



AAAI 1997
Spring Symposium Series

March 24-26, 1997
Stanford University, California

Registration

Sponsored by the
American Association for Artificial Intelligence
445 Burgess Drive, Menlo Park, CA 94025
(415) 328-3123
sss@aaai.org
<http://www.aaai.org/Symposia/symposia.html>

The American Association for Artificial Intelligence, in cooperation with Stanford University's Department of Computer Science, presents the 1997 Spring Symposium Series, to be held Monday through Wednesday, March 24-26, 1997, at Stanford University. The topics of the seven symposia are:

- Artificial Intelligence in Knowledge Management
- Computational Models for Mixed Initiative Interaction
- Cross-Language Text and Speech Retrieval
- Intelligent Integration and Use of Text, Image, Video and Audio Corpora
- Natural Language Processing for the World Wide Web
- Ontological Engineering
- Qualitative Preferences in Deliberation and Practical Reasoning

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 AAI 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:

1997 Spring Symposium Series
AAAI
445 Burgess Drive
Menlo Park, CA 94025-3442
Telephone: (415) 328-3123*
Fax: (415) 321-4457*
Email: sss@aaai.org*

**Credit card orders only, please.*

Please note that there are security issues involved with the transmittal of credit card information over the internet. AAI will not be held liable for any misuse of your credit card information during its transmittal to AAI.

This document is also available at <http://www.aaai.org/Symposia/Spring/1997/sssbrochure-97.html>.

Tentative Program Schedule (*subject to change*)

Monday, March 24

9:00 AM-5:30 PM

Symposia sessions

6:00 PM-7:00 PM

Reception

Tuesday, March 25

9:00 AM-5:30 PM

Symposia sessions

6:00 PM-8:00 PM

Plenary session

Wednesday, March 26

9:00 AM-12:30 PM

Symposia sessions

Registration will be in the lobby of Cubberly Auditorium located in the School of Education at Stanford.

Artificial Intelligence in Knowledge Management

Knowledge Management (KM) is a topic of growing interest to large organizations. It comprises activities focused on the organization acquiring knowledge from many sources, including its own experience and from that of others, and on the effective application of that knowledge to fulfill the mission of the organization.

The knowledge management community has been eclectic in drawing from many sources for its methodologies and tools. Typical approaches to the management of knowledge are based on concept maps, hypermedia, and object-oriented databases. Techniques developed in artificial intelligence for knowledge acquisition, representation and discovery are seen as relevant to KM. However, there is as yet no unified underlying theory for KM, and the scale of the problem in large organizations is such that most existing AI tools cannot be applied in their current implementations.

The objective of this symposium is to bring together KM practitioners and applied AI specialists from knowledge acquisition, representation discovery and related activities, and attempt to formulate the potential role of various AI sub-disciplines in knowledge management.

The format will be one of open discussion stimulated by a few presentations on the current state of

the art, major issues and the possible roles of AI models and tools.

Ongoing information on the symposium, including all papers and transcripts of discussion, will be available through the web at <http://ksi.cpsc.ucalgary.ca/AIKM97/>.

Organizing Committee

Brian R. Gaines (cochair), University of Calgary, Canada, gaines@cpsc.ucalgary.ca; Mark A. Musen (cochair), Stanford University, USA, musen@CAMIS.Stanford.EDU; Rose Dieng, INRIA, France; Gertjan van Heijst, Kenniscentrum CIB-IT, The Netherlands; Dickson Lukose, University of New England, Australia; Frank Maurer, University of Kaiserslautern, Germany; Ramasamy Uthurusamy (co-chair), General Motors, USA, samy@ru.cs.gmr.com.

Computational Models for Mixed Initiative Interaction

In a mixed initiative interaction, direction and control of the interaction shifts among the participants. Since the information and abilities needed to solve a problem are distributed among the participating agents, a system that is collaborating with other users to solve a problem must have the flexibility to take or relinquish initiative. However, the possibility of shifting initiative requires that computer systems include mechanisms for recognizing when to lead or otherwise take control of an interaction and when to let others take the initiative. In addition, an interactive system must be able to take initiative into account in interpreting utterances and in selecting appropriate responses.

This symposium will bring together researchers who are interested in developing theoretical and applied models for mixed-initiative interaction. As a group, participants will discuss core issues such as the factors that characterize initiative, and the role that initiative should play in the design of computer systems.

Specifically, we will address the following issues:

- What knowledge strategies or knowledge representation schemes (e.g. plans, logics, etc) are appropriate for modelling initiative.
 - What algorithms or computer systems can be developed for controlling mixed-initiative interaction.
- This area of research is just reaching the point where the central issues can be discussed within a focused community. Identifying and establishing this community is an appropriate and key function of this AAI symposium.

Organizing Committee

Susan Haller (cochair), University of Wisconsin - Parkside, haller@cs.uwp.edu; Susan McRoy (cochair), University of Wisconsin - Milwaukee, mcroy@blatz.cs.uwm.edu; Alan Biermann, Duke University, awb@cs.duke.edu; Sandra Carberry, University of Delaware, carberry@cis.udel.edu; Curry Guinn, Duke University, cig@cs.duke.edu; David Novick, EURISCO, David.Novick@onecert.fr; Ronnie Smith, East Carolina University, rws@math.ecu.edu.

Cross-Language Text and Speech Retrieval

With the increasing variety of electronically available text and speech that crosses national boundaries on the global Internet and other networks, there is a growing need for systems capable of providing access to information that may be expressed in any one of several natural languages. This symposium is designed to bring together researchers from the fields of information retrieval, speech recognition, computational linguistics, knowledge organization, and machine translation to address the problem of constructing information systems which can use queries specified in one language to retrieve documents or speech which may be expressed in another.

Thesaurus-based cross-language text retrieval has a long research heritage, and the recent availability of broad-coverage bilingual dictionaries and large multilingual text corpora have opened new research vistas. Work on speech recognition has also produced significant progress towards broad-domain retrieval from speech corpora. We will begin with survey presentations to provide a shared background to all participants and then focus on contributions by the participants which present innovative techniques and practical applications. Presentations will be followed with commentary, and approximately half of the time is reserved for discussion.

Additional information is available from the symposium web site at <http://www.ee.umd.edu/medlab/filter/sss>.

Organizing Committee

David Hull (cochair), Rank Xerox Research Centre, hull@xerox.fr; Doug Oard (cochair), University of Maryland College Park, oard@glue.umd.edu; Eduard Hovy, USC Information Sciences Institute, hovy@isi.edu; Peter Schauble, ETH Zurich, schauble@inf.ethz.ch; Dagobert Soergel, University of Maryland College Park, ds52@umail.umd.edu.

Intelligent Integration and Use of Text, Image, Video and Audio Corpora

It is now possible for sizable corpora of Text, Image, Video and Audio (TIVA) to be made available for research and applications. In contrast with text processing, however, few effective methods exist for understanding, or even searching, the content represented by images or video and audio recordings. Intelligent, content-understanding programs can greatly improve the usefulness of these huge quantities of existing material. By collecting and intelligently integrating several of these media sources, opportunities are opened up for novel applications of existing techniques in AI, and for the development of new AI technologies. This symposium will explore current research and potential future contributions to making use of TIVA sources.

The format of the symposium is intended to actively foster discussion and collaboration among participants, and will consist of both short talks and poster presentations for all presented papers, together with several discussion sessions. The topics to be covered in papers and these sessions include:

- The nature of and possible uses for TIVA databases, and opportunities for making TIVA databases available to the research community.
- AI techniques for creating intelligent tools for the collection, cataloging and exploration of mixed TIVA materials.

- Experimental results concerning the simultaneous use of information from text, image, video and audio channels. How is integration of these sources being used to support intelligent behavior and machine learning in ways that would not be possible using any single medium alone?
- Opportunities for future research that crosses the boundaries between vision, speech processing, language processing, knowledge representation, intelligent agent design and information retrieval; ideas and effective approaches to the problem of making TIVA sources more accessible and useful both to people and to other intelligent programs.

For more information see: <http://www.informedia.cs.cmu.edu/ss-saaai/>

Organizing Committee

Alex Hauptmann (cochair), Carnegie Mellon, alex@cs.cmu.edu;
Michael Witbrock (cochair), Carnegie Mellon, witbrock@cs.cmu.edu;
Marti Hearst, Xerox PARC;
Gareth Jones, Cambridge University;
Mark Maybury, The MITRE Organization;
Behzad Shahraray, AT&T Laboratories - Research

Natural Language Processing for the World Wide Web

The world wide web (WWW) is rapidly becoming a powerful medium for human communication and dissemination of information. The field of natural language processing (NLP) has the potential to offer better tools that exploit the syntax and semantics of natural language texts, than current ones based mostly on keyword matching and database indexing methods, for easing the overload of texts on users. The WWW in turn is an excellent domain to develop practical applications of NLP.

This symposium will bring together researchers and system developers in NLP and from the web community to address applications of NLP for improving the use of the WWW. The symposium will include paper presentations, on-line demonstrations, working groups, and a panel discussion. The WWW will be used extensively before, during, and after the symposium. The symposium homepage is at <http://crl.nmsu.edu/users/mahesh/aai-web-nlp-symposium.html>

About 20 exciting papers will be presented during the symposium on a variety of tools, techniques, and topics including summarization and machine translation of WWW documents, information brokering, NL interfaces to the WWW, and automatic generation of WWW documents. A few position papers on the use of NLP for

WWW applications have also been included.

Organizing Committee

Kavi Mahesh (chair), New Mexico State University, mahesh@crl.nmsu.edu; Lynn Carlson, US Department of Defense, lmcarls@afterlife.ncsc.mil; Sergei Nirenburg, New Mexico State University, sergei@crl.nmsu.edu; Ashwin Ram, Georgia Institute of Technology, ashwin.ram@cc.gatech.edu; Philip Resnik, University of Maryland, resnik@umiacs.umd.edu.

Ontological Engineering

The last few years have seen a growing interest in the design, use, and sharing of ontologies. Work in this area naturally incorporates formal knowledge representation with practical implemented systems.

This symposium will focus on the practical aspects of ontology development and use including tools, methodologies, and engineering practice. Participants will contribute their experience in the design and construction of ontologies in a wide variety of domains.

The symposium will be structured around group discussions designed to help us achieve greater understanding of the following issues:

- What are the roles that implemented ontologies play? Do they support automated reasoning and problem-solving? Are they used as an interlingua to achieve interoperability, reuse, or sharing? Are they used 'merely' to ensure communication of a shared understanding between people?
- What methodologies can we use to design and evaluate ontologies? Will these methodologies differ according to the different intended uses?
- How can tools best provide assistance for the design and implementation of ontologies?
- To what extent are the ontologies designed in different do-

mains shareable and reusable? How can we structure ontologies to support sharing and reuse?

- Do we require a suite of generic ontologies to support the more domain-specific ones? If so, what are these generic ontologies? How can they be related to existing standards?
- What are the obstacles to the integration of different ontologies?
- What lessons have people learned from the implementation of their ontologies?

Organizing Committee

Adam Farquhar (cochair), Stanford University, USA; Michael Gruninger (cochair), University of Toronto, Canada; Asuncion Gomez-Perez, Technical University of Madrid, Spain; Mike Uschold, Artificial Intelligence Applications Institute, Edinburgh, UK; Paul van der Vet, University of Twente, the Netherlands.

Qualitative Preferences in Deliberation and Practical Reasoning

Decision theory and related theories in economics concentrate on a notion of expected utility that is representable using quantitative preferences and probabilities. More recent traditions in Artificial Intelligence have explored qualitative decision methods including control rules, rule orderings, default preferences, and qualitative approaches to probability.

This recent work raises issues such as the following:

- Should desirability of actions be decomposed into separate notions of worth and likelihood?
- Can or should we dispense with optimality?
- How can classical decision theory be replaced with a genuine theory of bounded rationality?
- Are there legitimate approaches to utility that are not representable in quantitative terms?
- What are useful representations for qualitative information about preferences, and how may they be combined in practice with quantitative information?

This symposium will bring together researchers studying issues such as these, taking as its primary focus the meaning, representation, and use of qualitative preference information in decision making and reasoning.

Workshop participants and invited speakers will address each of the topics in focused presentations, fol-

lowed by extensive open discussions. There will be an initial tutorial session and several panels.

For further information, please consult the symposium web page located at <http://www.kr.org/qdt>.

Organizing Committee

Jon Doyle (cochair), MIT, doyle@mit.edu; Richmond Thomason (cochair), University of Pittsburgh, thomason@isp.pitt.edu; Nir Friedman, University of California, Berkeley, nir@cs.berkeley.edu; Dov Monderer, Technion, dov@tx.technion.ac.il; Moshe Tennenholtz, Technion, moshet@ie.technion.ac.il; Michael Wellman, University of Michigan, Ann Arbor, wellman@umich.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 February 7, 1997. After that period, registration will be opened up to the general membership of AAAI and other interested parties. All registrations must be post-marked by February 28, 1997.

Your registration fee covers your attendance at the symposium, a copy of the working notes for your symposium, and the 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 Spring Symposium Series
445 Burgess Drive
Menlo Park, CA 94025

If you are paying by credit card, you may email the form to sss@aaai.org or fax it to 415/321-4457. Registration forms are also available on AAAI's web page: <http://www.aaai.org/Symposia/Spring/1997/sssregistration-97.html>.

Please note: Requests for refunds must be received in writing by March 7, 1997. No refunds will be granted after this date. A \$25.00 processing fee will be levied on all refunds granted.

When you arrive at Stanford, please pick up your complete registration packet in the lobby of Cubberley Auditorium, located in the School of Education. Registration hours will be:

Monday, March 24: 8:00 PM - 5:00 PM
Tuesday, March 25: 8:00 AM - 5:00 PM
Wednesday, March 26: 8:00 AM - 12:00 NOON

Parking

Parking will be available on the Stanford campus from March 24-26 for \$21.00. Application for a parking permit is included on the attached registration form. A permit will be mailed to you with your registration receipt, along with a map and directions to the assigned lots.

Hotels

For your convenience, AAAI has reserved a block of rooms at the hotels listed below. Symposium attendees must contact the hotels directly. Please identify yourself as an AAAI Spring Symposium Series registrant to qualify for the reduced rate.

Creekside Inn (Best Western)
3400 El Camino Real
Palo Alto, CA 94306
Phone: 415/493-2411
or 1-800-49-CREEK
Fax: 415/493-6787
Marguerite shuttle pick-up: 0.5 mile
Rates: \$85 (S), \$90 (D), \$99 (T)
Reserve before 3/5/97

Holiday Inn-Palo Alto
625 El Camino Real
Palo Alto, CA 94301
Phone: 415/328-2800
or 800/874-3516
Fax: 415/327-7362
Marguerite shuttle stop nearby
Rates: \$104 (S or D)
Reserve before: 3/7/97

Stanford Terrace Inn
531 Stanford Ave
Palo Alto, CA 94306
Phone: 415/857-0333
Fax: 415/857-0343
Marguerite shuttle stop nearby
Rates: \$96 (S), \$106 (D)
Reserve before: 2/23/97

Other Hotels

(Available only on a first-come, first served basis; all prices are subject to changes without notice).

Mermaid Inn
727 El Camino Real
Menlo Park, CA 94025
Phone: 415/323-9481 (No fax).
Rates: \$52 (S), \$66 (D)

Best Western Riviera
15 El Camino Real
Menlo Park, CA 94025
Phone: 415/321-8772
Fax: 415/321-2137
Rates: \$95 (S), \$110 (D)

The Cardinal Hotel
235 Hamilton Avenue
Palo Alto, CA 94301
Phone: 415/323-5101
Fax: 415/325-6086
Marguerite shuttle stop nearby
Rates: \$55 (Shared bath), \$80 (S)

Hotel California
2431 Ash Street
Palo Alto, CA 94306
Phone: 415/322-7666 (No fax).
Marguerite shuttle stop nearby
Rates: \$57-\$65 (S and D)
(Continental breakfast included)

Travelodge
3255 El Camino Real
Palo Alto, CA 94306
Phone: 415/493-6340
Fax: 415/424-9535
Marguerite shuttle stop nearby
Rates: \$60 (S), \$69 (D)

Air Transportation and Car Rental

San Francisco/San Jose/Oakland:
Get there for less on American Airlines, the official carrier for SSS-97. Save 5-10% off the lowest applicable fares, or the guaranteed lowest available fare on any carrier. Travel between March 21-30, 1997. All attendees booking through Conventions in America will receive free flight insurance and be entered in CIA's bi-monthly drawing for worldwide travel for two on American Airlines. Hertz Rent-A-Car is also offering special low conference rates with unlimited free mileage.

Call Conventions in America at 1-800-929-4242 and ask for Group #428. Reservation hours: M-F, 6:30 am - 5:00 pm PST. Outside US and Canada, call 619-453-3686; Fax 619-453-7679; Email: scitravel@aol.com. 24-hour emergency service: 1-800-748-5520. If you call direct: American, 1-800-433-1790, ask for Index #S 9485. Hertz, 1-800-654-2240, CV #24250.

Disclaimer

In offering American Airlines, Hertz Rent A Car, the Creekside Inn (Best Western), Holiday Inn, and Stanford Terrace Inn (hereinafter referred to as "Suppliers") and all other service providers for the AAI Spring Symposium Series, the American Association for Artificial Intelligence acts only in the capacity of agent for the Suppliers which are the providers of transportation or of hotel rooms. 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.

Ground Transportation

This information is the best available at the time of printing. Fares and routes change frequently. Please check by telephoning the appropriate numbers below for the most up-to-date information.

Supershuttle

24 hour van service to and from San Francisco Airport. San Francisco Airport to Palo Alto rates are: \$23.00 for one person one way; \$23.00 plus \$8.00 for two persons going to the same address. Cash or major credit cards only. For reservations call 415/558-8500 or 1-800-258-3826.

Airport Connection

Van service \$35.00 one way to and from San Francisco Airport to Palo Alto. From San Jose Airport, shared ride service (no vans) is \$35.00 to Palo Alto. Cash, major credit cards, or checks accepted. Call 415/363-1500 within California, or 1-888-990-5466 in other areas. White

courtesy telephone available at San Francisco Airport.

Santa Clara Airporter

Van service to and from San Francisco Airport: \$17.00 one way; van service to and from San Jose Airport: \$15.00 one way. Cash or local checks only. For reservations call 415/771-7710 or 1-800-771-7794.

South Bay Shuttle

Van service to and from San Francisco or San Jose Airport. Rates are \$15.00 for one person one way. Cash or checks only. For reservations call 408/ 559-9477 or 1-800-548-4664.

Stanford Shuttle

The Stanford University Marguerite Shuttle Bus service provides service from several points along El Camino Real, the train station, and other surrounding locations to the Stanford Oval as well as transportation around the Stanford campus.

Train

CalTrain runs between San Francisco and Palo Alto station starting at 5:15 am with the last train leaving San Francisco at 10:00 pm (weekdays), 12:00 midnight (Friday and Saturday nights). The fare is \$7.50 round trip for same-day travel, or \$3.75 one way. For up-to-date fare information and time tables, call toll free 800/660-4287.

Registration Form—1997 AAAI Spring Symposium Series

ALL ATTENDEES MUST PREREGISTER

Please complete in full and return to AAAI, postmarked by February 7, 1997 (invited attendees), or by February 28, 1997 (general registration).

Please print or type.

FIRST NAME _____ LAST NAME _____

AFFILIATION _____

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DAYTIME TELEPHONE _____ EMAIL _____

Symposium

(Please check only one)

- 1. Artificial Intelligence in Knowledge Management
- 2. Computational Models for Mixed Initiative Interaction
- 3. Cross-Language Text and Speech Retrieval
- 4. Intelligent Integration and Use of Text, Image, Video and Audio Corpora
- 5. Natural Language Processing for the World Wide Web
- 6. Ontological Engineering
- 7. Qualitative Preferences in Deliberation and Practical Reasoning

Fee

- Member: \$ 220.00 Nonmember: \$ 280.00
- Student Member: \$ 100.00 Student nonmember: \$ 125.00
- (students must send legible proof of full-time student status)*
- Temporary Stanford University parking permit, March 24–26 (\$21.00)

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

Method of Payment *(please circle one)*

(All email and fax registrations must be accompanied by credit card information.

Prepayment is required. No PO's will be accepted.)

Check MasterCard VISA American Express

Credit card number _____

Expiration date _____

Name (as it appears on card) _____

Signature _____

Please mail completed form with your payment to

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Please Note: Requests for refunds must be received *in writing* by March 7, 1997

A \$25.00 processing fee will be levied on all refunds granted. *Thank you for your registration!*

For Office Use Only

Check Number _____ Amount _____ Received _____