ZHENG GONG June 2022

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Positions Assistant Professor, CUHK-Shenzhen Jul 2022 (Expected) -

Education Ph.D. in Management (Economic Analysis and Policy Area) 2016 - 2022

Rotman School of Management, University of Toronto

M.Sc. in Economics and Finance (with Distinction), CEMFI

B.Sc. in Astronomy, School of Physics, Peking University

2010-2014

B.A. in Economics, National School of Development, Peking University

2011-2014

RSEARCH Quantitative Marketing, Social Media Influencer, Economics of Digitization, Industrial Organization, Applied Microeconomic Theory

Publications What the Past Tells about the Future: Historical Price in the Durable Good Market (with Jin Huang and Yuxin Chen), forthcoming, Management Science

Papers Sheth Foundation ISMS Doctoral Dissertation Award
Young Economists' Essay Award, European Association for Research in Industrial Economics

Growing Influence (Job Market Paper)

Working

Pre-doctoral

Presentations

Work

Gregory Chow Best Paper Award, Chinese Economist Society
Best Paper Award, 4th Doctoral Workshop on the Economics of Digitization (TSE)

Limited Time Offer and Consumer Search (with Jin Huang), revise & resubmit, Management Science

(Previously distributed as "Limited Time Offer as an Invitation to Search")

Optimal Experimentation Design with Secret Repetitions (with Qianjun Lyu)

WORK IN How does Popularity Information Affect Product Design? (with Guangrui Li)
PROGRESS

The Impact of Algorithmic Recommendations on Patience (with Guangrui Li, Fei Gao, and Xiaoquan (Michael) Zhang)

The Use of Most Favored Nations Clause in Exclusive Supply Contracts (with Ignatius Horstmann and Frank Mathewson)

Traffic Air Pollution: Regulation and Impact in Barcelona

Featured in Economics Blog Nada Es Gratis (In Spanish)

(* for presented by coauthor)

2022 (arranged): Yale SOM Marketing Junior Conference, IIOC, EARIE, Transatlantic Doctoral Conference (LBS), CES Conference, Marketing Science Conference, TD-MDAL Re-

search Roundtable, CORS/INFORMS*, York University*

2021: Econometric Society European Winter Meeting, IIOC (rising star session), EARIE,

Doctoral Workshop on the Economics of Digitization (Toulouse), Transatlantic Doctoral Conference (LBS), Marketing Science Conference, Asian Meeting of the Econometric Society, Rotman China Research Workshop, Toronto Rotman (Marketing), Toronto Rotman (EAP), USTC, HKUST, NTU, Minnesota, CUHK-Shenzhen, THU, PKU, Renmin University of China, UPF, EBAPE

2020: Marketing Science Conference, Econometric Society World Congress, Toronto Rotman (EAP)

2019: Behavioral IO and Marketing Symposium*, Marketing Science Conference*, EARIE, Toronto Rotman (EAP), Toronto (Econ), Shanghai University of Finance and Economics* 2018: Econometric Society European Winter Meeting*, Toronto (Econ), Toronto Rotman (Marketing), NYU Shanghai*, University of Hong Kong*

2017: ITEA Annual Conference

TEACHING EXPERIENCE

Teaching Assistant: (* MBA courses) Foundation of Integrative Thinking, Model Based Decision Making*, Managerial Economics* × 2, Game Theory for Business Strategy, Game Theory and Application for Management* × 2, Strategic Management × 2, Strategy*

Professional Experience

Organizer, Applied Theory Reading Group, University of Toronto 2017-2021 Guest Lecturer, "Bayesian Persuasion" for "Advanced Topics in the Theory of Industrial Organization" APR 2018 Participant, ISMS Doctoral Consortium 2022 Participant, NBER Digitization Workshop 2019, 2020, 2022 Participant, NBER Young Scholars Workshop on the Economics of AI SEP 2019 Participant, CRESSE Summer School on Competition Policy and Regulation **JUL 2018** Research Assistant for Avi Goldfarb, Rotman 2022 Research Assistant for Rahul Deb, Toronto Econ MAR 2019 Research Assistant for Heski Bar-Isaac, Rotman 2018-PRESENT Research Assistant for Ignatius Horstmann and Bernardo Blum, Rotman AUG-SEP 2017 Research Assistant for Diego Puga and Gerard Llobet, CEMFI JUL-SEP 2015 Research Assistant for Fan Zhang, PKU 2013-2014

Reviewer

Journal of Industrial Economics (2)

GRANTS, HONORS AND SCHOLARSHIPS

Gregory Chow Best Paper Award, Chinese Economist Society	2022
Sheth Foundation ISMS Doctoral Dissertation Award	2021
Young Economists' Essay Award, EARIE	2021
Best Paper Award, Doctoral Workshop on the Economics of Digitization	2021
BEAR / BI-Org Research Grant (\$5,000), University of Toronto	2021
TD-MDAL Research Grant (\$5,000), University of Toronto	2021
Doctoral Completion Award, University of Toronto	2021
China Research Initiative Grant (\$2,500), University of Toronto	2020
CRESSE Fellowship	2018
SGS Conference Grant, University of Toronto	2017
Doctoral Fellowship, University of Toronto	2016-PRESENT
Director's Fellowship, University of Toronto	2016-PRESENT
Master Full Scholarship, CEMFI	2014-2016
National Astronomical Observatories Scholarship	2014
Guanghua Scholarship, PKU	2013

Tian Mingren Scholarship, PKU	2013
Freshman Scholarship, PKU	2010
Gold Medal at 12th International Astronomy Olympiad (IAO 2007)	2007

Graduate Coursework

Marketing

Marketing Theory II: Strategy
Current Topics in the Marketing Strategy
Econometric Methods in Marketing
Workshop in Marketing
Mengze Shi

Economics

Microeconomic Theory I Peski, Damiano Microeconomic Theory II Stewart, Shi Macroeconomic Theory I Kambourov, Wolthoff Macroeconomic Theory II Ozkan, Kuruscu Econometrics I Gu, Wan Econometrics II Yatchew, Aguirregabiria Yao Luo Industrial Organization I Industrial Organization II Victor Aguirregabiria Ignatius Horstmann Advanced Topics in the Theory of Industrial Organization Xianwen Shi Topics in Microeconomic Theory Empirical Applications of Economic Theory Eduardo Souza-Rodrigues Special Topics in Empirical Microeconomics Ambarish Chandra Alberto Galasso Advanced Topics in Strategy and Economics Special Topics in the Economics of Technology and Innovation Mitchell, Franco Innovation and Technology Shannon Liu Nate Baum-Snow Advanced Topics in Urban and Real Estate Economics

Personal

Language: Mandarin Chinese (native), English (fluent), Spanish (beginner) Computer skills: Python, Matlab, Stata, R, C++, LATEX Coach of Chinese debate team, University of Toronto Chinese national second-level athlete, amateur 5 dan in Go

References

Heski Bar-Isaac (co-advisor)

Distinguished Professor of Economics & Finance Rotman School of Management University of Toronto (416)-978-3626 heski.bar.isaac@rotman.utoronto.ca

Avi Goldfarb

Professor, Marketing Rotman Chair in Artificial Intelligence and Healthcare Rotman School of Management University of Toronto (416)-946-8604 avi.goldfarb@rotman.utoronto.ca

Matthew Mitchell (co-advisor)

Professor, Economic Analysis and Policy Rotman School of Management University of Toronto (416)-946-3149 matthew.mitchell@rotman.utoronto.ca

Ignatius Horstmann

Professor Emeritus, Economic Analysis and Policy Rotman School of Management University of Toronto (416)-978-1888 ig.horstmann@rotman.utoronto.ca

Abstracts Growing Influence (Job Market Paper)

How do new firms grow and establish themselves through their product design? I answer this question with theoretical modeling and empirical findings on the online influencer market. I collect new blog post data from WeChat Official Account, and use machine learning methods to categorize the topics and advertising in posts made by the 1,002 most influential accounts. I find that new entrants to the influencer market begin their careers by specializing in niche topics with minimal advertisements. Over time, they cover a wider range of topics, and the extent of advertising grows. To understand the underlying mechanism, I develop a theoretical model of dynamic reputation and content design. An influencer faces audiences with heterogeneous tastes and can choose the fraction of posts allocated to different topics and advertisements over time. I employ a shock to the reputation of influencers to cross-validate the model. The model delivers further implications on how content design varies across influencers at different rankings, how influencers react to an exogenous preference shock, and the dynamics of ratings, and I find empirical evidence that supports these predictions.

What the Past Tells about the Future: Historical Price in the Durable Good Market (with Jin Huang and Yuxin Chen)

We investigate how historical price information (e.g., accessed through price trackers) influences consumers' purchase decisions and thus affects a firm's dynamic pricing strategy. We first show that when consumers with heterogeneous tastes are not informed about historical prices, the monopolist charges a high regular price for most of the time and periodically holds low-price sales. Then we consider the case in which a small fraction of consumers (such as price tracker users) become informed of historical prices. At the new equilibrium, the monopolist lowers the regular price and advances sales, implying shorter price cycles, more frequent sales, and a positive spillover effect of price tracker users' informational advantage on the rest of uninformed consumers. We conclude with a discussion of the impact of price trackers on firms and other relevant managerial implications of the model.

Limited Time Offer and Consumer Search (with Jin Huang)

This paper studies a commonly seen but theoretically under-explored sales tactic: limited-time offers. A limited-time offer is any form of discount that a consumer can use on a purchase within a certain period of time. When consumers need time to investigate each product, a firm can endogenously direct the consumer search order by advertising limited-time offers, inducing potential consumers to sample its product early. Whether and how the firm uses limited-time offers depends on the reservation value of its product to the target market. When consumers have only outside options, the firm will use limited-time offers to gain prominence if and only if its reservation value is higher than the outside options. When there are many strategic firms competing for the same target market, the firm with the higher reservation value will offer discounts in a shorter time window relative to its competitors, and in equilibrium, it will be sampled earlier by consumers. Limited-time offers lead consumers to search in a socially optimal order across all models, and thus, contrary to the existing literature, we demonstrate that limited-time offers increase total welfare and hence should be encouraged.

Optimal Experimentation Design with Secret Repetitions (with Qianjun Lyu)

We study a persuasion game with limited commitment in which a biased sender designs and conducts costly experiments to acquire information which he can conceal or reveal. The sender

commits to the experiment design, but he can secretly repeat experiments and selectively report the outcomes. In the benchmark model, the optimal experiment turns out to be a one-round experiment and the sender truthfully discloses the experiment outcome. The cost of an experiment is a measure of credibility. Higher credibility leads to less informative experiment which lowers the receiver's payoff. With general payoff function of the sender, the above results remain with mild restrictions. We geometrically characterize the optimal experiment using the same concavification with Kamenica and Gentzkow (2011) but within a refined belief space.

Traffic Air Pollution: Regulation and Impact in Barcelona

In January 2008, the maximum speed on motorways in the metropolitan area of Barcelona was limited to 80 km/h from previously 100 - 120 km/h to reduce air pollution. This paper aims to evaluate the effect of this zone 80 policy. A difference-in-differences estimation shows zone 80 policy significantly reduces NO2 concentration within the zone 80 area. Using wind direction to identify traffic pollution sources, we find a U-shape emission-speed curve and velocity gradient positively affect vehicle emission. We also provide evidence that the zone 80 policy significantly reduces vehicle velocity on motorways to a more efficient speed while only slightly affect the velocity gradient and car intensity. This effect explains the reduction of NO2 concentration by zone 80 policy.