

Computational Intelligence on Digital Information Management

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Biographical notes: Richard Chbeir is currently an Associate Professor in the Computer Science Department of the Bourgogne University, Dijon-France. His research interests are in the areas of distributed multimedia database management, object-oriented information systems, spatio-temporal applications, indexing methods, security and watermarking, Bioinformatics, and the development and the integration of information systems. Dr. CHBEIR has published in international journals and books (IEEE Transactions on SMC, Journal of Methods of Information in medicine, JDIM, etc.), conferences (ACM SAC, Visual, IEEE CIT, FLAIRS, PDCS, etc.), and has served on the program committees of several international conferences (IEEE SITIS, ACM SAC, IEEE ISSPIT, EuroPar, etc.). He is currently the Chair of the French Chapter ACM SIGAPP.

Ajith Abraham is currently a Visiting Professor in the Norwegian University of Science and Technology, Norway. His primary research interests are in computational intelligence with application areas including network security, Web services, Web intelligence, financial modeling, multi criteria decision-making, data mining etc. He has authored/co-authored over 300 research publications in peer reviewed reputed journals, book chapters and conference proceedings of which five have won 'best paper' awards. He is serving the editorial board of several International Journals. He has guest edited 23 special issues for reputed International Journals. Since 2001, he is actively involved in the Hybrid Intelligent Systems (HIS) and the Intelligent Systems Design and Applications (ISDA) series of International conferences. He has also served the technical committee of over 100 International conferences and has also given 6 conference tutorials and 10 plenary/keynote lectures. He is a senior member of IEEE and IEEE (CS) and a member of ACM, IEE (UK), IEAust and also works closely with several academic working groups like EvoNet, EUSFLAT, WFSC, etc. He received PhD degree from Monash University, Australia. More information at: <http://www.softcomputing.net>

Pit. Pichappan is currently the visiting professor at the Computer Science and Information System department of the Imam Mohammad Bin Saud University, Riyadh, Saudi Arabia. He has more than 70 publications to his credit. His research interests include web information retrieval, information security, web metrics etc.

1 EDITORIAL PREFACE

Nowadays, most of the society activities and business models are driven by the unprecedented evolution of data acquisition technologies together with advances in computing and communications. This has resulted in an explosive growth in the number, size, diversity of potentially useful digital information sources of various types (image, audio, video, ...) in several application domains, such as bioinformatics, education, environment, security, etc., and leads us towards a *digital society*. However, the massive size, semantic heterogeneity, autonomy, and distributed nature of the digital multimedia repositories present significant hurdles in acquiring useful knowledge from the available data. Naturally, issues on how to capture, store, preserve, interpret, monitor, control, deliver and manage the massive available data sources and systems become crucial and require various improvements and major modifications of the current tools to be provided to the end-user. Currently, there is notable number of research work on designing and deploying information and organizational management systems, experts systems, tutoring systems, decision support systems, and in general, industrial systems.

This special issue attempts to addresses these issues and includes extended and revised papers from the IEEE International Conference on Digital Information Management (ICDIM) held in Bangalore-India in 2006. ICDIM aims to bring people from academia, research laboratories and industry and offer a collaborative platform to address the emerging issues of the digital society and solutions in information science and technology.

After a very tight review process, the 5 following papers out of 80 papers presented at IEEE ICDIM'06 have been selected for this special issue:

- *Improving Interaction Responsiveness of Multimedia Presentations* by H. Alustwani, J. M. Bahi and A. Mostefaoui
- *Multi Shape-Feature and Text-Feature Integration on 3D Model Similarity Retrieval* by Saiful Akbar, Josef Küng, Roland Wagner
- *A Bottom-up Algorithm for Query Decomposition* by Le Thi Thu Thuy, Doan Dai Duong Virendrakumar C. Bhavsar and Harold Boley
- *Improving Web Information Indexing and Retrieval based on Center Block Duplication Detection* by Tyrone Cadenhead, Jinlin Chen and Terry Cook

- *A Comprehensive Data Quality Methodology for Web and Structured Data* by C. Batini, F. Cabitza, C. Cappiello and C. Francalanci

We hope this special issue motivates researchers to take the next step beyond building models to implementing, evaluating, comparing, and extend proposed approaches. Many people worked long and hard to help this issue become a reality. We would first like to gratefully acknowledge and sincerely thank all the reviewers for their timely and insightful valuable comments and criticism of the manuscripts that greatly improved the quality of the final versions. Of course, thanks are due to the authors, who provided excellent articles and timely extended revisions. Finally, we are grateful to the Editor-in-chief of IJICA for the trust in us, their efforts, patience, and painstaking editorial work during the production of this special issue.

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