

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; omnichannel; social influences; previews; free samples; pay-what-you-want; decision biases; emotion; satisfaction; spillover; nudge; learning; privacy

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

1. Yao, Dai, Chuang Tang*, and Junhong Chu (2022), "A Dynamic Model of Owner Acceptance in Peer-to-Peer Sharing Markets," *Marketing Science*, forthcoming.
- [Github Repo](#), [SSRN](#), [Some relevant slides \(in Chinese\)](#)
2. Duong, Hai Long*, Junhong Chu, and Dai Yao (2022), "Taxi Drivers' Response to Cancellations and No-shows: New Evidence for Reference-dependent Preferences," *Management Science*, forthcoming.
3. 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)

- [Lead Article](#)

4. 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.

- [SSRN All Time Top Ten Paper Lists](#)

5. 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)

- [Lead Article](#)

6. 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.
7. 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)

8. Li, Xi, Yacheng Sun, and Dai Yao, "In-Store Social Crowdedness and Customer Purchases," († authors in alphabetical order), reject and resubmit at *Marketing Science*.
9. Chen, Xingyu, Yan Lin, and Dai Yao[†], "All Smiles Are Not Created Equal: Duchenne Smiles Reduce Extrinsic Rewards from Viewers in Live Streaming," († authors in alphabetical order), prep for submission at *Marketing Science* after rejection at *Frontiers*.
10. Yao, Dai, Shijie Lu, and Xingyu Chen, "Crowding-Out in Content Monetization under Pay-What-You-Want: Evidence from Live Streaming," under review at *Production and Operations Management*.
11. Yao, Dai, Juin Kuan Chong, and Zhiyuan Liu, "Prospect of Financial Rewards Induces Strategic Provision of Voluntary Content."
12. Yao, Dai, Xing Li, and Xingyu Chen, "Ordeal by Innocence: Proactive Nudging and User Engagement in Online Communities."
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, "A Dynamic Model of Content 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.

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](#), [Harvard Business Publishing](#).
2. "Mobiuspace: Venturing into Emerging Markets," Chen, Xingyu, Li Ji, Ling Jiang, Shijie Lu, and Dai Yao[†]. [Ivey Publishing](#), [Harvard Business Publishing](#).

Academic Presentations * *selected presentations by coauthors.*

All Smiles Are Not Created Equal: . . .

- HNU, CN (2022); UWarwick (2022); NTU (IS, 2021)

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

- HKU (2022, deferred); Boston College (2021); UHouston (2018)

Social Impact of Viewer Engagement in Live Streaming

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

Ordeal by Innocence: . . .

- HNU, CN (2019); PKU-PHBS (2019)
- *Interactive Marketing Research Conference*, ULondon (2020, *cancelled*)

Prospect of Financial Rewards Induces Strategic Provision of Voluntary Content

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

Content Monetization and Preview Design

- *Marketing Analytics Symposium at Sydney*, UNSW (2020); *Marketing Science Conference*, Univ. of Roma Tre & NYU, Italy (2019); *Marketing Dynamics Conference*, UMaryland (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

- HK PolyU (2021); THU (2020); PKU-Guanghua (2020); HK CityU (2020);

- *Marketing Science Virtual Conf*, Duke (2020); *The 18th Pre-ICIS Workshop on e-Business*, Munich, DE (2019)*; *Conference on AI & ML, and Business Analytics*, Temple (2019)

Do Larger Audiences Generate Greater Revenues . . .

- XMU, CN (2018); Fudan (2017); PKU-Guanghua (2017)
- *China India Insights Conference*, Yale & INSEAD (2018); *NUS-Tsinghua Workshop on Digital Economy*, THU (2018); *The 12th Annual Bass FORMS Conference*, UTD (2018)*; *Conference on Digital, Mobile Marketing, and Social Media Analytics*, NYU (2017)*; *Marketing Dynamics Conference*, HKUST (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. (2017)*; *Marketing Science Conference*, Fudan (2016)*

Online Retail in Developing Economies: Drivers of Product Returns

- OSU (2019); SZU-SABS, CN (2019)
- *MSOM Conference*, Dallas (2018)*; *POMS Conference*, Houston (2018)*

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

- *Quantitative Marketing and Economics Conference*, UChicago (2018)*

The Impact of Response Time in Matching Markets

- WHU, CN (2017); RUC, CN (2016); SZU, CN (2016);
- *JMS China Marketing Conf*, JNU, CN (2017)*; *China Marketing International Conf*, UIBE, CN (2017)*

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

- HK PolyU (2017)
- *Marketing Dynamics Conf*, THU (2015); *Marketing Science Conf*, JHU (2015)

Multi-Feature Product Usage with Learning

- *INSEAD Brownbag Seminars* (2013); *Greater-China Conference on Mobile Big Data Marketing*, CUHK (2016); *Marketing Science Conference*, Istanbul (2013)

Why Customers Upgrade Their Reserved Options: . . .

- Wharton (2014)*
- *Marketing Dynamics Conference*, Stanford (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

Sharing Economy, [Shine Wing International](#), Dec 2021 ([Github Repo](#), [Slides](#))
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 XuetaoX](#), [China Distance Education Holdings](#) (NYSE:DL, delisted), among others.

Teaching

At HKPolyU

MKT3851, Social Media Marketing, BBA, 2022-
MKT5831, Social Media Marketing, Taught Masters, 2022-

At NUS

MKT3761E, Marketing in Social Networks, BBA, 2021
BMS5504, Marketing Analysis and Decision Making, Masters, 2018,2019,2020
MKT3421/MKT3811, Marketing Analysis and Decision Making, BBA, 2015-2020
DBA3702, Descriptive Analytics with R, BBA, 2019,2020

Others

Invited Seminar on Live Streaming, PhD, NTU, 2022

Students

At NUS

2014-2019, Chuang Tang, initial placement at PKU HSBC Business School.
2014-2016, Yue Wang, initial placement at Singapore University of Social Science (SUSS).

Grants

2022-2024 (PI), Postdoctoral Fellow Scheme (competitive), 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, MOE, 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-now, Collaborator for multiple projects funded by NSF China
2014-2017 (PI), Start-up Grant, NUS, SGD 90,000
2013 (Co-PI), INSEAD Research Fund, € 1,800
2012, Data Grant from Wharton Consumer Analytics Initiative

Services

Community

Ad-hoc reviewer: *Marketing Science*, *Management Science*, *Journal of Marketing*, *Production and Operations Management*, *Journal of Interactive Marketing*, *Journal of Service Research*, *Journal of Marketing Management*, MSI Alden G. Clayton Proposal Competition

At NUS

Quant seminar coordinator for the department: 2016.08-2018.07.

PhD committee member for the department: 2019.12-2021.06.

Industrial Experience

Fulltime employee at Youdao.com ([NYSE:DAO](#), affiliated with Netease, [NASDAQ:NTES](#), 2007.03–07).

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

Juvenile explorations:

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

Co-Founder, Yehtes Ltd. (2008, [200814214R](#), *struck off*).