

AAAI-07 Preface

Welcome to the Twenty-Second AAAI Conference on Artificial Intelligence, AAAI-07!

The year 2007 is a special one for AAAI, as it celebrates changing its name to the “Association for the Advancement of Artificial Intelligence.” This change is appropriate to reflect the increasing participation of AI scientists and practitioners from countries other than the USA in the AAAI association, conference, and other activities. The international nature of the conference is clearly reflected in the submissions to the AAAI-07 conference, which came from 45 countries, with 560 papers (61 percent) from outside the USA.

This year we continued several innovations introduced in 2006 — the special technical tracks for integrated intelligence and artificial intelligence and the web, the senior members track, and the nectar track. Integrated intelligence papers represent research that integrates multiple component technologies (for example, reasoning, vision, speech, memory, language, planning, problem solving, learning) to produce intelligent behavior. Artificial intelligence and the web papers highlight the synergy that is common between AI and the web — the use of AI techniques to increase the capabilities of the world wide web and vice-versa. In the senior members track, senior researchers in AI offer broad perspectives on an important new research direction or a well-developed body of research, or provide a thoughtful critique of trends in the field. The new scientific and technical advances in research track (Nectar) papers expose AAAI attendees to important ideas that have been published in more specialized conferences.

The conference attracted a record number of submissions this year. Overall, we received a total of 923 submissions to the main technical program, which included 116 submissions to the artificial intelligence and the web track and 46 submissions to the integrated intelligence track. Of these, 251 (27 percent) were accepted.

There were also 48 submissions to the nectar track, of which 18 were accepted, and 5 submissions to the senior members track, of which 2 were accepted. This year we returned to the AAAI tradition of having all accepted papers presented orally. The poster presentation slots were reserved for a small number of exceptional papers (for example, outstanding research, ideas that were broad in scope and could benefit from a more interactive presentation, papers that might be controversial and spark discussion, and so on), as a way of highlighting these papers and adding prestige to the poster session.

The reviewing process was rigorous and extensive, involving 45 senior program committee (SPC) members and 510 program committee (PC) members. SPC members were assigned at most 19 papers each, and PC members were assigned at most 8. All reviewing was double-blind.

For the first time in AAAI’s history, a small number of papers were “conditionally accepted.” The SPC members wrote clear instructions for changes that were required and authors were given a chance to modify their papers. The SPC member in charge then verified that the papers fulfilled the requirements for acceptance. Nearly all conditionally accepted papers were ultimately accepted, reflecting careful consideration by the authors for the reviewers’ concerns and dedication of the SPC members to see that papers with good ideas are given a chance to overcome flaws that would otherwise have prevented publication.

We would like to sincerely thank all of the SPC and PC members for their dedicated efforts. We also wish to thank reviewers who flagged potential plagiarism and dual submission problems, and the program chairs of other conferences whom we consulted on these matters (especially Zoubin Ghahramani from ICML), for their diligence and careful consideration in ensuring that the high submission standards and policies for originality of published work of AAAI were upheld.

The special technical tracks, Integrated Intelligence and Artificial Intelligence and the Web, Nectar, and the Senior Members track had separate program committees, and in some cases different reviewing criteria, but overall similar processes and equally rigorous standards. We would like to greatly thank the chairs of these tracks for articulating and pursuing a vision for these tracks, helping structure and recruit papers, recruiting their program committee, and for managing the review process, namely Tim Finin and Peter Norvig who cochaired the artificial intelligence and the web track, Pat Langley and Reid Simmons who cochaired the integrated intelligence track, Sven Koenig and Elaine Rich who cochaired the nectar track, and Charles Rich, Michael Wellman, and Bill Swartout who cochaired the track for senior members papers. We would also like to thank Ken Barker who, as technical program software chair, helped with various issues involving the conference review management software.

We were also extremely fortunate to have dedicated subchairs who worked very hard in putting together exciting tutorial, workshop, demonstration, student abstract and doctoral consortium programs. Carla Gomes and Andrea Danyluk assembled an excellent tutorial program consisting of 16 tutorials covering material of interest to junior and senior researchers alike. Simon Parsons and Bob Givan recruited a workshop program consisting of 15 workshops. Rob Miller and Holger Hoos selected 13 entries for the intelligent systems demonstration program. Jeffrey Forbes and Paul Oh organized the mobile robot competition and exhibition. Kiri Wagstaff, Mehran Sahami and Matt Gaston coordinated the student abstract program and selected 44 out of 72 submissions. Terran Lane organized the AAAI/SIGART doctoral consortium, which had 17 participants. As associate chairs for student participation, Martin Michalowski and Matt Michelson again were invaluable in organizing information and events for students attending the conference. We also thank our industrial sponsors for supporting the conference financially.

The general game playing competition was continued from last year and was organized by Michael Genesereth. This year, we again ran the poker competition, organized by Martin Zinkevich, and added two new events: a person-

machine poker match organized by Jonathan Schaeffer and an AI video competition organized by David Aha and Sebastian Thrun.

We are extremely pleased that four distinguished researchers, Lise Getoor, Michael Wooldridge, Toby Walsh, and Alan Schultz agreed to give invited talks at the conference. Alan Schultz was selected to highlight the Integrated Intelligence track. Michael Wooldridge and Toby Walsh are distinguished in the areas of agents and automated reasoning, two areas that experienced unusually high increases in submissions. Lise Getoor is a prominent young researcher working in the exciting new area of statistical relational learning.

We sincerely thank the AAAI staff for their incredible support. Very special thanks are due to Carol Hamilton and Keri Harvey, whose hard-earned experience with the conference and continual, ubiquitous and astonishingly patient assistance have been invaluable. We also thank Ray Mooney and Yolanda Gil for passing on invaluable lessons from their experience chairing AAAI in 2006, and Alan Mackworth and the AAAI Conference Committee for their advice.

Artificial Intelligence as a field and the AAAI conference as a premier venue for research in AI have experienced highs and lows in attention over the years. With the field having entered its second half century, the level of interest, as measured by submissions to the conference, has never been higher. We hope readers are inspired by this new level of enthusiasm and peruse these proceedings to see some of the best research the field has to offer.

– Robert C. Holte and Adele E. Howe