The 2001 AAAI Robotics Competition and Exhibition featured two challenge competitions and a general exhibition. "Hors d'oeuvres anyone?" challenged contestants to create service robots that would offer hors d'oeuvres to attendees at a public reception. In "Robot Rescue," a joint competition with RoboCup, robots entered a course that simulated an urban disaster area, searched for human victims, and directed human rescuers to the victims. Both of these competitions forced competitors to interact with highly complex and unpredictable environments, to address issues of human-machine interaction, and to build flexible and responsive behavior systems. In addition to these competitions, a three-day exhibition gave researchers an opportunity to demonstrate state-of-the-art research in a less structured environment.

The days of the competition and exhibition are hectic, filled with discussions and demonstrations for our colleagues, for the media, and for the public. To emphasize the research and educational aspects of the robots presented at AAAI, a one-day workshop was held after the close of the event. This workshop not only provided a venue for participants to see the other robots from the event, but also to gain a better understanding of the applications of their own research to different problem domains. The papers in this collection were a result of this workshop.

The AAAI Mobile Robot Competition and Exhibition could not occur without the coordinated efforts of the general chairs, Tucker Balch (CMU) and Holly Yanco (UMass Lowell), and the individual event chairs: Francois Michaud (Universite de Sherbrooke) and David A. Gustafson (Kansas State University) for "Hors d'oeuvres anyone?"; Holly Yanco (UMass Lowell) for Robot Rescue; and Vandi Verma (CMU) and Bryan Adams (MIT) for the Exhibition. We also gratefully acknowledge the Defense Advanced Research Projects Agency (DARPA), the Naval Research Lab, and Nils Nilsson for supporting the 2001 event as well as ActivMedia, iRobot, and Probotics for donated robots at cost for prizes this year.

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