

Preface

Electronic commerce is an exciting and fast-growing area. We were pleased with the large number of submissions to present and to participate.

The accepted papers clustered into four large themes – see the Preliminary Workshop Schedule below.

In order to stimulate discussion and increase breadth, we chose to have a large number of short presentations.

Pointer: there will be another, topically closely related, workshop held at IJCAI-99 on Agent-Mediated Electronic Commerce. Its URL is <http://ecommerce.media.mit.edu/amec99/>.

Thanks

Encouraged by Devika Subramanian (AAAI-99 program chair), Benjamin Grosf formulated the initial workshop concept and the initial workshop proposal to AAI, and recruited the rest of the organizing committee.

Tim Finin and Yannis Labrou ran the workshop e-mail addresses and Website, and handled most of the process of receiving submissions, sending notifications, and receiving final camera-ready.

The organizing committee themselves did all the reviewing of paper submissions, shared evenly.

Thanks most of all to the workshop authors and other participants, for their interesting and vital contributions.

-- Tim Finin & Benjamin Grosf, workshop chairs

Workshop Call for Participation

Electronic commerce (EC) is the buying and selling of goods and services in cyberspace. Already a multi-billion-dollar segment of the world economy, it is a fast-growing and exciting field. This workshop addresses the challenges, opportunities, practical applications, and theoretical aspects of using AI in e-commerce. We particularly encourage submissions about practical applications and techniques, and about the newer area of business-to-business e-commerce, e.g., supply chains management.

Recent significant progress in AI for electronic commerce includes:

- Practical shopping agents, including Web portal services, that use knowledge representation, decision analysis, machine learning, and information retrieval techniques.
- Practical recommender services, e.g., e-storefronts that use collaborative filtering.
- Practical data mining by sellers to learn customer buying patterns
- Practical customer-service help, including agent techniques to categorize and route e-mail, do case-based associative retrieval and make suggestions
- Theory of economic decision-making, markets, negotiations, and contracts, including from the viewpoints of resource-bounded intelligence, game theory, distributed AI, negotiation, probabilistic and uncertain reasoning, and decision analysis.
- The theory and practice of auctions
- Agent communication languages, including negotiation languages and protocols and knowledge interchange and the use of XML-encoded domain ontologies and communication languages
- Web information retrieval and information integration, including using NLP, text analysis and machine learning
- Online product/service catalogs, e.g., techniques to aggregate catalogs

We invite submissions about these and other areas, including, but not limited to:

- intelligent agents for EC, e.g., with rule-based or probabilistic reasoning.
- knowledge representation to describe goods and services, e.g.: terms and conditions, contractual agreements
- buyer and seller decision making, including pricing and bidding brokering and matchmaking

- reputation, recommendation, and other third-party services promotions, advertising, and navigation of buyer attention
- intelligent presentation of information, e.g., customized to buyer interests
- opportunities and timings of AI techniques in EC, e.g., relative to other software techniques and relative to evolution of (real-world) markets
- EC-relevant aspects of business processes in business-to-business buying and selling (e.g., corporate/government procurement decision-making and workflow), data mining and knowledge discovery, collaborative filtering, intelligent user modeling, e.g., of consumer browsing behavior, cooperative problem solving, natural language processing and advanced information retrieval techniques, and mobile agents

Paper submissions of three kinds are invited: technical papers; position papers that describe opportunities and challenges (e.g., challenge problems); and application descriptions that focus on AI aspects.