Introduction: Fourth International Workshop on Engineering Service-Oriented Applications (WESOA 2008)

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1 Workshop Goals and Contents

In large-scale software projects that increasingly adopt service-oriented software architecture and technologies, availability of sound systems engineering principles, methodology and tools for service-oriented applications is mission-critical for project success. However, engineering service-oriented applications poses specific requirements that differ from traditional software engineering and the discipline of software service engineering (SSE) is not yet established. Consequently, there is an urgent need for research community and industry practitioners to develop comprehensive engineering principles, methodologies and tool support for the entire software development lifecycle of service-oriented applications.

The WESOA series of workshops addresses challenges of software service engineering that arise from unique characteristics of service-oriented applications. Such applications are predominantly adopted in application domains that require complex as well as dynamic collaboration scenarios between autonomous individuals and thus have to represent many of their interaction patterns and organization principles. In many cases, service-oriented applications represent transactions of dynamic, process-driven business networks and drive interaction protocols between fluid configurations of autonomous service providers. In other cases, service-oriented applications are provided in the context of social communities, where they are created by a large number of members for very specific or even situational needs of long-tail economics. In such domains it is not enough to focus on complex distributed software systems alone but it is necessary to consider a broad socio-technical perspective.

It is the challenge of software service engineering to not only cope with these specific circumstances but to capitalise on them with radically new approaches. The WESOA series addresses these challenges and particularly concentrates on the aspects of service-oriented analysis and design that provide principles methodology and tool support to capture the characteristic requirements of service networks as well as service communities and transform them into reusable high-quality service system designs that underpin and drive the holistic service-oriented development lifecycle.

For WESOA 2008 the international PC selected 9 out of 20 high-quality papers. These papers represent a rich variety of topics revolving around principles, methods and application domains of SSE with a special focus on analysis and design. A number of authors tackled fundamental SOA principles as regards *composite service design* (Feuerlicht), *unified management and governance* (Mueller et al.) as well as *SOA metrics* (Mamoun et al.). Other authors proposed specific SSE methods for *simulation* (Bartsch et al.), *automatic testing* (Kaschner et al.) and *behavioural analysis* (Aït-Bachir et al.) of SOA processes. This year, an increased number of contributions addressed software service design for specific application scenarios like *human-based e-services* (Schall et al.), *service value networks* (Bitsaki et al.) and *scientific workflow* (Tan et al.). The workshop was greatly enhanced by the keynote of Keith Duddy, in which he explored challenging gaps between the promises of modern service-oriented systems and the deficiencies of real world computing infrastructures. The workshop led to vigorous discussions around fundamental as well as specific characteristics of SOA and the challenges of establishing a new discipline of SSE.

2   Workshop Organisation

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