Application to PhD Student Workshop in the Economics of Digitization

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Personal Webpage

I am currently a fifth-year doctoral candidate in Operations Management at the Kellogg School of Management at Northwestern University. Moreover, I completed my MA in Economics in the Northwestern University in Winter 2018. I completed course work on econometrics, industrial organizations, and microeconomics during my master in Economics. I am working toward completing my doctoral dissertation in June 2019 under the supervision of Professors Antonio Moreno (HBS), Martin Lariviere (Kellogg), Santiago Gallino (Wharton), and Ryan Buell (HBS).

I study service operations in new technologies, specifically e-commerce and on-demand services. My research is inspired by real-world problems and I use empirical tools to study these problems. During my PhD, under the supervision of Professors Antonio Moreno (HBS), Martin Lariviere (Kellogg), Santiago Gallino (Wharton), and Ryan Buell (HBS), I collaborated with worldwide apparel retailers, a leading digital experience management company, and a prominent ride-hailing platform in South America, and conducted lab experiments to answer my research questions.

I am passionate about analyzing the new operational challenges and opportunities digital services bring to us. Most of the operational questions that have been studied in the last decades in supply chain and service systems such as call-centers still arise in digital services, albeit in different forms and scale. In my job market paper, "*Why Retailers Should Care about Net Neutrality: The Impact of Website Performance on Online Retail*", I answer a fundamental question in operations management: how delays affect customer behavior. I study this question in the context of digital services, specifically e-commerce. I show that even milliseconds of delay have a sizable impact on companies' revenues. Moreover, the magnitude of the effects significantly varies depending on the device the user is interacting with. This result shows the important role played by user interfaces in digital services. User interfaces, and their optimal design from an operational perspective, constitute the focus of my other papers.

User interfaces have been studied from a design perspective. In digital services, the interaction between service agents and customers, as well as the interaction between the company and service agents, is almost exclusively conducted through standardized user interfaces. Therefore, the content and timing of operational information shared at the front-end have an enormous impact on customer and agent behavior, and consequently on companies' efficiency and profitability. In my two different research projects on on-demand services, I analyze how information shared through the user interface, namely front-end design, impacts both agent (*Strategically Giving Service: The Effect of Real-Time Information on Service Efficiency)* and customer (*Perception of Dynamic Pricing in On-Demand Services)* behavior.

I would be very happy to participate PhD Student Workshop in the Economics of Digitization. I think learning from experts in digital economics in different fields will contribute significantly to my research.