AIS SIGHCI Newsletter

Association for Information Systems
Special Interest Group on Human-Computer Interaction

Volume 4 Issue 1   **July 2005**

SIGHCI New Chair Remarks – Dr. Scott McCoy

Dear Fellow SIGHCI members,

It is a great honor for me to begin my term as Chair of AIS SIGHCI. My term follows that of current Past Chair, Fiona Nah. I would like to take this opportunity to thank Fiona for her leadership over the past year. I would also like to thank all of the SIG officers and the advisory board members for their service.

During my tenure as Chair of SIGHCI, I would like to concentrate on expanding our membership, both in terms of total members and in reaching more of an international base. If you are not a SIGHCI member yet, please be sure to join us! I would also like to focus on expanding our reach for conferences and workshops. The SIG currently participates at AMCIS, ICIS, PACIS, ECIS, and HCII. In addition to continuing our presence at these conferences/workshops, I would also like to expand our presence into other venues.

I look forward to working with SIGHCI officers, advisors, and members over the next year. If you have comments or suggestions for SIGHCI, please feel free to email me (scott.mccoy@business.wm.edu). I appreciate your continued support and participation in SIGHCI.

Best regards,

Scott McCoy
Chair, AIS SIGHCI

Welcome New Officers and Advisors

We welcome Joe Valacich and Ping Zhang as new advisors of AIS SIGHCI. We also welcome three new officers of SIGHCI. They are Traci Hess - Chair-Elect, Susan Lippert - Vice Chair for Membership, and Veena Parboteeah - Webmaster. It is worth noting that they have been actively involved in SIGHCI activities together with other SIGHCI advisors, officers and members during the last several years. Here we would like to recognize their new roles!

For a complete list of AIS SIGHCI advisors and officers, please see page 24 or visit http://sigs.aisnet.org/sighci/sighci/sig_officers/sig_officers.html.

Usability Is a Culture and Not Just a Service

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Introducing users' needs into product design improves the ease-of-use, comfort, productivity, and efficiency of products and consequently increases the satisfaction of the user or customer.

In today's market customers are frequently confronted with choices among products that have similar functions and features. The user experience of the product or service plays an important role in the user's final choice. Demand for products with more functionality gradually changes to demand for more user-friendly products. Thus, creating and designing products and services according to users' needs and usability principles is one of the main challenges of our industry.

User experience professionals constantly advocate users' needs and work with design teams to implement good human-computer interaction (HCI) and usability. They stress the importance of considering users' characteristics and behavior as they design products that support users' tasks.

Despite the tremendous body of knowledge in the field of HCI and human factors engineering, this knowledge is poorly integrated into the software development process (Gulliken, et al, 2003). One reason seems to be a substantial lack of mutual understanding among software engineers and HCI practitioners (Kazman, Gunaratne, and Jerome, 2003).

Some knowledge about HCI is gradually being included in the educational curriculum of software engineering programs in major colleges of engineering, and a variety of short courses are available through industry and private institutions in this area of expertise. However, fewer than 10 percent of software engineers report having taken a class in HCI, and the majority indicate that they learned about HCI entirely through an informal process (Kaman, Gunaratne, and Jerome, 2003).

Dramatic user experience improvements are possible when usability becomes a core part of the company culture. All professionals at all levels can contribute, including Strategy, Engineering, QA, Information Development, Sales, and Marketing.

To create such a culture, usability should be considered as more than just a "service" for development teams. In a company with a usability culture, professionals are trained to think about users and ease-of-use throughout the product life cycle. This cultural change not only extensively improves the ease-of-use of products and services, and consequently improves user and customer satisfaction, but it is also the most cost-effective way to massively improve the usability of all products and services.

To create usability culture there are many factors to be considered, including having a reliable and steady usability infrastructure, a coherent and proven user-centered design process, and clear user interface standards and guidelines. But among all the factors, the training and education of all professionals who are involved in the design, implementation, and customization of products in user-centered design and usability is essential. Training and education help to create a usability culture in a company. Through usability training and education all parties involved will have reasonable awareness and knowledge of usability to fundamentally improve the usability of a product.

- The training of professionals is the fastest and most cost-effective way to improve usability.

- Training and education in usability helps professionals understand and implement the basic principles of usability and user interface design in designing applications. It also enables them to understand and implement user-centered design,

usability testing, and learn how to analyze users and user needs.

- Training is the easiest and fastest approach to reinforce the implementation of standards and guidelines extensively and massively. This saves user experience professionals' time, ultimately reduces heuristic review time, and reduces development time.

- Training provides the opportunity to review many web pages during the training sessions with the participation of developers and the supervision of the instructor.

To create such a usability culture among the professionals (software, QA engineers, documentation specialists and technical consultants) involved with design implementation of the PeopleSoft products at Oracle, we have designed, promoted and delivered a 16-hour training program. In a three-year period over 3,000 professionals involved with the design and implementation of PeopleSoft products were trained. After six months experimental delivery of this training—and following the huge interest and satisfaction of the attendees and management teams—the program was made mandatory for all existing and new professionals by the executive management.

The training program is now planned to be redesigned and delivered across Oracle applications groups and is intended to create a usability culture and awareness among all professional staff, consultants, instructors, and even customer implementation teams. The program has two parts:

- Part 1 (level 1) of this training program covers user-centered design methodology, fundamental principles in human computer interaction, user profiling,

usability testing, and methodology for evaluating user interfaces.

- The second part (level 2) covers how to implement standards and guidelines and provides hands-on experience about how to design and customize business applications.

Our 16-hour training program was delivered online (recorded session), by live webcasts, and through in-class instructor-led workshops. During the training attendees learned the fundamental principles of HCI and how to apply them; what the term *user friendly* means and what constitutes a user-friendly interface; how the company benefits from user-centered interface design; the different methods for evaluating user interfaces; user interface standards and guidelines; and how to apply these guidelines when creating, upgrading, updating, and customizing applications.

The results of this operation were outstanding. Around 90 percent of the participants consistently rated the training session Great (on a scale of Poor, Average, Great) after completion.

All of the participants' comments expressed the usefulness of the training in designing or implementing the applications. In addition to participants' satisfaction, during the practice session, we were able to help developers review several thousand application pages. Otherwise it would have been impossible to review that many pages considering the limited availability of user experience professionals. In addition, teaching participants the fundamental principles of HCI and usability and how to fix minor issues better enabled the usability professionals to conduct more in-depth usability research and concentrate more on major design challenges.

Although it is hard to quantify the influence of such an operation on

overall usability improvement of the products, it is without question that the cultural change in the company was totally observable in the sense that usability became a central issue among all of the professionals involved in the design, implementation, and support of the products.

References

Gulliken, J., Blomkvist S., and Goransson, B. (2003) Engineering the HCIO Profession of Softening Development Processes. *Human Computer Interaction, Theory and Practice* (Part 1), Vol. 1, Lawrence Erlbaum Associates, Publisher, 118-1222

Kazman, R., Gunaratne, J., and Jerome B. (2003) Why Can't Software Engineers and HCI Practitioners Work Together? *Human Computer Interaction, Theory and Practice* (Part 1), Vol. 1, Lawrence Erlbaum Associates, Publisher, 118-1222

New Book Announcement

Wired for Speech: How Voice Activates and Advances the Human-Computer Relationship

by Clifford Nass and Scott Brave

MIT Press

Interfaces that talk and listen are populating computers, cars, call centers, and even home appliances and toys, but voice interfaces invariably frustrate rather than help. In "Wired for Speech," Clifford Nass and Scott Brave reveal how interactive voice technologies can readily and effectively tap into the automatic responses all speech – whether from human or machine – evokes. Wired for Speech demonstrates that people are "voice-activated": we respond to voice technologies as we respond to actual people and behave as we would in any social situation. By leveraging this powerful finding, voice interfaces can truly emerge as the next frontier for efficient, user-friendly technology.

"Wired for Speech" presents new theories and experiments and applies them to critical issues concerning how people interact with technology-based voices. It considers how people respond to a female voice in e-commerce (does stereotyping matter?), how a car's voice can promote safer driving (are "happy" cars better cars?), whether synthetic voices have personality and emotion (is sounding like a person always good?), whether an automated call center should apologize when it cannot understand a spoken request ("To Err is Interface; To Blame, Complex"), and much more. Nass and Brave's deep understanding of both social science and design, drawn from ten years of research at Nass's Stanford laboratory, produces results

that challenge conventional wisdom and common design practices. These insights will help designers and marketers build better interfaces, scientists construct better theories, and everyone gain better understandings of the future of the machines that speak with us.

Clifford Nass is Professor, Department of Communication, and Co-director, Kozmetsky Global Collaboratory, at Stanford University. He is the author of *The Media Equation: How People Treat Computers, Television, and New Media Like Real People and Places.* **Scott Brave** is a postdoctoral scholar, Department of Communication, at Stanford University.