CHI 2010 Engineering Community SIG: the role of engineering work in CHI

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Abstract

The Engineering Community faces a number of serious challenges around its role in the larger CHI community and its contribution to CHI-sponsored conferences. This SIG is its forum to identify key issues and begin developing positions to address them.

Keywords

SIG, Engineering community

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms

Human Factors, Design

Introduction

What is the importance of engineering work in the greater CHI community? What role should its contributions have in the various conferences sponsored by SIGCHI? There are a number of ongoing, animated discussions about these topics expressing serious frustration. This SIG is the meeting of the Engineering Community and its purpose is to identify key issues and begin developing positions for SIGCHI and conference leaders to address them.

As the field of human-computer interaction (HCI) matures, the role of engineering becomes more important. Within CHI, the Engineering Community emphasizes applications of HCI technology in systems that will reliably improve the economics of operations, or safety to life and property. In addition, there is growing demand to produce software in a manner that is more methodical, predictable and economical. Therefore, the Engineering Community must also be

concerned with research on tools and user-centered techniques for analysis, design, and evaluation.

The community of professionals who share an interest in advancing engineering in CHI is broad. We invite you to come this SIG if you are a:

• software engineer, developer, designer, architect, or manager, who is actively engaged in building interactive software;
• researcher, who investigates how methods and tools that are based on the principles of science and mathematics can produce interactive applications in a way that is more reliable and economical;
• researcher, whose work includes investigations of advanced technology applications;
• educator, who prepares students for careers in the multidisciplinary field of applied HCI.

This SIG is about issues that determine the health and success of our field. Software engineering is the project context where the added value of our field will most often be realized. HCI engineering tools are focused on making HCI more successful in this context. There are, however, several aspects of CHI that seem paradoxical. It's an applied field that is new and still dominated largely by professionals who have chosen research careers in academia. Yet, CHI is a field that has a much weaker theoretical base than many other technical fields, which increases the importance of analyzing application experience. Also, a recurring theme is that CHI professionals should have much more impact in engineering projects: CHI can't realize its potential impact without being applied successfully.

In this SIG we will conduct an open, structured forum to help identify key issues about the role of engineering work, including but not limited to:

• what is the importance of designing and building interactive systems to CHI?
• how important is effective technology transition in an applied field like CHI?
• what constitutes a worthy contribution about these kinds of work to the archived CHI literature?
• can authors adequately describe engineering work on advanced applications in a 10-page paper?
• how much of the gap can Case Studies fill?
• how can qualified reviewers be found who have the scope needed for both advanced technology and advanced application to systems?
• should we be concerned about the migration of tools research away from the CHI conference?
• are there unmet education needs for CHI professionals to succeed in multidisciplinary engineering projects?
• what are the next tangible steps that we should take?

The Engineering Community was established in CHI 2006 in large part to address these kinds of issues. This SIG will prioritize these issues, determine what are the next steps to take, and identify the individuals who will carry those action items forward.

The methodical approach of engineering work lends itself well to interchanges between those of you who work on engineering applications and those who work in engineering research or education. If you see your work as relevant to our Engineering Community, you are invited join us to share your experience, learn from others, and participate in this important topic.