YU-HSIN LIU

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GRADUATE TRAINING

Ph.D. in Business, Indiana University Bloomington (3rd year, Expected 2018)

Major: Business Economics, Minor: Network Science

Field	Selected Courses
Economic Theory	Microeconomics, Game Theory, Industrial Organization, Information Economics
Empirics	Econometrics, Structural Econometrics, Causal Inference, Bayesian Analysis
Network Science	Social / Statistical Network Analysis, Machine Learning, Social Media Mining

M.Sc. Applied Statistics, Indiana University Bloomington, Expected 2018

M.Sc. Management and Economics, London School of Economics, 2012

RESEARCH INTEREST

My first set of research interests is on the business models and the social impact of platform businesses, including multi-sided platforms (e.g. YouTube and Spotify), social media (e.g. Facebook and Twitter), as well as sharing-economy platforms (e.g. Airbnb and Uber). I currently focus on their pricing strategies along with the welfare implications and how the similar startups scale up efficiently using network diffusion.

My second set of research interests is on the regulation of the network industry and the public provision of the related infrastructure, such as the broadband internet. A new empirical project regarding households' willingness-to-pay for higher speed internet, advised by professor Jeff Prince, will be launched soon later this year.

CURRENT RESEARCH PROJECTS

Platform Pricing with Heterogeneous Peer-to-peer Network Effect

The paper attempts to develop a flexible framework that generalizes the pricing model in Rochet and Tirole (2006), Armstrong (2006), and the most recent work in Weyl (2010) and White and Weyl (2015). The framework then naturally extends the existing economic analysis in multi-sided platform to social media and peer-to-peer sharing platform, where various sources of heterogeneity appear in the network effect and the concept of "side" is relatively ambiguous. The project is in its preliminary stage. Several technical difficulties need to be solved in order to acquire the first set of contributive results.

keyplayer: An R Package for Locating Key Players in Social Networks (with Weihua An)

Abstract: Many social and health interventions employ central players in social networks to facilitate the intervention. The challenge is to select a set of players who is central as a group. Building on prior research, in this paper we extend conventional individual centrality measures and propose corresponding group centrality measures. We further develop tools to help identify the most central group of players in social networks. We illustrate the methods by using both a simulative network and the friendship network in a high-teach company. The methods are implemented in an R package keyplayer available at CRAN.

FULL-RESPONSIBILITY TEACHING

BUS-G100 Business in the Information Age (Spring and Fall 2015)

BUS-G350 Business Econometrics (Spring 2016)