

Preface

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After half a century of artificial intelligence (AI) development, we see many achievements and also many failures of AI. We see AI has branched into many specialized subfields, and there has not been much interaction among these subfields. We don't feel we are getting closer to true AI, while getting greater technological achievements in specialized fields such as those in DARPA grand challenge or robot ASIMO. We see human level intelligence does not lie at the end of the road that focuses only on a particular subfield of AI taken in isolation. Its time to think seriously what it means to do and achieve AI. In this perspective, preeminent AI conferences usually play an important role of being the place for people to exchange ideas and the latest research results.

The Pacific Rim International Conference on Artificial Intelligence (PRICAI) is one of such international conferences on artificial intelligence. PRICAI 2008 was the tenth in its series of biennial international conferences highlighting the most significant contributions to the field of AI (<http://www.jaist.ac.jp/PRICAI-08/>). The conference was held during December 16-19, 2008, in the beautiful city of Hanoi, the capital of Vietnam.

As in previous years this years technical program saw very high standards in both the submission and paper review process, resulting in an exciting program that reflects the great variety and depth of modern AI research. From 234 submissions, 49 long papers and 33 regular papers were selected for oral presentation. They covered all traditional areas of AI, including AI foundations, knowledge representation, knowledge acquisition and ontologies, evolutionary computation, etc. as well as various exciting and innovative applications of AI to many different areas. There was particular emphasis in the areas of machine learning and data mining, intelligent agents, language and speech processing, information retrieval and extraction. This special issue contains extended versions of 3 papers selected from 82 papers orally presented at PRICAI 2008. In the first paper, Richard Scherl, Tran Cao Son and Chitta Baral present a sound and complete state-based regression framework for planning with

sensing operators and a representation of the knowledge of the planning agent. In the second paper, Paul R. Cohen and Carole R. Beal address how data mining techniques can help to describe, interpret and predict student behavior when interact with intelligent tutoring systems, and to evaluate progress in relation to learning outcomes. In the third paper, Konstantine Arkoudas and Selmer Bringsjord present an inference system for predicting and explaining the behavior of others in terms of mental states. The system allows for the representation of information about events, causation, and perceptual, doxastic, and epistemic states (vision, belief, and knowledge), incorporating ideas from the event calculus and multi-agent epistemic logic.

We would like to thank heartily the referees for their expertise and their commitment to the quality of the papers in this special issue and the editor-in-chief Professor Ruqian Lu for encouraging us to edit this special issue.

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