Application for Digitization Tutorial – Xiaoning Wang

Applicant Information:

- Name: Xiaoning Wang
- Institution Affiliation: The Wharton School, University of Pennsylvania
- Department: Operations, Information and Decisions
- Degree: Ph.D.
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Coursework:

- Major: Information Systems
- Year of Enrollment: 2017 (4rd year Ph.D student at present)
- Graduate-level Courses (already taken):
  - Economic Theory: Advanced Microeconomic Theory, Advanced Game Theory, Contract Theory
  - Statistics: Advanced Statistical Inference (I, II & III), Data Mining
  - Econometrics: Advanced Econometrics (I, II & III), Applied Econometrics (I & II), Empirical Industrial Organization (I & II)
  - Computer Science: Machine Learning, Artificial Intelligence
  - Other: Social Network Theory, Dynamic Programming, Research Seminar in Information Systems, Research Seminar in Entrepreneurship and Innovation

Research:

- Research Interest: Technology and Entrepreneurship, Social Networks, Artificial Intelligence
- Advisor: Lynn Wu (wulynn@wharton.upenn.edu)
- Research in Progress:

1. *Can Social Media Alleviate Inequalities? Evidence from Venture Capital Financing*. Working paper. Accepted by *2019 International Conference on Information Systems (ICIS)* and *2019 Conference on Information Systems and Technology (CIST)*.

   Summary: Startups are increasingly using social media to signal quality and provide information for potential investors. However, the effectiveness of social media is likely to be heterogeneous between different demographic and network characteristics. In this paper, we examine whether social media use can alleviate disadvantages experienced by firms with female founders and by firms at the periphery of the investor network. Using social media activity data on Twitter.com and venture capital investment data of startups on Crunchbase.com, we show that social media can mitigate some biases experienced in firms with women founders and in firms with low social capital in the investor network. This is because social media can serve as new channels for information access and quality signals, allowing disadvantaged companies to share information with investors about products and services. We find this effect is particularly salient in competitive markets where venture financing is harder to obtain, and stronger for new entrants than serial entrepreneurs.

2. *How does Social Media Benefit Startups in Emerging Markets*. Working Paper. Accepted by *2020 Workshop on Information Systems and Economics (WISE)*.

   Summary: Previous literature has shown that social media can help startups to attract potential investment and mitigate biases against firms with female founders and those that are not well connected in the investor networks. This is because in mature markets like US, startups mainly face information barriers created by information asymmetry. While in emerging markets like China, startups also face institutional barriers since regulations often lag behind technological development, and social media can help companies with better social capital to influence public opinions and win preferential policies. In this research we show social media is effective in helping not only female and new entrepreneurs to secure more funding by alleviating information barriers, but also high-social-capital founders to receive more funding by mitigating institutional barriers. The former effect is more salient in competitive markets where finance is constrained, and the latter effect diminishes after the Mass Entrepreneurship Policy in China in 2014.

3. *Virus, Trust and Digital Resilience: Evidence from Live-Streaming E-Commerce*. Working Paper.

Special Note:

I have applied for the NBER Digitization Tutorial last year and was admitted, but was not able to attend it due to Covid-19 quarantine. I am really interested in this program and hope to be admitted this year.