

Ning Zhong  
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# Web Intelligence: Research and Development

First Asia-Pacific Conference, WI 2001  
Maebashi City, Japan, October 2001  
Proceedings



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# Web Intelligence: Research and Development

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## Preface

This volume contains the papers selected for presentation at the *First Asia-Pacific Conference on Web Intelligence* (WI 2001) held in Maebashi TERRSA, Maebashi City, Japan, October 23-26, 2001. It was sponsored by ACM SIGART and Maebashi Institute of Technology, in cooperation with ACM SIGCHI, ACM SIGWEB, the Japanese Society for Artificial Intelligence (JSAl), JSAl SIGFAI, JSAl SIGKBS, and IEICE SIGKBSE. The conference was held jointly with the Second Asia-Pacific Conference on Intelligent Agent Technology (IAT 2001).

WI 2001 was the first conference on a new and emerging subfield of computer science known as *Web Intelligence*. It provided an international forum for researchers and practitioners to present the state of the art in the development of Web intelligence, to examine performance characteristics of various approaches in Web-based intelligent information technology, and to cross-fertilize ideas on the development of Web-based intelligent information systems among different domains. By idea-sharing and discussions on the underlying foundations and the enabling technologies of Web intelligence, we hoped to stimulate the future development of new models, new methodologies, and new tools for building a variety of embodiments of Intelligent Web Information Systems (IWIS).

In spite of its name, WI 2001 was truly an international conference that attracted 153 full-length research paper submissions from 31 countries and regions of all continents. Each submitted paper was reviewed by at least three experts on the basis of technical soundness, relevance, originality, significance, and clarity. Based on the review reports, 28 regular papers and 45 short papers were accepted for presentation and publication. Seven technical sessions were organized, namely: Web Information System Environment and Foundations; Web Human-Media Engineering; Web Information Management; Web Information Retrieval; Web Agents; Web Mining and Farming; Web-Based Applications.

We wish to express our gratitude to all members of the Conference Committee and the International Advisory Board for their instrumental and unfailing support. WI 2001 had a very exciting program with a number of features, ranging from technical sessions, invited talks, demos, and social programs. All of this work would not have been possible without the generous dedication of the Program Committee members and the external reviewers, of our keynote speakers, Edward A. Feigenbaum and Benjamin Wah, and invited speakers, Nick Cercone, James Hendler, W. Lewis Johnson, Riichiro Mizoguchi, Prabhakar Raghavan, and Patrick S. P. Wang, who prepared and presented very stimulating talks, and of Yiming Ye (Demos & Exhibits Chair) who solicited demo proposals and set up the program. We thank them for their strong support.

The conference Web support team at the Knowledge Information Systems Laboratory, Maebashi Institute of Technology did a terrific job of putting together and maintaining the home page for the conference as well as building a software, *cyber-chair*, which is an intelligent agent and interface among orga-

nizers, program committee members, and authors/attendees. We would like to thank Juzhen Dong, Muneaki Ohsima, and Norichika Hayazaki of the conference Web support team for their dedication and hard work.

WI 2001 could not have taken place without the great team effort of the Local Organizing Committee and the support of Maebashi Institute of Technology and Maebashi Convention Bureau. Our special thanks go to Nobuo Otani (Local Organizing Chair), Sean M. Reedy, Masaaki Sakurai, Kanehisa Sekine, and Yoshitsugu Kakemoto (the Local Organizing Committee members) for their enormous efforts in planning and arranging the logistics of the conference from registration/payment handling, venue preparation, accommodation booking, to banquet/social program organization. Our sincere gratitude goes to all of the authors who submitted papers. We are very grateful to the WI 2001 corporate sponsors: Maebashi Convention Bureau, Maebashi City Government, Gunma Prefecture Government, The Japan Research Institute, Limited, United States Air Force Office of Scientific Research, Asian Office of Aerospace Research and Development, United States Army Research Office in Far East, and Web Intelligence Laboratory, Inc. for their generous support. Last but not the least, we thank Alfred Hofmann of Springer-Verlag for his help in coordinating the publication of the proceedings.

October 2001

Ning Zhong, Yiyu Yao  
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