

# Closing the Gaps: Software Engineering and Human-Computer Interaction

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## 1 Theme and Goals

Almost half of software in systems being developed today and thirty-seven to fifty percent of efforts throughout the software life cycle are related to the system's user interface. For this reason issues and methods from the field of human-computer interaction (HCI) affect the overall process of software engineering (SE) tremendously. Yet despite strong motivation amongst organizations to practice and apply effective SE and HCI methods there still exist major gaps of understanding both between suggested practice, and how software is actually developed in industry, and between the best practices of each of the fields. There are major gaps of communication between the HCI and SE fields: the methods and vocabulary being used in each community are often foreign to the other community. As a result, product quality is not as high as it could be, and (avoidable) re-work is often necessary. In addition, SE methods and techniques are often perceived by HCI specialists as tools that are only reserved to computer scientists and of little or no relevance to HCI. And vice versa: HCI contents are often perceived by software engineers as after-thoughts or side-tools that do not necessarily affect the quality of software. For instance, no methodologies in the domain of object-oriented programming offer explicit support for HCI and existing HCI methods are integrated in development practices in a way that is more opportunistic than systematic.

The theme of this workshop is to attempt to enumerate and understand these gaps of understanding and communication, with an eventual goal of proposing ways to bridge these gaps.

For instance, SE frequently employs requirements elicitation techniques that involve soft goals, procedures, and operators. HCI typically uses task modelling involving task, sub-tasks, and temporal operators between. While these two techniques are different in purpose, they are surprising close to each other.

This workshop can improve software engineering and HCI education and practice by raising awareness of HCI concerns among SE researchers, educators, and practitioners, and vice-versa. It can also show the places where an attention to concerns from one field can inform the other field's processes, and showing how methods and tools can be augmented to address both SE and HCI concerns.

## 2 Participants

We would like to have a minimum of 10 and a maximum of 35 participants. The workshop will be open. Members of IFIP WG2.7/13.4 are invited to participate. Those interested in attending will be asked to submit a short position paper to { [HYPERLINK "mailto:interact03-workshop@se-hci.org"](mailto:interact03-workshop@se-hci.org) } including a summary of their experience with SE and HCI and their opinions on how the interaction among the groups can be improved. Further details can be

found at the workshop homepage (<http://www.se-hci.org/bridging/interact>).

This workshop is the 2<sup>nd</sup> in a series of workshops on the subject. The 1<sup>st</sup> workshop was held at ICSE'03 (ICSE Workshop 2003).

### 3 Format

2 full days. The first day will focus on presentation and discussion of the submitted position papers, whereas the second day will be devoted to work in smaller groups.

### 4 Organizers' Backgrounds

*Morten Borup Harning* is an independent consultant and researcher, currently working as chief design officer at Open Business Innovation. Dr. Harning earned his Ph.D. at Copenhagen Business School where he did research on user interface design tools and methods from 1989 to 2000. Dr. Harning is the founder and chair the Danish special interest on Human-Computer Interaction and has previously chaired the Danish Computer Science Society. Dr. Harning has been a member of IFIP

WG2.7/13.4 on User Interface Engineering since 1999.

*Jean Vanderdonckt* is Professor in Computer Science at Université catholique de Louvain (Belgium), where he leads the Belgian Lab. of Computer-Human Interaction (BCHI-<http://www.isys.ucl.ac.be/bchi>). This laboratory conducts research, development, and consulting services in the domain of user interface engineering. This domain is located midway between software engineering, human-computer interaction, and usability engineering. He is co-editor in chief of the Kluwer Human-Computer Interaction Series of books ( { HYPERLINK "<http://www.wkap.nl/prod/s/HCIS>" } ) and is currently chairing the Belgian local chapter on HCI ([www.belchi.be](http://www.belchi.be))

### References

ICSE Workshop (2003). Bridging the gaps Between Software Engineering and Human-Computer Interaction. ICSE'03, International Conference on Software Engineering, Portland, Oregon, May 3-11, 2003, { HYPERLINK "<http://www.se-hci.org/bridging/icse>" }