October 29, 2020

Dear Professor Goldfarb and Professor Tucker,

I am pleased to submit my application for participating in the tutorial on the Economics of Digitalization. I am currently an advanced Ph.D. candidate in Economics at the University of Arizona, where I work with Professor Mo Xiao (Chair), Professor Mingfeng Lin, Professor Ashley Langer, and Professor Hidehiko Ichimura. I have completed all of Ph.D. coursework and defended my dissertation proposal on December 10, 2019. I am very interested in this tutorial as my research is primarily focused within the fields of economics of digitalization, platform strategy, digital innovation and entrepreneurship, gig economy, and financial technology.

My dissertation centers around the value of search technologies in shaping consumer behaviors and firm competition strategies on e-commerce platforms. In collaboration with Alibaba, I use a large-scale quasi-experiment to show that increasing search precision can improve click-through rates and purchase rates in the short run but can decrease consumer engagement and unplanned spending in the long run. As the first empirical study of the long-run impacts of search algorithms, my findings suggest that e-commerce platforms should balance the short-term gains from increasing the search precision with the long-term benefits of encouraging consumer exploration. More broadly, my work contributes to the literature on platform strategy, e-commerce, digital innovation, and search advertising. This paper has been accepted by *ICIS 2020*, *CIST 2020*, *CODE 2020, SCECR 2020,* and *ISMS 2020*. I am currently finalizing it for submission at the *Management Science*.

In addition to the job market paper, I have a number of completed papers and ongoing projects that focus on the role of information technology in helping entrepreneurs succeed in decentralized online marketplaces. In the second chapter of my dissertation, I estimate a structural model to show that that e-commerce platforms as entrepreneurial incubators can help small business owners thrive on the platform through targeted search traffic allocation. Using

detailed data on search queries, search exposure, and seller revenue from Alibaba, my findings suggest that by refining a broader category into narrow subcategories, e-commerce platforms can give retailers the flexibility to forgo higher volumes of search traffic in order to gain a better conversion rate. This paper has received the highly competitive *NET Institute Summer Research Grant*. Besides research on e-commerce, I have been working on several ongoing projects, including empirical studies of online labor markets, crowdfunding, and internet of things.

I believe that my strong data analytic skills, rigorous training in both applied econometrics and structural modeling, and detailed knowledge of digital business operations can make me a valuable member of the academic community on the Economics of Digitization. I am more than happy if I can join in this tutorial to meet research leaders and fellow graduate students who share the same research interest with me. If you have any questions regarding my application, please do not hesitate to contact me. I can be reached by e-mail at weizhou1004@email.arizona.edu or by phone at (520) 729-7301. I look forward to hearing from you. Thank you for your time and consideration.

Sincerely,

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