Web Infrastructure for Collaborative Applications

Because the workshop program may seem quite heterogeneous at first glance, the following may serve as a guide to the ten papers included hereafter. In our opinion, the mixture perfectly reflects the current diversity of discussion and should be especially interesting to people looking for an entry into the field and for pointers/directions for moving forward with their own ideas.

Several papers provide an overview of the current and planned use of Web concepts in a collaborative context.

A good point of departure is the paper Raytheon's Use of the Web for Engineering, by Niesen et al., which primarily describes the use of the Web as an integrative tool for accessing information repositories — a somewhat classical use of the Web.

Collaborative Infrastructure Using the WWW and CORBA-Based Environments, by Jagannathan, Almasi, and Suvaiiala, discusses a complex application of Web concepts in a health care environment and hints at deficiencies of and extensions to Web concepts (e.g., session management, JAVA and CORBA integration, etc.).

The requirements of a specific application are discussed in Concurrency Control Requirements for the Collaborative Development of Decision Models, by McGovern and Victoria.

Appelt and Busbach present a general shared workspace concept usable in a variety of situations in The BSCW System: A WWW-Based Application to Support Cooperation of Distributed Groups.

The following papers show more general points of view.

Prerequisites for Collaborative Problem Solving, by Conen and Neumann, describes general mechanisms needed to build systems to support problem solving, including support for problem decomposition and delegation, problem assignment, and communication and coordination needs and their relation to infrastructure.

Fuchs discusses the need for semantically-enhanced information exchange via the Web and proposes the use of SGML as a conservative extension of the current practice in Let's Talk: Extending the Web to Support Collaboration.

Aspects of coordination, such as integrating concepts from coordination languages like Linda into Web concepts, are presented in Coordination Technology for the WWW. Ciancarini et al. discuss fundamental concepts, such as a pagespace, upon which each collaborative application may be built.
Modular Design of Complex Web-Applications with W3DT presents Bichler and Nusser's tool and method for the structured development of Web pages and sites.

Finally, Mühlbacher and Neumann discuss general requirements for, and propose solutions related to, the development of business applications in Towards a Framework for Collaborative Software Development of Business Applications.

Additional presentations were given by Christopher Landauer on Infrastructure Requirements for Complex Systems, Deborah Payne on The EMSL Collaboratory Software Environment (CORE) — Collaboration via the World Wide Web, Peter Bertok on Cooperative Design and the Internet — Current Issues, Future Prospects, William Leizerowicz on Coordination for Collaborative Design Using the WWW, and Raman Kannan on Semantic Web for Collaborative Software Processes. Due to space restrictions in the proceedings, these papers are available only at the workshop's Web site (http://conan.wi-inf.uni-essen.de/WETICE).

The workshop report summarizes the joint discussion session at the end of the workshop and reflects the diversity of opinions and the fruitful results obtained in the discourse. It is possible to read it as either an introduction or a summary, although the latter is most appropriate.

I would like to thank those who made this interesting workshop possible: the other co-organizers and reviewers of the workshop — Peter Bertok, Paolo Ciancarini, George Fernandez, Juggy Jagannathan, Jim McGovern, Gustaf Neumann, Richard Soley, and Robert Tolksdorf — and all of the participants. WET ICE '96 gave the workshop an interesting and perfectly organized environment due to the work of Charles Petrie, Srinivas Kankanahalli, and the members of the Organizing Committee from CERC, with Mary Carriger deserving much more acknowledgment that a simple thank-you.

If you have any further questions or are looking for on-line versions of the papers presented at the workshop, including those not document in this volume, please send an e-mail to wetice@conan.wi-inf.uni-essen.de or connect to the workshop's Web site at http://conan.wi-inf.uni-essen.de/WETICE.

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