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Björn Regnell Daniela Damian (Eds.)

Requirements Engineering: Foundation for Software Quality

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Volume Editors

Björn Regnell
Lund University
Department of Computer Science
221 00 Lund, Sweden
E-mail: bjorn.regnell@cs.lth.se

Daniela Damian
University of Victoria
Department of Computer Science
P.O. Box 3055, Victoria, BC, V8W 3P6 Canada
E-mail: danielad@cs.uvic.ca

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Preface

This LNCS volume contains the papers accepted for presentation at the 18th Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ 2012), held in Essen, Germany, during March 19–22, 2012.

Requirements engineering (RE) has long been recognized as a major factor for achieving high-quality software-intensive, computer-based systems and services. REFSQ seeks reports of novel ideas and techniques that enhance RE processes and artifacts as well as reflections on current research and industrial practice about and in RE. In proudly presenting this program of 2012, we are confident that the REFSQ motto "I heard it first at REFSQ!" will be agreed upon by the conference participants.

REFSQ, in this 18th incarnation, provided a well-established, leading international forum with its special working conference format that promotes intensive interaction and hands-on research work involving both academics and practitioners. In particular, the appreciated REFSQ format involves, unlike many conferences and workshops, a discussion time following a paper's presentation that is (at least) as long as the presentation.

A total of 103 submissions were received, of which 84 papers entered the review process (after rejecting those papers that were late, oversized, or clearly out of scope). Each paper received reviews by three different members of the Program Committee. Whenever the reviews for a paper showed any divergence, the reviewers were asked to conduct a discussion electronically with the aim of reaching a consensus. Eleven members of our Program Committee met in person in Essen on December 2 to discuss the reviews of all papers and to agree on the papers to be presented at the conference and included in the proceedings. Out of the 84 peer-reviewed submissions, a total of 27 papers were accepted (14 long papers, including 10 Full Research papers and 4 Experience Report papers; as well as 13 short papers, including 9 Research Preview papers, 1 Vision paper, and 3 Problem Statement papers). This yields an 18% acceptance rate for long papers, and a 32% overall acceptance rate.

As in previous years, these proceedings serve not only as the record of one meeting of REFSQ, but also as a snapshot of the state of research and practice about and in RE. Therefore, these proceedings are of interest to the whole RE community, ranging from students beginning their PhD studies, through experienced scholars doing sustained RE research, novice requirements analysts, to experienced practitioners interested in emerging knowledge.

Anyone interested in an account of the discussions that took place during the working conference should consult the post-conference summary published, as is usual, in ACM SIGSOFT's *Software Engineering Notes*.

Above all, REFSQ is a collaborative effort. First, we thank Klaus Pohl for his continuing work as General Chair of the working conference. We would also give

our sincerest thanks to Vanessa Stricker, who very ably served as Organization Chair. We thank the Steering Committee, listed here, consisting of past REFSQ Program Committee and General Chairs, for their seasoned advice.

We thank also the organizers of the four workshops held on the day before the conference and Samuel Fricker for chairing the workshop selection process. We thank Barbara Paech for organizing the Doctoral Symposium for the second time, Neil Maiden for organizing the Industry Track, and Richard Berntsson Svensson for serving as Publication Chair.

For the second year, REFSQ 2012 had two innovative events: (1) the Empirical Fair organized by Joerg Dorr, Norbert Seyff and Daniel Berry, in which practitioners and researchers propose empirical studies sought by their organizations or which they would like to conduct in such organizations, and (2) the Empirical Studies at REFSQ in which practitioners and academics are given the opportunity to conduct empirical studies during the working conference itself. Both of these activities are designed to bring together the community of researchers and practitioners who are interested in empirical studies.

As the Program Committee Co-chairs for REFSQ 2012, we thank especially the members of the Program Committee, listed here, for their careful, thorough, and timely reviews and for their lively consensus e-discussions. We thank in particular those of the Program Committee who attended the Program Committee meeting and those who volunteered to serve as anonymous gatekeepers for conditional accepts. Finally, we thank all the sponsors, also listed, who contributed generously to this edition of the REFSQ working conference.

January 2012

Björn Regnell
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Requirements Engineering for Enterprise Systems: A Keynote to the REFSQ'2012 Conference

Ian Sommerville

St Andrews University, United Kingdom
ian.sommerville@st-andrews.ac.uk

Abstract. Many approaches to requirements engineering are behavioural and attempt to define required system features and functionality. They, typically, have a 'single system' focus. In this talk, I will argue that this approach to requirements engineering is inappropriate for extending 'enterprise systems' - systems of systems that support many different operations in an organization. I will discuss an approach to requirements engineering which moves away from the behavioural approach to requirements engineering to focus on the information requirements of stakeholders in the enterprise. Information requirements are concerned with the information needed by stakeholders, the channels used to deliver that information and the issues and problems that arise if the information is not delivered in a timely manner. I will propose that a model of stakeholder responsibilities is an effective way of understanding and analyzing these information requirements.

Biography

Ian Sommerville is a Professor of Computer Science at the University of St Andrews, Scotland and was previously Professor of Software Engineering at Lancaster University. He is currently a principal investigator in the UK's Large Scale Complex IT Systems research and training programme with interests in modeling complex systems of systems and in cloud computing. He has published extensively in software and requirements engineering and is the author of a widely-used software engineering textbook. He was awarded the 2011 ACM SIGSOFT Outstanding Educator award for his work in software and requirements engineering education.

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