Mengxia Zhang

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EDUCATION

2021 (Expected)	Ph.D. in Marketing, University of Southern California, GPA 3.96/4
2015	Master of Management, Peking University, Rank 1/63
	Master of finance, University of Hong Kong, GPA 3.92/4 (joint program with Peking University)
2012	Bachelor of Laws, Peking University, Rank 1/227
	Bachelor of Economics, Peking University, GPA 3.92/4 (double-major)

RESEARCH INTERESTS

Substantive: marketing analytics, unstructured data, AI-human relationship, digital marketing
Methodological: quantitative modeling, machine learning, deep learning, field experiment

SELECTED HONORS AND AWARDS

2020	USC Graduate School Final Year Fellowship
2020	AMA-Sheth Foundation Doctoral Consortium Fellow
2019	USC Marshall Ph.D. Student Outstanding Researcher Award
2018	Shankar-Spiegel Award Runner-up
2018	ISMS Doctoral Proposal Competition Award Winner
2018	Nominated for USC Marshall Ph.D. Student Teaching Award
2017	Quantitative Marketing and Structural Econometrics Workshop Fellow
2016, 2018, & 2019	INFORMS Marketing Science Doctoral Consortium Fellow
2014	Peking University HSBC Business School Da Shi Hang Research Scholarship
2013 & 2014	University of Hong Kong Dean's Honors List
2013	China National Scholarship for Graduates
2008 - 2012	Peking University Elite Undergraduate, Excellent Student & Leo KoGuan Scholarship
2007	China High School Students Olympiad: 1st prize in biology, 2nd prize in math, 3rd prize in physics

DISSERTATION COMMITTEE

Lan Luo (Chair)
Dina Mayzlin, Yanhao (Max) Wei, Sha Yang, Michael Leung (Economics), Tianshu Sun (Information Systems)

WORKING PAPERS (abstracts attached at the end)

1. "**Can User-Posted Photos Serve as a Leading Indicator of Restaurant Survival? Evidence from Yelp**", Mengxia Zhang and Lan Luo (2019). *Minor revision at **Management Science**. Job Market Paper. Link*
   - Presented at 2018 Advanced Research Techniques (ART) Forum, Columbus, OH
   - **2018 ISMS Doctoral Proposal Competition Award Winner**
   - **2018-2019 Shankar-Spiegel Award Runner-up**
2. "**Consumer and AI Co-creation: When and Why Humans Improve AI Creation.**", Mengxia Zhang, Tianshu Sun, and Lan Luo (2020). *Target Journal: **Journal of Marketing Research,** Target Submission Date: Summer 2020. Link*
3. "**Social Networks on Knowledge Markets: a Double-edged Sword?**" Mengxia Zhang and Lan Luo (2020). *Target Journal: **Marketing Science,** Target Submission Date: Fall 2020.*

CONFERENCE PRESENTATION (*denotes presenter)

2020 Mengxia Zhang* and Lan Luo, "Social Networks on Knowledge Markets: a Double-edged Sword", Marketing Science Conference, Duke, NC

2018 Mengxia Zhang* and Lan Luo, "Social Networks on Knowledge Markets: a Double-edged Sword", Marketing Science Conference, Philadelphia, PA

2018 Mengxia Zhang* and Lan Luo, "Can User-Posted Photos Serve as a Leading Indicator of Restaurant Survival? Evidence from Yelp", Advanced Research Techniques (ART) Forum, Columbus, OH

2016 Mengxia Zhang* and Lan Luo, "Can User-Posted Photos Serve as a Leading Indicator of Restaurant Survival? Evidence from Yelp", Marketing Science Conference, Shanghai, China.

TEACHING INTERESTS

Digital marketing, marketing analysis and strategy, marketing analytics, business analytics, marketing research

TEACHING EXPERIENCE

Summer 2018 Marketing Analysis and Strategy (undergraduate marketing elective)
Instructor, Marketing Department, University of Southern California
- Instructor Evaluation: 4.88/5.0; Course Evaluation: 4.88/5.0
- **Nominated for Marshall Ph.D. Student Teaching Award**

Fall 2017 Marketing Analytics (MBA Elective),
Teaching Assistant, Marketing Department, University of Southern California, Instructor Lan Luo

Spring 2015 Economics of Development (graduate)
Teaching Assistant, HSBC Business School, Peking University, Instructor Gang Fan

REVIEW EFFORTS

2020 International Conference on Information Systems

PROFESSIONAL EXPERIENCE

2016 **TalkingData** (China), intern *analyst*

2012 **Bank of China** (Zhejiang), international business department, intern *product manager*

2011 **T&D Associates** (China), anti-dumping & anti-trust team, intern *legal assistant*

2010 **Supreme Court of Zhejiang, China**, civil case department, intern *legal assistant*

DOCTORAL COURSEWORK

Marketing

Strategic and Marketing Mix Models	Sivaramakrishnan Siddarth & Gerard J. Tellis	A
Theory and Application of Regression Analysis (UCLA)	Peter E. Rossi	Credit
Consumer Behavior and Decision Making	Kristin Diehl & Joseph Nunes	A-
Advanced Quantitative Models in Marketing	Dina Mayzlin & Sha Yang	A
Marketing Models in Consumer and Business-to-Business Markets	Anthony Dukes & Shantanu Dutta	A
Understanding Consumer and Organizational Buying Behavior	Deborah MacInnis	A

Economics

Microeconomic Theory I	Michael Magill	A
Probability and Statistics for Economists	Georgios Effraimidis	A

Econometric Methods	Hyungsik Roger Moon	A
Time-Series Analysis (UCLA)	Raffaella Giacomini	Credit
Selected Issues in Economic Theory I	Anthony M. Marino	A
Applied Econometrics	Cheng Hsiao	A
Economic Analysis of Social Networks	Michael Leung	A
Empirical Industrial Organization	Yu-Wei Hsieh	A
Empirical Methods for Industrial Organization (Caltech)	Matthew Shum	Audit

Computer Science and Statistics

Machine Learning	Yan Liu	A
Applied Natural Language Processing	Ron Artstein	A
Web Technologies	Marco Papa	A-
Structure and Dynamics of Networked Information	David Kempe	A
Deep Learning	Joseph Lim	A

PROFESSIONAL AFFILIATIONS

American Marketing Association (AMA)
American Economic Association (AEA)

COMPUTER SKILLS

Proficient in: Python, R, Matlab, Latex
Experience in: Tensorflow, Pytorch, Caffe, Torch, PHP, SQL, JavaScript, HTML, Eviews, C++, Gephi, Stata, VBA

PERSONAL INTEREST

Photography

ABSTRACTS OF WORKING PAPERS

Essay 1: Can User-Posted Photos Serve as a Leading Indicator of Restaurant Survival? Evidence from Yelp. *Job Market Paper*. *Link*

Mengxia Zhang and Lan Luo (2019)

Despite the substantial economic impact of the restaurant industry, large-scale empirical research on restaurant survival has been sparse. We investigate whether consumer-posted photos can serve as a leading indicator of restaurant survival above and beyond reviews, firm characteristics, competitive landscape, and macro conditions. We employ machine learning techniques to analyze 755,758 photos and 1,121,069 reviews posted on Yelp between 2004 and 2015 for 17,719 U.S. restaurants. We also collect data on these restaurants' characteristics (e.g., cuisine type; price level), competitive landscape, and their entry and exit (if applicable) time based on each restaurant's Yelp/Facebook page, own website, or the Google search engine. Using a predictive XGBoost model, we find that photos are more predictive of restaurant survival than are reviews. Interestingly, the information content (e.g., number of photos with food items served) and helpful votes received by these photos relate more to restaurant survival than do photographic attributes (e.g., composition or brightness). Additionally, photos carry more predictive power for independent, mid-aged, and medium-priced restaurants. Assuming that restaurant owners do not possess any knowledge about future photos and reviews for both themselves and their competitors, photos can predict restaurant survival for up to three years, while reviews are only informative for one year. We further employ causal forests to facilitate interpretation of our predictive results. Our analysis suggests that, among others, the total volume of user-generated content (including photos and reviews) and helpful votes of photos are both positively related to restaurant survival.

Essay 2: Consumer and AI Co-creation: When and Why Humans Improve AI Creation. *Link*

Mengxia Zhang, Tianshu Sun, and Lan Luo (2020)

Firms nowadays have been increasingly leveraging artificial intelligence to personalize products and services for consumers, saving considerable consumer effort. This paper investigates whether firms should nudge consumer participation in conjunction with AI creation. Using a large-scale field experiment involving 128,153 consumers, we find that a simple nudge can increase participation by 12%, and the induced participation significantly increases purchases by 22%. To understand the mechanisms underlying the observed main effects, we manipulate the nudge in a second experiment. The experiment suggests: (1) the nudge increases purchase not via increasing attention, (2) nudging is more effective than mandating participation, and (3) both the IKEA effect (effort leads to love) and private preference effect (human effort helps consumers reveal preference) explain the benefits of consumer participation. To examine the interplay between AI and nudge, we manipulate both AI and nudge in a third experiment. We discover that AI-consumer co-creation leads to the highest purchase and revisit intentions: only having AI creation or nudging participation is not sufficient for enticing purchase or revisit. Our research contributes to the literature on human-AI relationship and sheds light on when and why consumer participation complements AI creation.

Essay 3: Social Networks on Knowledge Markets: a Double-Edged Sword?

Mengxia Zhang and Lan Luo (2020)

In the era of information explosion, getting useful information is like finding "a needle in a haystack". Consequently, online knowledge markets (e.g., Quora, Stack Overflow) are increasingly relying on peer voting to harness the wisdom of the crowds. Meanwhile, a subset of markets (e.g., Quora) also integrate social networks to motivate knowledge contribution. In this research, we investigate how and whether such markets should incorporate social networks in the presence of peer voting. We first ran a field experiment to examine the causal effects of peer voting and social networks on knowledge contribution by exogenously increasing the total number of upvotes or/and the total number of followers on a major online knowledge market in March and April 2018. It shows that increasing upvotes or/and followers stimulate knowledge contribution. We further develop a structural model to estimate each treated user's contribution decision, using daily data from January to June 2018. Our policy simulations suggest that turning social networks off might be the best strategy on knowledge markets, because social networks may monopolize well-connected users with upvotes, reducing total contributed knowledge on the platform. Meanwhile, if such platforms prefer to incorporate social networks to attract users, cold start (building social networks within) might be better than hot start (importing social networks from outside). To our knowledge, this is the first study to examine the role of social networks in the presence of peer voting. As such, our research has important policy implications for platform design of knowledge markets.

REFERENCES

Lan Luo (Committee Chair)
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