

# 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; 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. 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. (lead article; † 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), under review at *Marketing Science*.
9. Yao, Dai, Juin Kuan Chong, and Zhiyuan Liu, "Prospect of Financial Rewards Induces Strategic Provision of Voluntary Content," under review at *Management Science*.
10. Chen, Xingyu, Yan Lin, and Dai Yao<sup>†</sup>, "All Smiles Are Not Created Equal: Duchenne Smiles Reduce 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, "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.
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<sup>‡</sup>. *Ivey Publishing*. [9B2oAo31](#).
2. "Mobiuspace: Venturing into Emerging Markets," Chen, Xingyu, Li Ji, Ling Jiang, Shijie Lu, and Dai Yao<sup>‡</sup>. *Ivey Publishing*. [9B2oAo4o](#).

## Academic Presentations \* selected presentations by coauthors.

All Smiles Are Not Created Equal: . . .

- NTU (Information Systems, 2021)

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

- HKU (2022, scheduled); 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: . . .

- Hunan University (2019); PHBS (2019)
- *Interactive Marketing Research Conference*, Univ. of London, UK (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 (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

- HK PolyU (2021); THU (2020); PKU (2020); HK CityU (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); Fudan (2017); PKU (2017)
- *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); *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

- OSU (2019); SZU (Audencia Business School, 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

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

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

- HK PolyU (2017)
- *Marketing Dynamics Conference*, Tsinghua Univ. (2015); *Marketing Science Conference*, Johns Hopkins Univ. (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, Turkey (2013)

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

- Wharton, UPenn (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

Sharing Economy, [Shine Wing International](#), Dec 2021 ([Git Repo](#))  
 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*, *Journal of Service Research*; *Journal of Marketing Management*

### *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 (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, 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 HKPolyU*

MKT3851, Social Media Marketing, BBA, 2022-

MKT5831, Social Media Marketing, Masters, 2022-

### *At NUS*

MKT3761E, Marketing in Social Networks, BBA, 2021

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

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

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

### *Others*

Invited Seminar on Live Streaming, PhD, NTU, 2022 (TBD)

## 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 (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.

Juvenile explorations:

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

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