

Symposium on Abstraction, Reformulation, and Approximation (SARA-2000)

Berthe Y. Choueiry and Toby Walsh

The Fourth Symposium on Abstraction, Reformulation, and Approximation (SARA) took place at Horseshoe Bay Resort and Conference Club, Lake LBJ, Texas, from 26 to 29 July 2000, just prior to the Seventeenth National Conference on Artificial Intelligence (AAAI-2000) conference in Austin. Previous SARA conferences were held at Jackson Hole in Wyoming (1994); Ville d'Estrel in Quebec (1995); and Asilomar in Monterey, California (1998). The symposium grew out of a series of workshops on abstraction and approximation and on reformulation that had taken place alongside the American Association for Artificial Intelligence (AAAI) conference since 1989.

SARA is a meeting with an unusually broad subject area. From the earliest days of AI, abstractions and problem reformulations and approximations have been recognized as central to AI for reasoning effectively in complex domains. Abstractions, reformulation, and approximations have been used in a variety of problem-solving settings, including automatic programming, constraint satisfaction, design, diagnosis, machine learning, planning, qualitative reasoning, scheduling, and theorem proving. The talks at this conference captured a cross section of these application domains. One of the primary uses of abstractions, reformulations, and approximations has been to overcome computational intractability. However, abstraction, reformulation, and approximation techniques have also proved useful for knowledge acquisi-

tion, explanation, and other applications, as talks at the meeting demonstrated.

SARA has always invited distinguished members of the research community to present keynote talks. This conference was no exception, presenting an invited talk by Thomas Dietterich (Oregon States University) on hierarchical reinforcement learning, one by Patrick Cousot (École Normal Supérieure, Paris) on abstract fix-point checking, and a third by Richard Korf (University of California at Los Angeles) on heuristic search. As well as the

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invited and technical talks, there were two panels. The first, on software engineering, included Cousot, Tom Ellman (Vassar College), Michael Lowry (NASA Ames Research Center), and Gordon Novak Jr. (University of Texas at Austin) as panelists. The second, on temporal and spatial reasoning, included Claudio Bettini (Università degli Studi di Milano), Tony Cohn (University of Leeds), Ben Kuipers (University of Texas at Austin), and

Ivan Ordenez (The Ohio State University) as panelists. There was also an excellent invited tutorial by Stefano Spaccapietra (Swiss Federal Institute of Technology in Lausanne) on abstraction in databases. The slides of some of the talks are available from the symposium web page, sara2000.unl.edu.

One of the aims of SARA is to provide a forum for intensive and friendly interaction among researchers in all areas of AI with an interest in the different aspects of abstraction, reformulation, and approximation. The diverse backgrounds of participants at this workshop led to a rich and lively exchange of ideas; allowed the comparison of goals, techniques, and paradigms; and helped identify important research issues and engineering hurdles. Perhaps reflecting an increasing maturity in this area, this was the first SARA for which a proceedings was published.

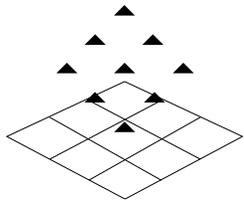
We would like to thank the sponsors of the meeting: AAAI and, at the University of Nebraska at Lincoln, the Office of Vice Chancellor for Research, the Center for Communication and Information Science, the College of Arts and Sciences, the Department of Computer Science and Engineering, and the J. D. Edwards Honors Program in Computer Science and Management. SARA-2000 is affiliated with AAAI.



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Call for Proposals:

2002 Spring Symposium Series

AAAI invites proposals for the 2002 Spring Symposium Series, to be held March 25-27, 2002 at Stanford University, California.

The Spring Symposium Series is an annual set of meetings run in parallel at a common site. It is designed to bring colleagues together in an intimate forum while at the same time providing a significant gathering point for the AI community. The two and a half day format of the series allows participants to devote considerably more time to feedback and discussion than typical one-day workshops. It is an ideal venue for bringing together new communities in emerging fields.

The symposia are intended to encourage presentation of speculative work and work in progress, as well as completed work. Ample time should be scheduled for discussion. Novel programming, including the use of target problems, open-format panels, working groups, or breakout sessions, is encouraged. Working notes will be prepared, and distributed to the participants. At the discretion of the individual symposium chairs, these working notes may also be made available as AAAI Technical Reports following the meeting. Most participants of the symposia will be selected on the basis of statements of interest or abstracts submitted to the symposia chairs; some open registration will be allowed. All symposia are limited in size, and participants will be expected to attend a single symposium.

Proposals for symposia should be between two and five pages in length, and should contain:

- A title for the symposium.
- A description of the symposium, identifying specific areas of interest, and, optionally, general symposium format.
- The names and (physical and electronic) addresses of the organizing committee preferably three or more people at different sites, all of whom have agreed to serve on the committee.
- A list of potential participants that have been contacted and that have expressed interest in participating. A common way of gathering potential participants is to send email messages to email lists related to the topic(s) of the symposium. Note that potential participants need not commit to participating, only state that they are interested.

Ideally, the entire organizing committee should collaborate in producing the proposal. If possible, a draft proposal should be sent out to a few of the potential participants and their comments solicited.

Approximately eight symposia on a broad range of topics within and around AI will be selected for the 2002 Spring Symposium Series. All proposals will be reviewed by the AAAI Symposium Committee, chaired by Dan Clancy, NASA Ames Research Center. The criteria for acceptance of proposals include:

Perceived interest to the AAAI community. Although AAAI encourages symposia that cross disciplinary boundaries, a symposium must be of interest to some subcommunity of the AAAI membership. Symposia that are of interest to a broad range of AAAI members are also preferred.

Appropriate number of potential participants. Although the series supports a range of symposium sizes, the target size is around 40-60 participants.

Lack of a long-term ongoing series of activities on the topic. The Spring Symposium Series is intended to nurture emerging communities and topics, so topics that already have yearly conferences or workshops are inappropriate.

An appropriate organizing committee. The organizing committee should have (1) good technical knowledge of the topic, (2) good organizational skills, and (3) connections to the various communities from which they intend to draw participants. Committees for cross-disciplinary symposia must adequately represent all the disciplines to be covered by the symposium.

Accepted proposals will be distributed as widely as possible over the subfields of AI, and balanced between theoretical and applied topics. Symposia bridging theory and practice and those combining AI and related fields are particularly solicited.

Symposium proposals should be submitted as soon as possible, but no later than April 23, 2001. Proposals that are submitted significantly before this deadline can be in draft form. Comments on how to improve and complete the proposal will be returned to the submitter in time for revisions to be made before the deadline. Notifications of acceptance or rejection will be sent to submitters around May 7, 2001. The submitters of accepted proposals will become the chair of the symposium, unless alternative arrangements are made. The symposium organizing committees will be responsible for:

- Producing, in conjunction with the general chair, a Call for Participation and Registration Brochure for the symposium, which will be distributed to the AAAI membership
- Additional publicity of the symposium, especially to potential audiences from outside the AAAI community
- Reviewing requests to participate in the symposium and determining symposium participants
- Preparing working notes for the symposium
- Scheduling the activities of the symposium
- Preparing a short review of the symposium, to be printed in *AI Magazine*.

AAAI will provide logistical support, will take care of all local arrangements, and will arrange for reproducing and distributing the working notes. Please submit (preferably by electronic mail) your symposium proposals, and inquiries concerning symposia, to:

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