



Introduction to the Special Issue on “Crowdsourcing and Social Networks Analysis”



Keywords:

Crowdsourcing
Consumer purchase decisions
Recommendation
Social analytics
Social commerce
Social networks

The increased popularity of social networking sites, such as LinkedIn, Facebook, and Twitter, has opened opportunities for research on social commerce. A substantial amount of previous research has been published to examine factors influencing on individuals' usage, recommendation, and purchasing behaviors. However, research on the decision models and technologies that can enhance the efficiency and effectiveness of social commerce is still scarce. As we can see that social media is increasingly influential in decision support, the purpose of this special issue is to explore potential research areas that are related to social media usage in decision making.

In this special issue, we have chosen nine representative papers relevant to decision models and technologies for social decision making to highlight the state-of-the-art research. These papers have gone through at least two-runs of rigorous review and revision process to ensure their topic relevance and research quality.

1. Overview of the Special Issue

The papers in this special issue cover a framework and components of crowdsourcing, and a range of issues related to social commerce, including user behavior, brand popularity, recommendation, and social analytics in social networks.

The paper by Geiger and Schader introduces personalized task recommendation mechanisms and contributes to a conceptual foundation for the design of such mechanisms by conducting a systematic review of the corresponding academic literature. The second paper, by Nevo and Kotlarsky, collected qualitative data from focus groups with crowdsourcing leaders at a large multinational technology organization to identify vendors' capabilities to successfully utilize crowdsourcing in delivering services to their clients. The third paper, by Ren, Nickerson, Mason, Sakamoto, and Graber, focuses on how crowdsourcing processes should be designed to improve the effective generation of ideas by the crowd. They conducted an experiment to compare three systems built to perform greenfield, modification and combination-based alternative generation. The fourth paper, by Chiu, Liang, and Turban, provides a framework for applying crowdsourcing to support various phases of managerial decision-making and problem solving. They identified four key components and three layers of concerns in the crowdsourcing process.

The fifth paper, by Cheung, Xiao, and Liu, empirically examines how action-based peer consumer purchases and opinion-based social peer

consumer reviews influence consumer purchase decisions. This paper also explores the moderating role of two consumer characteristics, consumer engagement and consumer expertise. The sixth paper, by Hassan Zadeh and Sharda, adapts a stochastic point process framework for analysis of the dynamic microstructure of online social networks (OSNs). More specifically, this paper investigates the possibility of using crowdsourcing on OSNs as a marketing mechanism to enhance brand awareness and popularity. The seventh paper, by Zhou, Jin, and Fang, investigates the effects of the three types of perceived benefits (i.e., utilitarian, hedonic, and social benefits), moderated by gender, on satisfaction in relation to social virtual world continuance. The eighth paper, by Lau, Li, and Liao, illustrates the design of a novel social analytics methodology that is underpinned by a semi-supervised fuzzy product ontology mining algorithm to facilitate firms or individual consumers to tap into the collective social intelligence embedded in social media sites. The ninth paper, by Li, Wang, and Liang, proposes a multi-theoretical kernel-based approach that can map various social network theories into a uniform kernel form and convert the recommendation problem to a kernel-based machine learning problem.

Social networking is a double-edge sword. On the one hand, it is a powerful tool for enhancing organizational decision making. On the other hand, it could harm the organization if not used appropriately. The papers in this special issue provide a snapshot of research issues along the line of social media related decision models and research frameworks. They are useful for scholars to understand the state-of-the-art research frontier and to identify new research issues for further study.

Chao-Min Chiu is a professor in the Department of Information Management at the National Sun Yat-sen University, Taiwan (ROC). He holds a Ph.D. in management from the Rutgers University. His research interests include electronic commerce, virtual communities, and research methodology. His research has appeared in *Decision Support Systems*, *European Journal of Information Systems*, *Information Systems Journal*, *Information & Management*, *International Journal of Human-Computer Studies*, *Computers & Education*, *Electronic Commerce Research and Applications*, *International Journal of Information Management*, *Computers in Human Behavior*, and others.

Ting-Peng Liang is a National Chair Professor at National Chengchi University and a Director of the Electronic Commerce Research Center at National Sun Yat-Sen University in Taiwan. He received a doctoral degree from the Wharton School of the University of Pennsylvania and is a Fellow of the Association for Information Systems. He has taught at the University of Illinois, Purdue University, the Chinese University of Hong Kong and City University of Hong Kong. He has been the Provost, Dean of the College of Management, Director of the Graduate Institute of Information Management, and Director of the Software Incubator of NSYSU. His primary research interests include electronic commerce, intelligent decision support, knowledge management, and service innovation. He has published more than 80 articles in research journals, including *Management Science*, *MIS Quarterly*, *Journal of MIS*, *Operations Research*, *Decision Support Systems*, *Information and Management*, *International Journal of Electronic Commerce*, and many others. He is the founding editor of the *Pacific Asia Journal of AIS*, co-Chief Editor of the *Journal of Electronic Commerce Research*, and on the editorial board of *Decision Support Systems*, *Journal of AIS*, *International Journal of Electronic Commerce* and a few others.

Efraim Turban is a well-known scholar in information systems and electronic commerce. He received his MBA and Ph.D. from the University of California at Berkeley. Currently, he

is a visiting scholar at the Pacific Institute for Information System Management, University of Hawaii. Prior to this, he was on the faculty of several universities, including City University of Hong Kong; Lehigh University; Florida International University; California State University, Long Beach; Eastern Illinois University; and the University of Southern California. He is the author of more than 110 refereed papers published in leading journals, such as *Management Science*, *MIS Quarterly*, *Journal of Management Information Systems*, and the *International Journal of Electronic Commerce*. He is also the author of 21 books, including *Electronics Commerce: A Management Perspective*; *Business Intelligence* and *Information Technology for Management*. He is a consultant to major corporations worldwide. His current areas of interest are social commerce, the use of intelligent agents in e-commerce systems, and collaboration issues in global e-commerce.

Chao-Min Chiu

*Department of Information Management, National Sun Yat-sen University,
No. 70, Lienhai Rd., Kaohsiung 80424, Taiwan, R.O.C.
E-mail address: cmchiu@mis.nsysu.edu.tw.*

Ting-Peng Liang

*Department of Information Management, National Sun Yat-sen University,
No. 70, Lienhai Rd., Kaohsiung 80424, Taiwan, R.O.C.*

*Department of Information Management, National Chengchi University,
No.64, Sec.2, ZhiNan Rd., Wenshan District, Taipei City 11605, Taiwan, R.O.C.*

E-mail address: tpliang@nccu.edu.tw.

Efraim Turban

*Pacific Institute for Information System Management, University of Hawaii,
3435 Kehala Drive, Kihei, 96753 HI, USA*

Corresponding author. Tel.: +1 808 874 6418.

E-mail address: efraimtur@yahoo.com.