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Foreword

On behalf of the Organizing Committee, we would like to welcome you to the proceedings of the 10th International Conference on Database Systems for Advanced Applications (DASFAA 2005). This conference provides an international forum for technical discussion among researchers, developers and users of database systems from academia, business and industry. DASFAA focuses on research in database theory, and the development and applications of advanced DBMS technologies. This was the second time that this conference has been held in China, the first time was in Hong Kong in 2001. China is the third largest nation in terms of size, with the largest population in the world. The capital, Beijing, is a great metropolis, famous in Asia and throughout the world. We therefore were most privileged to host this conference in this renowned location.

This volume contains papers selected for presentation and includes the three keynote talks, by Dr. Philip Yu, Prof. Elisa Bertino and Prof. Deyi Li.

The conference also featured two tutorials: (1) Data Mining Techniques for Microarray Datasets, by Lei Liu, Jiong Yang and Anthony Tung, and (2) Pattern Management: Models, Languages, and Architectural Issues, by Barbara Catania. The technical program of the conference was selected by a distinguished Program Committee led by two PC Co-chairs, Lizhu Zhou and Beng Chin Ooi. The 89 members, half of whom reside outside Asia, made the committee a truly international one. They faced a difficult task in selecting 67 regular papers and 15 short papers from many very good contributions. This year the number of submissions, 302, was a record high for DASFAA conferences since the first conference held in 1989 in Seoul, Korea. We wish to express our thanks to the Program Committee members, external reviewers, and all authors for submitting their papers to this conference.

We would also like to thank the Honorary Conference Chair, Shan Wang; the Program Co-chairs, Lizhu Zhou and Beng Chin Ooi; the Geographic Area Chairs, Yoshifumi Masunaga, Sang Kyun Cha, Chin-Chen Chang, David Cheung, Yanchun Zhang, Vilas Wuwongse, Mukesh Mohania, Mong Li Lee, Gillian Dobbie, Stefano Spaccapietra, David Embley and Mengchi Liu; the Tutorial Co-chairs, Jayant Haritsa and Ge Yu; the Panel Co-chairs, Changjie Tang and Jeffrey Yu Xu; the Publicity Co-chairs, Liang Zhang and Katsumi Tanaka; the Publication Co-chairs, Xiaofeng Meng and Qing Li; the Finance Co-chairs, Kam-Fai Wong and Chunxiao Xing; the Local Arrangements Co-chairs, Jianhua Feng and Tengjiao Wang; the Registration Chair, Aoying Zhou; the Conference Secretary, Chao Li; and the System Administrator, Sinan Zhan.

We wish to extend our thanks to the National Natural Science Foundation of China, Microsoft Research Asia, IBM, HP, the Special Interest Group on Databases of the Korea Information Science Society (KISS SIGDB), and the Database Society of Japan (DBSJ), for their sponsorship and support.

At this juncture, we wish to remember the late Prof. Yahiko Kambayashi who passed away on February 5, 2004 at age 60. He was a founder, member, Vice Chair and Chair of the Steering Committee of the DASFAA conference. Many of us will remember him as a friend, a mentor, a leader, an educator, and our source of inspiration. We express our heartfelt condolences and our deepest sympathy to his family.

We hope that you will find the technical program of DASFAA 2005 to be interesting and beneficial to your research. We trust attendees enjoyed Beijing and visited some famous historic places, such as the Badaling section of the Great Wall, the Forbidden City, the Temple of Heaven, etc., and left with a beautiful and memorable experience.

April 2005

Tok Wang Ling
Jianzhong Li

Preface

The 10th International Conference on Database Systems for Advanced Applications (DASFAA 2005) was held in Beijing, China, from April 18 to 20, 2005. Beijing is an ancient city whose recorded history stretches back more than 3,000 years. With a landscape dotted with ancient palaces and temples in the midst of modern infrastructure and architecture, the Chinese capital city is indeed a good venue for a forum of serious academic and professional exchanges, and an ideal place for meaningful entertainment and cultural immersion on the side.

In keeping with the traditions of the conference, DASFAA 2005 provided an international forum for technical discussion among researchers, developers and users from all walks of life. The conference, which was organized by Tsinghua University and the Database Society of the China Computer Federation, aimed to promote database research and applications.

The reputation of the conference has been rising since its inception. This is apparent in the increasing number of submissions it has received over the years, and the expanding number of participants from various parts of the world. This year, the conference received 302 submissions from 20 countries/regions. The papers were rigorously reviewed by 89 Program Committee members, and 67 full papers and 15 short papers were accepted for presentation.

Being a general database conference, the areas addressed by the papers were diverse. While many papers continued to address interesting and new research issues in established areas such as XML, data mining, and spatial and temporal databases, a significant number of papers explored interesting research issues in upcoming areas such as watermarking and encryption, sensor databases, bioinformatics and Web services. The combination of papers, which had been selected solely based on reviews, not only made the conference interesting, but also provided the basis for discussion and exchange of ideas, and for future development.

The conference was privileged to have keynote speeches delivered by Philip Yu of IBM's T.J. Watson Research Center, Elisa Bertino of Purdue University, USA, and Deyi Li of the China Institute of Electronic Systems Engineering. They provided insights into various research issues such as data mining, and database security and privacy, and presented provocative challenges on related research issues. The program was made even more interesting by having panelists such as Divyakant Agrawal, Elisa Bertino and Limsoon Wong provide their views and comments on research issues in data mining on a panel chaired by Haixun Wang and Wei Wang.

The technical program was preceded by two tutorials before the conference proper. The tutorial on Pattern Management: Models, Languages, and Architectural Issues by Barbara Catania was an interesting primer for participants who might be new to the research area of knowledge management. The tutorial on Data Mining Techniques for Microarray Datasets by Lei Liu, Jiong Yang and

Anthony Tung provided a refreshing view of the research domain of data mining and bioinformatics.

In all, DASFAA 2005 lived up to the traditions of the conference as an international forum for fruitful technical discussion. And Beijing, with its vibrant blend of rich cultural heritage and dynamic modernity, was a superb background to the proceedings.

The conference would not have been a success without the help and contributions of many individuals, and our sincere thanks go to them. We would like to express our thanks to the conference General Chairs, Jianzhong Li and Tok Wang Ling; Tutorial Co-chairs, Jayant Harista and Ge Yu; Panel Co-chairs, Changjie Tang and Jeffrey Yu; Publication Co-chairs, Xiaofeng Meng and Qing Li; and others in the organizing committees for helping to put together such a great program. We would like to thank the Program Committee members and external reviewers for their rigorous and timely reviews. We would also like to thank the keynote speakers, session chairs, panelists, tutorial speakers, authors and participants who contributed to making the conference a success.

Lizhu Zhou
Beng Chin Ooi

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