Message from the Special Session Chair

Next Generation of Web Computing

Konrad Klöckner
Fraunhofer Institute for Applied Information Technology FIT
D-53757 Sankt Augustin, Germany
konrad.kloeckner@fit.fraunhofer.de

Internet communication facilities allow processes to be spread over the Web to communicate and to access remote resources. Performance of the whole distributed system, in particular a distributed workflow and communication system, depends on this facility. In the field of CSCW several concepts and prototypes for the flexible support of cooperation including functionality for the exchange of information, sharing of information, coordination and collaboration among distributed workgroups have been developed.

As local and wide-area networking technologies become more sophisticated, distributed group working is a well-suited scenario for computer use and presents theoretical and practical problems that have not been thoroughly addressed in computer science research. This session aims to bring together experts from academia and industry who share an interest in the study and design of effective Web computing solutions as well as approaches and methodologies. It focuses on understanding the impact of Web computing environments in order to facilitate the design of complex cooperation systems. This session is an opportunity for designers and researchers to discuss their experiences with implementing cooperative systems on the Web in large organizations such as industry, government and academia. It is open for sharing information about new Web technologies and practices.

In this session we have four papers dealing with various advances of Web computing. The first paper “VieCAR – Enabling Self-adaptive Collaboration Services” is by Daniel Schall and Ignazio Dadduzio. The paper presents a framework that addresses the requirements of new collaborative service-oriented environments. Based on an activity model, the authors present a ranking algorithm determining the relevant input for service adaptation.

The title of the second paper is “Web Browser as an Application Platform” and is written by Tommi Mikkonen, Antero Taivalsaari, Dan Ingalls and Krzysztof Palacz. This paper summarizes the experiences in using the web browser as a target platform for real applications. It analyzes the limitations, challenges and opportunities related to the web browser as an application platform.

The third paper “Evaluation of Task Pattern Use in Web-based Collaborative Engineering” is by Kurt Sandkuhl and Janis Stirna. The paper introduces the concept of task patterns for support of fast and flexible product design in networked manufacturing enterprises.

The forth presentation is by Tuomas Turto, the title is “Building Blocks for a Web Programming Language”. He presents various building blocks for a new Web programming language that targets the Web as an application platform. He outlines the structure of the necessary runtime environment and shows where the language fits within the competitive landscape of programming languages aimed at developing Web applications and services.

Overall, the described Web technologies promise a better support of human communication across wider distances than it was previously possible. Yet, if this vision is to be realized, many difficult problems remain to be solved and are the future challenges. Nevertheless the four papers presented give a good overview over the design, the implementation and the evaluation of next generation Web Computing applications.