Hao Hu

CONTACT INFORMATION
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EDUCATION

Georgia Institute of Technology, Scheller College of Business, Atlanta, US

Ph.D, Information Technology Management, Aug 2018 - Present

Fudan University, School of Management, Shanghai, China

B.A., Statistics, July 2018

RESEARCH INTERESTS

Field: Deep Learning and AI, Blockchain, Economics of Information Systems, Analytical Modeling, Structural Model.
Topics: I am interested in blockchain, data economy, and applying deep learning and AI technologies in economics model.

SELECTED PHD COURSEWORK

Course	
Microeconomics 1	Microeconomics 2
Econometrics 1	Econometrics 2
Game Theory	Seminars in Information Systems
Machine Learning	Deep Learning
Stochastic Processes	Non-parametric Statistics
Simulation	Principles of Programming

CONFERENCE PRESENTATION

INFORMS Seattle, WA, Oct. 20-23, 2019 – H. Hu, Y. Dou, M. F. Niculescu, and D.J. Wu, *Commercializing Software Applications Under Perpetual Licensing: Is Seeding Still Relevant in the Age of Time-Limited Freemium?* – presented by H. Hu

Conference on Information Systems and Technology (CIST), Seattle, WA, Oct. 19-20, 2019 – H. Hao, Y. Dou, M. F. Niculescu, and D.J. Wu, *Score High with a Free Kick: Seeding vs. Time-Limited Freemium as Catalysts for the Adoption of Software* – presented by H. Hu

WORKING PAPER

H. Hu, Y. Dou, M. F. Niculescu, and D.J. Wu, Score High with a Free Kick: Seeding vs. Time-Limited Freemium as Catalysts for the Adoption of Software

In the markets for single-version software, the myriad of available applications makes it rather difficult for the average app to stand out and be noticed by the consumers. While word-of-mouth effects and advertising help developers gain visibility for their products, jumpstarting and propagating adoption prior to product obsolescence is non-trivial. In many cases, relying solely on paid adoption may result in sub-optimal outcomes. We explore two very popular strategies through which the developers can catalyze adoption by helping consumers directly or indirectly learn the value of the product - seeding (free full-feature product giveaway to a subset of the consumer base) and time-limited-freemium

(TLF, otherwise referred to as free trials - allow all the consumers to try the full-feature product for free for a limited period of time). In this study, we aim to provide managerial recommendations on when each of these strategies with a free-full-feature-consumption component is optimal, based on social learning and self-learning dynamics, pre-adoption consumer valuation perceptions, adoption costs, and individual product value depreciation.

H. Hu, M. F. Niculescu, and D.J. Wu, Dynamics of The Data Economy (tentative title)

Research Paper

Essay 1: "Visiting Depth Based Ranking Algorithm"

Advisor: Yifan Dou, Assistant Professor, Fudan University **May 2017 - August 2018**

Abstract: This paper develops a new ranking algorithm to solve inaccurate ranking created by incompleteness visiting behavior. Based on Causal Inference, visiting depth performs a significant contribution to retention rate of users. Thus, visiting depth cannot be ignored in ranking algorithm. Compared with page rank which is used by google search engine, our new ranking algorithm – usage rank performs better in the first ten works on the ranking list. And usage rank shows significant performance as it ranks the "Fake Comic Series" much lower than page rank and scoring rule. Therefore, it provides an efficient method to identify the work that will have a negative effect on users' loyalty. Also, it improves the accuracy of predicted ranking list in the near future, which could help company to make purchase decision on copyright.

Essay 2: "Designing Optimal Referral Reward Program under Customer's Budget Constraint"

Advisor: Yifan Dou, Assistant Professor, Fudan University **Jan 2016 - April 2017**

Abstract: Budget constraint exists among customers and plays a critical role in their decision making. We study this circumstance in the context of referral reward program (RRP), and build a stylized game-theoretical model with a nested Stackelberg game between three players: the firm, an existing customer and one of her friends as the potential customer. Our findings suggest that: (i) in the presence of budget constraint, a high-price-reward strategy is no longer optimal. (ii) there are two thresholds of budget that limit the firm's ability to use rewards. (iii) there is no need for the firm to take both strategies (reward & firm financing) when the cost of referral or firm financing is high.

Professional Service

- International Conference on Information Systems (ICIS)
- Conference on Information Systems and Technology (CIST)
- Electronic Commerce Research