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Editorial

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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. It's 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 year's 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 5 papers selected from 82 papers orally presented at PRICAI 2008. In the first paper, Fabio Cuzzolin introduces three alternative combinatorial formulations of the theory of evidence by proving that both plausibility and commonality functions share the structure of "sum function" with belief functions. In the second paper, Norifumi Murayama and Manabu Okumura present a statistical approach to detect Japanese abbreviations given a root expression by combining two generation and verification models. The method can be applied for other languages, especially for Asian languages. In the third paper, Jun Sun, Wenbo Zhao, Jiangwei Xue, Zhiuong Shen and Yidong Shen propose a clustering algorithm with feature order preferences by effectively incorporating these preferences into prototype-based clustering, where the distortion measure is parameterized by the feature weights with respect to the feature order preferences as much as possible. In the fourth paper, Takashi Hashimoto, Katsuhide Warashina and Hajime Yamauchi study the characteristics of a new composite evolutionary computation algorithm in which genetic evolution, individual learning and social learning

interact in NK fitness landscape. In the fifth paper, Atsushi Ueta, Takehisa Yairi, Hirofumi Kanazaki, and Kazuo Machida present an alternative solution to mobile robot map building without localization by estimating inter-feature distances, and show that their method is able to achieve a decent map of features both in simulation and in real-world environment with a mobile robot.

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 Dr. A. Famili for encouraging us to edit this special issue.