

Special Issue on Mining Actionable Insights from Social Networks

1 Names, affiliations of guest editors

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2 Motivation and Objective

The wide adoption of social network churns out an ocean of data which presents an interesting opportunity for mining the data and discover new knowledge to predict real-world outcomes. The enormity and high variance of the information that propagates through large user communities influence the public discourse in society and sets trends and agendas in topics that range from marketing, education, business and medicine to politics, technology and the entertainment industry. Mining the attributes and contents of social network provides an opportunity to discover social structure characteristics, analyze action patterns qualitatively and quantitatively, and the ability to predict future events.

In recent years, decision makers have become savvy about how to translate social data into actionable information in order to leverage them for a competitive edge. In particular, marketers aggregate the opinions of the collective population to dynamically calibrate, anticipate and offer products and services that meet perpetually shifting consumer demands in a hyper-competitive marketplace.

The traditional research in social network mainly focus on theories and methodologies on community discovery, pattern detection and evolution, behavioural analysis and anomaly and misbehaviour detection. The main distinguishing focus of this journal special issue will be the use of social media data for building predictive models that can be used to uncover hidden and unexpected aspects of user-generated content in order to extract actionable insight from them. The objectives will be to transform the insight into effective actions which could help organizations improve and refine their strategies.

In this special issue, we aim to gather work from world-wide researchers and practitioners from different disciplines such as computer science, big data mining, machine learning, social network analysis and other related areas in order to compile the latest research achievements in mining actionable insight from social network data.

3 Topics

Topic of interest include but not limited to:

- Predictive modeling based on social networks such as
 - Box office prediction,
 - Election prediction, and
 - Flu prediction.
- Product adaptation models with social networks such as
 - Sale price prediction,
 - New product popularity prediction,
 - Brand popularity, and
 - Business downfall prediction.
- User modeling and social networks including
 - Predict users daily activities including recurring events,
 - User churn prediction,
 - Determining user similarities, trustworthiness and reliability.
- Social networks and information/knowledge dissemination such as
 - Topic and trend prediction,
 - Prediction of information diffusion patterns, and
 - Identification of causality and correlation between event/topics/communities.
- Information diffusion modeling with social networks such as
 - Sentiment diffusion in social network , and
 - Competitive intelligence from social networks.
- Merging internal (proprietary) data with social data
- Feature Engineering for and from Social Networks
- Datasets and Evaluation methodologies for predictive modeling in social networks

4 Qualification of the Organizers

Ebrahim Bagheri is a Canada Research Chair in Software and Semantic Computing and an Associate Professor in Electrical and Computer Engineering at Ryerson University, Toronto, Canada. In the recent years, his main research focus has been building technology for predictive modeling based on social media content. Recently, his industrial collaborations on this topic have resulted in three patents (one pending), most recently on telco customer churn prediction from Twitter data. He currently leads R&D projects worth \$3M CAD. He has extensive experience in organizing workshops having already co-chaired 9 workshops in the past 5 years and also guest-edited 4 journal special issues.

Zeinab Noorian is an NSERC Postdoctoral Research Fellow at Ryerson University, Toronto, Canada. She was awarded the Best Thesis Award for her PhD thesis on modeling trust and reputation technologies for e-commerce systems. In recent years, she has focused on building predictive models to determine trustworthiness of social media participants in various contexts by combining qualitative and quantitative aspects of trust. She has been one of the organizers of the successful and recurring WIT-EC workshop (<http://trust.sce.ntu.edu.sg/wit-ec16/>) since 2012 co-located with prestigious conferences such as AAAI, IJCAI and EC. Her papers are published in venues such as AAMAS, JAAMAS, ECAI and HT, among others.

Faezeh Ensan is a Chief Data Scientist at SideBuy Technologies, Vancouver, Canada and has a PhD in Computer Science from The University of New Brunswick, Canada in Semantic Web Technologies. At SideBuy, she has been focused on building social media-based predictive models as well as a platform for corporate-level semantic search in document management systems. She was the program co-chair for the Canadian Semantic Web in 2009 and edited a subsequent book published by Springer (<http://www.springer.com/us/book/9781441973344>). She has an extensive publication record in venues such as ISWC, EKAW, and AAAI, just to name a few.

5 The timeline for the selection of the papers, review process, and submission of the final package

The International Workshop of Mining Actionable Insights from Social Networks (MAISoN) is currently being organized by the proposed guest editors of this special issue in conjunction with The Web Search and Data Mining (WSDM 2017) conference, which is one of the premier venues for data mining and search.

While there will be an open call for papers for this special issue, selected high-quality papers accepted and presented in the workshop will also be invited for extension and publication in this special issue. For all submitted papers to this special issue, complete peer-review of papers will be performed.

By 15 May 2017, we expect to receive a sufficient number of submissions

including the extended versions of the papers selected from the workshop.

Review process: Each paper will be reviewed by at least three peer-reviewers and a guest editor. The acceptance decisions will take into account paper novelty, technical depth, elegance, practical or theoretic impact. The review process will start from May 15, and finish by July 15, 2017. Papers requiring major revisions will be given 2 months for their revisions.

Submission of the final package: Sept 15, 2017.

We expect to finalize the special issue by end of Oct 2017.

Timeline:

- Submission Deadline: 15 May 2017
- First Notification: 15 July 2017
- Revision Due: 15 Sept 2017
- Final Decision: 15 October 2017