Proceedings of the 53rd Hawaii International Conference on System Sciences | 2020

Introduction to the Minitrack "Crowd-based Platforms" HICSS 2020

Track:

Internet and the Digital Economy

Kevin (Yili) Hong, Ph. D. Arizona State University hong@asu.edu Bin Gu, Ph. D. Arizona State University bin.gu@asu.edu Nina (Ni) Huang, Ph. D. Arizona State University ni.huang@asu.edu

1. Introduction

Crowd-based platforms on the Internet harness the wisdom, labor and money from the crowd, to facilitate idea generation, labor exchange and funding of innovative entrepreneurial projects. Crow-based platforms include online labor markets (e.g., Amazon Mechanical Turk, Freelancer.com), crowdsourcing platforms (e.g., Innocentive.com, Zhubajie.com), crowdfunding marketplaces (e.g., GoFundMe.com, Indegogo.com), online communities (e.g., Facebook.com, Douban.com) and more broadly, gig economy platforms (e.g., Uber, Lyft, AirBnB). The uprising scale and importance of such platforms has revolutionized the digital economy.

Notably, these crowd-based platforms have attracted much attention from IS academic scholars. The different types of crowd-based platforms offer new opportunities to understand information systems and related problems, such as communication and coordination in software development (Hong and Pavlou 2016), system design in online labor markets (Hong et al. 2014; Liang et al. 2016), and social influence of contribution patterns (Burtch et al. 2013) in crowd funding marketplaces. Therefore, consider the scale of the societal impact of these platforms, more innovative research is warranted in this important research stream.

In this mini-track, we seek to receive submissions of papers related to these three types of platforms below, with topics including but not limited to the following. We also welcome research using different data and methodologies, such as econometrics, field or laboratory experimentation, machine learning, analytical modeling, field surveys, qualitative analyses, or theory grounded approaches.

2. Research topics:

- Crowdsourcing contest platforms
 - 1) New product development
 - 2) Value co-creation
 - 3) Contest performance
 - 4) Contest design
 - 5) Economic value of crowdsourcing projects
- Crowdfunding marketplace
 - 1) Signaling
 - 2) Social capital
 - 3) Social influence
 - 4) Crowdfunding success factors
 - 5) Machine learning of crowdfunding data
- Online labor platforms
 - 1) Auction design
 - 2) Auction performance
 - 3) Effect of online labor markets on local economy
 - 4) Effect of local economy on online labor markets
 - 5) Global dynamics
- Online communities
 - 1) User-generated content
 - 2) Incentives
 - 3) User engagement
 - 4) User participation
 - 5) Online social system design

3. Accepted Papers

1. How to Share Prosocial Behavior without Being Considered a Braggart?

Authors:

Jane Tan

Indiana University Bloomington

Email: janetan@iu.edu

Lu (Lucy) Yan

Indiana University Bloomington Email: yanlucy@indiana.edu Alfonso Pedraza-Martinez Indiana University Bloomington

Email: alpedraz@indiana.edu

Abstract:

"When people share their prosocial behavior on social media, they always face the braggart's dilemma. By sharing their good deeds, they run the risk of being considered braggarts and thus less likable; by staying silent, they receive no credit for what they do. This study proposes a framing strategy to alleviate this concern. By acknowledging a third party involved in the prosocial activity (e.g., organizer or sponsor), one will be perceived as more likable through reducing the suspicion of selfpromoting and perceived to have put in more effort. An empirical study based on Twitter data was conducted to confirm our prediction. experimental study follows to verify the mechanism. The findings provide implications for various stakeholders that take part in prosocial activities."

2. Professional Connections within Analyst Teams and Forecast Accuracy

Authors:

Xianjiao Wu

Harbin Institute of Technology Email: xianjiaowu@hit.edu.cn

Hong Hong

Harbin Institute of Technology Email: honghong@hit.edu.cn

Qiang Ye

Harbin Institute of Technology Email: yeqiang@hit.edu.cn

Abstract:

"Understanding factors associated with the performance of the sell-side analyst is of great value in both theory and practice. We profile the crucial influence of professional connections among security analysts on generating earnings forecast in this study based on a dataset of analysts' employment history

obtained from the Securities Association of China and analysts' history forecasts obtained from CSMAR. By estimating a multivariate linear regression model, we find that professional connections within analyst teams are positively associated with earnings forecast accuracy. The Fisher's Permutation test further used to confirm the relationship between professional connections and analyst forecast quality is stronger when firms covered facing adversity. Our results still hold for additional analyses with an alternative measure for professional connections. In conclusion, this work confirms the significant role of professional connections in information sharing and mutual understanding among analysts."

3. How Does Algorithmic Trading Influence Investor Participation in Peer-to-Peer Online Lending Markets?

Authors:

Hongchang Wang University of Texas at Dallas

Email: hongchang.wang@utdallas.edu

Eric Overby

Georgia Institute of Technology

Email: eric.overby@scheller.gatech.edu

Abstract:

"Algorithmic trading has reshaped equity markets and had significant effects on market performance. We examine the effect of algorithmic trading in online peer-to-peer lending markets. These markets were originally designed to be accessible to individual investors, however, because algorithmic trading is typically used by institutional investors with substantial resources, algorithmic trading threatens to shut individual investors out of the market. Ironically, this could exacerbate inequalities in the financial system that peer-to-peer lending markets were designed to help eliminate. To study the effects of algorithmic trading, we examine an API upgrade on Prosper.com that facilitated algorithmic trading. Using a difference-in-differences strategy, we find that individual "manual" investors were crowded out of the most quickly-funded and typically best-performing loans after the API upgrade. However, the API upgrade may have increased the size of the market, thereby allowing individual investors to continue investing in the market, albeit for somewhat lower quality loans."

4. Mining and Predicting Temporal Patterns in the Quality Evolution of Wikipedia Articles

Authors:

Haifeng Zhang

Carnegie Mellon University Email: haifeng1@cs.cmu.edu

Yuqing Ren

University of Minnesota Email: chingren@umn.edu

Robert E. Kraut

Carnegie Mellon University Email: robert.kraut@cmu.edu

Abstract:

"Online open collaboration systems like Wikipedia are complex adaptive systems within which large numbers of individual agents and artifacts interact and co-evolve over time. A key issue in these systems is the quality of the co-created artifacts and the processes through which highquality artifacts are produced. In this paper, we took a dynamic approach to uncover common patterns in the temporal evolution of 6,057 Wikipedia articles in the domains of roads, films, and battles. Using Dynamic Time Warping, an advanced time-series clustering method, we identified three distinctive growth patterns, namely, stalled, plateaued, and sustained. Multinomial logistic regressions to predict these different clusters suggest that the path that an article follows is determined by both its inherent attributes, such as topic importance, and the contribution and coordination of editors who collaborated on the article. Our results also suggest that different factors matter at different stages of an article's life cycle."

5. Fighting Abuse while Promoting Free Speech: Policies to Reduce Opinion Manipulation in Online Platforms

Authors:

Dahae Jeong

Arizona State University

Email: dahae.jeong@asu.edu

Sang-Pil Han

Arizona State University

Email: shan73@asu.edu

Sungho Park

Arizona State University Email: spark104@asu.edu

Seok Kee Lee Hangsun University

Email: seelee@hansung.ac.kr

Abstract:

"With the rise of misinformation epidemic, this study aims to empirically investigate the consequences of an online commenting platform's activity-capping policy on abusers' and regular users' activities. Utilizing a quasi-experimental setting, we find that restrictive policies not only curtail the activity of the abusers but also promote the activity of regular users. Results show that the policy has an asymmetric effect on abusers and regular userswhile it effectively reduces the actions of the malicious users by 1.8%, it promotes the activities of the regular users by 2.2%. To better understand the behavioral change of the regular users, we draw from the rational economic perspective of voting decisions and provide initial evidence that such policy measures reinforce the subjective probability of being influential on the outcome. This study will provide valuable implications to managers and policymakers to estimate the consequences of and to combat against malicious behaviors and to promote free speech in online platforms."

6. Building Governance Capability in Online Communities: A Social Network Perspective

Authors:

Mohammed Harysi

The University of Warwick

Email: m.harysi@warwick.ac.uk

Bogdan Negoita HEC Montréal

Email: bogdan.negoita@hec.ca

Joe Nandhakumar

The University of Warwick

Email: joe.nandhakumar@wbs.ac.uk

Abstract:

"Online communities are increasingly seen as new forms of organizing. However, we have limited understanding of how governance emerges in an online community. Prior literature either focuses on governance as a dynamic process-oriented view or as static comparative analysis, in contexts where the online community is mature and well established. This paper therefore seeks to explore how governance evolves throughout the history of an online community, from an embryonic stage, through the emergence stage to the establish stage. In the context of an online community built around a GitHub-hosted project called GitPoint, we draw on the concept of capability to carry out a theoretical narrative of interactions between individual members that are conducted across social networks, including Twitter and Gitter. Based on this narrative, the paper offers insights into the emergence of governance in an online community and makes key contributions to the literature on governance in such communities."