Introduction to the Minitrack “Crowd-based Platforms” HICSS 2021

Track:
Internet and the Digital Economy

Kevin (Yili) Hong, Ph. D.
University of Houston
yhong@bauer.uh.edu

Bin Gu, Ph. D.
Boston University
bgu@bu.edu

Nina (Ni) Huang, Ph. D.
University of Houston
nihuang@bauer.uh.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. Vulnerable Populations in Prosocial Crowdfunding: Does the Framing Matter for Female and Rural Entrepreneurs?

Authors:

- (1) Maria Figueroa-Armijos
mfigueroaarmijos@gmail.com
- (2) John P. Berns
jpberns@bus.olemiss.edu
- (3) Serge P. da Motta Veiga
serge.damottaveiga@edhec.edu

Abstract:

“Prosocial crowdfunding was originally conceived as a financial mechanism to assist vulnerable unbanked populations, typically excluded from formal financial markets. It subsequently grew into a billion-dollar scheme in a multi-billion-dollar crowdfunding industry. However, recent evidence claims prosocial crowdfunding may be shifting away from its goal to support the poor and underserved. Drawing on a composite social responsibility and framing theory framework, we examine the role that vulnerability plays in successfully raising funds in a prosocial crowdfunding context. We conduct multilevel logistic regressions on a sample of microloans allocated to 105,727 ventures in 64 countries. Our results indicate that applying for funds through a field partner which caters to vulnerable populations may in fact have a negative effect on the entrepreneur’s request to be fully funded. Notwithstanding, framing the entrepreneur as being female or rural as key characteristics of individual vulnerability increases the project’s likelihood to be fully funded.”

2. Could you please pay attention?” Comparing in-person and MTurk Responses on a Computer Code Review Task

Authors:

- (1) Anthony Gibson
anthony.mgibson89@gmail.com
- (2) Gene Alarcon
gene.alarcon.1@us.af.mil
- (3) Michael Lee
michael.lee@gdit.com
- (4) Izz aldin Hamdan
izzy.hamdan@us.af.mil

Abstract:

“The current study examined the differences in data quality across two environments (i.e., in a

laboratory and online via Amazon’s Mechanical Turk) on a computer code review task. Researchers and practitioners often collect data online for the sake of convenience, as well as for obtaining a more generalizable sample of participants. The lack of social contact between the researchers and participants, however, may result in less effort dedicated to the experimental task resulting in poor quality data. The results of the current study showed that data quality—at least when measuring the individual difference variables—was drastically worsened when the experimental task was presented online. In contrast, we observed little differences in the experimental task perceptions across the two samples. Rather, participants spent significantly less time examining the computer code when completing the experiment online. The current study has implications for the effects of using online platforms (like MTurk) to collect experimental data.”

3. Could Government Measures Crowd Out Grassroots Philanthropy? Empirical Evidence from an Education Crowdfunding Platform

Authors:

- (1) Anqi Wu
anqiwu2@illinois.edu
- (2) Aravinda Garimella
aravinda@illinois.edu
- (3) Ramanath Subramanyam
rsubrama@illinois.edu

Abstract:

“Over the last two decades, grassroots altruism, enabled through platforms such as DonorsChoose.org, has resulted in successful funding of innumerable and essential public school projects across the country. While such channels become critical fundraising mechanisms, there is an unintended possibility of crowding out of these sources by governmental initiatives which aim to shed light on, and address public school resource deficits. In this study, with a focus on major public policy announcements, we examine whether there is an unintended effect of external measures, such as the signing of the Every Student Succeeds Act (ESSA), on grassroots altruism, which is possible to examine on online philanthropy platforms. We surmise that, in such platforms, donors could become complacent and take comfort in the cognizance of an external agency addressing the problems they care about -- we call this the “savior effect”. Importantly, from our analysis of panel data on the platform, we find that the savior effect: (a) results in declined donations toward under-served public school projects on the

platform, and (b) makes donations more local, disproportionately impacting schools with high concentrations of low-income and minority students, which receive fewer instructional resources to begin with. Our work has important policy implications for public schools, donor communities, and online fundraising platforms.”

4. I’m Not a Chatbot: An Empirical Investigation of Humanized Profiles of Social Media Customer Service Representatives

Authors:

(1) Huai-Tzu Cheng
hchen53@lsu.edu
(2) Yang Pan
ypan8@tulane.edu

Abstract:

“While artificial intelligence is robotizing customer service at an unprecedented pace, there is great concern that robotized customer service could undermine customer satisfaction. This study searches for a solution that humanizes customer service to address this concern. Aiming to increase humanization, U.S. telecom giant T-Mobile recently added personal identities to its customer service representatives’ profiles on Twitter. Here, we examine the effect of humanized profiles on customers’ expressions of emotion or complaints via public tweets. The study provides novel insight explaining why customers are more likely to express positive emotions and fewer complaints if they are interacting with customer service representatives with a humanized profile on a social media platform. Interestingly, this effect is stronger among female users. We also discuss the implications for research and practice.”

5. Graph Neural Network for Customer Engagement Prediction on Social Media Platforms

Authors:

(1) Tengteng Ma
tma24@uic.edu
(2) Yuheng Hu
yuhenghu@uic.edu
(3) Yingda Lu
yingdalu@uic.edu
(4) Siddhartha Bhattacharyya
sidb@uic.edu

Abstract:

“Social media platforms such as Twitter and Facebook play a pivotal role in companies’ strategy of engaging customers. How to target potential customers on social media effectively and efficiently is an important yet unsolved question. Predicting customer engagement on social media platforms is facing several challenges that cannot be solved by traditional methods. In this work, we design a framework that leverages individual behavior on Facebook together with network contextual information to predict customer engagement (like/comment/share) of a brand’s posts. We first build a meta-path based Heterogeneous Information Network (HIN) to exploit large-scale content consumption information. We then design a Graph Neural Network (GNN) model combined with attention mechanism to learn structural feature representations of users to make the customer-brand engagement prediction. The proposed model is examined using a large-scale Facebook dataset and the result shows significant performance improvement compared with state-of-the-art baselines. Besides, the effectiveness of attention mechanism reveals the potential interpretability of the proposed model for the prediction results.”

6. Understanding the “Holiday Effect” in Online Restaurant Ratings

Authors:

(1) Lingfei Deng
denglingfei@hit.edu.cn
(2) Dapeng Xu
dpxu@hit.edu.cn
(3) Qiang Ye
yeqiang@hit.edu.cn

Abstract:

“Plenty of studies have demonstrated the holiday effect in human decision-makings. However, extant research fails to explore whether and how a holiday effect exists in online word-of-mouth generation. This work utilizes online restaurant reviews obtained from the most popular review platform in China to investigate this question with multiple empirical tests. The results suggest that diners are more likely to give a lower online rating on holidays, and this relationship is driven by a combination of restaurants’ specific reasons and diners’ specific factors. Specifically, the level of crowdedness and the quality of the restaurant can partly explain this relationship. Moreover, reviewers are found to be driven by cognitive mental processes instead of being carried away by emotions when they post online

ratings on holidays. However, those who need to work overtime during holidays are found to be driven by bad mood when they post online ratings.”

7. Initial Coin Offering (ICO): a systematic review of the literature

Authors:

(1) Ana Claudia De Moxoto

anamoxoto@gmail.com

(2) Paulo Melo

pmelo@fe.uc.pt

(3) Elias Soukiazes

elias@fe.uc.pt

Abstract:

“Initial ICO coin offerings have emerged as a new business financing mechanism. ICOs have raised more than \$ 31.14 billion by 2019, sparking interest in finance studies. Despite ongoing scientific research on the topic, academic knowledge remains limited and fragmented. This study aims to conduct a systematic review of the literature with 30 contributions from journals published until January 2020. Based on an in-depth analysis of the publications identified, we describe the landscape of the field of ICOs focusing on two aspects. First, we conducted an analysis of the empirical articles that addressed the success determinants of ICOs. Second, we categorize relevant contributions in five different perspectives: human and social capital, technological characteristics, governance and legal aspects and financial details of the campaign. Thematic analysis was carried out to address dominant themes and subthemes in each perspective.”

8. A Different Kind of Sharing Economy: A Literature Review of Platform Cooperatives

Authors:

(1) Jiang Zhu

jiang.zhu-2@student.uts.edu.au

(2) Olivera Marjanovic

olivera.marjanovic@uts.edu.au

Abstract:

“We are now living in so-called sharing economy, which affects many aspects of our lives, with well-known examples like ride sharing platform Uber and short-term rental sharing platform Airbnb. In spite of the convenience and benefits of the sharing economy, there is a growing awareness of the negative societal effects associated with sharing economy described as platform capitalism. In response, platform cooperatives are started to emerge

aiming to create a different kind of sharing economy. However the novelty of platform cooperatives and lack of research attention continue to limit our understanding of social benefits of platform cooperatives. The objective here is to provide a comprehensive literature review on platform cooperatives, focusing on social values and benefits. Analysis of the key publications reveals high potential of platform cooperatives as more ethical and fairer alternatives to platform capitalism that create both positive social value for the society and value for their members/co-owners.”