ZIWEI CONG

Hong Kong University of Science and Technology, Business School

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(For the most recent version, please go to https://ziweicong.github.io/assets/pdf/cv.pdf)

EDUCATION

Hong Kong University of Science and Technology, Hong Kong

Ph.D. Candidate, Quantitative Marketing	June 2022 (Expected)
M.Phil., Quantitative Marketing	June 2018

Renmin University of China, Beijing, China

M.Phil., Economics	June 2016
Exchange at the EDHEC Business School, Nice, France	Fall 2014
B.Sc., Economics	June 2013

RESEARCH INTERESTS

Substantive: Content Economy, User Generated Content, Social Media, Influencer Marketing, Pricing, Recommendation Algorithms

Methodological: Causal Inference, Machine Learning, Quasi-Experimental Methods, Natural/Field Experiments

DISSERTATION

Title: Monetizing User Generated Content: Design and Incentive

Essay I: "Understanding Users' Content Contribution Behavior When Content Can Be Priced"

Essay II (Job Market Paper): "The Role of "Live" in Livestreaming Markets: Evidence using Orthogonal Random Forest"

Co-chairs: Ying Zhao and Jia Liu

WORKING PAPERS (* INDICATES EQUAL AUTHORSHIP)

Cong, Ziwei, Jia Liu and Puneet Manchanda (2021), "The Role of "Live" in Livestreaming Markets: Evidence using Orthogonal Random Forest." [SSRN]

- Job Market Paper
- Runner-up, 2020 Shankar-Spiegel Dissertation Proposal Award
- Finalist, 2021 American Statistical Association Best Doctoral Dissertation Proposal (Marketing Section)

Cong, Ziwei, Ying Zhao and Zilei Zhang (2020), "Understanding Users' Content Contribution Behavior When Content Can Be Priced." Preparing for submission to *Marketing Science*

- Runner-up, 2020 Shankar-Spiegel Dissertation Proposal Award

- Finalist, 2021 American Statistical Association Best Doctoral Dissertation Proposal (Marketing Section)

Liu, Jia* and Ziwei Cong* (2021), "The Daily Me versus The Daily Others: Can Social Recommender Systems Diversify User Interests?" Under review for the 2nd round at *Journal of Marketing Research* [SSRN]

WORK IN PROGRESS

Cong, Ziwei and Jia Liu, "How Can Recommendation Algorithms Influence What Content Users Contribute? Evidence from a Quasi-Experiment." Model estimation in progress

"Understanding User Purchase of Paid Online Content using Free Content Consumption and Social Interaction Networks" with Jia Liu and Yue Wang. Model development in progress

HONORS AND AWARDS

Runner-up, 2020 Shankar-Spiegel Dissertation Proposal Award	Oct 2021
Fellow, ISMS Marketing Science Doctoral Consortium 2021	June 2021
Finalist, 2021 Best Doctoral Dissertation Proposal Competition, American Statistical Association (Marketing Section)	January 2021
Dean's PhD Fellowship for Research Excellence 2020-21, HKUST	October 2020
UGC Research Travel Award×3, HKUST	2019, 2021
Postgraduate Studentship, HKUST	2016-2021
National Scholarship, Ministry of Education, China	2013-2015
Outstanding Student Award, Beijing Municipal Commission of Education, China	2013
Outstanding Undergraduate Thesis Award, Renmin University of China	2013
Honor of Excellent Student, Renmin University of China	2010-2012

INVITED TALKS

"Monetizing User Generated Content: Design and Incentive" (Dissertation)

Joint Statistics Meetings, American Statistical Association   August 2021 (Scheduled)

CONFERENCE PRESENTATION

"The Role of "Live" in Livestreaming Markets: Evidence using Orthogonal Random Forest"

ISMS Marketing Science Conference, University of Rochester	June 2021
Conference on AI/ML, NYU, Temple & CMU University	December 2020
Journal of Marketing Research Development Workshop	April 2019

"The Daily Me versus The Daily Others: Can Social Recommender Systems Diversify User Interests?"

HKUST Marketing Brown Bag Seminar, HKUST	March 2021

"Content-based or Social Network-based Recommendation System? Evidence from a Natural Experiment on Knowledge Sharing Platform"

ISMS Marketing Science Conference, University of Roma Tre	June 2019
China Marketing International Conference	July 2019

TEACHING EXPERIENCE

Teaching Interests

Digital Marketing, Marketing Analytics, Marketing Research, Marketing Management

Teaching Assistant, HKUST

Marketing Strategy and Policy (MBA), Joseph Salvacruz	2021
Marketing Research (Undergraduate), Jia Liu	2020
Consumer Behavior (Undergraduate), Rongrong Zhou	2020
Marketing Research (Undergraduate), Song Lin	2019

Teaching Assistant, Renmin University of China

The Economics of One Belt and One Road (Undergraduate Seminar)	Spring 2016
Business Negotiation (Undergraduate)	Fall 2015

PROFESSIONAL EXPERIENCE

Zhihu, Beijing, China	June-August 2017
Research Intern	

PROGRAMMING

Python, Stata, R, SQL, PyTorch, Tensorflow, Skorch, Spark, HTML

GRADUATE COURSEWORK

Marketing and Business

Quantitative Modeling	Ying Zhao
Experimental Design and Analysis	A V Muthukrishnan
Behavioral Decision Theory	A V Muthukrishnan
Consumer Research Seminar	Ralf Van Der Lans et al.
Analytic Models Useful in Marketing	Robert Zeithammer
Advanced MIS Research Seminar	Xiaoquan(Michael) Zhang
Consumer Behavior Seminar	En-Chung Chang
Corporate Finance	Peter MacKay

Economics

Microeconomics Theory I	Yuk-fai Fong

Microeconomics Theory II	Xiaojian Zhao
Econometrics	Jin Seo Cho
Demand Analysis	Xiaohua Yu
Empirical Industrial Organization	Lihong Yang
Current Topics in Industrial Organization	Lihong Yang
Economics of Regulation and Antitrust	Yongjun Chen
International Economics	Wentan Wang
Economic Change in Rural China	James Kung

Statistics and Computer Science

Introduction to Probability	Lancelot James
Math for Bus & Econ	Zhou Lingzhi
Big Data Analytics	Rong Zheng
Applied Statistics in Economics and Business	Wuwu Qing
Programming with R (audit)	Yangguang Huang
Introduction to Social Computing (audit)	James Kwok
Deep Learning (audit)	Qifeng Chen

REFERENCES

Ying Zhao (Co-advisor)
Associate Professor of Marketing
HKUST Business School
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Assistant Professor of Marketing
HKUST Business School
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Puneet Manchanda
Isadore and Leon Winkelman Professor of Marketing
Ross School of Business
University of Michigan
Phone: (734)936-2445
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RESEARCH ABSTRACTS

Cong, Ziwei, Jia Liu, and Puneet Manchanda (2021), **"The Role of "Live" in Livestreaming Markets: Evidence using Orthogonal Random Forest."** (Job Market Paper)

Abstract: The common belief about the growing medium of livestreaming is that its value lies in its "live" component. In this paper, we leverage data from a large livestreaming platform to examine this belief. We are able to do this as this platform also allows viewers to purchase the recorded version of the livestream. We summarize the value of livestreaming content by estimating how demand responds to price before, on the day of, and after the livestream. We do this by proposing a generalized Orthogonal Random Forest framework. This framework allows us to estimate heterogeneous treatment effects in the presence of high-dimensional confounders whose relationships with the treatment policy (i.e., price) are complex but partially known. We find significant dynamics in the price elasticity of demand over the temporal distance to the scheduled livestreaming day and after. Specifically, demand gradually becomes less price sensitive over time to the livestreaming day and is inelastic on the livestreaming day. Over the post-livestream period, demand is still sensitive to price, but much less than the pre-livestream period. This indicates that the vlaue of livestreaming persists beyond the live component. Finally, we provide suggestive evidence for the likely mechanisms driving our results. These are quality uncertainty reduction for the patterns pre- and post-livestream and the potential of real-time interaction with the creator on the day of the livestream.

Liu, Jia*, and Ziwei Cong* (2021), **"The Daily Me versus the Daily Others: Can Social Recommender Systems Diversify User Interests?"** Under review for the 2nd round at *Journal of Marketing Research*

Abstract: Recommender systems have been blamed for polarizing user attention and consumption. This paper examines this phenomenon, by leveraging a field intervention on the largest online Q&A community in China. The platform had been relying on content-based recommender system that recommends content based on user subscribed topics since its launch in 2011. In August 2012, without any public notifications to its users, the platform changed its recommender system to social filtering, which recommends content engaged by a user's online social connections (i.e., followees). We investigate the impact of social filtering in relative to content-based filtering by comparing user activities before and after the intervention. We find that the social filtering system could be a double-edged sword. The negative outcome we document is that social filtering intensifies popularity of already-popular users, leading to a rich-get-richer effect in the online community. In contrast, a positive outcome is that social filtering helps users explore niche content they would not discover on their own, by exposing users to content that is "filtered" by their followees who tend to have higher domain expertise and clearer lines of interests. Importantly, this finding suggests that the impact of social filtering might depend on characteristics of users and their online social network. More broadly, this research contributes to the debate centered around "filter bubble" and provides managerial implications for platforms' curation algorithm design.

Cong, Ziwei, Ying Zhao, and Zilei Zhang (2020), **"Understanding Users' Content Contribution Behavior When Content Can Be Priced."** Preparing for submission to *Marketing Science*

Abstract: With the rise of creator economy, many content platforms have been exploring ways for creators to monetize content. A recent and increasingly popular approach adopted by many platforms is to provide creators with freedom to launch paid content directly to viewers. This paper evaluates the implications (externalities) of monetizing content on a platform's

"ecosystem." Specifically, We seek to understand whether and how giving creators the option to provide paid content influences creators' incentive in providing free content. Our empirical study is based on dataset from Zhihu, the largest knowledge-sharing platform in China. Zhihu started out as an online Q&A community that is based on users' voluntary contribution. It later introduced the Zhihu Live program that allows participants to deliver exclusive talks to paid customers. Using the difference-in-differences approach, we find that the content providers holding priced talks tend to contribute more free content on the main Q&A platform than those using the free Q&A platform only. We explore the robustness of this result against potential selection bias with four alternative approaches: propensity-score matching, Causal Forest (Athey et al., 2019), Rosenbaum bounds, and an approach developed by Altonji et al. (2002, 2005) that accesses the degree of omitted variables bias. We further show that the effect is more pronounced with the starting time of Live talks approaching and is larger for participants who have less-established reputation or face more intense competition. These findings suggest that participants strategically leverage free content to boost reputation and attract "eyeballs" for paid content. This research shed lights to the overall impact of content monetization on the entire platform "ecosystem," where free and paid content are interconnected parts and might have spillover effects to each other.

(* indicates equal authorship)