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Message from Editors-in-Chief

Dear readers

It's our pleasure to welcome you to the first issue of the second volume of the *Journal of Social Computing*. This issue comprises the following six interesting articles.

In the first article, "Using Twitter Bios to Measure Changes in Self-Identity: Are Americans Defining Themselves More Politically Over Time?", Nick Rogers and Jason J. Jones study whether Americans' political views will converge to their self-identify over time. The authors introduce a methodology called "Longitudinal Online Profile Sampling (LOPS)", which suggests a positive answer based on their analysis of millions of Twitter user bios over four years, where Twitter users tend to add political words more frequently to their bios than any other category.

Policymaking is a critical governmental function, especially during large-scale crises like the ongoing COVID-19 pandemic. The second article raises a new subject of study, exploring political responses to crises. In "Pandemic Policymaking", Philip D. Waggoner uses an approach to unsupervised manifold learning, Uniform Manifold Approximation and Projection (UMAP) for dimensional reduction, to examine the structure of pandemic policymaking using all pandemic-focused bills from the 93rd to the 116th US Congress (1973–2020). He demonstrates how COVID-19 policymaking does not differ much from the response to previous crises, despite dramatic changes to the US political landscape such as increasing political polarization and ineffective governance.

In the third article, "How to Better Identify Venture Capital Network Communities: Exploration of A Semi-Supervised Community Detection Method", Hong Xiong and Ying Fan study the phenomena of Venture Capital (VC) companies being more likely to jointly invest with other VCs. The authors propose a semi-supervised community detection method based on the structure of VC networking and the list of industry leaders, and reveal the distinct nature of community structure in VC networks. They also show how the aggregation of these communities is affected by the type of VC ownership ("institution type"), source of capital, background of personnel, field of investment, and headquarter location.

Network representation learning automatically encodes graphs into low-dimensional vector representations that capture various aspects of node similarity. In the fourth article, "Learning Universal Network Representation via Link Prediction by Graph Convolutional Neural Network", Weiwei Gu, Fei Gao, Ruiqi Li, and Jiang Zhang develop a novel network representation method, the Link Prediction based Network Representation (LPNR), which generalizes the graph neural networks and optimizes a carefully designed objective function that preserves linkage structure. Through experiments with three real-world networks, the authors show LPNR can overcome the issue of low accuracy in node centrality measurement, community detection, and link prediction tasks. With the mini-batch and fixed sampling strategy, LPNR can efficiently learn the embedding of large graphs in a few hours.

In the fifth article, "DeepPredict: A Zone Preference Prediction System for Online Lodging Platforms", Yihan Ma, Hua Sun, Yang Chen, Jiayun Zhang, Yang Xu, Xin Wang, and Pan Hui investigate the issue of online lodge booking user preferences. To predict a user's zone preference for their next travel, taking into account historical data scarcity and city Point Of Interest (POI) heterogeneity, the authors develop DeepPredict, a zone preference prediction system, which leverages the power of deep learning and the sentence embedding algorithm Sent2Vec. Using their collected Airbnb dataset, the authors demonstrate that DeepPredict can achieve much higher accuracy than existing alternatives.

In the sixth article, "Estimating Multiple

Socioeconomic Attributes via Home location—A Case Study in China", Shichang Ding, Xin Gao, Yufan Dong, Yiwei Tong, and Xiaoming Fu study how to predict a person's Socioeconomic Attributes (SEAs) such as income level, family income level, occupation type, and education level from his/her home location. The authors utilize a survey involving 9 provinces and 85 cities of China as SEA ground truth, and enrich home location with knowledge from real estate websites, government statistics websites, and online map services. They propose a factorization machine based multi-task learning method using an attention mechanism, and show its strong performance against state-of-the-art methods. The authors find area-level average income and POIs are much more important SEA indicators than housing prices.

We would like to thank our editorial board, reviewers, authors, and the journal editorial office for their marvelous efforts in making this issue available. Enjoy reading and using these articles to improve your social computing!

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