

## Editorial: Special issue on WeB 2007

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This ISeB special issue on e-business reflects a selected set of high-quality papers presented in the Sixth International Workshop on e-Business (WeB) held in Montreal, Canada on 9 December 2007. WeB 2007, sponsored by the AIS Special Interest Group on E-Business, was an ancillary workshop of the International Conference on Information Systems (ICIS).

The papers in this special issue demonstrate new findings and new perspectives from e-business research literature. Rapid growth of the Internet and e-commerce has dramatically changed the role of information systems in business. Transforming traditional businesses into e-business platforms has become a global trend. These e-business technologies and applications enable new business models, create new industry sectors, and redefine relations and processes within and across organizations. This special issue covers research studying new business technologies and applications from empirical and technical perspectives.

The special issue begins with Hsin-Lu Chang's paper, "A Roadmap to Adopting Emerging Technology in E-Business—An Empirical Study". This paper empirically explores the readiness of enterprises to develop emerging e-business technology. The author proposes a three-staged e-business technology roadmap, from pre-eBusiness, to transactional eBusiness, and then to on-demand eBusiness. By using the diffusion of innovation theory, the author identifies a series of enterprises' internal capabilities and environmental drivers explaining enterprises' e-business adoption along the proposed roadmap. The author empirically validates the model based on a survey of 175 businesses from the PC industry in Taiwan. The results demonstrate that when enterprises move from the pre-eBusiness stage to the transactional eBusiness stage, those enterprises' internal capabilities influence companies more than environmental drivers do. However, environmental factors

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play a more critical role in determining adoption as the enterprises start to migrate to on-demand eBusiness.

The second paper focuses on the sustainability of social bookmarking websites. Raquel Benbunan-Fich and Marios Koufaris contribute a study, “An Empirical Examination of the Sustainability of Social Bookmarking Websites”. The authors notice that bookmarking sites offer users the option either to post and tag Web resources privately or to make them publicly available to other users of the sites. However, a prevalence of private tagging would threaten the sustainability of the social aspects at these sites. The authors use activity data from a sample of 1,000 users of Simpy (a popular social bookmarking site) and find that the majority of users of social bookmarking sites contribute most of their tagged resources to the public repository. They also find that a minority of extremely prolific contributors provide a significantly larger portion of public content. Finally, they find that new users make more of their resources public than existing users, and that the majority of users contribute regularly to the public repository.

The third paper, “Understanding What Concerns Consumers: A Semantic Approach to Product Feature Extraction from Consumer Reviews,” focuses on how to improve the effectiveness of product feature extraction. The authors, Chih-Ping Wei, Yen-Ming Chen, Chin-Sheng Yang, and Christopher C. Yang, realize that the Web has become an important source for gathering consumer opinions such as consumer reviews about products. Therefore, it is critical to develop an efficient and effective sentiment analysis technique that can extract product features stated in consumer reviews (i.e., product feature extraction) and determine the sentiments (positive or negative semantic orientations) of consumers for these product features (i.e., opinion orientation identification). They propose a semantic-based product feature extraction (SPE) technique using a list of positive and negative adjectives defined in the General Inquirer to recognize opinion words semantically and subsequently extract product features stated in consumer reviews. They use a prevalent product feature extraction technique and the SPE-GI technique (a variant of SPE) as performance benchmarks. Their empirical evaluation demonstrates that the proposed SPE technique outperforms both benchmark techniques.

In the fourth paper, “A Policy-based Process Mining Framework: Mining Business Policy Texts for Discovering Process Models,” Jiexun Li, Harry Jiannan Wang, Zhu Zhang and J. Leon Zhao point out that many organizations use business policies to govern their business processes, often leading to huge amounts of policy documents. To comply with various regulations (e.g., Sarbanes-Oxley), organizations have to manually analyze policy documents—which may have hundreds or thousands of pages—to discover process information. The process is very time-consuming and imposes an excessive workload. To provide a solution to this information overload problem, the authors propose a novel approach called Policy-based Process Mining (PBPM) to automatically extract process information from policy documents. They apply several text mining algorithms to business policy texts to discover process-related policies and extract process components such as tasks, data items, and resources. They also conduct experiments to validate the extracted components, and find some very promising results.

As the guest editor, I sincerely hope the research methodologies, research findings and the new perspectives presented in this special issue will encourage more exciting research in the e-Business field. I thank the co-editor of ISeB, Michael Shaw, who provided support for the initiation and development of this special issue. I also deeply appreciate the major contributions of all the participants at WeB2007 in Montreal, Canada. Their participation assured us a successful workshop and provided a stimulating forum for the research presented in this special issue. Finally, I thank all the contributing authors for their willingness to include their work in this special issue, as well as the reviewers for their valuable comments and suggestions on the papers here.