The Adoption and Diffusion of Collaborative Systems and Technology

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Starting with HICSS-31, this mini-track has been focusing on the processes and dynamics relating to the organizational adoption of collaborative systems and technology, and the subsequent diffusion of such systems and technology within adopting organizations. Adoption is the process through which an organization decides to acquire the systems or technology. Diffusion is the process through which the acquired systems and technology become assimilated into an organization.

A wide view of collaborative systems and technology is taken so as to include all those which enable individuals, groups and organizations to work together on co-ordinated tasks. They include the whole spectrum of systems and technology from Group Support Systems (such as Lotus Notes, GroupWise and Group Systems) to Inter-Organization Systems (such as EDI and Electronic Brokerage Systems). Such systems and technology have wide applications in negotiation support, business process reengineering, virtual organizations, electronic commerce, etc.

Much of the available literature on collaborative systems and technology implementation tends to focus on functional design and application issues. There is relatively little on general frameworks and empirically validated theories explaining (and predicting the outcomes of) the adoption and diffusion processes. However, a good knowledge of these processes will inform management in the implementation of collaborative systems, thereby increasing the chances of success. The main purpose of this mini-track is to help fill this gap by providing a rigorous forum to draw together important recent developments in this area.

Out of eleven full papers submitted for review under this mini-track, we have selected six. We recognise that for a young mini-track like this one the quality of papers is particularly important. We have therefore used a strong review process whereby every paper has been subject to between two and four reviews before acceptance.

The papers broadly fall into two groups: one focusing on theory / model building & testing; and the other emphasising rich insights gained from interpretative case studies and implementation experience. A wide variety of collaborative systems and processes are involved.

The first paper by Malhotra and Galletta extends the well-known Technology Acceptance Model (TAM) to account for the effect of social influences on the adoption of collaborative systems. The extended model has met with good empirical support. In the second paper, Doll and Deng investigate the effectiveness of user participation in the design of collaborative applications. In the third paper, Kim, Han and Srivastava propose a model for analysing consumer purchase demands in multi-generation technological products, incorporating both initial and repeat purchases, and allowing for leap-frogging behaviour.

In the fourth paper, Horrocks, Rahmati and Robbins-Jones develop a framework out of an extensive review of several disciplines for categorising acts of collaborative work. The fifth paper, by Newell, Scarborough and Swan, considers the adoption of Intranet technology as a vehicle for developing an organisation-wide knowledge management system. The design and implementation of the Intranet within a large global bank demonstrates the problems of using the Intranet for corporate collaboration. In the final paper, Swan, Newell and Robertson compare the adoption and design of collaborative computer-aided technologies for managing operations and production planning within manufacturing firms in Sweden and the UK, examining the influence of technology suppliers and professional associations in shaping these processes.

We hope you will enjoy the variety and quality of these excellent papers and the discussion that they will generate.