Introduction

Traditionally, the workshop for the AAAI Robot Competition and Exhibition is held the last day of the NCAI conference, after the robot competition events and exhibitions have concluded. This allows the participants to discuss their actual entries in the robot events, and to talk about the results and lessons learned.

The events of the Ninth AAAI Robot Competition and exhibition, held July 30 - August 3, 2000, included the popular "Hors d'oeuvres Anyone?" and Challenge competition events, and a new competition event, "Urban Search and Rescue." The exhibition included groups that wanted to demonstrate work outside of the robot competitions. Students and faculty from University of Arkansas, Northwestern University, Universite de Sherbrooke, Swarthmore College, University of South Florida, and Kansas State University presented research related to contest events. Topics included architectural issues such as integration of high-level cognition and low-level behaviors, implementation of arbitrators for subsumption-like architectures, innovative vision approaches for face tracking and recognition, and human detection using fused sensor data. Human-robot interaction issues and interface implementations were discussed as well.

Several participants of the exhibition — University of Oklahoma, University of Minnesota, Carnegie Mellon University, Georgia Tech, and Utah State University — also shared their research with fellow conference participants. This year's exhibition entries represented research in vision, machine learning, as well as mobility for autonomous agents.

Even though participants focused on the research and work done prior to the competition and exhibition, they also discussed the performance of the systems during the contest— instances of both failure and success were heard. The future direction of each team's research was briefly mentioned as well. At the conclusion of the workshop, participants discussed various future improvements to the Mobile Robot Competition and Exhibition. This workshop gave the participants an opportunity to share their research with fellow researchers and to get valuable feedback for future work. Each of the participants was invited to submit a paper to this technical report.

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