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Web Information Systems – WISE 2004 Workshops

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Proceedings

Christoph Bussler Suk-ki Hong
Woochun Jun Roland Kaschek
Kinshuk Shonali Krishnaswamy
Seng Wai Loke Daniel Oberle
Debbie Richards Amit Sharma
York Sure Bernhard Thalheim (Eds.)

Web Information Systems – WISE 2004 Workshops

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Christoph Bussler
National University of Ireland
Digital Enterprise Research Institute (DERI)
University Road, Galway, Ireland
E-mail: chris.bussler@deri.org

Suk-ki Hong
Dankook University
College of Business and Economics 147
Hannam-ro, Yongsan-gu, Seoul, Korea 140-714
E-mail: skhong017@dankook.ac.kr

Woochun Jun
Seoul National University of Education
Dept. of Computer Education
Seocho Dong 1650, Seocho Gu, Seoul, Korea
E-mail: wocjun@ns.snue.ac.kr

Roland Kaschek
Kinshuk
Massey University
Department of Information Systems
5301 Palmerston North, Private Bag 11 222, New Zealand
E-mail: r.h.kaschek@massey.ac.nz; Kinshuk@ieee.org

Shonali Krishnaswamy
Seng Wai Loke
Monash University
School of Computer Science and Software Engineering
900 Dandenong Rd, Caulfield East, Victoria 3145, Australia
E-mail: {Shonali.Krishnaswamy;seng.loke}@infotech.monash.edu.au

Daniel Oberle
York Sure
University of Karlsruhe, Institute AIFB
76128 Karlsruhe, Germany
E-mail: {oberle, sure}@aifb.uni-karlsruhe.de

Debbie Richards
Macquarie University, Department of Computing
NSW 2109, Sydney, Australia
E-mail: richards@ics.mq.edu.au

Amit Sharma
Software Engineering Technology Labs
Infosys Technologies
Electronics City, Hosur Road, Bangalore, 560100, India
E-mail: amitdce@yahoo.com

Bernhard Thalheim
Kiel University, Computer Science Institute
Olshausenstr. 40, 24098 Kiel, Germany
E-mail: thalheim@is.informatik.uni-kiel.de

WISE 2004

Workshop Chair's Message

I would like to welcome you to the Workshop Proceedings of the 5th International Conference on Web Information Systems Engineering (WISE 2004), which took place in Brisbane, Australia. As in previous years, workshop proposals were invited continuing the tradition of workshops in conjunction with the WISE conference.

Originally four workshop proposals were accepted. During the workshop organization it became apparent that WISE 2004 would be served best by combining these four workshops into two, allowing a better and wider coverage of topics while avoiding a too segmented workshop program.

The workshop titled 'Intelligent Networked and Mobile Systems' organized by Woochun Jun, Suk-ki Hong, Daniel Oberle, Debbie Richards, and York Sure covered the areas 'Ontologies for Networked Systems' and 'Advances in Mobile Learning.' The workshop with the title 'Web Information Systems' organized by Roland Kaschek, Kinshuk, Shonali Krishnaswamy, Seng Wai Loke, Amit Sharma, and Bernhard Thalheim addressed Web applications and Web services.

I would like to thank all authors who submitted and presented papers at the workshops for their hard work. Also, I would like to thank all attendees of the workshops for their engagement at the workshops as well as at the conference, as they together with the authors represent the WISE community. The workshop organizers did a great job in organizing the workshops, including the paper selection and proceedings preparation. It was a pleasure cooperating with them putting together the workshop program; thank you for that. Last, but not least, I'd like to thank the WISE conference organizers for their efficient support of the WISE 2004 workshop program.

September 2004

Christoph Bussler

Intelligent Networked and Mobile Systems

Workshop Chairs' Message

The international workshop "Intelligent Networked and Mobile Systems" consisted of two main tracks:

- **Ontologies for Networked Systems (ONS)**, and
- **Advances in Mobile Learning (AML)**

Track ONS: Ontologies provide a shared understanding of a domain of interest to support communication among human and computer agents, typically being represented in a machine-processable representation language. Thus, ontologies are seen as key enablers for the Semantic Web. Recently the convergence of paradigms such as those currently being monitored in the areas of the Semantic Web, Web Services, Agents, Peer-to-Peer networks and Grid Computing requires multidisciplinary approaches and cooperation. This workshop was designed to bring together researchers and practitioners from the mentioned areas and to act as a platform for discussions on experiences and visions.

Track AML: Mobile Learning is the use of mobile or wireless devices for learning on the move. Mobile learning aims to improve levels of literacy and participation in education amongst young adults across all nations. It makes use of young people's interest in their mobile phones and other handheld communications/entertainment devices to deliver exciting and unusual learning experiences and related messages. The aim of this workshop was to invite researchers from various fields to present and discuss their ideas on mobile learning.

The workshop was held in cooperation with two prominent networks of excellence and was meant to act as a focal point for joint interests and future collaborations:

- **Knowledge Web:Realizing the Semantic Web**, European-funded network of excellence, see <http://knowledgeweb.semanticweb.org/> for further details
- **ARC Research Network for Next Generation Web Technologies**, Australian research network – Intelligent Applications Through the Semantic Web, see <http://www.comp.mq.edu.au/research/semantic/> for further details

Your organization committee,

Track ONS

Daniel Oberle
Debbie Richards
York Sure (contact)

Track AML

Prof. Woochun Jun
Prof. Suk-ki Hong

Acknowledgements: The workshop was supported by the EU funded projects Knowledge Web (IST-2004-507482) and SEKT (IST-2003-506826).

Web Information Systems Workshop Chairs' Message

Engineering Web information systems (WIS), apart from meeting functional requirements, in particular needs to focus on the quality of the systems to be provided. This quality in the end will be crucial regarding acceptance of new technologies such as Web services. Putting a stronger emphasis on system quality also is a consequence of the increased awareness of this issue among those who care for systems development.

WIS comprises both general Web applications and Web services in particular. Considering WIS from a holistic perspective may help to account for this diversity. Such a perspective should encompass both quality at the engineering and development level and quality at the operational level. It thus is essential for quality to pervade through the development, the management and the use of Web information systems. The desired quality aspects need to be considered and interrelated for a systematic technology-based approach to the construction of high-quality Web information systems. In addition, quality at the operational level becomes significant for service-oriented systems. At this level, the focus is on the levels of service quality that the Web application provides for quality aspects such as performance, scalability, availability, and reliability. It becomes a benchmark to differentiate services and providers. Quality of service forms the underpinning for a broad spectrum of Web service activities such as selection, scheduling, pricing and specifying service level agreements. If economic feasibility is a major development goal then quality-related decisions in design and implementation need to focus on system usage. This involves taking note of a number of different system characteristics and methods, techniques, and tools for dealing with these characteristics. Fruitfully applying the mentioned holistic view requires integrating into a reasonably coherent conceptual framework the knowledge already obtained regarding WIS. This is the task that was set out by the FIPWIS workshop: to look at competing and complementary approaches to WIS issues. To tie things together, to identify and stick to what is good and fruitful and to improve what is not satisfactory. The focus of the WQW workshop was on the operational quality levels of Web services in particular. The responses to the calls for papers of WQW and FIPWIS were not so numerous as to justify running both workshops as separate events on one-day duration bases. Furthermore, given the holistic perspective that needs to be taken when dealing with the quality of Web information systems, it became evident that the two workshops could meaningfully be integrated. The same went for the other WISE 2004 workshops.

All WISE workshops were supposed to add to the benefit of attending WISE 2004 by broadening the spectrum of the papers provided. It thus was decided to merge the four intended WISE workshops into two. WQW and FIPWIS immediately found that idea attractive and merged into WOWIS (Workshop on Web Information Systems). The present volume contains the papers that were independently peer-reviewed and selected by the FIPWIS and the WQW program committees. In both cases 50% of the paper submissions were accepted.

Roland Kaschek and Shonali Krishnaswamy

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Advances in Mobile Learning (AML) Track

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Workshop on Web Information Systems

Fragmentation Versus Integration – Perspectives of the Web Information Systems Discipline – (FIPWIS) Track

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Web Services Quality (WQW) Track

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