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4th World Summit on the Knowledge Society
WSKS 2011
Mykonos, Greece, September 21-23, 2011
Revised Selected Papers

Springer
Preface

It is a great pleasure to share with you the Springer CCIS proceedings of the 4th World Summit on the Knowledge Society—WSKS 2011—that was organized by the International Academic Council for the Knowledge Society, during September 21–23, 2011, in Mykonos, Greece.

The 4th World Summit on the Knowledge Society (WSKS 2011) was an international attempt to promote dialogue on the main aspects of the knowledge society toward a better world for all.

This annual summit brings together key stakeholders of the knowledge society development worldwide, from academia, industry, government, policy makers, and active citizens, to look at the impact and prospects of information technology, and the knowledge-based era it is creating, on key facets of living, working, learning, innovating and collaborating in today’s hyper-complex world. The summit provides a distinct, unique forum for cross-disciplinary fertilization of research, favoring the dissemination of new scientific ideas relevant to international research agendas such as the EU (FP7), OECD or UNESCO.

Eleven general scientific pillars provided the constitutional elements of the summit:

1. Information Technologies – Knowledge Management Systems – E-business and Business, Organizational and Inter-organizational Information Systems for the Knowledge Society
2. Knowledge, Learning, Education, Learning Technologies and E-learning for the Knowledge Society
3. Social and Humanistic Computing for the Knowledge Society – Emerging Technologies for Society and Humanity
5. Government and Democracy in the Knowledge Society
6. Innovation, Sustainable Development and Strategic Management for the Knowledge Society
7. Service Science, Management, Engineering, and Technology
8. Intellectual and Human Capital Development in the Knowledge Society
9. Advanced Applications for Environmental Protection and Green Economy Management
10. Future Prospects for the Knowledge Society: From Foresight Studies to Projects and Public Policies
11. Technologies and Business Models for the Creative Industries

In the fourth event of the series, WSKS 2011, five main tracks were organized. Springer’s Communications on Computer and Information Sciences,
Volume 278, summarizes 90 articles that were selected after a double-blind review process from 198 submissions, contributed by 432 co-authors.

We are confident that in this volume of CCIS you will find excellent quality research that summarizes sound propositions for advanced systems toward the knowledge society.

I would like to thank the more than 400 co-authors, from 32 countries, for their submissions; the Program Committee members and their subreviewers for the thoroughness of their reviews; and all the colleagues for the great support they offered in the organization of the event in Mykonos, Greece.

We are honored for the support and encouragement of the Editors-in-Chief of the eight ISI SCI/SSCI listed journals that agreed to publish special issues from extended versions of papers presented at the summit:

- Robert Tennyson, Editor-in-Chief of *Computers in Human Behaviour*
- Amit Sheth, Editor-in-Chief of *International Journal of Semantic Web and Information Systems*
- Patricia Ordonez De Pablos, Editor-in-Chief of *International Journal of Learning and Intellectual Capital*

A great thank you also to Alfred Hofmann, Springer, and his staff for the excellent support in all the phases of publishing the CCIS 278 proceedings.

We need a better world. We contribute with our sound voices to the agenda, policies, and actions. We invite you to join your voice with ours and all together to shape a new deal for our world. Education, sustainable development, health, opportunities for well-being, culture, collaboration, peace, democracy, technology for all.

We look forward to seeing you at the fifth event of the series, for which you can find more information at: http://www.wskos.org.

With 11 special issues already agreed for WSKS 2012, and six main tracks, we want to ask for your involvement and we would be happy to see you joining us.

Miltiadis D. Lytras
Organization

WSKS 2011 was organized by the International Scientific Council for the Knowledge Society, and supported by the International Journal of the Knowledge Society Research (http://www.igi-global.com/ijksr).

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Prof. Da Ruan† (in memorial)

With great sadness and disbelief we inform you that our colleague Da Ruan passed away unexpectedly deceased on July 31. The Board of Directors, the management and staff of SCK-CEN express their condolences and deepest sympathy to his family.

Da Ruan began his career at SCK-CEN in 1991, after obtaining his PhD in mathematics from Ghent University. As a postdoc, Da completed the TRANSFUSION project successfully by developing a fast algorithm for the analysis of well-logging signals for the oil industry. Subsequently he took the initiative in the FLINS (Fuzzy Logic In Nuclear Science) project and the FLINS conferences, which grew to become the leading conference in this specialized field.

Da Ruan searched tirelessly for applications of fuzzy logic and related theories and found them, for example, in reactor control, cost estimates including uncertainties of large projects, decision support systems and the analysis of large data sets for safety culture and the non-proliferation of nuclear weapons. He published more than 90 peer-reviewed journal articles, two textbooks and 20 research books. His international recognition is also shown by numerous invitations to act as a keynote speaker at international conferences, as well as by the award of an honorary doctorate from the Nuclear Power Institute of China.

Da Ruan was guest professor at the Department of Applied Mathematics and Computer Science at Ghent University and at the Department of Applied Economics at Hasselt University. At the Faculty of Information Technology at the University of Technology in Sydney, Australia, he was assistant professor.

His colleagues will remember Da as a motivated scientist with an indefatigable but also very congenial personality. With the passing away of Da, SCK-CEN has lost one of its most outstanding and productive scientists. He is survived by his wife, Greet, and two sons, Alexander and Nicolas.

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