Preface

The Fifteenth Annual Conference on Innovative Applications of Artificial Intelligence (IAAI–03) continues the IAAI tradition of including both case studies of deployed applications and papers on emerging AI applications. The deployed applications papers all include concrete measurements of the benefits provided by AI technology.

IAAI is organized as an independent program within the International Conference, with schedules coordinated to allow attendees to move freely between IJCAI and IAAI sessions. We appreciate the cooperation of the IJCAI organizers, since we believe the collocated conferences both benefit from each other.

AI applications developers benefit from learning about the latest AI techniques that will enable the next generation of applications. Basic AI research benefits by exposure to the challenges of real-world domains and difficulties and successes in applying AI techniques to real business problems. IAAI–03 addresses the full range of AI techniques including knowledge-based systems, planning and scheduling, perception and monitoring, knowledge formation, knowledge management, learning, intelligent design, natural language processing, and diagnostic reasoning.

Deployed applications are case studies that provide a valuable guide to designing, building, managing, and deploying systems incorporating AI technologies. This year's papers address applications in a wide variety of domains, including natural language processing, secure mobile agents, sales support, securities fraud detection, and scheduling. These applications provide clear evidence of the impact and value that AI technology has in today's world.

Papers on emerging applications and technologies describe efforts whose goal is the engineering of AI applications. They inform AI researchers about the utility of specific AI techniques for applications domains and also inform applications developers about tools and techniques that will enable the next generation of new and more powerful applications.

This year we are very pleased to have three invited talks. Noah Friedland will discuss recent progress on a long-term project to build a "Digital Aristotle," an application capable of answering a broad range of questions in a specific domain. Noah will discuss progress in answering questions from an advanced high school chemistry syllabus. Representatives of the specific projects will be available to answer questions about the methods they used and the challenges they faced. Luis von Ahn will present the state-of-the-art in CAPTCHA research. CAPTCHAs are simple intelligence challenges that are intended to be easy for humans to solve, but difficult for robots. CAPTCHAs are in widespread use on the Internet to keep robots out of "human-only" areas. Larry Hunter will discuss emerging new challenges in artificial intelligence applied to biology applications. Biology offers challenging problems — and the opportunity for AI to make a real and direct impact on people's lives.

The Innovative Applications of Artificial Intelligence Conference could not take place without the generous help of many people. In particular, we very much appreciate the hard work and dedication of the IAAI–03 program committee, without whom the technical program would be impossible: Steve Chien, Diane Cook, Marie DesJardins, Alex Hartemink, Mike Hewett, Neil Jacobstein, Craig Knoblock, Ora Lassila, Daniel Marcu, Bruce Porter, Ted Senator, Imran Shah, Reid Smith, Ramasamy Uthurusamy, and Peter Wurman. Further, we thank Keri Harvey and Carol Hamilton and the entire AAAI staff for their professionalism, organization, and expertise.

Enjoy the conference!

– John Riedl and Randy Hill
Program Chair and Cochair