Introduction to the Minitrack: Managing Information on the Web

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The proliferation of Internet and World Wide Web has created many technical and managerial challenges as well as opportunities for researchers and practitioners. On the one hand, the increased information complexity, diversity, and the uncontrolled information growth call for better information technologies to support information identification, organization, analysis, dissemination, maintenance, and quality assurance. On the other hand, the large amount of information available on the web not only facilitates organizational decision-making, but also empowers the development of advanced applications such as knowledge management, knowledge discovery and data mining, and environmental scanning on the Internet. Hence, the strategic potentials of web information need to be explored. Furthermore, web information may have impacts on the way information is managed within organizations and on the rise of new information-based and knowledge-intensive organizations. As a result, impacts of web information on competition, organizations, and market structures deserve more studies. The purpose of this minitrack is to create a forum that facilitates the sharing of research results and findings from technical and managerial studies on managing information on the Web.

This year, we accepted five papers that are organized into two sessions. The first paper, “Context-driven Assessment of Commercial Web Sites” by Basu, examined various approaches to assessing Web site effectiveness and usability and proposed a three-dimensional approach that takes into account the context of the site and its functionality within that context.

The second paper, “Design and Evaluation of Improvement Method on the Web Information Navigation: A Stochastic Search Approach” by Yen and Wan, adopted a stochastic searching approach to provide users with dynamic guidance for information access on the Web. Specifically, four models were considered: inexperienced surfers on guidance-less sites, experienced surfers on guidance-less sites, sites with the mean-length guidance, and sites with the known-first-arc guidance (generalized as sites with dynamic stochastic shortest path guidance). The performance of the different guidance models was evaluated using simulations.

The third paper, “Enhanced Knowledge Management with eXtensible Rule Markup Language” by Lee and Sohn, proposed an eXtensible Rule Markup Language (XRML) that allows software agents to exchange and process implicitly embedded in Web pages. By using the XRML, the Web-based knowledge management system can be integrated with rule-based expert systems. Furthermore, the advanced architecture with XRML can extend applications of knowledge management systems to automated form processing, preventive auditing, rule exchange and integration, and agent-based e-commerce.

The fourth paper, “Customer Choice between Electronic and Traditional Markets: An Economic Analysis,” proposed normative models for analyzing consumer channel selection behaviors between traditional and electronic markets. Based on transaction cost economics and consumer decision processes, the proposed models assumed that customers would like to purchase on a specific market that brings them the highest utility values in terms of effort, waiting time, and cost savings. Subsequently, equilibrium solutions at which customers are indifferent in choosing between electronic and traditional channels were derived for both risk-neutral and risk-averse consumers.

Finally, the fifth paper, “Continuous Audit: The Motivations, Benefits, Problems, and Challenges Identified by Partners of A Big 4 Accounting Firm” by Searcy et al., discussed the results of a survey of the U.S. assurance partners of a Big 4 accounting firm. Specifically, the objective of the survey is to investigate the partners’ perceptions and thoughts on the viability of the continuous auditing (CA), the current state of the CA in the audit environment, the impact that CA implementation might have, and the various roadblocks to CA implementation.