

## Introduction from the session chair

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In today's competitive world the quality of Web usage is a key to economic success and stability. And we are facing a new era of workgroup computing. Communication facilities on the World Wide Web play a key role in the design and implementation of distributed systems for cooperation purposes. 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. One of the quite new application areas on the Web is Computer Supported Cooperative Work (CSCW). 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. Since the 1990s the wide-spread use of the Internet and other technology on top of it offer the developers both a great technological basis with various strengths such as location transparency, operating transparency, standardized protocols, standardized data formats, etc.

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 the various aspects of Web computing. The first paper by Stefan Jaksch, Stefan Pfennigschmidt, Kurt Sandkuhl, and Christoph Thiel is entitled "Information Logistic Applications for Information-on-Demand Scenarios: Concepts and Experiences from WIND Project". This

paper presents an information logistical framework and a scalable event-reaction mechanism as part of this framework. This seems to be a well fitting basis for the rapid development of information-on-demand solutions for other application areas.

The second paper "A Web-Based Isosurface Extraction System for Heterogeneous Clients" by Andrea Clematis, Daniele D'Agostino, and Vittoria Gianuzzi deals with a practical approach to the design of a Web system for 3D and volumetric data integration and visualization. The integration of Internet technologies and computer graphics here permits to develop a satisfactory solution to this problem field.

The third paper "Cooperative Agent-Supported Learning with WeLearn" is by Michael Sonntag and Susanne Loidl-Reisinger. This paper presents some reasons and methodology for integrating agents into online learning platforms and discusses the importance of metadata for agent-integration and the applicability of agent-oriented engineering for online learning platforms.

The last paper by Wolfgang Gräther, Konrad Klöckner, and Sabine Kolvenbach is entitled "Community support and awareness enhancements for cooperative knowledge generation". This paper investigates the contribution of community support in tele-collaboration systems for the cooperative generation of knowledge in virtual teams and communities. Key elements of the framework described are Web-based communities that have more than one gathering place, awareness information that is provided according to individual interest profiles, and a user interface that is integrated in a Web browser.

Overall, the 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 Web computing applications today.