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CIKM'15

Proceedings of the 24th ACM International Conference on Information and Knowledge Management

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General Chairs' Preface

It is our great pleasure to welcome you to the 24th ACM International Conference on Information and Knowledge Management (CIKM 2015). CIKM is a top-tier ACM conference in the areas of databases, information retrieval, and knowledge management. It has successfully brought together leading researchers and developers from these three communities since 1992, with the purpose of identifying challenging problems facing the development of advanced knowledge and information systems, and shaping future research directions through the publication of high-quality applied and theoretical research findings. The 24th edition of CIKM continues this tradition, placing particular emphasis on the utility of data science across structured and semi-structured data.

We are delighted to present three outstanding keynote speakers: Jaime Teevan, from Microsoft; Andrew Tomkins, from Google; and Xiaofang Zhou, from the University of Queensland. We are also honored to host six distinguished invited speakers for the conference's Industry Track: Hang Li (Huawei Noah's Ark), Wei-Ying Ma (Microsoft Research Asia), Sofus A. Macskassy (Facebook), Igor Perisic (LinkedIn), Amy Shi-Nash (SingTel DataSpark), and Andrew Tomkins (Google).

We are indebted to the many authors who submitted their work to the CIKM technical program, and to the team of people who evaluated them. The Program Committee was expertly led by six PC Chairs: Timos Sellis and Jeffrey Xu Yu (Database Track); Maarten de Rijke and Vanessa Murdock (Information Retrieval Track); and Charu Aggarwal and Ravi Kumar (Knowledge Management Track). The review process was supported by the Microsoft CMT system. A report on the paper selection process appears in the PC Chairs' Preface.

We also thank the other chairs in the organization team: Shonali Krishnaswamy and Marc Najork (Industry Track); Wei Wang and Grace Hui Yang (Tutorials); Shane Culpepper and Chee Yong Chan (Workshops); and Yun Sing Koh (Publicity). CIKM 2015 includes a machine learning competition, sponsored by Sportsbet, with participants tackling the challenge of predicting the outcomes of the Australian Rules Football Finals. A substantial prize will be awarded to the best-performing system on the third day of the conference.

Running a conference the scale of CIKM is a serious undertaking and we are grateful to our local organization team for their effective and efficient handling of logistics. In particular, the Local Arrangements Chairs Tony Wirth and Rui Zhang provided extensive support, as did the team of student volunteers that Tony and Rui helped recruit and manage.

We gratefully acknowledge the support of our sponsors for the conference: Microsoft as Gold Sponsor; Sportsbet as Silver Sponsor; Google, The City of Melbourne, The Professor Ram Kumar Memorial Foundation, and Yahoo Labs, as Bronze sponsors; and The University of Melbourne, RMIT University, and Deakin University, as Academic Sponsors. We also received support from the CIKM Steering Committee, and from the Association for Computing Machinery and their special interest groups SIGIR and SIGWEB.

ICMS Australasia provided expert assistance with the logistics of the event, and we thank them for their professional advice and guidance. We also benefited greatly from the support provided by the Melbourne Convention Bureau during the early stages of our planning; and from the knowledge and skills of the many expert staff at the Melbourne Convention and Exhibition Center, the venue for CIKM 2015.

We trust that you enjoy the conference, and also the other activities you are able to fit in during your visit to Melbourne. Indeed, there are many things to see and enjoy in Victoria and in the whole Australasian region at this time of year, and we hope that you will be able to combine business and pleasure in to a memorable experience while you are here. Finally, CIKM 2016 will be in Indianapolis, in the USA, and we hope to see you again there.

James Bailey and Alistair Moffat
The University of Melbourne

August 2015.

PC Chairs' Preface

We are delighted to welcome you to the 24th ACM International Conference on Information and Knowledge Management (CIKM 2015), held in Melbourne from October 19–23, 2015. CIKM is now well-established as a leading venue for bringing together researchers from across the Database, Information Retrieval, and Knowledge Management communities.

Continuing the pattern of previous years, we received a large number of high-quality submissions in all three tracks, in both full- and short-paper categories. As a result, we are confident that CIKM 2015 has succeeded in creating an outstanding technical program including research paper presentations; short-paper presentations during the poster session; plenary talks; and an engaging Industry Track arranged by the Industry Track Chairs. In total, we received 646 full-paper (10-page) submissions and 276 short-paper (4-page) submissions, which were reviewed and discussed by 88 area chairs, 471 program committee members, and a further 145 expert external reviewers.

We accepted 165 full papers (26%) and 69 short papers (25%). The acceptance statistics per track were as follows: Databases, 35/129 full papers and 6/37 short papers; Information Retrieval, 43/171 full papers and 27/101 short papers; and Knowledge Management, 87/346 papers and 36/138 short papers. Two of the Knowledge Management short papers were withdrawn by their authors prior to the proceedings being finalized. Our work was greatly eased by the support provided by the Microsoft CMT service, and we thank the CMT team for their assistance.

We are grateful to the many people who helped with the process of bringing this program together. We would in particular like to recognize the immense efforts of the area chairs, program committee members, and external reviewers, who each volunteered many hours of time, and contributed their deep expertise in order to allow the selection of the work that you can see in this volume. Most importantly of all, we thank the authors who submitted contributions for consideration. Without the drive and energy of the several thousand researchers and students who prepared manuscripts and carried out evaluations, the conference would be doomed to failure; but with that drive and energy, we have been able to achieve the success that you see here. We hope that participants in the conference in Melbourne, as well as subsequent readers of the proceedings, will find the technical program of CIKM 2015 to be both inspiring and rewarding.

Charu C. Aggarwal, IBM
Maarten de Rijke, University of Amsterdam
Ravi Kumar, Google
Vanessa Murdock, Microsoft
Timos Sellis, RMIT University
Jeffrey Xu Yu, Chinese University of Hong Kong

August 2015.

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