

FOR IMMEDIATE RELEASE

Emerging technology:

Web-based intelligent agents automatically negotiating trades

Menlo Park, Calif –August 8, 2003. Early rounds of the Trading Agent Competition (TAC) have been underway for several weeks now. In this unique event, intelligent agents are used to automate internet negotiations and e-trades on a client's behalf. Teams of researchers are fiercely competing in the two TAC e-commerce-related events: (1) travel agents try to put together the best travel packages for their customers, and (2) PC manufacturers compete for customer orders and supplies over 220 simulated days.

e-agents making travel arrangements

The first three Trading Agent Competitions were based on the travel agent problem, and took place four years ago as a way to stimulate research in the emerging and potentially verdant field of e-trading agents. In this year's "TAC Classic," agents with multiple customers, compete to make travel arrangements to a conference. They must book flights, hotels, and any special events (concerts, etc.) that each customer wants to attend, taking into account such constraints as customer travel preferences, dates, flight availability, pricing, etc.

New supply chain event may prove useful to business

This year, competition organizers have added a new event to TAC: TAC Supply Chain Management (TAC SCM). This game simulates a dynamic supply chain environment in which companies compete to secure customer orders as well as key components required for the production of these orders. The game captures many of the complexities of actual supply chains, where both demand and supplies are subject to fluctuations, and where each manufacturer is limited by the capacity of its factories. The winner of the game is the agent that ends up with the most money in the bank.

(more)

With TAC SCM, researchers hope to demonstrate that internet-based intelligent agents can enable companies to be more flexible in component acquisition, and thus able to better manage inventory, schedule manufacturing, fulfill orders, control costs, and ultimately increase profitability.

The simulation for this competition has been carefully thought through and is running well, according to Norman Sadeh, one of the event organizers and an Associate Professor at the eCommerce Institute at Carnegie Mellon University's School of Computer Science. "We want to be realistic in presenting business challenges to the research community that have not yet been well addressed." Thus a wide array of factors must be considered and managed in this Supply Chain problem.

Twenty teams have successfully completed the initial heats of the Supply Chain event and are headed towards the finals. TAC competitors come from Australia, Asia, Europe, Canada and the U.S. The finals will be held on Wednesday, August 13 at the International Joint Conference on Artificial Intelligence (IJCAI-03) in Acapulco, Mexico. IJCAI is the leading bi-annual conference for AI researchers.

Industry interest in maturing technology

The Trading Agent Competition promises to push the envelope of trading agent technology, and, organizers hope, raise industry awareness of the power and maturity of trading agent technology.

"There is definitely industry interest in such technology," notes Sadeh. "Our lab is already transferring some of this technology to industry."

Background information

For more information on the Trading Agent Competition see (www.sics.se/tac).

IJCAI-03 is sponsored by the International Joint Conferences on Artificial Intelligence, the Mexican Society for Artificial Intelligence, and the American Association for Artificial Intelligence (AAAI).

Founded in 1979, the American Association for Artificial Intelligence (www.aaai.org) is a nonprofit scientific membership society devoted to advancing the science and practice of AI. Its mission is to: (1) advance the scientific understanding of the mechanisms underlying intelligent thought and behavior, (2) facilitate their embodiment in machines, (3) serve as an information resource for research planners and the general public concerning trends in AI, and (4) offer training for the current and coming generations of AI researchers and practitioners. The organization sponsors a bi-annual National AI conference, the Innovative Applications of AI conference, the Mobile Robot Competition and Exhibition, and numerous symposia and workshops.

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