Editorial: special issue on "social computing and e-business"

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This ISeB special issue on social computing and e-business consists of a selected set of best papers presented in the Second China Summer Workshop on Information Management (*CSWIM 2008*) held in Kunming, Yunnan, China on June 29–30, 2008 and in the First International Workshop on Social Computing (*SOCO 2008*) held in Taipei on June 17, 2008.

The objective of the CSWIM is to create a bridge to promote lively exchange of research between scholars in China and those in other countries in the area of information systems and management. In particular, CSWIM focuses on creating unique experience for IS researchers around the world who would like to collaborate

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with China-based scholars and to study how information systems and technologies affect individuals, businesses, organizations, and societies.

Social computing can be broadly stated as taking a computational approach to the study and modeling of social interactions and communications as well as developing information and communication technologies to support those interactions. The SOCO meeting intends to bring together social computing researchers from a wide spectrum of academic disciplines to report and review the current state of the art of social computing research and its applications, identify major technical challenges, and provide a key forum for discussing future research opportunities.

Innovative information and communication technologies continue to rapidly transform how business is done around the world. The papers in this special issue provide diverse views of the rapidly growing research in the Information Systems community. The proposed solutions shed insights into various technological, managerial, as well as social issues. The first two papers in this special issue are extensions of the two selected best papers from the Proceedings of CSWIM 2008. The first paper, written by Hemant Jain et al., focuses on one of the most important yet challenging problems in healthcare information systems, namely electronic medical record (EMR) retrieval. As EMR systems become increasingly developed and adopted in healthcare practice, how to effectively utilize the archived EMRs is a big challenge because of the huge number and diversity of those records. An effective EMR retrieval system that can quickly sift through medical records and identify the ones most relevant to a patient's current symptoms will be extremely valuable. The authors propose an approach that integrates several technologies, including information retrieval, domain ontologies, and automatic semantic relationship learning, to improve EMR retrieval through semantic query expansion. The preliminary evaluation of a prototype system demonstrates the usefulness of the proposed semantic query expansion.

Web 2.0 technology has propelled intermediated online targeted advertising (IOTA) to become a promising electronic business model, which is aimed to reach potential online customers whose interests in specific online products and services can be identified through their past behavior. The IOTA model allows service providers to make use of all data resources from different advertisement publishers in order to further improve the accuracy of banner advertising. As a result, it is critical to divide consumers' online behavior into distinct segments in order to display advertisements that address the needs of specific groups of online consumers and to yield the highest possible click-through rate. The second paper attempts to address this interesting research issue. Li et al. deal with the advertisement allocation problem by using an advertisement ranking mechanism based on a mixture of several data mining techniques and by considering the ads impression quota and the time-of-day effect. The results of simulation demonstrate the feasibility and benefits of the proposed service system framework for IOTA.

The third paper is an extension of a selected paper from the Proceedings of SOCO 2008. Online auction has been one of the most successful e-business applications. Although huge amounts of bid data are available on the online auction sites, a key challenge is the effective collection and analysis of the auction data. The paper by Yu and Lin studies the parallel crawling and filtering of online auctions

from a social network perspective, with the goal of helping researchers effectively collect online auction data. The authors propose a parallel crawling architecture in which two types of agents are deployed for crawling and filtering and implement a prototype system. Empirical studies have been conducted based on eBay US and Ruten Taiwan to verify the effectiveness of the proposed methodology in real-world environments.

Trust and satisfaction are essential ingredients for successful long-term business relationships with customers and have been extensively studied in the context of e-Commerce for many years. However, there is little research on their relationship from a longitudinal perspective (e.g., at pre-purchase and post-purchase stages). The last paper of this special issue is aimed to fill this knowledge gap. Based on social exchange theory, expectation-confirmation theory, and post-acceptance model of IS continuance, Kim proposes a framework regarding the relationship between consumer trust, satisfaction, expectation, and post-expectation in the context of electronic commerce. The author tests the proposed model empirically using Internet consumer behavior data collected via two rounds of Web surveys. The empirical findings suggest that both consumer's trust and expectation have positive influences on consumer's satisfaction. The results also reveal a significant and positive relationship between consumer's trust and expectation; and customer's satisfaction and perceived usefulness as post-expectation belief are important predictors of repurchase intention.

The guest editors hope that the perspectives, models, technological development, and empirical findings as presented in this special issue will help promote and encourage exciting new and synergetic e-Business research. We thank all authors and reviewers for their time and contributions. We also want to express our gratitude to Professor Michael Shaw, Co-Editor-in-Chief of ISeB, for his encouragement, guidance, and coordination during the preparation of this special issue.