

AAAI-07 Preliminary Call for Papers

Twenty-Second National Conference on Artificial Intelligence

July 22–26, 2007 Vancouver, British Columbia

Sponsored by the American Association for Artificial Intelligence

Photo courtesy John Sinai, Tourism Vancouver

AAAI-07 is the Twenty-Second National Conference on Artificial Intelligence (AI). The purpose of this conference is to promote research in AI and scientific exchange among AI researchers, practitioners, scientists and engineers in related disciplines. AAAI-07 will have multiple technical tracks, student abstracts, poster sessions, invited speakers, and exhibit programs, all selected according to the highest reviewing standards.

AAAI-07 welcomes submissions on mainstream AI topics as well as novel cross-cutting work in related areas. Topics include but are not limited to the following:

Agents, cognitive modeling and human interaction, commonsense reasoning, constraint satisfaction, evolutionary computation, game playing and interactive entertainment, information integration and extraction, knowledge acquisition and ontologies, knowledge representation and reasoning, machine learning and data mining, model-based systems, natural language processing, planning and scheduling, probabilistic reasoning, robotics, search, semantic web, vision and perception

Special Tracks

As in AAAI-06, we will be including several special tracks. The Nectar and AI and the Web special tracks are confirmed for AAAI-07. Other tracks are currently under consideration and will be announced in later calls for participation. The AAAI Nectar Papers track encourages cross-fertilization of ideas between specific areas of AI and the general AI community. This track will consist of papers that are based on results that have previously been presented at a sister conference. The Special Track on Artificial Intelligence and the Web focuses on the use and extension of AI techniques and concepts to the World Wide Web.

Timetable for Authors

December 1, 2006 – February 1, 2007: Authors register on the AAAI web site

February 1, 2007: Electronic abstracts due

February 6, 2007: Electronic papers due

March 26–28, 2007: Author feedback about initial reviews

April 6, 2007: Notification of acceptance or rejection

April 24, 2007: Camera-ready copy due at AAAI office

Author Registration

Authors must register at the AAAI-07 web-based technical paper submission site. The software will assign a password, which will enable the author to log on to submit an abstract and paper. In order to avoid a rush at the last minute, authors are encouraged to register as soon as the software is available, scheduled for December 1, 2006.

Paper Submission

Electronic paper submission is required. Instructions about how to submit papers electronically will be available at the AAAI web site (www.aaai.org) in the fall of 2006. Papers may be no longer than 6 pages including references, and formatted in AAAI two-column, camera-ready style. We cannot

accept submissions by e-mail or fax. Reviewing for AAAI-07 will be blind to the identities of the authors. Details on formatting and preparing the paper for blind review can be found at the AAAI-07 web site.

Authors should submit abstracts and papers through the technical paper submission software on or (preferably) before the dates shown in the timetable. The software will assign paper ID number at the time of the submission.

Authors will receive confirmation of receipt of their papers shortly after submission. AAAI will contact authors again only if problems are encountered with papers. Inquiries regarding lost papers must be made no later than February 13, 2007.

Submissions to Other Conferences or Journals

Papers submitted to this conference must not have been accepted for publication elsewhere or be under review for another AI conference. However, to encourage interdisciplinary contributions, we may consider work that has been submitted or presented in part to a forum outside of AI. The guidelines of the AAAI policy on multiple submissions will be fully detailed at the AAAI-07 web site and must be carefully followed.

Review Process

Program committee members will identify papers they are qualified to review based on the information submitted electronically (the paper's title, keywords, and abstract). Their reviewing will be done blind to the identities of the authors and their institutions.

Authors will have a limited opportunity to respond to initial reviews. This author's feedback may then be taken into account in the final reviews and recommendations. The program committee's reviews will make recommendations to the senior program committee, which in turn will make recommendations to the program cochairs. Although the program cochairs will formally make all final decisions, in practice almost all will be made earlier in the process.

Publication

Accepted papers will be allocated six (6) pages in the conference proceedings. Up to two (2) additional pages may be used at a cost to the authors of \$275 per page. Final papers exceeding eight (8) pages and those violating the instructions to authors will not be included in the proceedings. Authors will be required to transfer copyright of their paper to AAAI.

Questions and Suggestions

Concerning author instructions and conference registration, write to aaai07@aaai.org. Concerning suggestions for the conference and other inquiries, write to the Program Cochairs. A complete listing of the Senior Program Committee members will be available in the fall.

Robert C. Holte, University of Alberta (holte@cs.ualberta.ca)

Adele Howe, Colorado State University (howe@cs.ColoState.edu)

Call for Proposals

AAAI-07 Workshop Program

July 22–26, 2007 Vancouver, British Columbia

Sponsored by the American Association for Artificial Intelligence

Photo courtesy John Sinai, Tourism Vancouver

The AAAI-07 Program Committee invites proposals for the Workshop Program of the American Association for Artificial Intelligence's Twenty-Second National Conference on Artificial Intelligence (AAAI-07).

Workshops are tentatively scheduled to be held at the beginning of the conference, July 22–23, 2007. Workshop participants will have the opportunity to meet and discuss issues with a selected focus—providing an informal setting for active exchange among researchers, developers and users on topics of current interest. Members of all segments of the AI community are encouraged to submit proposals. To foster interaction and exchange of ideas, the workshops will be kept small, with 25–50 participants. Attendance is limited to active participants only. The format of workshops will be determined by their organizers, who are encouraged to leave ample time for general discussion. Workshops will typically be one full day in length, although half-day and two-day proposals will be considered.

Proposal Content

Proposals for workshops should be about two (2) pages in length, and should contain the following:

A description of the workshop topic. Identify the specific issues on which the workshop will focus.

A brief discussion of why the topic is of particular interest at this time.

A brief description of the proposed workshop format, regarding the mix of events such as paper presentations, invited talks, panels, and general discussion.

An indication as to whether the workshop should be considered for a half-day, one or two-day meeting.

The names and full contact information (e-mail and postal addresses, fax and telephone numbers) of the organizing committee—three or four people knowledgeable in the field—and short descriptions of their relevant expertise. (Please specify main contact.) Strong proposals include organizers who bring differing perspectives to the workshop topic and who are actively connected to the communities of potential participants.

A list of potential attendees.

Workshops are an excellent forum for exploring emerging approaches and task areas, for bridging the gaps between AI and other fields or between subfields of AI, for elucidating the results of exploratory research, or for critiquing existing approaches. Because workshops are intended for focused exploration of special topics, topics that are already the subject of regular meetings are not appropriate.

Workshop Organization

Workshop organizers will be responsible for:

Producing a call for participation. The Call is due November 10, 2006. This Call will be posted on the AAAI web site. Organizers are responsible for additional publicity such as distributing the Call to relevant newsgroups

and electronic mailing lists, and especially to potential audiences from outside the AAAI community. Organizers are encouraged to maintain their own web site with updated information about the workshop.

Selecting participants. Workshop attendance is by invitation of the organizers. Selection of attendees will be made by the organizers on the basis of submissions due April 10, 2007. Workshop organizers will need to provide AAAI with a preliminary list of the participants by April 25, 2007.

Coordinating the production of the workshop notes. AAAI coordinates the collection, production, and distribution of the technical reports or working notes for the workshops. Workshop papers and abstracts must be received by AAAI no later than May 15, 2007, and volumes are limited to a total of 200 pages.

Workshop organizers who want to publish the papers from their workshop (or significant portions of it) will have the opportunity to do so through the AAAI Press. The Press (which retains the right of first refusal to publish) will furnish details of its program to interested organizers and authors.

AAAI will provide logistic support, and meeting places for the workshops, and will determine the dates and times of the workshops. AAAI reserves the right to drop any workshop if the organizers miss the deadlines. Workshops are not to be used as a vehicle for marketing products. All workshop participants must register for the AAAI-07 Technical Program.

Proposal Submission

Workshop proposals should be submitted to the workshop coauthors at aaai07-workshops@ecn.purdue.edu as soon as possible and must be received no later than October 6, 2006. PDF format is preferred. Organizers will be notified of the committee's decision by October 27, 2006. Please address inquiries concerning workshop submissions to the workshop coauthors at aaai07-workshops@ecn.purdue.edu.

Workshop Coauthors:

Simon Parsons
Department of Computer and Information Science
Brooklyn College
City University of New York

Robert Givan
School of Electrical and Computer Engineering
Electrical Engineering Building
Purdue University

IAAI-07 Call for Papers

Nineteenth Innovative Applications of Artificial Intelligence Conference

July 24–26, 2007 Vancouver, British Columbia

Sponsored by the American Association for Artificial Intelligence

Collocated with AAAI-07

Photo courtesy John Sinai, Tourism Vancouver

The Nineteenth Annual Conference on Innovative Applications of Artificial Intelligence (IAAI-07) will focus on successful applications of AI technology. The conference will use technical papers, invited talks, and panel discussions to explore issues, methods, and lessons learned in the development and deployment of AI applications; and to promote an interchange of ideas between basic and applied AI.

IAAI-07 will consider papers in two tracks: (1) deployed application case studies and (2) emerging applications or methodologies. Submissions should clearly identify which track they are intended for, as the two tracks are judged on different criteria. Applications are defined as deployed once they are in production use by their final end-users (not the people who created the application) for sufficiently long that experience can be reported (usually greater than three months of use by the end-users).

Deployed Application Case Study Papers

Case-study papers must describe deployed applications with measurable benefits that include some aspect of AI technology. The case study may evaluate either a stand-alone application or a component of a complex system.

Review criteria for deployed applications are: significance of the application, use of AI technology, innovation, evaluation, technical quality, and clarity. The reviewers will grade the deployed application papers on each of the following issues:

Task or Problem Description: Describe the task the application performs or the problem it solves. State the objectives of the application and explain why an AI solution was important. If other solutions were tried and failed outline these solutions and the reasons for their failure.

Application Description: Describe the application, providing key technical details about design and implementation. What are the system components, what are their functions, and how do they interact? What languages and tools are used in the application? How is knowledge represented? What is the hardware and software environment in which the system is deployed? Provide examples to illustrate how the system is used.

Uses of AI Technology: On what AI research results does the application depend? What key aspects of AI technology allowed the application to succeed? How were the techniques modified to fit the needs of the application? If applicable, describe how AI technology is integrated with other technology. If a commercial tool is used, explain the decision criteria used to select it. Describe any insights gained about the application of AI technology. What AI approaches or techniques were tried and did not work? Why not?

Application Use and Payoff: How long has this application been deployed? Explain how widely, how often, and by whom the application is being used. Also describe the application's payoff. What measurable benefits have resulted from its use? What additional benefits do you expect

over time? What impacts has it had on the users' business processes?

Application Development and Deployment: Describe the development and deployment process. How long did they take? How many developers were involved? What were the costs? What were the difficulties, and how were they overcome? What are the lessons learned? What, if any, formal development methods were used?

Maintenance: Describe your experience with and plans for maintenance of the application. Who maintains the application? How often is update needed? Is domain knowledge expected to change over time? How does the design of the application facilitate update?

Original papers on the deployment issues in AI applications are welcome, even if other papers on the AI technology have been presented at or submitted to other conferences. We encourage updates on applications that have been in use for an extended period of time (i.e., multiple years). Each of the accepted deployed application papers will receive the IAAI "Innovative Application" Award.

Emerging Application or Methodologies Papers

The goal of the emerging application track is to "bridge the gap" between basic AI research and deployed AI applications, by discussing efforts to apply AI tools, techniques, or methods to real world problems. Emerging applications are on aspects of AI applications that are not appropriate for deployed application case studies, or are not sufficiently deployed to be submitted as case studies. This track is distinguished from reports of scientific AI research appropriate for AAAI's National Conference in that the objective of the efforts reported here should be the engineering of AI applications.

Emerging application papers may include any aspects of the technology, engineering, or deployment of AI applications, including discussions of prototype applications; performance evaluation of AI applications; ongoing efforts to develop large-scale or domain-specific knowledge bases or ontologies; development of domain or task focused tools, techniques, or methods; evaluations of AI tools, techniques or methods for domain suitability; unsuccessful attempts to apply particular tools, techniques or methods to specific domains (which shed insight on the applicability and limitations of the tool, technique or method); system architectures that work; scalability of techniques; integration of AI with other technologies; development methodologies; validation and verification; lessons learned; social and other technology transition issues.

The following questions will appear on the review form for emerging technology papers. Authors are advised to bear these questions in mind while writing their papers. Reviewers will look for papers that meet at least some (although not necessarily all) of the criteria in each category.

Significance: How important is the problem being addressed? Is it a difficult or simple problem? Is it central or peripheral to a category of applications? Is the tool or methodology presented generally applicable or

domain specific? Does the tool or methodology offer the potential for new or more powerful applications of AI?

AI Technology: Does the paper identify AI research needed for a particular application or class of applications? Does the paper characterize the needs of application domains for solutions of particular AI problems? Does the paper evaluate the applicability of an AI tool or methodology for an application domain? Does the paper describe AI technology that could enable new or more powerful AI applications?

Innovation: Does the tool, technique, or method advance the state of the art or state of the practice of AI technology? Does the tool, technique, or method address a new or previously reported problem? If it is a previously reported problem, does the tool, technique, or method solve it in a different, new, more effective, or more efficient way? Does the reported work integrate AI with other AI or non-AI technologies in a new way? Does the work provide a new perspective on an application domain? Does the work apply AI to a new domain?

Content: Does the paper motivate the need for the tool or methodology? Does the paper adequately describe the task it performs or the problem it solves? Does it provide technical details about the design and implementation of the tool or methodology? Does the paper clearly identify the AI research results on which the tool or methodology depends? Does it relate the tool or methodology to the needs of application domains? Does it provide insights about the use of AI technology in general or for a particular application domain? Does it describe the development process and costs? Does it discuss estimated or measured benefits? Does it detail the evaluation method and results?

Evaluation: Has the tool or methodology been tested on real data? Has it been evaluated by end users? Has it been incorporated into a deployed application? Has it been compared to other competing tools or methods?

Technical Quality: Is the paper technically sound? Does it carefully evaluate the strengths and limitations of its contribution? Are the results described and evaluated? Are its claims backed up? Does it identify and describe relevant previous work?

Clarity: Is the paper clearly written? Is it organized logically? Are there sufficient figures and examples to illustrate the key points? Is the paper accessible to those outside the application domain? Is it accessible to those in other technical specialties?

Invited Talks and Panels

Nominations and suggestions for invited talks and panels are welcome and will be considered by the program committee. Invited talks and panels should address issues or themes in the development and deployment of AI applications. Invited speakers should be distinguished members of the research, business, or government communities who have special insights or experiences relating to directions of AI development. Invited speaker nominations should include full contact information, and a preliminary title and abstract of the talk. Panels should focus on the issues underlying AI applications, and should include panelists with a diversity of viewpoints or interests. Case studies can be used to illustrate the issues, but should not be the principal focus of the panels or invited talks. Panel proposals should include a description of the topic, contact information for the organizer, a moderator and list of participants.

Submission Format

Electronic submissions are required. Papers must be in trouble-free, high resolution PDF format and formatted for United States Letter (8.5" x 11") paper. Submissions need to be in AAAI two-column format, (www.aaai.org/Publications/Author/author.php). Deployed papers can be up to eight (8) pages. Emerging papers are limited to six (6) complimentary pages and two (2) optional additional pages at \$275 each. The submission title page (described next) does not count as one of these pages.

Papers must have a title page, including the title of the paper; the track to which it is submitted; the names, affiliations, postal and e-mail addresses, and telephone and fax numbers of all authors; a designation of the application domain(s); identification of AI techniques employed or issues addressed; an indication of application status (for example, feasibility analysis, research prototype, operational prototype, deployed application, and so on); and an abstract of fewer than 200 words.

Authors should register on the IAAI-07 web-based paper submission software at www.aaai.org/Conferences/IAAI/iaai07.php. A login and password, as well as detailed instructions about how to submit an electronic paper, will be sent to the author in a subsequent e-mail message. Authors must then submit a formatted electronic version of their paper through this software no later than Tuesday, January 23, 2007. We cannot accept papers submitted by e-mail or fax.

Submissions received after the deadlines or that do not meet the length or formatting requirements detailed previously and at the IAAI-07 web site will not be accepted for review. Notification of receipt of the electronic paper will be mailed to the first author (or designated author) soon after receipt. If there are problems with the electronic submission, AAAI will contact the primary author by e-mail. Papers, invited speaker nominations, and panel proposals will be reviewed by the Program Committee and notification of acceptance or rejection will be mailed to the contact author in early March. PDFs of accepted papers will be due on April 3, 2007. Authors will be required to transfer copyright.

Registration or clarification inquiries may be sent to AAAI at iaai07@aaai.org, 650-328-3123, or 650-321-4457 (fax).

William Cheetham, Conference Chair
General Electric Global Research