MATLAB, Python, Stata
- Language: English (Fluent), Mandarin (Native), Spanish (Beginner)
- Hobbies: Taekwondo (3rd Dan Black Belt; Clubs: LSE Taekwondo Club, BC SMAC), Running, Cooking

References

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Paper Abstracts and Project Descriptions

- “Data Preferences in Firm Learning: Evidence from an Online Auction Platform” (**Job Market Paper**)

Abstract: Governmental organizations have promoted data sharing across firms to expedite firms’ learning to improve business decisions. However, current discussions have largely overlooked the possibility that firms may prefer their own data over others’ data. This paper investigates such data preferences among firms, focusing on used-car auction sellers on Ali Auction, the largest online auction platform in China. These sellers primarily decide on auction timing, which is crucial on this platform as payoffs vary by hour. Despite being experienced local sellers before joining the platform, these sellers face national demand and competition in the online environment, creating the scope for learning. I develop a structural model of sellers’ learning based on their own and others’ data to optimize auction timing. The model estimates suggest that sellers’ preferences for different data sources change with experience, with sellers relatively weighing their own data at 90% compared to 10% for others’ data at the average level of experience. The counterfactual results show that data preferences are the main reason that prevents the sellers from achieving full potential profit. These findings have two implications for the platform. First, data sharing alone may not effectively guide sellers in selecting optimal auction timing. Second, the platform can leverage sellers’ data preferences to guide new sellers to optimal timing early in their tenure, ensuring lasting benefits. Overall, the platform should play a coordinating role in helping sellers identify the best timing for their auctions.

- “Shaping the Influencers: The Role of Multi-Channel Networks,” with Yulin Hao

– Revise & Resubmit at *Journal of Marketing Research*

Abstract: In this paper, we study the effect of affiliating with multi-channel networks on influencer content. Social media influencers are increasingly affiliating with multi-channel networks (MCNs), also known as influencer agencies. These MCNs recruit influencers, help them monetize their content, and are directly involved in content creation. Yet, how these MCNs change influencer content remains unclear to the social media platforms. Understanding this can guide social media platforms in deciding whether to limit or embrace MCNs. This paper provides the first empirical examination of the effects of MCN affiliation on influencer content. To this end, we construct a unique dataset tracking influencers’ changes in their MCN affiliation on TikTok in China. Leveraging natural language processing and GenAI, we distill video content and sponsorship information. Using a difference-in-differences strategy, we compare influencers who switched their affiliation status with observably similar non-switchers. The findings reveal that MCN affiliation enhances content engagement and leads to more homogeneous and focused content, steering influencers towards topics with higher advertising prices. However, the content quantity does not change. When influencers affiliate with MCNs, these influencers also have more sponsorships and charge a higher advertising price, which is predominantly driven by changes in content resulting from the affiliation. These results suggest that platforms and influencers can benefit from improved engagement and sponsorships resulting from MCN affiliation. Although advertisers face higher advertising prices charged by MCN-affiliated influencers, these prices are justified by more engaging and focused content, which may also be beneficial to the advertisers. Overall, we believe that the emergence of MCNs generates benefits for all the parties involved in our context.

- “Consumers as Helping Hands: The Value of Incentives in Mitigating Demand Fluctuations under Capacity Constraints”, with Yufeng Huang and Takeaki Sunada

Description: This paper focuses on how platforms can use pricing to harness the spillover effects of consumer usage to mitigate demand fluctuations under capacity constraints. Platforms in bike/rideshare and delivery services face spillover effects from consumer usage, as the usage from one consumer will move bikes/cars and delivery drivers to another. This spillover effect will propagate demand fluctuations from one market to the entire network. As these platforms often cannot freely adjust their supply due to capacity constraints, they rely on costly centralized allocation to mitigate demand fluctuations. Focusing on the bikeshare system in New York City, Citi Bike, we explore how incentives (i.e., temporal discounts) can be designed to mitigate demand fluctuations. We collect high-frequency station information from Citi Bike’s API and combine that with the aggregated bike trip data and the micromobility data from SafeGraph to capture the underlying market demand. We estimate a structural demand model of consumers’ bike-share decisions with a Poisson arrival process of the consumers. The model estimates suggest that consumers value the discounts offered and dislike walking to the stations. In the counterfactual analyses, we aim to quantify the spillover effects and explore alternative designs to examine whether pricing-based incentives can achieve the goals of centralized allocation in a more cost-effective way.

- “Optimal Design of Credit Card Discounts: Monetizing Discount Synergy Across Products”, with Bowen Luo and Ruiqi Wu

Description: We study how to design product discounts to steer consumers to use the private-label credit card issued by the retailer. Since consumers tend to choose a single payment method for the entire shopping basket, this creates a spillover effect when a product in the basket is on discount. Leveraging the spillover effects into the discount design can potentially offer the sellers a more cost-effective way to promote the usage of credit cards by their customers.

- “Bargaining in New Product Launch (tentative title)”, with Mitchell J. Lovett and Bowen Luo

Description: We provide descriptive documentation of the bargaining process between an upstream manufacturer and downstream retailers as the manufacturer is launching a new product. Despite a large theory literature on bilateral bargaining in marketing and economics, little has been observed by researchers on the bargaining process in a real-world setting. With this detailed description, we will test current economic theories and hope to provide new perspectives to the bargaining literature.