

Dai YAO

Last updated: June, 2023

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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-empowered, 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 (2023), "A Dynamic Model of Owner Acceptance in Peer-to-Peer Sharing Markets," *Marketing Science*, 42(1), 166-188.
- [Github Repo](#), [SSRN](#), [Some relevant slides \(in Chinese\)](#)
2. Duong, Hai Long*, Junhong Chu, and Dai Yao (2023), "Taxi Drivers' Response to Cancellations and No-shows: New Evidence for Reference-dependent Preferences," *Management Science*, 69(1), 179-199.
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](#), and [among JMR Most Read Articles](#)

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.
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.

Selected working papers

7. Yao, Dai, Xingyu Chen, and Shijie Lu, "Crowding-Out in Content Monetization under Pay-What-You-Want: Evidence from Live Streaming," preparing for 3rd review at *Production and Operations Management*.
8. Lobo, Miguel Sousa, and Dai Yao, "Human Judgment is Fat-Tailed: Empirical Evidence and Implications for the Aggregation of Estimates and Forecasts," preparing for 2nd review at *Management Science*.
9. Li, Xi, Yacheng Sun, and Dai Yao, "In-Store Social Crowdedness and Customer Behaviors," († authors in alphabetical order).
10. 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*.
11. Koh, Kane*, Dai Yao, Fang-Chi Lu, Jing Lei, and Liliana Bove, "Roses are Also Fragrant in Others' Hands: Consumer-to-Consumer Gifted Subscriptions in Live Streaming."
12. Yao, Dai, Xing Li, and Xingyu Chen, "Ordeal by Innocence: Proactive Nudging and User Engagement in Online Communities."

Cases

1. "Leyao's Diversification: Vertical or Horizontal?" Wang, Chuang, Minna Bai, and Dai Yao[†] (2023). [Ivey Publishing](#).
2. "Mobiuspace: Venturing into Emerging Markets," Chen, Xingyu, Li Ji, Ling Jiang, Shijie Lu, and Dai Yao[†] (2020). [Ivey Publishing](#), [Harvard Business Publishing](#).
3. "Youliaodao in the Era of Paid Knowledge: Go Big or Go Home?" Chen, Xingyu, Ling Jiang, Li Ji, and Dai Yao[†] (2020). [Ivey Publishing](#), [Harvard Business Publishing](#).

Academic Presentations * selected presentations by coauthors.

In-Store Social Crowdedness and Customer Behaviors

- *HK Quant MKT Conf*, HKU (2023); *UMacau* (2023); *MKSC Conf*, UMiami (2023)

Roses are Also Fragrant in Others' Hands: . . .

- *HK Quant MKT Seminar Series* (2023); *MKSC Conf*, UMiami (2023); *TPM Conf*, HEC Lausanne (2023)

All Smiles Are Not Created Equal: . . .

- *UMelbourne* (2022); *HNU, CN* (2022); *UWarwick* (2022); *NTU* (2021)

Social Impact of Viewer Engagement in Live Streaming

- *TPM Conf*, Columbia Univ. (2019); *MKSC Conf*, UMiami (2023)

Ordeal by Innocence: . . .

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

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

- *Boston College* (2021); *UHouston* (2018)

Happiness Begets Money: Emotion and Engagement in Live Streaming

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

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); *MKSC Conf*, Univ. of Roma Tre & NYU, Italy (2019); *Marketing Dynamics Conf*, UMaryland (2019); *CMU-Temple Conf 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)

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

- *China India Insights Conf*, Yale & INSEAD (2018)*; *INFORMS International Conf*, Taipei (2018); *JMS China Marketing Conf*, Jinan Univ. (2017)*; *MKSC Conf*, Fudan (2016)*

Online Retail in Developing Economies: Drivers of Product Returns

- OSU (2019); SZU-SABS, CN (2019); *MSOM Conf*, Dallas (2018)*; *POMS Conf*, 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); *MKSC Conf*, JHU (2015)

Multi-Feature Product Usage with Learning

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

Why Customers Upgrade Their Reserved Options: . . .

- Wharton (2014)*; *Marketing Dynamics Conf*, 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*, UT Dallas, 2020

Invited Presentations in Corporates

Roundtable Forum, [ZGC Forum-Regular Activities](#), May 2023 ([Photo 1](#), [Photo 2](#))

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 HK PolyU

MM6XXX, Machine Learning Empowered Business Intelligence, PhD, 2024-

MM3851, Social Media Marketing, BBA, 2022-

MM5831, 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 Summer Course on Machine Learning Empowered Business Intelligence, Masters (15 hours), Xiamen Univ. 2023 (*scheduled*)

Invited Talk on Live Streaming, Social Media Marketing, BBA (2 hours), HKU, 2023

Invited Seminar on Live Streaming, PhD (2 hours), NTU, 2022

Students

At HK PolyU

2023-, Rui QIN, co-supervisor (Yue Katherine Feng, PolyU)

2023-, Yucheng XIE, co-supervisor (Bicheng Yang, PolyU)

2023-, Banggang WU, Postdoc Fellow

2023-, Baozhen ZHAN (*Collaborative PhD Training Programme* at PolyU), co-supervisor (Gengzhong Feng, Xi'an Jiaotong University)

2023-, Yujie WANG (*Joint PhD Programme Leading to Dual Awards* at PolyU), co-supervisor (Zili Zhang, Harbin Institute of Technology)

2023-2024, Yuguang PAN (*Undergraduate Research and Innovation Scheme*, i.e., URIS)

2022-, Pengyao SUN (*Hong Kong Postgraduate Fellowship*, i.e., HKPFS), co-supervisor (Yue Katherine Feng, PolyU)

At NUS

2014-2019, Chuang TANG (*President's Graduate Fellowship*), co-supervisor (Junhong Chu, NUS), initial placement at PKU HSBC Business School.

2014-2016, Yue WANG, initial placement at Singapore University of Social Science (SUSS).

Grants (\approx HKD 4M, \approx SGD 200K, and others including CNY and EURO)

2023-2026 (PI), Collaborative Research with World-Leading Research Groups, HK PolyU, HKD 1,167,200; only 6 projects awarded in total.

2023-2024, Undergraduate Research and Innovation Scheme (URIS), HK PolyU, HKD 40,000 (conferred on Yuguang PAN, Dept. of EIE)

2023-2024, Collaborative PhD Training Scheme (competitive), Faculty of Business, HK PolyU, HKD 196,600 (conferred on Baozhen ZHAN, Xi'an Jiaotong University)

2023-2025 (PI), HK Scholars Program (conferred on XXX), HKD 461,160

2022, Incentive Scheme for UTD Journal Publications, Faculty of Business, HK PolyU, HKD 180,000

2022-2025 (PI), General Research Fund (GRF), #15509522, Hong Kong Research Grant Council (RGC), HKD 634,500

2022-2024, Postdoctoral Fellow Scheme (competitive), Faculty of Business, HK PolyU, \approx HKD 650,000 (conferred on Banggang WU, PhD, THU, 2018)

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 of multiple projects funded by NSFC

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 Research*, *Journal of Marketing*, *Production and Operations Management*, *Journal of Interactive Marketing*, *Journal of Service Research*, *Journal of Retailing*, *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*).