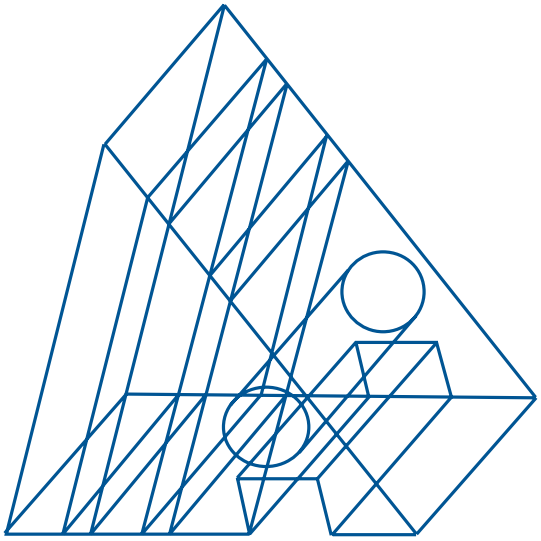
Twentieth National Conference on Artificial Intelligence



Workshop Program

July 9–10, 2005

Pittsburgh, Pennsylvania

www.aaai.org

Sponsored by the
American Association for Artificial Intelligence
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workshops05@aaai.org
http://www.aaai.org

Deadlines

- April 20: Submissions due
- May 11: Notification of acceptance
- May 18: Camera-ready copy due to organizers or AAAI
- July 9–10: AAAI-05 Workshop Program

AAAI Formatting Guidelines

- http://www.aaai.org/Workshops/

AAAI is pleased to present the AAAI-05 Workshop Program. Workshops will be held Saturday and Sunday, July 9-10, 2005 (unless otherwise noted) at the Westin Convention Center Hotel in Pittsburgh, Pennsylvania. Exact dates for individual workshops will be determined in early spring. The AAAI-05 workshop program includes 13 workshops covering a wide range of topics in artificial intelligence. Workshops are one day unless noted otherwise in the individual description. Each workshop is limited to approximately 25 to 65 participants. Participation at these workshops is by invitation from the workshop organizers. Workshops are included in the AAAI-05 technical registration, and registration information will be sent directly to all invited participants. All workshop participants must preregister for the AAAI-05 technical conference, and must indicate which workshop(s) they will be attending. Workshop working notes will be distributed on site for participants only, and may be available after the conference as technical reports.

This year's workshop program was constructed to encourage dialogue and build bridges between researchers in different subfields. Several of the workshops are follow-ons from workshops held at more specialized AI conferences. As such, we encourage people to attend and contribute to workshops that they are interested in even if they have no recent work directly in that area. The program also includes two pairs of workshops covering similar topics, question answering and planning and scheduling, from two different perspectives. Interested researchers are encouraged to submit to both in the pair as we will schedule them on two separate dates and the organizers are considering joint sessions.

Submission Requirements

Submission requirements vary for each workshop, but the key deadlines are uniform for all. Submissions for all workshops are due to the organizers on April 20, 2005. Workshop organizers will notify submitters of acceptance by May 11, 2005. Camera-ready copy is due back to workshop organizers and AAAI by May 18, 2005. Please mail your submissions directly to the chair of the individual workshop according to their directions. Do not mail submissions to AAAI. For further information about a workshop, please contact the chair of that workshop.

Formats

Many workshops request or require the AAAI two-column format. Links to styles, macros, and guidelines for this format are located at www.aaai.org/Publications/instructions.html.

AAAI Workshop Cochairs
Adele Howe
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Peter Stone
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Contents

Contexts and Ontologies: Theory, Practice and Applications

The goal of the workshop is to bring together people from the context and ontology communities and to discuss the approaches they use for information integration. Therefore, the workshop will push the cross-fertilization and exchange of ideas (for example, which of the methods from the ontology community can be successfully adopted in the context community, and vice versa), and, hence, make their meeting mutually beneficial.

Topics

The workshop's topics include, but are not limited to, the following:

- *Foundations* (including coordination of multiple contexts and ontologies; meaning negotiation of multiple contexts and ontologies; languages for combination of multiple contexts and ontologies; and logics for combination of multiple contexts and ontologies).
- *Theory and practice* (including techniques and tools for matching contexts and ontologies; techniques and tools for merging contexts and ontologies; techniques and tools for transforming contexts and ontologies; benchmarking of tools for integration of contexts and ontologies; and comparison of uses of contexts and ontologies).
- *Applications* (including the semantic web; DB model management; e-commerce; multimedia; and pervasive computing).

Format

The workshop will consist of keynote presentations, technical presentations, posters/demos, and general discussion. The audience is assumed to consist of both academe and industry; thus, the workshop can improve academic awareness of industrial needs, and therefore direct research towards those needs. Simultaneously, the workshop will serve to inform industry representatives about existing research efforts that may meet their business needs.

Attendance and Submission

Attendance is limited to active participants only. Contributions to the workshop can be made in terms of technical papers or statements of interest. Technical papers should be no longer than eight pages using the AAAI-05 style (www.aaai.org/Workshops/workshops.html). Statements of interest should not exceed two pages using the AAAI-05 style. All contributions should be prepared in PDF format and should be sent by e-mail to Pavel Shvaiko (pavel@dit.unitn.it).

Committee

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Jerome Euzenat, INRIA Rhone-Alpes (Jerome.Euzenat@inrialpes.fr); Alain Leger, France Telecom R&D Rennes (alain.leger@rd.francetelecom.com); Deborah L. McGuinness, Stanford University (dlm@ksl.stanford.edu); Holger Wache, Vrije Universiteit Amsterdam (holger@cs.vu.nl)

Additional Information

www.c-and-o.net/

Educational Data Mining

This workshop focuses on leveraging the ability of computer tutors to record their interactions with students to better understand how to teach students. Computer tutors are capable of recording both longitudinal data, as well as data at a fine-time scale, such as mouse clicks and response time data. Using these interactions as a source of data to be mined provides a new view into understanding student learning processes. The first objective of this workshop is to bring together researchers working at the intersection of AI and education to discuss how to better understand and learn from the data we are collecting.

The second major objective of the workshop is to create a repository of data sets for educational data mining. The lack of shared data sets has hampered the field both by creating a high barrier to entry and by making it difficult for researchers to directly compare techniques and results.

Topics

We encourage submissions on topics related to educational data mining, specifically: which approaches (for example, IR, ML, data mining) are most applicable to the types of questions we wish to ask the data? What are the major limitations of these techniques? Educational data mining differs from classic data mining in that the software has probably been explicitly instrumented to make mining easier, and there are sometimes strong, pre-existing psychological theories of how people learn. Do these advantages provide us with any new capabilities?

Format

The workshop will consist primarily of presentations, with papers grouped by theme to facilitate discussion. Presentations will come from selected submissions and from invited speakers. There will also be a panel discussion on what questions we should be trying to answer from the data.

Submission

Those interested in attending should either submit a paper, or a one- or two-page abstract describing areas of research interest. Workshop attendance is limited to 75 people. We invite the submission of papers describing original research on the workshop topics. Papers should be less than 10 pages in length and submitted as PDF files via e-mail.

Submit to:

Joseph E. Beck (Chair)
Center for Automated Learning and Discovery
Carnegie Mellon University
Pittsburgh, PA 15213
Telephone: 412-268-5726
Fax: 412-268-6436
E-mail: joseph.beck@cmu.edu

Committee

Tiffany Barnes, Department of Computer Science, University of North Carolina at Charlotte; Jack Mostow, Robotics Institute, Carnegie Mellon University; Beverly Park Woolf, Computer Science Department, University of Massachusetts Amherst

Additional Information

www.andrew.cmu.edu/~jb8n/aaai05/workshop.html

Exploring Planning and Scheduling for Web Services, Grid and Autonomic Computing

There has been increasing interest in service composition for management of tasks and resources. Creating and managing workflows of tasks on the web and on computational grids has simplified data integration and business process integration. Now widely distributed services can be discovered and composed into workflows either manually or automatically, revolutionizing integration approaches to distributed services.

Management of resources, including software and hardware that may be located centrally or distributed across a network, has emerged as a significant obstacle to reducing the cost of information technology while increasing business productivity. Self-management of systems for configuration, protection, recovery and optimization is promoted as autonomic computing in industry. Here, workflows have been adopted as the underlying representation to connect interrelated tasks required for self-management.

AI planning and scheduling techniques will play an essential role in managing workflows of task ranging from their generation, storage & retrieval, analysis, composition, allocation of resources, execution and repair. However, many issues remain to be resolved. These include (1) determining how to bridge the gap between existing plan and workflow languages, whether existing domain and workflow languages are appropriate, or whether new features or languages are needed; (2) forming precise characterizations of service life cycle including composition, execution, and workflow management, (3) identifying the most appropriate ways to formalize service discovery and composition problems; (4) highlighting important challenges for planning and scheduling systems to be maximally effective in these areas; and (5) supporting operational robustness in 24/7 environment.

Topics

Topics of interest include but are not limited to the following:

- Expressive description languages for services and workflows
- Integrating business process modeling with planning and scheduling using workflows
- Automatic and mixed-initiative composition of services, interoperability in workflow collaboration
- Interleaving information gathering and workflow management
- Distributed workflow management
- Storage, analysis and retrieval of composed services
- Execution monitoring and workflow repair
- Plan verification and plan quality for services and workflows

Submission

This workshop is the continuation of two successful workshops at ICAPS 2003 and 2004 on planning and scheduling for web and grid services and will explore autonomic computing as well. It will bring together researchers who are working on these topics and face these issues as well as real systems that are under development. Those who wish to attend are encouraged to submit either a long paper of up to eight pages in AAAI format, or a short position paper of up to three pages. Submissions should be sent to blythe@isi.edu.

Committee

Biplav Srivastava (cochair), IBM India Research Lab, India; Jim Blythe (cochair), USC Information Sciences Institute, USA; Jose Luis Ambite, USC Information Sciences Institute, USA; Yun-Heh (Jessica) Chen-Burger, University of Edinburgh, Scotland; Subbarao Kambhampati, Arizona State University, Tempe AZ, USA; Sheila McIlraith, University of Toronto, Canada; Paolo Traverso, ITC/IRST, Trento, Italy

Additional Information

www.isi.edu/ikcap/workshops/aaai05/

Human Comprehensible Machine Learning

Humans need to trust that intelligent systems are behaving correctly, and one way to achieve such trust is to enable people to understand the inputs, outputs, and algorithms used as well as any new knowledge acquired through learning. As the use of machine learning increases in critical operations it is being applied increasingly in domains where the learning system's inputs and outputs must be understood, or even modified, by human operators.

For instance, e-mail classification systems may need to gain the user's trust by explaining their predictions in a language the user can understand. Intelligent office assistants learn from a user's preferences and behavior, but in order to be useful, the user must trust that agent will make the same decisions the human would under the same conditions. Machine learning has also been widely used to support credit approval decisions; yet banks are becoming increasingly responsible for explaining the reasons behind a denial of credit. Autonomic systems are beginning to employ machine learning to support common administrative policies; yet system administrators are reluctant to trust automated technology they do not understand.

In this workshop we explore issues of human comprehensibility as it relates to machine learning.

Topics

Topics include the following:

- Human-assisted learning
- Knowledge acquisition for learning
- Establishing and maintaining trust of users
- Human understanding or modification of learning algorithms
- Comprehensibility of the input or bias for learning
- Comprehensibility of the induced model
- Learning and explanation generation
- Exploration and exploitation trade offs in the context of human use

Format

The workshop will feature talks by invited speakers as well as presentations of submitted work. The goal of the workshop is to facilitate discussion between participants. Thus, the schedule will include time for an extended group lunch session as well as a poster session in the afternoon where the participants will be able to share their ideas and open problems related to human-comprehensible machine learning.

Submission

We welcome submissions describing either relevant work or proposals for discussion topics that will be of interest to the workshop. Submissions are accepted in PDF format only, using the AAAI formatting guidelines at www.aaai.org/Workshops/. Submissions must be no longer than eight pages in length, including references and figures. Please e-mail submissions to oblio@us.ibm.com.

Committee

Dan Oblinger (Primary contact)
IBM T.J. Watson Research & Columbia University
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E-mail: oblio@us.ibm.com

Mathias Bauer, German Research Center for AI (DFKI) (bauer@dfki.de); Yolanda Gil, USC Information Sciences Institute (gil@isi.edu); Tessa Lau, IBM T.J. Watson Research (tessalau@us.ibm.com)

Additional Information

www.research.ibm.com/people/o/oblinger/aaai-2005-ws/

Inference for Textual Question Answering

Research in textual question answering has made substantial advances in the past few years. The state-of-the art in answering textual questions is beyond keyword matching. Processing of complex questions requires multiple forms of inference, for example abductions, default reasoning, inference with epistemic logic or description logic. Additionally, there are also forms of inference that are typical to language interpretation, for example conversational implicatures, processing of metonymies and metaphors. Often, the answer to questions involves temporal and spatial reasoning.

The challenge addressed by this workshop is posed by the identification, discussion and comparison of different inference mechanisms that operate on knowledge structures automatically derived from questions or candidate answers. Unlike inference schemes devised for manually-crafted knowledge, inference methods for question answering need to be robust, cover all ambiguities of language and operate on pragmatic information extracted from textual data. An important component of the workshop will be the discussion of available knowledge sources that can be used for inference of textual answers. This workshop constitutes an occasion of bringing together researchers from the knowledge representation and reasoning (KRR) community with researchers that work in natural language processing (NLP).

Committee

Sanda Harabagiu, University of Texas at Dallas; Dan Moldovan, University of Texas at Dallas; Srini Narayanan, ICSI Berkeley; Christofer Manning, Stanford University; Daniel Bobrow, Palo Alto Research Center (PARC); Ken Forbus, Northwestern University

Additional Information

For more information about the workshop, including submission procedures, please visit www.hlt.utdallas.edu/~cristina/workshop05/

Integrating Perception and Action in Multimodal Interfaces

Perception, in addition to motor skill, is critical in organizing movement and communication in systems that interact naturally with humans. Conversation is by no means a sequence of one-way message sending, with the role of participants alternating between that of "sender" and "receiver." Rather, conversants adapt continuously to each other during the conversation: what a participant says, and how and when she says it, depends on her perception of the others' behavior, their (perceived and inferred) mental and communicational capabilities and preferences, attention, understanding, emotional state, and so on. Conversation is thus a two-way street of multiple message types, no matter who has the turn. From a technical point of view, face-to-face conversation can be described as layered feedback loops at various time-scales.

In this workshop we wish to address tight integration of perception and action as it applies to real-time dialog – systems that perceive real communicative acts in a human, or another artificial system situated in the real world, and are able to use this to act in accordance with the rules of human face-to-face conversation and social convention.

Topics

- Integrated and interwoven usage of multiple input and output modalities
- Models integrating perception of the user: physical presence, reaction, behavior, inferred communicative intent, as well as cognitive and emotional states
- Perception techniques for communicative systems
- Computational models for and AI tools to develop perceptive and adaptive systems
- Adaptation to the user
- Adaptation to the operational environment
- Evaluation studies of/for perceptive and adaptive communicative systems
- Representations for communicative perception, knowledge and action
- Planning techniques for real-time, multimodal dialog
- Active perception during turn-taking

Submission

Papers should be up to eight pages long in the style specified by AAAI at (www.aaai.org/Publications/Author/macros-link.html). Submissions should preferably be accompanied by animations or URLs showing multimedia content (actual systems, screen-shots, animations, etc.) describing the work presented. Acceptance will be based on relevance to the workshop, quality of the work and clarity of the presentation. Please send submissions in PDF format to c.pelachaud_AT_iut.univ-paris8.fr. Workshop papers will be published as a AAAI technical report, and included in the AAAI Digital Library.

Committee

Catherine Pelachaud (Primary Contact)
LINC - IUT de Montreuil / University of Paris 8
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Fax: (00) 33- 01 48 70 86 49
E-mail: c.pelachaud_AT_iut.univ-paris8.fr

Zsófia Ruttkay, Human Media Interaction / University of Twente, The Netherlands (zsofi_AT_cs.utwente.nl); Kris Thórisson, School of Computer Science / Reykjavik University, Iceland (thorisson_AT_ru.is)

Additional Information

www.mindmakers.org/projects/AAAI05Multimodal-Workshop

Integrating Planning into Scheduling

This workshop addresses the issue of how to integrate planning capabilities into scheduling algorithms and frameworks, and is a follow-on to the successful workshop on the same topic at ICAPS-04 (the International Conference on Automated Planning and Scheduling) in Whistler, British Columbia. Classical planning and scheduling models are at opposite ends of a spectrum, with most interesting real-world problems falling somewhere in the middle and requiring characteristics of both. The central theme of the workshop is that planning techniques are necessary to the solution of these problems, but must be integrated into scheduling algorithms and frameworks.

Topics

- Frameworks for integrating causal reasoning into resource allocation and scheduling algorithms
- Descriptions of scheduling problems requiring embedded planning capabilities
- Descriptions of algorithms and implementation of features and components, which add planning capabilities to the scheduling framework
- Algorithms for partial order scheduling
- Techniques for reasoning about context-dependent tasks and resource setup and reconfiguration
- Proposals for the generation of benchmark problems, similar to the current IPC domains
- Arguments to the contrary (for example, proposals for extending classical planning to address problems in which resources are primary).

Prospective participants are encouraged to consult the proceedings for WIPIS-04, available for downloading at the 2005 workshop website given below.

Format

The workshop will consist of short sessions (2–3 papers) of individual presentations on a common theme, followed by a "commentator" who provides their views on the collection of papers and the session theme, followed by general discussion leading into a break. There will also be a final discussion session to sum up the workshop, led by the organizers.

Submission

Submit a full paper, maximum eight pages in AAAI conference format (www.aaai.org/Publications/Author/macros-link.html), addressing one or more of the workshop topics above, or a one-page statement of interest. Preference will be given to full papers, but we anticipate room for some number of additional attendees. Due to a desire to maximize discussion, we may accept some papers "for attendance" meaning that the paper will appear in the proceedings but not be presented. The workshop proceedings will be published as a AAAI technical report. Submissions should be e-mailed, in PostScript or PDF format, to mark.boddy@adventiumlabs.org using the subject line "WIPIS-05 Workshop Submission."

Committee

Mark Boddy, Adventium Labs (USA); Amedeo Cesta, ISTC-CNR (Italy); Stephen F. Smith, Carnegie Mellon University (USA)

Additonal Information

http://pst.istc.cnr.it/wipis-at-aaai-05/

Learning in Computer Vision

The objective of this workshop is to bring AI, learning, and computer vision community researchers together to address the interdisciplinary research issues.

The goal of computer vision research is to provide computers with human-like perception capabilities so that they can sense the environment, understand the sensed data, take appropriate actions, and learn from this experience in order to enhance future performance. The vision field has evolved from the application of classical pattern recognition and image processing techniques to advanced applications of image understanding, model-based vision, knowledge-based vision, and systems that exhibit learning capability. The ability to reason and the ability to learn are the two major capabilities associated with these systems. In recent years theoretical and practical advances are being made in the field of computer vision by new techniques and processes of learning, representation, and adaptation. It is probably fair to claim that learning represents the next challenging frontier for computer vision.

Topics

- Integration of learning and high-level knowledge in computer vision
- Continuous adaptation and learning of optimal representations from images/data
- Challenges to artificial intelligence from computer vision
- Foundations for flexible/robust AI vision systems
- Active learning for handling massive amounts and continuous streams of data
- Dynamic learning in a network of sensors
- Learning strategies for dynamic scene understanding
- Statistically and biologically motivated learning and vision
- Learning of complete vision systems
- Grand challenge problems for learning and vision
- Applications

Format

The workshop will consist of a mix of events: paper presentation, invited talk, panel, and discussions.

Submission

Submissions should be no more than five pages and formatted according to the AAAI style files. Submit PDF file of paper to Bir Bhanu.

Committee

Bir Bhanu (Chair)
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Jing Peng (jp@eecs.tulane.edu); Bruce Draper (draper@cs.colostate.edu); Christian Shelton (cshelton@cs.ucr.edu); Katsushi Ikeuchi (ki@cvl.iis.u-tokyo.ac.jp); Erik Learned-Miller (elm@cs.umass.edu); Sally Goldman (sg@cs.wustl.edu); James Wang (jwang@ist.psu.edu)

Additonal Information

www.vislab.ucr.edu/mlcv05/

Link Analysis

Link analysis has been developed over the past twenty years in various fields including discrete mathematics, social sciences, and computer science. Recently this area has attracted a wider attention for its applicability in law enforcement investigations, fraud detection, world wide web analysis, telecommunications, and similar.

Particularly interesting for the workshop are problems and issues that fall within the intersection of link analysis and fields such as web and text mining, relational data mining, and more general, data mining. Typical examples are in the area of trend analysis, community identification, Web user profiling, media clipping, marketing, and so on, where link analysis complements other fields of research and derives additional value from information processing. Another interesting scenario is extraction of information from unstructured data, representation of extracted data in the graphical form, and further analysis of the resulting graph structure to derive and discover new knowledge. Generally, of interest are novel applications and problems that push the current state-of-the-art in link analysis.

Topics

Particular topics of interest for the workshop include but are not limited to the following:

- Link analysis/graph mining
- Social network analysis
- Web mining and text mining in relation to link analysis
- Scalability of developed approaches
- Visualization of link structures
- Performance evaluation measures
- Innovative applications
- Applications related to link analysis

Submission

Submissions should be sent in electronic form as a PDF file to Dunja.Mladenic@ijs.si, Subject: LinkKDD-2005 workshop submission paper. Papers no longer than 10 pages, formatted following AAAI for workshop authors instructions (www.aaai.org/Workshops/workshops.html). Submitted papers will be reviewed by referees from the program committee. Accepted papers will be published in the working notes provided by AAAI-05.

Camera-ready versions of the papers should be submitted to AAAI via the online submission system. The authors of accepted papers should fax signed Permission to Distribute forms (www.aaai.org/Publications/Author/distribute-permission.pdf) (one author per paper) to +1 650-321-4457 by May 18, 2005.

Attendance is limited to active participants only. We strongly encourage interested researchers to either submit a research paper or send a short abstract of their interests, so we can provide the preliminary list of the participants to the conference organizers.

Committee

Marko Grobelnik, J.Stefan Institute, Slovenia; Natasa Milic-Frayling, Microsoft Research Ltd, United Kingdom; Dunja Mladenic (Chair), J.Stefan Institute, Slovenia

Additional Information

www.cs.cmu.edu/~dunja/LinkKDD2005/

Modular Construction of Humanlike Intelligence

Building intelligent systems that can collaborate and interact socially with people requires integrating numerous technologies in complex ways. For the AI researcher such integration can involve anything from connecting multiple computers and programming in multiple languages, to integrating several diverse theoretical models of perception, communication, planning and action. With a rising interest in humanoid agents and robots for the home, the push for creating well-rounded intelligent beings makes the issue of integration increasingly relevant.

We are looking for papers describing work on the theoretical as well as practical issues of integrating broad human-like skills into working systems, be it physical robots or virtual agents, and work that evaluates current and past architectural efforts towards creating such systems. Also relevant is work on frameworks for bridging between systems, as are practical techniques and tools for supporting the work of the AI developer and teams. Of special interest would be any rapid prototyping tools and tools for comparing AI architectures.

Anyone building large, working systems, in software or hardware, that integrate multiple diverse components in any combination — be it planning, natural language, computer vision, hearing, gesture, emotion, common sense — and have taken a moment to reflect on the integration problem, should find an audience for their work in this workshop.

Format

There will be two kinds of presentations, long and short. Long presentations are 25 minutes; short presentations are 15 minutes. Both kinds are followed by10 minute discussions.

Submission

Papers should be no longer than eight pages in AAAI style. E-mail PDF file to thorisson AT ru.is. Please name file after first author; specify short or long presentation. Selection will be based on relevance to the workshop, quality of the work and clarity of presentation.

Committee

Kris R. Thórisson (Chair)
Reykjavik University
Ofanleiti 2, 103 Reykjavik
Iceland
Telephone: +354 898-0398
Fax: +354 599-6201
E-mail: thorisson_AT_ru.is

Hannes Vilhjálmsson, USC Information Sciences Institute (hannes_AT_isi.edu); Stacy C. Marsella, USC Information Sciences Institute (marsella_AT_isi.edu)

Additional Information

http://ai.ru.is/events/AAAI05ModularWorkshop/

Multiagent Learning

When designing agent systems, it is impossible to foresee all the potential situations an agent may encounter and specify an agent behavior optimally in advance. Agents therefore have to learn from and adapt to their environment. This task is even more complex when nature is not the only source of uncertainty, and the agent is situated in an environment that contains other agents with potentially different capabilities, goals, and beliefs. Multiagent learning, that is, the ability of the agents to learn how to cooperate and compete, becomes crucial in such domains.

The goal of this workshop is to increase awareness and interest in adaptive agent research, encourage collaboration between ML experts and agent system experts, and give a representative overview of current research in the area of adaptive agents. The workshop will serve as an inclusive forum for the discussion on ongoing or completed work in both theoretical and practical issues.

Topics

The workshop will focus on (but is not necessarily limited to) the following topics:

- Adaptive mobile agents
- From single agent to multiagent learning
- Learning of coordination
- Learning and communication
- Distributed learning
- Evolutionary agents
- Emergent organization/behavior and studies of complexity in multiagent systems with learning and adaptation
- Individual learning in multiagent systems
- Game theoretic and analytic approaches to adaptive multiagent systems
- Logic-based learning
- Learning in reactive agents
- Learning for real-time applications
- Industrial and large scale applications of learning agents

Format

The workshop will be a one or two day session (depending on the number of papers accepted) where contributors will discuss the state of the art and future research on this topic. We are also planning to have an invited speaker. The event will also serve as an open forum for innovative ideas and thus delegates will be welcomed to participate. To make sure this is the case, we will close the session with a one-hour open discussion around questions raised during the talks. In addition, the session will provide an ideal opportunity for the demonstration of agent learning software during the breaks.

Submission

Participants interested in presenting their work should send an extended abstract (12-point font, 5 pages more or less) describing work in progress or completed work. Other interested participants should send a one-page description of their research interests with a short list of relevant publications. We would like to encourage submissions for video presentations and for working systems that can be used for hands-on demonstration during the workshop. We will accept only e-mail submissions of PostScript files. Submissions should be sent to eduardo@soi.city.ac.uk.

Committee

Eduardo Alonso, City University, London; Michael Bowling, University of Alberta; Enric Plaza, Institut d'Investigació en Intel.ligència Artificial (IIIA), Barcelona; Peter Stone, The University of Texas at Austin

Program Committee

Michael Littman, Rutgers University; Sridhar Mahadevan, University of Massachusetts; Shaul Markovitch, Technion; Paul Marrow, BT Pervasive ICT Research Centre; Akira Namatame, National Defense Academy, Japan; Eugenio Oliveira, University of Oporto; David Parkes, Harvard University; Martin Riedmiller, Osnabrueck University; Michael Rovatsos, The University of Edinburgh; Sandip Sen, The University of Tulsa; Yoav Shoham, Stanford University; Satinder Singh, University of Michigan; Kagan Tumer, NASA Ames Research Center; Gerry Tesauro, IBM T.J. Watson Research Center; Jose M. Vidal, University of South Carolina; David Wolpert, NASA Ames Research Center; Martin Zinkevich, Brown University

Additional Information

www.soi.city.ac.uk/~eduardo/MAL-AAAI05.html

Question Answering in Restricted Domains

This workshop focuses on the issues related to question answering in restricted domains. Restricted domains provide an interesting mix of challenges and opportunities that are yet to explore. For example, the limited amount of data available makes it difficult to apply conventional question-answering techniques based on data redundancy. Furthermore, the specific terminology of some domains is typically not available in generic lexical resources. On the other hand, restricted domains enable the development of specific ontologies or knowledge bases that can be used for high-precision question answering tasks.

Note that there is an AAAI workshop on inference in textual question answering. If you are unsure about what workshop your work fits best, please contact the organizers of both workshops.

Topics

- Comparison between open-domain and restricted-domain QA
- Characterization of types of restricted domains and type of technology required for QA on those domains
- Methodologies, tools and resources for QA in restricted domains
- Portability of QA systems between different restricted domains
- Evaluation

Format

The workshop includes an invited presentation, a set of full papers and short papers, and a final discussion panel. The invited presenter will address a number of issues related, with emphasis on presenting a challenging topic to encourage discussion. There will be full papers and short papers. Full papers must address some of the issues listed, whereas short papers can focus on descriptions of specific systems or modules, or provide small contributions to the workshop topics. The discussion panel includes 5-minute statements from three leading researchers in different related areas of expertise. The panel will be followed by a discussion moderated by one of the workshop organizers.

Attendance

We expect an attendance of 25–50 people. We will invite people from the areas of question answering in open domains and restricted domains to allow for useful comparison and generalization. We want to encourage discussion. We therefore require potential participants that do not contribute with a paper to send an e-mail to the workshop organizers with a one-page description of their interest in the topic and their views on specific issues related to QA in restricted domains. The information will be used to organize the final workshop discussion session.

Submission

Submitted papers should describe original work, completed or in progress, rather than merely planned, and clearly indicate the current state of advancement of the work. No previously published papers should be submitted. Authors should submit regular papers of maximum 10 pages or short papers of maximum 5 pages, including references and figures, following the AAAI technical reports guidelines. The review will not be blind. Submissions must be in PS or PDF format only. Please submit to Diego Mollá Aliod.

Committee

Diego Mollá Aliod (Cochair)
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and Communication Sciences
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Additional Information

www.clt.mq.edu.au/Events/Conferences/aaai05/

Spoken Language Understanding

Natural language processing (NLP) has been one of the defining subtopics of AI since its early days. In recent times, NLP has predominantly been about text understanding and building associated resources for the purposes of information extraction, question answering and text mining. Many of these tasks have nourished the creation and development of extensive ontologies, practical semantic representations, and novel machine learning techniques. In a spirit similar to the workshop at HLT-NAACL 2004 on this topic, our attempt is to broaden the scope of language understanding to include understanding of spoken language (SLU) in the context of applications such as speech mining and human-machine interactive spoken dialog systems. We aim to bring together techniques that address the issue of robustness of SLU to speech recognition errors, language variability and dysfluencies in speech with issues of semantic representation that provide greater flexibility and portability to a dialog model. We believe spoken language understanding is an especially attractive topic for cross-fertilization of ideas between AI, IR, NLP, speech and semantic Web communities.

Topics

We invite submissions covering the full range of topics related to spoken language understanding. Topics of interest include (but are not limited to) the following:

- Approaches to building an SLU
- Rule-based, data-driven, or hybrid
- Automatic adaptation across domains
- Approaches to robustness in SLU
- Handling uncertain and erroneous input
- Handling dysfluencies and language variations
- Tighter integration of speech recognition and SLU
- Exploiting weighted packed representation of hypotheses
- Exploiting prosodic and emotional cues from speech
- Approaches to semantic representations provided by SLU
- Combining shallow and deep representations
- Representations permitting robust inference mechanisms
- Tools and data resources
- Issues and metrics for evaluation of SLU
- SLU in the context of applications
- Multilingual systems
- Multimodal systems
- Tutoring systems
- Speech mining systems
- Spoken dialog systems

Submission

All submissions must be sent to gtur@research.att.com, with the subject line "AAAI-05 SLU Workshop paper submission." Please use the AAAI prescribed formatting instructions available at www.aaai.org/Workshops/. Papers must be 5 to 8 pages long, including all references and figures. All papers must be submitted in either PDF (preferred) or PostScript format. If any special fonts are used, they must be included in the submission. The papers must be original, and have not been published. Note that reviewing will NOT be blind, the paper submissions may include the authors' names and affiliations.

Committee

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Additional Information

www.research.att.com/~dtur/SLU-05/cfp.html