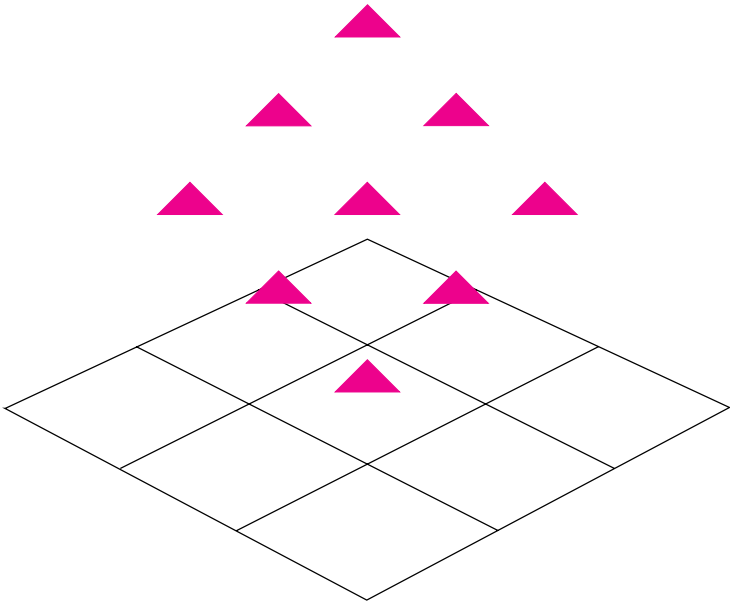

AAAI 1994

Fall Symposium Series
Registration Brochure

November 4-6, 1994

The Monteleone Hotel
New Orleans, Louisiana

Sponsored by the
American Association for Artificial Intelligence
445 Burgess Drive, Menlo Park, CA 94025
(415) 328-3123
fss@aaai.org

THE AMERICAN Association for Artificial Intelligence presents the 1994 Fall Symposium Series, to be held Friday through Sunday, November 4-6 at the Monteleone Hotel, New Orleans, Louisiana. Topics of the five symposia in the 1994 Fall Symposium Series are:

- Control of the Physical World by Intelligent Agents
- Knowledge Representation for Natural Language Processing in Implemented Systems
- Improving Instruction of Introductory AI
- Planning and Learning: On to Real Applications
- Relevance

The highlights of each symposium will be presented at a special plenary session. Working notes will be prepared and distributed to participants in each symposium, but will not otherwise be available unless published as an AAAI Technical Report or edited collection.

Each symposium will have limited attendance. Participants will be expected to attend a single symposium throughout the symposium series. In addition to participants selected by the program committee of the symposia, a limited number of other interested parties will be allowed to register in each symposium on a first-come, first-served basis. To register, please fill out the enclosed form, and send it along with payment to:

1994 Fall Symposium Series
AAAI
445 Burgess Drive
Menlo Park, CA 94025
Fax: (415) 321-4457
(credit card orders only)
Email: fss@aaai.org
(credit card orders only)

Tentative Program Schedule

(subject to change)

Friday, November 4

Symposia sessions:
9:00 AM—5:30 PM
Reception:
6:00 PM—7:00 PM

Saturday, November 5

Symposia sessions:
9:00 AM—5:30 PM
Plenary sessions:
6:00 PM—7:30 PM

Sunday, November 6

Symposia sessions:
9:00 AM—12:30 PM

Registration will be in the lobby outside Nouvelle Orleans East & West.

Control of the Physical World by Intelligent Systems

An intelligent agent, interacting with the physical world, must cope with a wide range of demands. Different scientific and engineering disciplines, with different abstractions of the world, have found different "pieces of the puzzle" for the problem of how the agent can successfully control its world. These disciplines include:

- AI (qualitative reasoning, planning, machine learning, intelligently guided numerical simulation)
- Control theory
- Fuzzy logic and systems
- Neural nets
- Computer vision
- Robotics

The goal of this symposium is to attempt to understand the puzzle as a whole, by bringing together researchers with experience assembling two or more pieces. The emphasis will be on successful projects in this area that exploit results or methods from several disciplines.

Abstractly, the important questions are:

- What are the strengths and weaknesses of each piece of the puzzle?
- How do we put together two pieces to exploit their strengths and avoid their weaknesses?
- How do we reconcile the different conceptual frameworks to make different approaches mutually comprehensible?

The following major themes will be discussed:

- How can concepts and methods from control solve AI problems?
- How can concepts and methods from fuzzy logic, neural networks and AI help solve problems in control?
- How can vision be used as a goal-oriented sense by mobile agents?

We hope that concrete examples will show what the different subdisciplines can teach each other.

Organizing Committee: Piero Bonnisone, General Electric; Jim Hendler, University of Maryland; Michael Jordan, MIT; Benjamin Kuipers (co-chair), University of Texas, kuipers@cs.utexas.edu; Lyle Ungar (co-chair), University of Pennsylvania, ungar@central.cis.upenn.edu.

Knowledge Representation for
Natural Language Processing in Implemented Systems

The two areas of knowledge representation and reasoning (KRR) and natural language processing (NLP) have historically been interdependent. Recently, workers in KRR have gone in two directions. First, there are KRR formalisms independent of any computer implementation, more or less as a branch of formal logic. Second, there are applications of KRR systems to non-natural language domains, such as software engineering, diagnosis systems, and database systems.

This symposium is intended to be a meeting of researchers actively working on implemented knowledge representation and reasoning systems for general natural language processing. We are trying to assess the current state of the field. As such, it will be of interest to any professional whose area of interest includes automated language processing.

Specific topics of interest include:
- Expressiveness and generality of the representation language with respect to natural language.
- Inference methods that parallel reasoning in natural language.
- Ability of the formalism or system to capture important semantic and pragmatic aspects of natural language.
- How many or kinds of representation languages are needed for general NLP?

The symposium will also include panel discussions on these issues:
- What problems are solved, and how to use the solution(s).
- What areas need work.
- Defense or attacks of the standard model of morphology-syntax-semantics-pragmatics.

The format of this symposium is designed to encourage interaction amongst the participants. It will include short presentations of papers and work in progress, and discussions. Working notes will be produced and distributed to the participants.

Organizing Committee: Syed S. Ali (chair), Southwest Missouri State University, syali@cs.buffalo.edu; Douglas Appelt, SRI International; Lucja Iwanska, Wayne State University; Lenhart Schubert, University of Rochester; Stuart C. Shapiro, State University of New York at Buffalo.

Improving Instruction of Introductory Artificial Intelligence

Introductory artificial intelligence is a notoriously difficult course to teach well. This symposium will provide a forum in which colleagues from different universities can meet to explore strategies for improving instruction of introductory AI.

Presentations will include descriptions of general strategies for presenting the material in a coherent fashion. These include syllabi that are agent-oriented, project-oriented, and knowledge/search oriented. Panel discussions will encompass at least:

- The role of programming in introductory AI, including whether or not programs should be written from scratch, how much introduction to the language should be involved, and specific assignment suggestions.
- How to approach the interrelation between AI and cognitive science and computer science.
- Concerns of teaching colleges.

Several participants will provide informative descriptions of programming tools, both for use in assignments and as instructional aids.

Time will be set aside for debate and discussion during the sessions, and the symposium will conclude with a panel and audience discussion of the issues raised.

Organizing Committee: Marti Hearst (chair), Xerox PARC, marti@cs.berkeley.edu; Haym Hirsh, Rutgers University; Dan Huttenlocher, Cornell University; Nils Nilsson, Stanford University; Bonnie Webber, University of Pennsylvania.

Planning and Learning: On to Real Applications

Planning and learning research has been progressing in parallel over the past several years, but very few research projects have bridged the two areas. However, there is a great deal of benefit from their interaction, especially when they are concerned with real applications. As the complexity of planning problems increases, it becomes particularly interesting to identify learning opportunities in order to automate the acquisition of a planner's knowledge in new applications. At the same time, planning problems are a useful testbed and a source of challenges for learning research. The goal of this symposium is to discuss the implications of practical planning applications on both learning and planning research.

The symposium welcomes interested participants who have done work on a practical planning application or have researched topics in planning or learning. The working notes will be distributed to the participants in advance.

The symposium will consist of presentations, invited talks, and discussion sessions. We expect the analysis and discussion of practical domains to be a solid basis for turning formal planning and learning algorithms into efficient practical ones. Specific topics of interest that the symposium will address include: what are the learning opportunities of particular practical planning applications; what tools help extend and maintain planning knowledge; how can a planner improve its efficiency based on its past experience; how can a planner learn to improve the quality of the solutions it generates; and what research issues are raised by several specific real-world planning applications.

Organizing Committee: Steve Chien, Jet Propulsion Laboratory; Yolanda Gil (co-chair), USC/Information Sciences Institute, gil@isi.edu; Drew McDermott, Yale University; Dana Nau, University of Maryland; Manuela Veloso (co-chair), Carnegie Mellon University, veloso@cs.cmu.edu.

Relevance

Essentially all reasoning and learning systems require a corpus of information to reach appropriate conclusions. Deductive and abductive systems use an initial theory (possibly encoded as predicate calculus statements, a Bayesian network, or a neural net) and perhaps a to-be-explained observation, and inductive systems typically use both a background theory and a set of labeled samples.

With too little information, these systems cannot work effectively. Surprisingly, too much information can also cause the performance of these systems to degrade in terms of both accuracy and efficiency. It is therefore important to determine what information must be preserved, or more generally, to determine how best to cope with superfluous information.

The goal of this workshop is a better understanding of this topic, *relevance*, with a focus on techniques for improving a system's performance (along some dimension) by ignoring or de-emphasizing superfluous information. These techniques will clearly be of increasing importance as knowledge bases become more comprehensive and real-world applications are scaled up.

This symposium promises to be a truly exceptional event, thanks to 50 excellent submissions from many distinguished researchers, dealing with topics that range from knowledge representation (including constraint satisfaction, planning, default reasoning), game playing, bayesian nets, neural nets, machine learning, computational learning theory, statistics, information retrieval and philosophy.

Organizing Committee: Russ Greiner (cochair), Siemens, greiner@learning.scr.siemens.com; Yann Le Cun, AT&T Bell Labs; Nick Littlestone, NEC; David McAllester, MIT; Judea Pearl, UCLA; Bart Selman, AT&T Bell Labs; Devika Subramanian (cochair), Cornell, devika@cs.cornell.edu.

Registration

ALL ATTENDEES MUST PREREGISTER. Each symposium has a limited attendance, with priority given to invited attendees. All accepted authors, symposium participants, and other invited attendees must register by September 30, 1994. After that period, registration will be opened up to the general membership of AAAI and other interested parties. All registrations must be postmarked by October 14, 1994.

Your registration fee covers your attendance at the symposium, a copy of the working notes for your symposium, and reception. Checks (drawn on US bank) or international money orders should be made out to AAAI. VISA, MasterCard and American Express are also accepted. Please complete the attached registration form and mail it with your fee to:

AAAI 1994 Fall Symposium
445 Burgess Drive
Menlo Park, CA 94025

Please note: All refund requests *must* be in writing and postmarked by October 21, 1994. A $25.00 processing fee will be levied on all refunds granted. *No refunds will be granted after this date.*

When you arrive at the Monteleone Hotel, please pick up your complete registration packet in the lobby outside Nouvelle Orleans East & West.

Registration hours will be:
Thursday, November 3:
5:00 PM — 7:30 PM
Friday, November 4:
8:00 AM — 5:00 PM
Saturday, November 5:
8:00 AM — 5:00 PM
Please call AAAI at 415/328-3123 for further information.

Accommodations

For your convenience, AAAI has reserved a block of rooms at the Monteleone Hotel. The prices are: $105.00 for single occupancy and $125.00 double occupancy. *Symposium attendees must contact the Monteleone Hotel directly.* Please identify yourself as an American Association for Artificial Intelligence Fall Symposium registrant to qualify for the reduced rate. Please make reservations *no later* than October 3, 1994.

The Monteleone Hotel
214 Rue Royale
New Orleans, LA 70140
Phone: 800-535-9595 or
504-523-3341
Fax: 504-528-1019

Air Transportation

The American Association for Artificial Intelligence has selected United Airlines as the official carrier. Fares will reflect a five percent discount (ticket designator is XF5) off any United or United Express published fare in effect when tickets are purchased subject to all applicable restrictions, or a ten per-

cent discount (ticket designator is XF10) off applicable United or United Express coach fares in effect when tickets are purchased 0 days in advance and the reservations are made in M class of service. These special fares are subject to availability at the time of booking. Call United Airlines directly: 800-521-4041, 7 days a week from 7:00 am–1:00 am EST, or for travel agent services, please contact Travel with Ulla, phone: 415-389-6264; fax: 415-388-6830. The identification code is: 545RS. The discount is valid for the travel period November 1–9, 1994.

Ground Transportation

Car Rental
Hertz has been designated as the official rental car company for the AAAI Fall Symposium Series. To qualify for the special rates arranged with Hertz, please call the Hertz convention desk at 800-654-2240. Be sure to identify yourself as an attendee of the symposium, and give the code CV#3340. Hertz has a rental desk located at the New Orleans International Airport.

Airport Transportation
Airport Shuttle–Van service $10.00 one way to and from New Orleans International Airport to New Orleans hotels. Cash or traveler's checks accepted. For reservations call 1-800-543-6332 or 504-522-3500. Rates are subject to change.

Parking

Parking is available at the Monteleone Hotel. The rate is $3.50/hour or $10.00/12 hours. Rates are subject to change.

Disclaimer

In offering the Monteleone Hotel, United Airlines and Hertz (hereinafter referred to as "Supplier") and all other service providers for the AAAI Fall Symposium Series, the American Association for Artificial Intelligence acts only in the capacity of agent for the Supplier which is the provider of hotel rooms, air and car transportation.

Because the American Association for Artificial Intelligence has no control over the personnel, equipment or operations of providers of accommodations or other services included as part of the Symposium program, AAAI assumes no responsibility for and will not be liable for any personal delay, inconveniences or other damage suffered by symposium participants which may arise by reason of (1) any wrongful or negligent acts or omissions on the part of any Supplier or its employees, (2) any defect in or failure of any vehicle, equipment or instrumentality owned, operated or otherwise used by any Supplier, or (3) any wrongful or negligent acts or omissions on the part of any other party not under the control, direct or otherwise, of AAAI.

Registration Form–1994 AAAI Fall Symposium Series

ALL ATTENDEES MUST PREREGISTER
Please complete in full and return to AAAI, postmarked by September 30, 1994 (invited attendees) or by October 14, 1994 (general registration).
Please print or type.

First name _____ Last name _____

Affiliation _____

Address _____ Home ☐ or Business ☐

_____

City _____ State _____

Zip or postal code _____ Country _____

Daytime telephone _____ Net address _____

Symposium

(Please check only one)

☐ 1. Control of the Physical World by Intelligent Agents

☐ 2. Knowledge Representation for NLP in Implemented Systems

☐ 3. Improving Instruction of Introductory AI

☐ 4. Planning and Learning: On to Real Applications

☐ 5. Relevance

Fee

☐ Member: $ 215.00 ☐ Nonmember: $ 265.00

☐ Student Member $ 100.00 ☐ Nonmember student: $ 125.00

(Students, must send legible proof of full-time student status.)

TOTAL FEE *(Please enter correct amount.)* $_____

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Name (as it appears on card)_____

Signature_____

Please mail completed form with your payment to

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or fax with credit card information to 415/321-4457.

Please Note: Requests for refunds must be received *in writing* by 21 October 1994.
A $25.00 processing fee will be levied on all refunds granted.

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Menlo Park, California 94025