



Special Issue on Bridging the Process and Practice Gaps between Software Engineering and Human Computer Interaction

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Special Issue Editors

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Background

Usability is an important quality attribute for many computer systems. Everyone involved in the development and use of interactive systems agree on this. Yet we continue to see interactive systems that are less usable than they should be. This is partially the result of gaps between software engineers and human computer interaction engineers.

The causes for the gaps are multiple but they include: a mismatch between the usability life cycle and software engineering life cycles; a lack of tools, notations, and methods for infusing usability concerns into portions of the software engineering life cycle; different names for essentially identical techniques; and the cost of building interfaces designed by human computer interaction engineers.

Cost affects the as-built interface both because of the cost of iteration (an essential element of interface design) and because the as-designed interface may make technological assumptions about how easy certain features are to implement. For example, making tabs in a tabbed display a specialized shape, as proposed by the interface designers, might add two weeks to the development schedule.

Technical issues affect the as-built interface because the changes suggested during the iterative design process may be difficult to implement since the software engineers did not provide system facilities to support proposed changes. For example, an appliance might be placed into an unusable state with a particular combination of button presses. Fixing the problem might involve a major re-design of the software.

The purpose of this special issue is to identify root causes of the gaps between software engineering and human computer interaction and to identify solutions to these gaps. We are soliciting papers that identify one or more root causes and describe validated solutions.

Topics of interest include:

- ? Software architectures and architecture analysis for interactive systems
- ? Joint development processes
- ? Methods, tools, and notations that address both software engineering and HCI concerns
- ? Portability, consistency, and integrability with respect to the user interface
- ? Case studies of joint software engineering and HCI design

Submissions

Submissions will all be done electronically. Papers may be up to 12,000 words and may be submitted in pdf or Word format.

Important dates

August 10, 2003 – Initial submission

September 15, 2003 – Accept/reject/revise decision

October 31, 2003 – revisions due

Jan 1, 2004 – Final drafts due.