

Dai YAO

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Education

PhD in Management (Marketing), INSEAD, 2009-2014
MSc in Operations Management, Singapore Management University, 2007-2009
B.Eng in Computer Science and Technology, Tsinghua University, 2002-2006

Professional Experience

Associate Professor of Marketing, The Hong Kong Polytechnic University, 2021.09-
Assistant Professor of Marketing, National University of Singapore, 2014.07-2021.06

Research

Interests/expertise and topics

† Development, Application, and Incubation (DAI) of Statistics, Artificial intelligence, Neuroscience, and Economics based (SANE) solutions for business problems, using a Data-driven, Analytics-rooted, and Intelligence-guided (DAI) approach

† Digital economies; omni-channel; social influences; free samples; pay-what-you-want; decision biases; emotion; satisfaction; spillover; nudge; learning; privacy

Publications † equal authorship. ‡ correspondence. * student when the project started.

1. Duong, Hai Long*, Junhong Chu, and Dai Yao (2021), "Taxi Drivers' Response to Cancellations and No-shows: New Evidence for Reference-dependent Preferences," *Management Science*, forthcoming.
2. Lin, Yan, Dai Yao, and Xingyu Chen (2021), "Happiness Begets Money: Emotion and Engagement in Live Streaming," *Journal of Marketing Research*, 58(3), 417-438. († first two authors in alphabetical order)
3. Lu, Shijie, Dai Yao, Xingyu Chen, and Rajdeep Grewal (2021), "Do Larger Audiences Generate Greater Revenues under Pay What You Want? Evidence from a Live Streaming Platform," *Marketing Science*, 40(5), 964-984.

4. Chen, Xingyu, Xing Li, Dai Yao, and Zhimin Zhou (2019), "Seeking the Support of the Silent Majority: Are Lurking Customers Valuable to UGC Platforms?" *Journal of the Academy of Marketing Science*, 47(6), 986-1004. († authors in alphabetical order)
5. Chae, Inyoung, Andrew Stephen, Yakov Bart, and Dai Yao (2017), "Spillover Effects in Seeded Word-of-Mouth Marketing Campaigns," *Marketing Science*, 36(1), 89-104.
6. Lobo, Miguel Sousa, and Dai Yao (2021), "Human Judgment is Heavy-Tailed: Empirical Evidence and Implications for the Aggregation of Estimates and Forecasts," *Management Science*, conditional acceptance.

Selected working papers (manuscripts of all papers available upon request)

7. Yao, Dai, Chuang Tang*, and Junhong Chu, "A Dynamic Model of Owner Acceptance in Peer-to-Peer Sharing Markets," major revision, preparing for 2nd round review at *Marketing Science*.
8. Li, Xi, Yacheng Sun, and Dai Yao, "In-Store Social Crowdedness and Customer Purchases," († authors in alphabetical order).
9. Yao, Dai, Juin Kuan Chong, and Zhiyuan Liu, "Prospect of Financial Rewards Induces Strategic Provision of Free Content."
10. Chen, Xingyu, Yan Lin, and Dai Yao, "All Smiles Are Not Created Equal: Duchenne Smile Reduces Extrinsic Rewards from Viewers in Live Streaming," († authors in alphabetical order).
11. Yao, Dai, Xing Li, and Xingyu Chen, "Ordeal by Innocence: Proactive Nudging and User Engagement in Online Communities."
12. Yao, Dai, Shijie Lu, and Xingyu Chen, "Social Impact of Viewer Engagement in Live Streaming."
13. Yao, Dai, and Kaiquan Xu, "Content Monetization and Preview Design."
14. Yang, Nan, Dai Yao, and Juin Kuan Chong, "A Dynamic Model of Service Usage, Customer Satisfaction, and Retention."
15. Yao, Dai, "Field Evidence of Inflated Stochastic Variance When Making Future Consumption Decisions."

Selected working-in-progress

16. Yao, Dai, Xingyu Chen, and Yan Lin, "Emotion Management in Live Streaming."
17. Yao, Dai, "The Single-Unit Revenue Management Problem."
18. "Modelling Coevolution of Networks and User Behaviors," with Banggang Wu and Qiyuan Wang.

19. "Influencer Marketing," with Fine Fanni Leung, Flora Fang Gu, and Angela Yi Gao.

Cases

1. "Youliaodao in the Era of Paid Knowledge: Go Big or Go Home?" Chen, Xingyu, Ling Jiang, Li Ji, and Dai Yao[‡]. *Ivey Publishing*. [9B2oAo31](#).
2. "Mobiuspace: Venturing into Emerging Markets," Chen, Xingyu, Li Ji, Ling Jiang, Shijie Lu, and Dai Yao[‡]. *Ivey Publishing*. [9B2oAo40](#).
3. "Influencer Marketing: The Exploration of Mobiuspace in Latin American Short Video Markets," Chen, Xingyu, Li Ji, Ling Jiang, Sentao Miao, Cong Shi, Shijie Lu, and Dai Yao[‡].

Academic Presentations * selected presentations by coauthors.

All Smiles Are Not Created Equal: . . .

- Nanyang Technological Univeristy (IS), 2021

A Dynamic Model of Owner Acceptance in Peer-to-Peer Sharing Market

- Boston College, 2021
- Univ. of Houston, 2018

Social Impact of Viewer Engagement in Live Streaming

- *Theory+Practice in Marketing Conference*, Columbia Univ., 2019

Ordeal by Innocence: . . .

- *Interactive Marketing Research Conference*, Univ. of London, UK, 2020 (*cancelled*)
- Business School of Hunan University, 2019
- PKU HSBC Business School, Shenzhen, China, 2019

Prospect of Financial Rewards Induces Strategic Provision of Free Content

- HEC Paris, 2019*
- *NUS-Tsinghua Workshop on Digital Economy*, NUS, 2019

Content Monetization and Preview Design

- *Marketing Analytics Symposium at Sydney (MASS)*, UNSW, 2020
- *Marketing Science Conference*, Univ. of Roma Tre & NYU Stern, Italy, 2019
- *Marketing Dynamics Conference*, Univ. of Maryland, 2019
- *CMU-Temple Conference on Digital Marketing and Machine Learning*, CMU, 2018
- *NSFC-RGC Young Scholars Forum*, Harbin, China, 2018*
- *NUS-USTC Workshop on Data Driven Prescriptive Analytics*, NUS, 2018

Happiness Begets Money: Emotion and Engagement in Live Streaming

- Hong Kong Polytechnic Univ., 2021
- School of Economics and Management, Tsinghua Univ., 2020
- Guanghua School of Management, Peking Univ., 2020
- City Univ. of Hong Kong, 2020
- *Marketing Science Virtual Conference*, Duke Univ., 2020
- *The 18th Pre-ICIS Workshop on e-Business*, Munich, Germany, 2019*
- *Conference on AI & ML, and Business Analytics*, Temple Univ., 2019

Do Larger Audiences Generate Greater Revenues under Pay What You Want: . . .

- Xiamen Univ., 2018
- *China India Insights Conference*, Yale & INSEAD, 2018
- *NUS-Tsinghua Workshop on Digital Economy*, Tsinghua Univ., 2018
- *The 12th Annual Bass FORMS Conference*, UT Dallas, 2018*
- *Conference on Digital, Mobile Marketing, and Social Media Analytics*, NYU, 2017*
- *Marketing Dynamics Conference*, HKUST, 2017
- Guanghua School of Management, Peking Univ., 2017
- *Marketing Science Conference*, USC, 2017

Multi-Step Matching in Peer-to-Peer Sharing Markets

- *China India Insights Conference*, Yale & INSEAD, 2018*
- *INFORMS International Conference*, Taipei, 2018
- *JMS China Marketing Conference*, Jinan Univ., Guangzhou, 2017*
- *Marketing Science Conference*, Shanghai, 2016*

Online Retail in Developing Economies: Drivers of Product Returns

- Fisher College of Business, Ohio State Univ., 2019
- Shenzhen Audencia Business School, Shenzhen Univ., 2019
- *MSOM Conference*, Dallas, 2018*
- *POMS Conference*, Houston, 2018*

Taxi Drivers' Response to Cancellations and No-shows: . . .

- *Quantitative Marketing and Economics Conference*, Univ. Chicago, 2018*

The Impact of Response Time in Matching Markets

- *JMS China Marketing Conference*, Jinan Univ., Guangzhou, 2017*
- Wuhan Univ., 2017
- *China Marketing International Conference*, UIBE, Beijing, 2017*
- Renmin Univ., Beijing, 2016
- Shenzhen Univ., Shenzhen, 2016

Demand Estimation with Non-Constant Stochastic Variances: . . .

- Hong Kong Polytechnic Univ., 2017

- *Marketing Dynamics Conference*, Tsinghua Univ., 2015
- *Marketing Science Conference*, Johns Hopkins Univ., 2015

Multi-Feature Product Usage with Learning

- *Greater-China Conference on Mobile Big Data Marketing*, CUHK, 2016
- *INSEAD Brownbag Seminars*, Singapore, 2013
- *Marketing Science Conference*, Istanbul, Turkey, 2013

Why Customers Upgrade Their Reserved Options: The Impact of the Reservation Gap

- Wharton, Univ. of Pennsylvania, 2014*
- *Marketing Dynamics Conference*, Stanford GSB, 2014

Human Judgment is Heavy-Tailed

- *Multidisciplinary Decision Science Symposium*, Singapore, 2010
- *INFORMS Annual Meeting*, UT Austin, 2010

Discussant

Deep Network Representation Learning for Market Structure Discovery. Yi Yang, Kunpeng Zhang, and P.K. Kannan. *The 14th Bass FORMS conference*, UT Dallas, 2020

Invited Presentations in Corporates

Asia Pricing & Revenue Management Summit, Aug 2019 ([link](#))

Mining Consumer Financing Data, [Visa Inc.](#), Feb 2019

Online Business and Digital Marketing, [6estates](#), Aug 2018

Mobile Games and Customer Lifetime Value, [Bolegames](#), Dec 2017

Multiple project specific presentations at collaborating firms including [PPzuche](#), [Shopee](#) (NYSE:SE), [Qiushibaike](#), [Mobiuspace](#), [AutoHome](#) (NYSE:ATHM), [Tsinghua XuetangX](#), [China Distance Education Holdings](#) (NYSE:DL, delisted), among others.

Services

Community

Ad-hoc reviewer: *Marketing Science*, *Management Science*, *Journal of Marketing*, *Production and Operations Management*, *Journal of Interactive Marketing*

At NUS

Seminar coordinator (quant) for the department: 2016-2018.

PhD committee member for the department: 2019.12-2021.06.

Grants

2022-2024 (PI), Postdoctoral Fellow Scheme (in support of one PF), Faculty of Business, HK PolyU, \approx HKD 650,000

2021-2024 (PI), Start-up Grant, HK PolyU, HKD 500,000

2018-2020 (PI), Academic Research Fund (AcRF) Tier 1, Ministry of Education, Singapore, SGD 40,000

2017-2018 (Co-PI), Ng Teng Fong Charitable Foundation Research Fund, SGD 33,560

2015-2017 (PI), Humanities and Social Sciences Seed Fund, NUS, SGD 35,000

2014-2017 (PI), Start-up Grant, NUS, SGD 90,000

2013 (Co-PI), INSEAD Research Fund for "Multi-Feature Product Usage With Learning", EURO 1,800

Data Grant from Wharton Consumer Analytics Initiative on the Hertz data, 2012

2014-now, Collaborator for multiple projects funded by National Science foundation of China

Students

At NUS

Chuang Tang, 2014-2019, placed at Peking University HSBC Business School.

Yue Wang, 2014-2016, placed at Singapore University of Social Science.

Teaching

At NUS

MKT3761E, Marketing in Social Networks, NUS BBA, 2021

MKT3421/MKT3811, Marketing Analysis and Decision Making, NUS BBA, 2015-2020

BMS5504, Marketing Analysis and Decision Making, NUS Masters, 2018,2019,2020

DBA3702, Descriptive Analytics with R, NUS BBA, 2019,2020

Industrial Experience

Fulltime employee at Youdao ([NYSE:DAO](#), a subsidiary of Netease, [NASDAQ:NTES](#)), 2007.03–07.

Fulltime intern/trainee at Microsoft Research Asia ([NASDAQ:MSTF](#), 2006.07–2007.03), International Data Corporation (a.k.a. IDC, a wholly-owned subsidiary of IDG Capital, 2006.03–06), Infosys ([NYSE:INFY](#), 2005.09–2006.03, in India), Sohu.com ([NASDAQ:SOHU](#), 2005.07–09), among others.

Trader, JPMorgan, Proprietary Trading, Singapore, 2008 (*cancelled due to global financial crisis*).