



AAAI 97

Fourteenth National Conference on Artificial Intelligence

Workshop Program

CALL FOR PARTICIPATION

July 27-28, 1997

Providence, Rhode Island, USA

Sponsored by

The American Association for Artificial Intelligence

445 Burgess Drive, Menlo Park, CA 94025

(415) 328-3123

workshops@aaai.org

<http://www.aaai.org/Workshops/workshops.html>

1997 AAAI Workshops

AAAI is pleased to present the AAAI-97 Workshop Program. Workshops will be held Sunday, July 27 and Monday, July 28, 1997, at the Rhode Island Convention Center and surrounding hotels. Exact locations and dates for the workshops will be determined in early spring. The AAAI-97 Workshop Program includes fourteen 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 50 participants. Participation at these workshops is by invitation from the workshop organizers. Workshop registration information will be mailed directly to all invited participants. Workshops are included in the AAAI-97 technical registration. All workshop participants must preregister for the technical conference and indicate which workshop(s) they will be attending. Workshop working notes will be distributed onsite for participants only, and may be available after the conference as technical reports.

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 March 11, 1997. Workshop organizers will notify submitters of acceptance by April 1, 1997. Camera-ready copy is due back to workshop organizers by April 22, 1997. 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.

AAAI-96 Workshop Chair
Raymond Mooney
mooney@cs.utexas.edu

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Deadlines

March 11: submissions due
April 1: notification of acceptance
April 22: camera-ready copy due
July 27-28: AAAI-97 Workshops

Abstraction, Decisions, and Uncertainty

Classical AI planning, decision-theoretic planning, and even classical decision theory have recognized the need for the use of abstraction in solving large problems. Abstraction in these areas has taken a number of different forms: state space abstraction, construction of partial policies, partial evaluation of policies, action abstraction, action hierarchies, and plan space abstraction. Given the need for abstraction in large problem spaces and the recent advances in decision-theoretic planning, this workshop focuses on abstraction methods for decision making under uncertainty. The goal of this workshop is therefore to bring together researchers working on differing kinds of abstraction for decision making under uncertainty in order to understand what has already been accomplished, outline current problems, and identify promising future directions.

The issues of interest to this workshop include:

- The use of problem structure to enable abstraction
- State space aggregation and abstraction
- Construction and use of abstract policies
- Construction and use of abstract actions
- Construction and use of action hierarchies
- Construction and use of abstract value/utility functions
- Plan space abstraction
- Uses of abstraction for efficiency, explanation, anytime reasoning, handling incomplete information

This workshop will be a one-day event with time split evenly between paper presentations and panel discussions. The morning group of papers

will be used to establish a framework for a related panel discussion and the afternoon set of papers will likewise establish a framework for a second panel discussion.

Those interested in participating should submit a paper (up to 10 pages LaTeX 12 pt. article style or equivalent) or a statement of interest (up to 3 pages). Electronic submissions are strongly encouraged. Submissions and questions can be directed to:

Christopher Geib
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201-2366 Main Mall
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CANADA
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Organizing Committee

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AI and Knowledge Management

As competitive pressures increase, many organizations realize that to prosper in the future they must manage their most valuable asset, knowledge, more carefully. Knowledge management is concerned with issues involved with identifying, collecting, storing, evaluating, indexing, structuring, extracting, and presenting knowledge used to improve an organization's productivity. Knowledge management systems should unobtrusively collect knowledge as work is being completed and present knowledge in a just-in-time fashion for effective problem solving.

Knowledge management systems need to be flexible and adaptive. Research in many areas will impact knowledge management. This workshop will focus on the "problem in the large." That is, how do knowledge acquisition, knowledge representation, knowledge discovery, agents, adaptive systems, and other techniques function in a diverse, often ill-structured environment and what, if any, organizational constraints must exist to be able to successfully manage knowledge. Issues involved with adding context and other meta-data along with using ontologies to promote the sharing of relevant information are important topics for this workshop.

The goal of this workshop is to bring AI researchers and researchers from communities associated with knowledge management together to share experiences, solutions, and approaches to outstanding problems. The problems are large, but some work has been successful in solving portions of the problem.

This one-day workshop will use submitted papers as the focus for discussion. Discussion sessions will be held

after groups of related papers are presented. The emphasis will be understanding issues that are different from traditional AI work and why they are important to solving the knowledge management problem.

Three paper copies of papers should be mailed to:

Bradley Whitehall, Workshop Chair
Johnson Controls, Inc.
Controls Group
507 East Michigan
M-36

Milwaukee, WI 53201-0423

Papers should be no longer than 10 pages in length. Participants should e-mail a short description of interests to brad.l.whitehall@JCI.com. Workshop participation will be limited to around 25 people to facilitate discussion.

Organizing Committee

Michael Gruninger, University of Toronto; Ed Rogan, United Technologies Research Center; Jude Shavlik, University of Wisconsin, Madison; Brock Barkley, Johnson Controls, Inc.; Aron Dutta, Silicon Valley Internet Partners

AI Approaches to Fraud Detection and Risk Management

Fraud detection and risk management involve monitoring the behavior of populations of users in order to estimate, detect or avoid undesirable behavior. Undesirable behavior is a broad term including delinquency, fraud, intrusion and account defaulting. This workshop will bring together researchers in these areas to discuss approaches and experiences in dealing with the critical issues:

- Large volumes of data
- Highly skewed distributions
- Changing distributions
- Widely varying error costs, and costs changing over time
- Adaptation of undesirable behavior to detection techniques
- Changing patterns of legitimate behavior
- Social issues (privacy, discrimination, "redlining")

Papers on the following, and related, areas and approaches are invited:

- Credit/calling card fraud
- Computer/network intrusion
- Internet transaction fraud
- Insurance fraud
- Cellular fraud
- Insider trading
- Credit rating/approval
- Prediction of delinquency/bad debt
- Machine learning
- Neural networks
- Probabilistic modeling
- Decision Theory
- Genetic algorithms
- Knowledge discovery and data mining
- Knowledge-based systems
- Statistical approaches

This will be a one-day workshop comprising mainly technical presentations. An overview, panel discussion, and/or invited talk will be selected to reflect the

topics of interest to the participants. Twenty to forty people will be invited based on experience as indicated by paper submissions or research summaries.

Authors should submit papers of no more than 8 pages to the workshop chair at the address below. We encourage not only papers on completed and ongoing projects, but also thorough discussions of domains and problematic issues. Submissions should include authors' e-mail and surface mail addresses, a short abstract, and a list of keywords. E-mailed submissions of PostScript files are preferable; if a PostScript file cannot be produced, submit four printed copies.

We encourage each author to describe the difficult issues manifest in the domain, how the system deals with these issues, and how the system's performance can be evaluated. Papers discussing significant unsolved problems (e.g., dealing with social considerations) will also be considered.

People interested in attending but not presenting a paper should submit a one-page summary of relevant interests and work to the workshop chair:

Tom Fawcett
NYNEX Science and Technology
400 Westchester Avenue
White Plains, NY 10604
E-mail: fawcett@nynexst.com
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Organizing Committee

Tom Fawcett, NYNEX Science and Technology; Ira Haimowitz, GE Corporate Research and Development, haimowitz@crd.ge.com; Foster Provost, NYNEX Science and Technology, foster@nynexst.com; Sal Stolfo, Columbia University, stolfo@cs.columbia.edu

Building Resource-Bounded Reasoning Systems

Limited computational resources are a primary concern in almost every AI application. Since the mid-1980s, there has been a growing interest in the development of computational methods that offer a tradeoff between resource consumption and quality of results. Examples of active research areas in this emerging field include anytime algorithms, flexible computation techniques, imprecise computation, memory bounded search, and design-to-time scheduling. Researchers have developed a large body of knowledge that covers the construction, composition, and meta-level control of resource-bounded reasoning systems. The purpose of this workshop is to foster collaboration among researchers who share an interest in applications of resource-bounded reasoning in such areas as heuristic search, constraint satisfaction, probabilistic inference, planning and scheduling, signal interpretation, medical diagnosis and treatment, vision, graphics, and intelligent information gathering. What is common to all these problems is that it is not feasible (computationally) or desirable (economically) to compute the optimal answer.

With a primary focus on applications, the workshop will cover:

- Types of computational tradeoffs in reasoning and search
 - Representation and measurement of computational tradeoffs
 - Capturing the dependency of performance on problem instance “hardness”
 - Embedding flexible computation components in large systems
 - Run-time assessment and prediction of solution quality
 - Run-time allocation of computational resources
- Characterizing the overall performance of resource-bounded reasoning systems

Most of this one-day workshop will be dedicated to panel and group discussions of fundamental questions. The particular sessions will be determined based on participants' interests. We will also try to accommodate one invited speaker and a small number of paper presentations.

Prospective participants are invited to submit an abstract (5 pages or less) and/or statements of interest. Papers should be submitted via e-mail (ASCII or PostScript format) to shlomo@cs.umass.edu. Researchers working on a particular application are encouraged to describe the motivation for using resource-bounded reasoning, the approach to the problem, the mechanisms developed to monitor and control computational resources, and the benefits and limitation of the particular model. Applicants are also invited to propose topics for panels that would be appropriate for the workshop. Further information is available at <http://anytime.cs.umass.edu/aaai97ws.html>

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Constraints and Agents

This workshop will focus on research at the interface of constraint and agent technology. It will encompass both the modeling of agent issues, e.g. negotiation, as constraint satisfaction and optimization problems, and the use of agents to solve constraint satisfaction and optimization problems, e.g. distributed scheduling problems. It will concern both hardware agents and software agents. It will include both applications of constraint algorithms and models, and applications of constraint languages and systems. It will address both opportunities that agents offer to apply the constraint programming paradigm, and challenges that agents present to extend the paradigm. More specific topics might include, but are not limited to: constraints for real-time control of agents, constraints as content in agent communication, statistical properties of large multiagent searches, constraint ontologies for agents, constraint-based agent specification and verification.

The workshop will combine short presentations with discussion sessions. Prospective participants should submit, appropriately labeled, either a research paper, containing unpublished research, a position paper, summarizing previously published research, or a copy of a relevant paper accepted for the main AAAI-97 conference. Submissions should be in the AAAI two column format (formatting macros are available at <http://aaai.org/Publications/macros-link.html>) and no longer than 6 pages.

Submit PostScript electronically to the Logistics Chair:

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pse@cs.unh.edu
Math & Computer Sci. Department
Mendel Hall, Merrimack College
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phone 508-837-5000 ext. 4217
fax 508-837-5029

Workshop Chair

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Deep Blue Versus Kasparov: The Significance for Artificial Intelligence

The impetus for this workshop is the historic 1996 chess match between Garry Kasparov and the chess playing system Deep Blue. The media attention generated by the match has brought issues related to the nature and possibility of intelligence as well as research in AI once again to the forefront of popular culture. Kasparov himself was quoted in *Time Magazine* as one who “sensed a new kind of intelligence across the table.”

The theme of the workshop is the significance and ramifications of this famous chess match for the science of AI. The workshop is intended to foster a serious discussion of the issues related to the nature and possibility of intelligence, using Kasparov vs. Deep Blue as the context. It is also intended to be an opportunity for the computational science community to review and reflect upon the extensive AI research undertaken to solve the chess problem.

Questions to be discussed in the workshop will fall into the following categories. Specific questions include:

- *Ontological*: Are there thinking machines? Is Deep Blue one of them?
- *Epistemological*: What are the sufficient/necessary conditions for “sensing” intelligence?
- *Foundational*: What does Kasparov vs. Deep Blue mean to AI? Is Deep Blue “AI”?
- *Historical*: What are the important milestones in the development of chess-playing programs?
- *Technological*: What software technology underlies the best chess playing programs? What is the future of this technology?
- *Cultural*: Why the negative emotional reaction to the notion of AI by

some philosophers and cognitive scientists?

These objectives will serve to bring together a broad range of opinions and perspectives related to the basic theme of the workshop. We want theoretical and applied AI specialists, historians and philosophers of science, cognitive scientists, and psychologists to attend.

The aforementioned categories will provide a basis for the organization of presentations given in the workshop. In addition, a panel is planned composed of representatives of a wide range of opinions on the nature of intelligence. An invited speaker is also planned.

Attendance at the workshop is limited. Potential participants should submit either a short statement of interest or an extended abstract, preferably by e-mail or PostScript file, addressing one or more topics of interest along with a list of their related work. Authors of accepted abstracts will be asked to submit a short working paper (two to eight pages) and to prepare an oral presentation. Submit to:

Robert Morris
Computer Science Program
Florida Institute of Technology
150 W. University Blvd.
Melbourne, FL 32901
Phone: (407) 768-8000, ext. 7290
Fax: (407) 984-8461
Email: morris@cs.fit.edu

More information about the workshop can be obtained through the web at <http://www.cs.fit.edu/~morris/aichess>

Organizing Committee

Robert Morris, Florida Institute of Technology, morris@cs.fit.edu; Kenneth Ford, University of West Florida, kford@ai.uwf.edu; Clark Glymour, Carnegie Mellon University, cg09+@andrew.cmu.edu

Language and Space

People frequently talk about space and the things in it. They describe the size, shape, qualities, orientation, and position of objects using a range of spatial expressions in the service of goals such as localisation, visualisation, and navigation. The semantic treatment of such expressions presents challenges for natural language processing since it needs to distinguish between fine-grained sense differences and ambiguities grounded in our experiential and perceptual structure.

The primary goal of this workshop is to foster links between researchers in artificial intelligence and other disciplines (in particular cognitive psychology, linguistics and geography) interested in the representation and processing of space and spatial expressions. The workshop will consist of formal presentations, as well as mini-panels, taking issue sessions, software demonstrations, and poster presentations.

We invite submissions on both the cognitive and computational characterisation of the relationship between language and space. Three copies of full papers of not more than 5000 words should be submitted to the address below; those interested in participating, but not making a formal presentation, should submit three copies of a statement of interest of not more than 1000 words. Submissions are encouraged to be sensitive to the interdisciplinary nature of the workshop and formulate the presentation of topics accordingly.

For further details see: <http://www.aber.ac.uk/~plo/AAAI-97>

Submit to:

Patrick Olivier
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Aberystwyth, Ceredigion
SY23 3DB, Wales, UK
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Multiagent Learning

This workshop addresses the requirements for agents to learn and adapt in the presence of other agents. Of particular relevance for the workshop are the applicability and limitations of current machine learning techniques for multiagent problems, and new learning and adaptive mechanisms particularly suited to them.

Among others, papers discussing the following topics are welcome:

- Evaluating effectiveness of individual learning strategies, or multistrategy combinations, in cooperative/competitive scenarios
- Characterizing learning methods in terms of modeling power, communication abilities, knowledge requirement, processing abilities of agents
- Co-evolving multiple agents with similar/opposing interests
- Teacher-student relationships among agents
- Specific applications demonstrating how multiagent systems benefit from learning.

The workshop will contain paper sessions on common themes with panels at the end to compare/contrast the research presented. We plan to host an invited speaker and a panel discussion on key multiagent learning issues.

Participation will be by invitation only (limited to 40 people).

E-mail PostScript copy of either a brief statement of interest (1 page) or a complete paper (6 pages maximum) including keywords, authors' complete address to Sandip Sen.

Direct correspondence to:

Sandip Sen (Workshop Chair)
Department of Mathematical &
Computer Sciences, University of
Tulsa,
600 South College Avenue,
Tulsa, OK 74104-3189.
Telephone: 918-631-2985
Fax: 918-631-3077.
E-mail: sandip@kolkata.mcs.utulsa.
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Organizing Committee

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On-Line Search

On-line search is driven by the need to commit to “actions” before their complete consequences are known, where an “action” can correspond to such diverse things as making a move in a two-player game, moving a robot, or allocating a page in a cache. On-line search can be necessary for a variety of reasons: there may be missing domain knowledge, the domain may be known but so large that it cannot be searched completely in a reasonable amount of time, or it may simply be that the consequences of one’s actions depend on the behavior of some other entity. On-line search can also reduce the sum of planning and execution time.

The on-line search paradigm has been independently investigated in artificial intelligence (single-agent search and two-player games), robotics (path planning), and theoretical computer science, among others. This has resulted in the development of a variety of on-line search approaches including assumptive planning, deliberation scheduling and anytime algorithms, on-line algorithms and competitive analysis, real-time heuristic search, reinforcement learning, robot exploration techniques, and sensor-based planning.

Questions addressed by the workshop include

- What information to gather in the limited time available,
- When to stop collecting information and commit to an action, and
- What action to commit to given the information collected.

We are especially interested in the trade-offs between thinking versus acting, and acting to exploit existing knowledge versus acting to acquire further knowledge.

We are also interested in applications of on-line search algorithms as well as empirical and formal results that explain how properties of the tasks and domains influence their efficiency.

The format of the workshop will encourage the interaction of researchers with different backgrounds. There will be plenty of opportunity to discover common ground and speculate on how methods from one field could be applied to another.

Researchers from artificial intelligence, robotics, and theoretical computer science are asked to submit either papers about original research or overview papers (up to eight pages in AAAI format). Persons desiring to participate, but not to give a presentation, are encouraged to submit position papers (up to two pages).

Additional submission information is maintained at <http://www.cs.cmu.edu/~skoenig/search/>. Submission address:

Sven Koenig
Carnegie Mellon University
Department of Computer Science
Pittsburgh, PA 15213-3891, USA
phone: (412) 268-3076
fax: (412) 268-5576
E-mail: skoenig=search@cs.cmu.edu

Organizing Committee

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Perceiving and Interpreting Action

Recent advances in technology and economy of computer vision have created wide interest in interpreting action, particularly that of people. Anticipating a day when real-time vision becomes a significant medium for human-computer interaction, many researchers have proposed inference-rich applications: Virtual assistants that help mechanics do repairs; digital coaches for dancers and athletes; vision-driven VR applications; safety monitors that look for trouble in baby-rooms, factory floors, and traffic. Some parts of these applications have already been prototyped. However, connecting perception to inference and determining what inferences should happen remain looming problems. Efforts toward action-understanding may require or spur advances in non-rigid motion tracking, event perception, probabilistic inference and learning, causal and temporal reasoning, plan recognition, and models of intentionality. The workshop is aimed at bringing together researchers in perception, AI, and learning whose work is connected to the problem. We expect to see papers on:

- Visual representations for motion interpretation
- Motion pattern classification for articulating bodies
- Spatiotemporal structure of actions
- Interpreting gestures in context
- Inferring context (tasks and activities) from video/audio/proprioception
- Temporal inference over approximate and noisy data
- Learning relations between perceptual data-streams and task semantics
- High-level models of action and intention
- Plan recognition given perceptual sensing

- Learning and recognizing procedures from video
- Systems capable of sustained human-computer cooperation
- Other perceptual modalities.

The one-day workshop will consist of four topical sessions of research presentations, each led by an invited talk or tutorial and capped with a short panel discussion. Attendance will be limited to 30 people to encourage group discussion. Additional information is available at <http://www.media.mit.edu/pia97/>

Interested researchers are invited to submit short but complete technical papers (up to 8 pages, 4000 words) or statements of interest describing relevant research. We are interested in both mature research and early results from works-in-progress. Electronic submissions are strongly encouraged: ascii, PostScript, or html (self-contained directories packaged via tar, Stuffit, or pkzip) should be deposited in <ftp://pia97.media.mit.edu/incoming> and an e-mail message should be sent to pia97@media.mit.edu containing your name, title, abstract, ftp file name, and mail/e-mail/WWW addresses. Hard-copy should be sent to

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Organizing Committee

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Robots, Softbots, Immobots: Theories of Action, Planning, and Control

This workshop will bring together theoretical and applied researchers in the area of automated agents. We are particularly interested in robots; “softbots” that operate in software environments; and “immobots,” immobile, sensor-rich agents like automated factories, concerned mostly with internal regulation and control.

We welcome researchers in theoretical aspects of reasoning about actions, planning algorithms and control architectures. Discussions will focus on the interaction between representation, planning and execution.

Some specific topics are:

- Features of theories of actions that make it possible to develop efficient planning algorithms
- Representational needs of robots, softbots, immobots
- Formalization of plan execution by robot, softbot and immobot agents
- Correctness of control programs with respect to underlying theories of actions
- Planning algorithms for various theories of action
- Incorporating control into theories of actions and planning algorithms.

We will begin the one and one-half day workshop with tutorials covering the state of the art in action representation and planning, followed by introductions to robots, softbots and immobots.

Individual talks and panel discussions will follow the tutorials. Speakers will be challenged to address the needs of automated agency.

A paper of up to ten pages, or a position statement of up to two pages. The submission should take care to address both components of the topic: interested researchers of a theoretical

bent should identify how their work would support automated agency; researchers in automated agency should identify their representational and inferential needs and (ideally) how they perceive available theoretical work. (Email submission of PostScript file preferred.)

Submission address:

Chitta Baral
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University of Texas at El Paso
El Paso, TX 79968, USA
chitta@cs.utep.edu
915-747-6952/5030 (ph/fax)
(See <http://cs.utep.edu/actions/aaai97.html> for a detailed CFP.)

Organizing Committee

Cochairs: Chitta Baral (Cochair), UT, El Paso; Robert Goldman (Cochair), Honeywell Technology Center; J. Blythe; K. Erol; G. De Giacomo; M. Gelfond; K. Golden; P. Haddaway; F. Kabanza; R. Kambhampati; K. Konolige; F. Lin; L. Pryor; R. Scherl; S. Steel; and P. Traverso.

Spatial and Temporal Reasoning

AAAI and the organizers solicit participation in this workshop on spatial and temporal issues in representation and reasoning. Despite many obvious differences, techniques applied in both temporal and spatial aspects of problem domains are often very similar: constraint propagation, relation algebra, granularity control, and others. Even applications, such as planning and path finding, are often closely related.

This workshop focuses on major problems facing the developers and users of temporal and spatial models in all areas of AI and in computer science. The organizers seek to establish a solid space-time bridge among the researchers in disciplines where spatio-temporal issues are a key concern.

The opportunity for interaction and exchange among the participants will be maximized. Using a varied format of invited presentations, keynote address, panel, and open discussion, participants are expected to become involved in the discussion, potentially leading to new insights about the interfaces between space and time, AI and Systems, and other related domains.

A major goal of this workshop is to work towards a foundation of spatio-temporal reasoning. We therefore request authors to point out in their papers what they consider to be basic notions, concepts, algorithms, etc. necessary to understand the paper (but not explained in the paper). We intend to compile a list of those notions, concepts, algorithms, etc. and to make this list available to the participants before the workshop.

Around 40 participants will be selected to attend the workshop, contributing and participating in discus-

sions. Accepted papers will be included in the workshop working notes to be distributed by AAAI. Screening will be based on reviews and relevance to the workshop goals, favoring papers incorporating a synthesis or spanning more than one traditional area (see description); a mix of views is sought.

Electronic submissions are solicited in TeX, LaTeX, or PostScript format. The papers, starting with title, authors' names, addresses, phone and fax numbers, and e-mail addresses, followed by keywords, and concluding with relevant bibliographic references, should fit on 4 to 10 single-spaced typewritten 8.5 x 11 inch pages, in the form of an extended abstract or complete research, survey, or position paper. Selection of participants will be based on relevance to the indicated focus of the workshop, clarity of the work submitted, and the strength of the research.

Submit to:

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Using AI in Electronic Commerce, Virtual Organizations and Enterprise Knowledge Management to Reengineer the Corporation

Issues of electronic commerce, virtual organizations, knowledge management and reengineering are among the most important topics to business in today's information technology environment. Unfortunately, to date, there has been only limited use of AI to address these issues. The purpose of this workshop is to establish foundations for the use of AI in these emerging areas of corporate interest.

This workshop will focus on how AI is being embedded in applications designed to facilitate electronic commerce, virtual organizations, and enterprise knowledge management, and accordingly reengineer the firm. The workshop also will address the use of AI as a tool to facilitate reengineering.

Previous research in this area has used a number of AI approaches, including, case-based reasoning, constraint-based approaches, expert systems and intelligent agents. We expect that this workshop will involve applications of AI using these and other approaches.

This one-day workshop will feature paper presentations, panels and invited speakers.

Submitted papers should range in size from 2500 to 5000 words. Panel submissions should focus on what topics will be addressed, who will be a part of the panel and a paragraph or so on

each member of the proposed panel. Observers should send a letter of request to attend. All submissions should be sent to Daniel E. O'Leary, electronically as e-mail text, as attachments in MIME or Binhex or as a url where the necessary information is resident. Hardcopy will also be accepted (send three copies).

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Organizing Committee

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Verification and Validation of Knowledge-Based Systems

Activities of validation and verification are central to modern software development. The same applies to the development of knowledge systems, and this workshop intends to provide a forum to discuss such issues. We intend to focus the workshop around the following topics:

- Industrial applications: lessons and challenges from industry, certified systems
- Verification & validation of agents and intelligent applications on the Internet: challenges & opportunities
- Formal methods: use of formal specifications, V&V against them

Apart from these main objectives we encourage submissions on any topic related to verification and validation, such as: traditional V&V techniques; life-cycle issues; knowledge representation issues for V&V; V&V of heterogeneous systems; relationships with other areas of AI: knowledge acquisition, ontologies, machine learning etc.

This one-day workshop will consist of an invited talk, paper sessions organized around thematic units, and a panel discussion on industrial applications. Practical demonstration of tools and prototypes can be organized, subject to availability of appropriate computer equipment.

Participants are invited to submit either a full paper of up to 10 pages, or an extended abstract (1-2 pages). Papers can be research papers, tool descriptions, lessons from industrial experience or position papers. Potential participants with KBS V&V experience who wish to attend and are willing to serve as discussants are asked to provide details of their qualifications for this role.

The preferred method of submission is by electronic mail (text file or self-contained PostScript). In case this is impossible, please submit three (3) hard copies of the paper. All submissions should be sent to:

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