

AAAI News

*Summer News from the
Association for the Advancement of Artificial Intelligence*

AAAI-08 Is Coming to the Windy City!

Save the date—July 13-17, 2008! Please mark your calendars now for the Twenty-Third AAAI Conference on Artificial Intelligence (AAAI-08) and the Twentieth Innovative Applications of Artificial Intelligence Conference (IAAI-08)! The conferences will be held July 13–17, at the Hyatt Regency McCormick Place in Chicago, Illinois. AAAI-08 program co-chairs are Dieter Fox (University of Washington) and Carla Gomes (Cornell University); the IAAI-08 conference chair is Mehmet Goker, PricewaterhouseCoopers, LLP.

The Calls for Papers for both conferences, as well as tutorial proposals, workshop proposals, student abstracts, intelligent systems demonstrations, and the robot competition will be posted on the AAAI web site in August. For more information about AAAI-08 and IAAI-08, please see www.aaai.org/aaai08.php.

AAAI-07 / IAAI-07 Conference

We hope you are planning to join us for AAAI-07 and IAAI-07 in Vancouver, British Columbia, Canada, July 22–26, 2007. This is only the second time that AAAI has been located in Canada. The AAAI-07 program will feature the AAAI Presidential Address by Alan Mackworth, as well as eight outstanding invited talks by Lise Getoor (University of Maryland, College Park) on Graph Identification; Alan C. Schultz (Naval Research Laboratory) on Moving Toward Peer-to-Peer Human-Robot Interaction; Toby Walsh (NICTA and University of New South Wales) on

Representing and Reasoning about Preferences; and Michael Wooldridge (University of Liverpool, UK) on Logic for Automated Mechanism Design — A Progress Report.

IAAI-07 invited speakers include Oren Etzioni (University of Washington), who will present the Robert S. Englemore Memorial Award Lecture on AI in a Moore's Law World: The Stories of Forecast and KnowItAll; Matt Brown (Maxis / Electronic Arts) on Big "A," Small "I": Smart Ends from Simple Means; and Geoffrey S. F. Ling (DARPA) on Revolutionizing Prostheses: A Program of the Defense Advanced Research Projects Agency (DARPA)

The technical program will include 294 oral presentations in the main technical track, special tracks on AI and the web and integrated intelligence, senior member and nectar tracks, and the IAAI-07 program. Approximately 55 of these papers will be highlighted as exceptional papers during the conference-wide poster session on Wednesday, July 25. As always, there is a full schedule of tutorials, workshops, student programs, competitions, and exhibits throughout the week. For more details about the conference, please see Sara Hedberg's article elsewhere in this issue.

AAAI Annual Business Meeting

The annual business meeting of the Association for the Advancement of Artificial Intelligence will be held at 12:45 PM, Monday, July 23, 2007 in the Hyatt Regency Vancouver in Vancouver, British Columbia, Canada.

Executive Council Nominations

Every year four new councilors are elected to serve three-year terms on the AAAI Executive Council. The Nominating Committee encourages all regular members in good standing to place an individual's name before them for consideration. The Nominating Committee, in turn, will nominate eight candidates for councilor in the spring. In addition to members' recommendations, the committee will actively recruit individuals in order to provide a balanced slate of candidates. AAAI members will vote in the late spring of 2008.

To submit a candidate's name for consideration, please send the individual's name, address, phone number, and e-mail address to Carol Hamilton, Executive Director, AAAI, 445 Burgess Drive, Menlo Park, CA 94025; by fax to 650-321-4457; or by e-mail to hamilton@aaai.org. Nominators should contact candidates prior to submitting their names to verify that they are willing to serve, should they be elected. The deadline for nominations is November 1, 2007.

2007 AAAI Fall Symposium Series

The 2007 AAAI Fall Symposium Series will be held Friday through Sunday, November 9–11, at the Westin Arlington Gateway, Arlington, Virginia, adjacent to Washington, DC. The symposium series will be preceded on Thursday, November 8 by a one-day AI funding seminar, which will be open to all registered attendees of FSS-07. The titles of the seven symposia are as follows:

- **AI and Consciousness: Theoretical Foundations and Current Approaches.**
Cochairs: Antonio Chella (University of Palermo, chella@unipa.it) and Riccardo Manzotti (IULM University, Milan, riccardo.manzotti@iulm.it)
- **Artificial Intelligence for Prognostics.**
Organizers: Gautam Biswas (Vanderbilt University), Piero Bonissone (GE Global Research), Kai Goebel (RIACS, NASA Ames Research Center), Andrew Hess (Consultant and retired, US Navy-JSF Program Office), Michael Roemer (Impact Technologies), Serdar Uckun (NASA Ames Research Center), and George

Stay Informed with AAAI Member Announcements

If you are a member of AAAI and would like to receive periodic announcements and reminders about AAAI programs or other noteworthy AI news, please go to aaai.org/cgi-da-da/mail.cgi, choose AAAI-Members, enter your email address, and select "subscribe." You can also register for the semimonthly AI Alert in two different formats by following the same process for the AIAAlert-Link or AIAAlert-Text lists.

Vachtsevanos, Georgia Institute of Technology

- **Cognitive Approaches to NLP.** *Organizers:* Jerry Ball (Air Force Research Laboratory), Krishna Jha (Lockheed Martin Advanced Technologies Laboratories), Sergei Nirenburg (University of Maryland Baltimore County), Marjorie McShane (University of Maryland Baltimore County)
- **Computational Approaches to Representation Change during Learning and Development.** *Co-chairs:* Clayton T. Morrison (University of Southern California Information Sciences Institute) and Tim Oates (University of Maryland Baltimore County)
- **Emergent Agents and Socialities: Social and Organizational Aspects of Intelligence.** *Co-chairs:* Goran Trajkovski and Samuel Collins (Towson University)
- **Intelligent Narrative Technologies.** *Co-chairs:* Brian Magerko (Michigan State University) and Mark Riedl (University of Southern California)
- **Regarding the "Intelligence" in Distributed Intelligent Systems.** *Organizers:* Margaret Lyell (Intelligent Automation, Inc.), Elisa Kendall (Sandpiper Software), Walt Truszkowski (NASA Goddard Space Flight Center), Tim Finin (University of Maryland, Baltimore County), Lalana Kagal (Massachusetts Institute of Technology), Jason Li (Intelligent Automation, Inc.)

Symposia will be limited to between forty and sixty participants each. In addition to invited participants, a limited number of other interested parties will be able to register in each symposium

on a first-come, first-served basis. Complete registration and hotel information will be available in August at www.aaai.org/Symposia/Fall/fss07.php. Invited participants must register by September 21, and the final registration deadline is October 12. The deadline for hotel reservations at the Westin is October 9, 2007. The discounted single room rate of \$169.00 per night (single/double) may not be available after this date. Contact information for the Westin will be included in the registration materials.

AAAI 2008 Spring Symposium Series

The 2008 Spring Symposium Series will be held March 26-28, 2008 at Stanford University. *Please note that the day pattern has changed to Wednesday through Friday for 2008.* The Call for Participation will be available in August on the AAAI web site (www.aaai.org/Symposia/Spring/sss08.php). Submissions will be due to the organizers on October 5, 2007. For more information, please contact the symposium chair, Alan Schultz, at schultz@aic.nrl.navy.mil or AAAI at sss08@aaai.org. A tentative list of symposia is as follows, but please

check the Fall Symposium website for updates:

- **AI Meets Business Rules and Business Process Management.** Knut Hinkelmann, Fachhochschule Nordwestschweiz, Switzerland (knut.hinkelmann@fhnw.ch)
- **Creative Intelligent Systems.** Dan Ventura (Brigham Young University, ventura@cs.byu.edu)
- **Emotion, Personality, and Social Behavior.** Eva Hudlicka (Psychometrix Associates, hudlicka@ieee.org)
- **Intelligent Agent Architectures for Theory-Based Agents.** Marcello Balduccini (Texas Tech University, marcello.balduccini@ttu.edu)
- **Semantic Scientific Knowledge Integration.** Deborah McGuinness (Stanford University, d1m@ksl.stanford.edu)
- **Social Information Processing.** Kristina Lerman (University of Southern California/Information Sciences Institute, lerman@isi.edu)
- **Symbiotic Relationships between Semantic Web and Knowledge Engineering.** Derek Sleeman (University of Aberdeen, Scotland, sleeman@csd.abdn.ac.uk)
- **Using AI to Motivate Greater Participation in CS.** Mehran Sahami (Stanford University, sahami@cs.stanford.edu)

In Memoriam

AAAI notes with regret the recent passing of three esteemed AAAI members, Edward Riseman, Karen Sparck-Jones and Jay Modi.

Edward Riseman

Edward Riseman was Professor Emeritus of the Computer Science Department at the University of Massachusetts Amherst. He retired in 2003 but remained active in research within the department after his retirement. He joined the University of Massachusetts Amherst as an assistant professor in 1969, became a full professor in 1978, and served as department chair from 1981–1985. Riseman immediately started his research in character recognition upon arrival at the University of Massachusetts Amherst. His research reflected a broad interest in computer vision and artificial intelligence, including knowledge-based image understanding, stereo and motion analysis, autonomous vehicle navigation, learning, three-dimensional reconstruction, image databases, content-based image retrieval and

Geoffrey S. F. Ling (DARPA, Walter Reed Army Medical Center, Johns Hopkins Hospital) is responsible for a portfolio of DARPA programs that include revolutionizing prosthesis, human assisted neural devices, preventing violent explosive neurotrauma, predicting health and disease, and long-term blood storage. He is also developing new programs with the intent of protecting and restoring injured warfighters.

Ling will speak on revolutionizing prostheses, a program of the Defense Advanced Research Projects Agency (DARPA) research targeted at treating extremity and traumatic brain injuries using assistive devices that leverage off of biological capabilities.

Attendees of IAAI-07 can attend any AAAI-07 sessions, and vice versa at no additional charge.

Record Number of Technical Papers

This year's bumper crop of papers continues to meet AAAI's high standards. "We have had an outstanding number of excellent papers submitted," noted AAAI president Alan Mackworth. "In particular we have had a very high level of international participation, reflecting the increasingly global nature of AI research. The quality of the accepted papers and invited speakers is very high."

A record 923 papers were submitted to the technical program this year, coming from an unsurpassed 45 countries, with 560 papers (61 percent) from outside the United States. Of these, 251 (27 percent) were accepted. Conference cochairs Adele Howe and Robert Holte think these best ever numbers are a reflection of "growth in the field, helped slightly by our submission date(s). We also believe that Vancouver is an attractive location for the conference."

The accepted technical papers cover a wide range of current AI research topics such as agents, commonsense reasoning, evolutionary computation, interactive entertainment, information integration, knowledge representation, machine learning, data mining, natural language processing, planning, vision, and many more.

Tutorials, Workshops, Special Tracks, and More

This year, some 22 tutorials will be offered on July 22–23. A wide range of topics will be offered such as autonomous bidding agents, new frontiers in Representation discovery, and representing, eliciting and reasoning with preferences. A complete list of the tutorials along with the presenters can be found at www.aaai.org/Conferences/AAAI/2007/aaai07tutorials.php.

Fifteen workshops are open to attendees, with a separate fee. The range of workshops includes Semantic e-Science, Explanation-Aware Computing, Evaluation Methods for Machine Learning II, and more. Details about the diverse workshops are described at www.aaai.org/Workshops/ws07.php.

This year four special tracks will be offered. Out of the 116 papers submitted to the special track on AI and the web, 34 were accepted and will be presented, focusing on AI concepts, systems and techniques for the world wide web. Some 46 papers were submitted to the integrated intelligence special track, of which thirteen were accepted. The accepted papers evaluate various approaches and techniques that synergistically combine abilities from distinct areas of AI to achieve intelligent behavior.

The AI field is now sufficiently mature to offer a senior member presentation track, which provides an opportunity for established researchers to give a broad talk on a well-developed body of research, an important new research area, or a thoughtful critique of trends in the field. These presentations will provide a "big picture" view—in contrast to regular papers, which may focus on a specific contribution.

Reflecting the diversity of the AI field, the conference will once again offer the Nectar track to make the most significant AI results presented at outside conferences in the last two years available to a broad AI audience. One important goal of the track is to offer young researchers the opportunity to learn about areas with which they may not already be familiar. Another goal is to encourage the sort of cross-disciplinary AI work that has historically been supported by AAAI.

AAAI-07 and IAAI-07 are conferences that any serious AI researcher simply must attend! We all go to our specialty conferences but these are the ones where we meet and hear from all our colleagues in the other areas.

AI is going through a phase of integration and reorientation. The place to pick up on that trend is at AAAI-07/IAAI-07.

For students, both graduate and undergraduate, it is an ideal opportunity to pick up on the latest research ideas and get a jump start on their own research.

Practitioners in industry and government labs have an ideal opportunity to get up to speed and network with researchers and other colleagues.

In addition to all the serious talks there will be lots of opportunity for fun and socializing, both with people and with the latest robots!

– Alan Mackworth
President, AAAI

As if all of this were not enough of a wealth of content, the conference will also feature intelligent systems demonstrations showcasing research systems, and an exhibition featuring products and services from AI vendors.

Competitions at AAAI-07

Now in its sixteenth year, the ever-popular Mobile Robot Competition and Exhibition will again be held at the AAAI Conference. The event will feature two competitions, a semantic robot vision challenge, in which robots are given a list of objects that they must recognize and locate, and a human-robot interaction challenge, which involves robots interacting with conference attendees to achieve a particular task in an unstructured environment. Robots will also be featured in the exhibition, where attendees will be able to learn about current robotics and embodied-AI research that does not fit into the competition tasks.

Other competitions at AAAI-07 include the third General Game Playing Competition with a \$10,000 purse, a second AAAI Computer Poker Competition, featuring computers playing heads-up Texas Hold-em (both limit and no-limit) and a Human-Machine Poker Match with a world-class poker player. Finally, the 2007 Trading Agents Competition finals will be held during AAAI-07.

New AI Video Competition

New for 2007 is the AAAI-07 Video Competition. The goal of this competition is to communicate AI research and applications in a fun, creative, exciting medium. The rules are simple: Compose a short video about an exciting AI project, and narrate it in a way that makes your video accessible to a broad online audience. Student participation is strongly encouraged. Video formats include a one minute "short" or a five minute "long" with narration or subtitles in English. A sense of humor is encouraged, but only videos with serious AI content will be accepted.

Global Reach for Innovative Applications (IAAI-07)

This year's 22 papers accepted for the Innovative Applications of AI conference signal two significant trends in AI applications. For the first time, the number of award-winning deployed applications is split evenly between non-US (5) and US-based (5) winners, and total non-US papers are a record 9, with US having 13. This is yet another indication of the growing global nature of AAAI.

Of far greater significance is the scale of impact of this crop of winning applications. One winner, for example, from Changing Worlds Ltd., Ireland, enables intelligent content discovery on the mobile Internet. The application has been deployed to 40 mobile operators and millions of subscribers around the world.

Through the years, IAAI has had several award-winning applications that automate financial underwriting in various ways. Fannie Mae, the institution formed by the US government in 1938 (and privatized in 1968) to help citizens purchase homes has taken intelligent underwriting to a new level with a web-based system that enables mortgage lenders to build their own automated underwriting applications. Another web-based winner is journal-ranking.com, a global academic journal ranking system from the Hong Kong University of Science and Technology that is now experiencing a million hits per month.

Since the emergence of data mining technology in the early 1990s, IAAI has also recognized a number of innovative DM applications. This year, IAAI recognizes the first innovative intelligent application to be deployed on the semantic web. It provides access to a virtual solar-terrestrial observatory — a concatenation of heterogeneous observational datasets that appear as if all resources are organized, stored, and retrieved or used in a common way.

For those interested in cooperating robots, Kiva Systems (US) has received an award for a production system that coordinates hundreds of cooperating,

autonomous robotic vehicles in warehouses.

These are but a few of the 22 applications to be presented at this year's IAAI-07 conference — 10 deployed applications and 12 emerging — that demonstrate the profound impact AI is having throughout modern science and industry.

Beautiful British Columbia

July is a wonderful month to explore Vancouver and British Columbia. The days are long and the weather is moderate. "It's a coincidence that AAAI-07 happens to be in Canada in the year we changed our name," says Mackworth, who is a professor at UBC. "But it does reflect the globalization of AI research as does the new name of AAAI. The location in Vancouver is very accessible from almost everywhere, not just North America but also Asia and even Europe.

"Vancouver in July is a perfect place to visit," he continues. "Plan, if you can, to spend a few extra days exploring Vancouver and British Columbia. The weather, the mountains, the ocean and the forest are idyllic in July — I can guarantee it! Make your plans now.

Renew old acquaintances and make new friends as you learn about the latest and greatest AI breakthroughs. Don't miss it."

There is an abundance of recreational opportunities for all manner of visitors. Plan to visit nearby Stanley Park and the Aquarium in Vancouver; the world class Butchart Gardens (a ferry ride away on Vancouver Island); the marine wilderness of Desolation Sound or fishing at Campbell River for those who really want to get away from it all. See the Tourism Vancouver website for additional ideas and information (tourismvancouver.com).

For conference information and registration see aaai.org/aaai07.php.

Congratulations to the 2007 AAAI Fellows!

Each year a small number of fellows are recognized for their unusual distinction in the profession and for their sustained contributions to the field for a decade or more. An official dinner and ceremony will be held in their honor during AAAI-07 in Vancouver, British Columbia, Canada.



Pierre F. Baldi
University of California, Irvine

For significant contributions to statistical machine learning and the development of widely used algorithms/architectures to solve problems in the life sciences.



Adnan Y. Darwiche
University of California, Los Angeles

For significant contributions to the development and application of both probabilistic and logical methods in automated reasoning.



Hector A. Geffner
ICREA and Universitat Pompeu Fabra, Spain
For significant contributions to the fields of planning, reasoning, and knowledge representation.



Carla P. Gomes
Cornell University

For significant contributions to constraint reasoning and the integration of techniques from artificial intelligence, constraint programming, and operations research.



Russell Greiner
University of Alberta, Canada

For significant contributions to the theory of statistical machine learning and its applications in bioinformatics and medical informatics.



Stephen F. Smith
Carnegie Mellon University

For significant contributions to heuristic and mixed-initiative scheduling, constraint-based search, and the development of scalable AI systems.



Milind Tambe
University of Southern California

For significant contributions to theory and software infrastructure for multi-agent systems and pioneering applications in teamwork systems.

AAAI E-mail Addresses

To reduce spam, AAAI has modified its e-mail addresses in 2007 by adding 07 to all e-mail addresses, as follows:

aai07
 aimagazine07
 aitopics07
 fss07
 info07
 membership07
 press07
 orders07
 iaai07
 sss07
 workshops07
 scholarships07
 volunteer07
 awards07
 fellows07

E-mail addresses will be updated on an annual basis. AAAI can also be reached by filling out the contact form, accessible from www.aaai.org/Forms/contact-form.php

parallel processing, and architectures for computer vision. He was the author of more than 150 publications in these areas.

Riseman was instrumental in the establishment and success of the Computer Science Department's Computer Vision Laboratory, which he codirected with Professor Allen Hanson. Riseman and Hanson also founded Amerinex Artificial Intelligence Corporation and Dataviews Corporation (formerly VI Corporation), both visual technology oriented companies. Riseman, Hanson, and then student Tom Williams (Ph.D. 1981) designed one of the first knowledge-based image understanding systems that handled very complex natural images. A landmark book edited by Hanson and Riseman, *Computer Vision Systems* (Academic Press, New York, 1978), set

the tone for much of the area's research over the following ten years. Riseman's most recent research involved the use of technology to support aging at home. This project, in cooperation with the Smith College School for Social Work, was designed to examine the role technology can play in the lives of our elder citizens. The UMass Amherst/Smith project is unique in that it integrates the knowledge and perspectives of social scientists, computer scientists, and the elderly population.

Riseman was a fellow of AAAI, a senior member of the Institute of Electrical and Electronics Engineers (IEEE), a member of the Association for Computing Machinery (ACM), and a member of the Pattern Recognition Society. He received his B.S. in electrical engineering from Clarkson College and his M.S. and Ph.D. degrees in electrical engineering from Cornell University in 1966 and 1969 respectively.

Karen Spärck Jones

Karen Spärck Jones was Professor of Computers and Information (emeritus) at the University of Cambridge. She worked in automatic language and information processing research since the late 1950s. She was a fellow of the British Academy, an AAAI fellow and ECCAI fellow, and was president of the Association for Computational Linguistics in 1994. She received seven awards for her research including, in 2004, the ACL Lifetime Achievement Award and in 2007, the BCS Lovelace Medal and the ACM-AAAI Allen Newell Award.

Spärck Jones's work since 1990 was on document retrieval including speech applications, database query, user and agent modeling, summarizing, and information and language system evaluation. She was a member of the DARPA/NIST Text Retrieval Conferences program committee since 1994, and was involved with other US evaluation programs, notably the Document Understanding Conferences on automatic summarizing. Her most recent research interests were three in number. First, she was interested in the development of means to extend the area of application in the probabilistic model of retrieval (jointly with S. E. Robertson). She was also interest-

ed in automatic summarizing, ranging from foundational work on the form and use of discourse structure to practically oriented work on shallow processing techniques, including research on task context factors. Finally, she was interested in language and information system evaluation. Her publications include numerous papers and nine books.

Spärck Jones's 2007 awards include the Lovelace Medal, presented by the British Computer Society to individuals who have made a contribution which is of major significance in the advancement of information systems or which adds significantly to the understanding of Information Systems, and the ACM-AAAI Allen Newell Award, which is presented to an individual selected for career contributions that have breadth within computer science, or that bridge computer science and other disciplines. Spärck Jones was specifically honored for her seminal contributions to the field of information retrieval, for cross-disciplinary contributions bridging information retrieval and computational linguistics, and for her role in facilitating international cooperation in the field of computational linguistics. ACM also recently named her as the 2007–2008 ACM Athena Lecturer. Athena Awards celebrate women researchers who have made fundamental contributions to computer science.

Pragnesh Jay Modi

Pragnesh Jay Modi was Professor of Computer Science at Drexel University. Modi graduated with his Ph.D. from University of Southern California in 2003 and completed a postdoctoral research position at Carnegie Mellon University before he came to Drexel in September 2005. As a noted rising star in the artificial intelligence community, he received many awards in his field. Most recently, he was the recipient of "AI's Ten to Watch," a prestigious award from *IEEE Intelligent Systems Magazine*. His work involved mostly research in artificial intelligence and multiagent systems. He was particularly interested in applying and developing distributed constraint reasoning as a key paradigm for multiagent systems.