

## NEGOTIATION SUPPORT SYSTEMS MINITRACK

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Negotiation Support Systems (NSS) are designed to assist negotiators in reaching mutually satisfactory decisions by providing a means of communication and through analysis of available information. The purpose of this minitrack is to provide a forum for interchange of ideas, research results, development activities, and applications among academicians and practitioners in the NSS field. Since 1991, this minitrack has gathered a respectable collection of papers in this young but promising area of research. Collectively, the selected papers in this minitrack continue to offer innovative and thought-provoking research in computer-supported mediation.

The focus of this year NSS minitrack is to explore the role of negotiation support in the knowledge-based and technology-driven economy. In particular, most of the accepted papers focus on two emerging issues of the new economy. First and from the decision support technology perspective, the papers in this minitrack continue to focus on various issues relating to finding better computational approaches to market bidding and multi-lateral negotiation. Second and from a behavioral perspective, this minitrack concentrates on cultural issues when NSS are used in a global setting.

Wang, Hidvegi and Whinston open this minitrack with two papers dealing with shill bidding in English auctions and shill bidding in multi-round online auctions. Hung and Mao seek to define a framework for e-negotiation. To them, negotiation support in an e-world should be interactive, informative, adaptable to a variety of "irregular" situations and problem settings, fault-tolerant and cost-effective. To demonstrate the feasibility of this framework, they use Petri nets to model e-negotiation activities as workflows.

As discussed in previous issues of this mini-track, a key factor for NSS adoption is the level of trust

negotiation participants have on each other and on the computer system they use. Wu, Kimbrough and Zhong set up a simulation using artificial agents to understand conditions under which distributed trust could be built and sustained. Using a particular game – the Max Med Trust game with software agents with learning capabilities – they have demonstrated that under certain circumstances, trust and cooperative behavior could be cultivated. Huang and Sycara stress the importance of designing negotiation automata based on negotiation processes, and not on predicted outcomes. They see online negotiation technology as being driven by agent capable of adapting themselves to the dynamic and uncertain environment by using "intention reconsideration policies". Druckman et al. take one step forward to NSS implementation and use. They derive a set of thoughts based on the use of a web-based computer-assisted tool for diagnosing progress in international negotiation. Their design requirements align with the e-negotiation framework discussed earlier.

The two papers by Lim et al. and Bajwa and Lewis focus on behavioral issues related to the adoption and use of NSS and collaborative technologies. Their findings seem to confirm the gap between technology advances and the actual use of these technologies. While most organizations surveyed are receptive to new technologies, they have yet to figure out the best approach to benefit from NSS and computer-supported collaborative work. The next two papers by Han and Lim and Kersten et al. address the influence of culture in negotiations and suggest design requirements to enhance the effectiveness of NSS in dealing with cultural diversity.

All together, the ten papers selected for this year, highlight the increasing needs for negotiation support in the new economy. The quality of the papers also demonstrates the ability of the NSS research community to take up to these challenges.