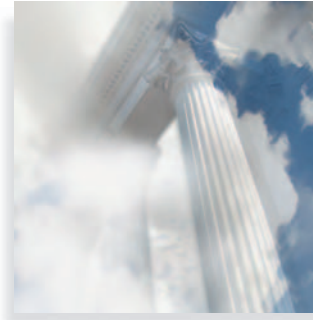


# University HCI—Squeezed Into Where?

**Russell Beale**  
University of Birmingham  
r.beale@cs.bham.ac.uk



**I'M A PASSIONATE ADVOCATE** of HCI, whether it be forcing it into the curriculum, trying to get my computer science colleagues to mention relevant aspects of it in their software engineering, project management or distributed systems modules, or by championing specific HCI modules within a computing course. I also appear to be a failing passionate advocate.

In the UK, we have three-year degree courses, and we used to have a major HCI module in our second-year computer science course that was compulsory for all our students—major or minor—combined with a third-year option, many HCI projects, and a mention of usability and design issues in the first year as well. Now we have just abolished the second-year major module—it has been cut to a few weeks on Web design and information architecture as part of a software components course—with only an optional third-year module for students to get their first understanding of HCI. And the reason? As the university has developed over time, modules have been introduced based more on staff interest than curriculum demands, and rationalizing this has become a priority for an institution that tries to become more efficient in its teaching. We all agree that we are teaching too much and must cut courses—everyone else's courses, of course. Our own are far too precious to be lost.

This is a genuine problem—there are more things to discuss now, with distributed computing and Web services and multiple layers of software architectures to get a grip on—and that's without covering any of the products or systems or tools in common use. And whilst HCI affects all of these, and should be mentioned in all of these, it tends to be seen as the icing on the cake—nice, popular, but optional and not the core of the particular subject.

We all realize that becoming reasonably good at HCI requires knowledge of a wide range of practical skills, requires some experience and practice, and needs critical appraisal and feedback to develop those skills. It requires a broad cross-subject understanding and empathy toward foreign disciplines, something not always found in our students. It therefore requires one of two things—either much more HCI to be taught (impossible given curriculum constraints and the time available to myself and my HCI colleagues) or a wide understanding and appreciation of HCI from all my teaching colleagues—which is not really there, since they are generally focused researchers with eyes only on the key issues in their specific, specialized domains.

So we're doomed, you might think. Squeezed from the mainstream curriculum by self-contained modules that have easily defined prerequisites and learning outcomes; missing from the implicit curriculum by highly focused researchers who have little interest in things outside their own area.

I'm trying to address this through, of all things, blogging. Blogs are currently cool and trendy within parts of the student community. They are easy enough that even the worst student can create one, yet configurable enough that the geeks have a field day with CSS and javascript. More interesting, they can be used to promote some form of self-analysis (indeed, many go far, far along this road into introspection), but this can be captured and used for reflective practice, allowing students to consider and remark on what they are learning and how they are learning. In addition, blogs are intimately connected to the wider Internet, with simple tools allowing them to comment on other Web sites and issues. And it is here that we can start to connect the lecture-room work to the real world, by asking them to identify real-world examples of sys-

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tems (or policies or political posturing or legal issues, or ethical ones) and suggest how they could be better, or how they work—in essence, relating them to the work that they are seeing on the whiteboards and in the lecture handouts. And naturally, many of these come back to usability issues, or design problems, or some such aspect, and the role of HCI in mediating between the technical and the social, the computational and the comprehensible, the user and the system, comes into play. My only hope is that these students will ask sufficient difficult questions of my colleagues that they too will start to understand the broad impact of HCI issues, and work more closely with me in presenting them in the first place.



**ABOUT THE AUTHOR** *Russell Beale is chair of the British Computer Society's HCI special-interest group, leads the*

*Advanced Interaction Group at the University of Birmingham, and is co-author of Human-Computer Interaction (Dix, Finlay, Abowd & Beale), one of the leading university textbooks on HCI.*

## Recognizing Student Designers: ACM CHI's Student Design Competition

**Elizabeth F. Churchill**  
Palo Alto Research Center  
churchill@acm.org

**Jonathan Sykes**  
Glasgow Caledonian University  
jon.sykes@gcal.ac.uk

**Todd Zazelenchuk**  
Whirlpool Corporation  
todd\_zazelenchuk@whirlpool.com

**WE LIVE IN A WORLD** where design as a discipline is no longer resigned to the

back room. Richard Buchanan wrote in 1990, "...in the 20th century, we have seen design grow from a trade activity to a segmented profession to a field for technical research and to what now should be recognized as a new liberal art of technological culture" [1].

Within the CHI community, "user-centered" design has always been our challenge, but in recent years interest has moved from simple usability and efficiency models to a broader notion of usability and usefulness and an acknowledgment of qualitative, intangible elements, such as aesthetic appeal, fun, and enjoyment. This shift has in turn led to new approaches and methods such as empathic design and experience design. The interdisciplinary nature of design, the need to maintain awareness of the user experience of the product throughout the design and development cycle, and the power of simulations and prototypes to focus collaboration and spur innovation [6] have also been increasingly emphasized.

Perhaps a driver for this broadening design sensibility is the increase in interactive technologies that are available; Bob Goodman stated in the May-June issue of *<interactions>*, "breakthrough products such as the iPod are creating a UX (user experience) friendly business climate" [5]. Or perhaps open innovation, open-source development, increasingly tailorable interfaces (for games, personal information management, and online presence, for example) are increasing awareness of the role of information, interface, and interaction design for attracting—and retaining—"users." Credit should also go to outspoken proponents of this broader vision of design activity within the technology arena—people like Joy Mountford (the founder of Apple's International Interface Design Project), Terry Winograd (a longtime educator and spokesman for human-centered design practices currently at Stanford University), Gillian Crampton Smith

(who, in 1983, established one of the first postgraduate courses in graphic design and computers for practicing designers at St. Martin's School of Art), and David Kelly (an educator at Stanford, currently building a new design school, the "d-school," and one of the founders of IDEO).

### **The Competition: Aims and Rules.**

In the spirit of encouraging a broader design sensibility at CHI, for the past two years we have run a student design competition. International teams, consisting of up to five undergraduate and/or postgraduate students have been invited to respond to "real world" design challenges. Like other academic and industry-sponsored design competitions, the intention has always been to provide an opportunity for students with a variety of design backgrounds (such as HCI, industrial design, visual and graphic design) to demonstrate their problem-solving and design skills.

However, being at CHI, the event also aims clearly to encourage those skills most appreciated by the HCI community. Student teams are invited to design a solution to a problem, and in the process demonstrate their analytic skills and academic acumen offering a clear reflection on their (perhaps novel) design methods and activities. The solution must demonstrate the team's design decisions are backed by human-centered design processes and the solution must be cost-efficient, usable, and accessible to an international audience. Illustrations, simulations and prototypes in the form of poster demonstrations, storyboards, and/or mock-ups are required in order to bring the design solutions to life.

The competition itself consists of three rounds, each focusing on a different modality of conference communication. Teams are asked to develop a written paper, a poster, and a short presentation.

**The Design Problems and Their Solutions, 2004 and 2005.** The design problems posed each year were