
How to bring HCI Research and Practice Closer Together

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Abstract

This special interest group probes potential problems between HCI researchers and the practitioners who are consumers of research, to explore the extent of the problems and propose possible solutions. It will start with the results of the CHI 2010 workshop on the same topic, articulating factors that may render some of the research literature inaccessible or irrelevant to practitioners. When should HCI researchers be concerned about the relevance of their work to practitioners? How should practitioners communicate their needs for research? Participants will discuss these topics and others that both groups can use to help bridge the gap between research and practice in HCI.

Keywords

Research-practice misalignment; HCI skill set;
Practitioner needs; Research priorities

ACM Classification Keywords

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

General Terms

Human Factors

Introduction

The HCI community is by no means alone in believing that a problem exists between research and practice. Over the past 30 years, research seeking to identify the nature of such problems has been conducted in several disciplines, including marketing [7], information

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systems [6], medicine [4], and work and organizational psychology [1]. Some of these studies have found that research findings are often couched in jargon, are overly technical, and are sometimes simply irrelevant to practitioners [1]. Authors attribute the problem to “academics’ ignorance of business realities” [7], p. 5, to an apparent lack of understanding of real-world problems [6] or to the way these are tackled in the practitioner community [8]. Others have found that practitioners appreciate and recognize the value of theory-driven research, provided its relevance is made clear to them. In their self-defense, researchers point out that “as soon as you start doing something for the industry, it’ll become applied and it won’t have the same kind of academic value” [7], p. 6, and that there are no rewards for applied work when it comes to salary and promotion.

By its very nature, HCI is an applied discipline, yet signs of a research-versus-practice gap are not foreign to the HCI community. We do not know the nature, the magnitude, or the dimensions of the problem, or the extent to which it may be grounded more in faulty perception than in reality. Until these issues are better understood, there is little hope of identifying workable remedies and setting achievable goals for overcoming the problems. Consequently, this panel will bring together researchers and practitioners in an effort to clarify the issues underlying the apparent misalignment between them.

Even if it proves difficult to align research completely with the needs of HCI practice, the fact that academic researchers are also responsible for educating future HCI specialists should not be overlooked. It is crucially important to identify the knowledge and skills that HCI

graduates should possess when they enter the workforce. Studies in the information systems community have found substantial differences between academics and practitioners in importance ratings of technology variables such as hardware, network communication software, programming language and so on [6]. As Cooke and Mings [3], p. 296, so aptly point out, “How can teachers know what they teach about usability in the classroom accurately reflects workplace practices? And how do academics know that the usability research they conduct meets practitioners’ needs?”. The degree to which the SIGCHI HCI curriculum [5] is, or should be, still informing research and education, and its continued relevance to the skills and knowledge practitioners need, will be brought into the discussion in the workshop.

Goals for the Special Interest Group

The primary goal of this SIG is to gain a better understanding of the gaps between researcher and practitioner communities. It will facilitate the following:

- In-depth discussion of key issues (refer to the section on “Issues and Questions to be Addressed” below)
- Sharing and documenting detailed experiences of experienced and new researchers and practitioners to fulfill the immediate need of bridging the gap between these two communities (including outcomes of the re-conference Workshop on the same topic)
- Generation and dissemination of lessons learned and recommended solutions to the CHI community (CHI 2010 poster, *interactions* article, wiki, etc.)

Issues and Questions to be Addressed

- How can the usefulness of research papers be improved to suit varied audiences?

- How should research be disseminated to different audiences, including practitioners?
- How can research papers be made more accessible?
- What are the barriers that discourage practitioners from adopting research findings?
- How can collaboration between the two sub-communities be increased for future CHI conferences?
- What are the different approaches to HCI research (both basic and applied) at companies in product-oriented industries? At different academic institutions? Which might work for the community as a whole?
- What should students of HCI and interaction design be taught about research, to prepare them for the practitioner world?

Audience engagement: short and long-term

A supplementary audience engagement activity that we will conduct in conjunction with the SIG discussion is a survey of the participants.

Workshop results, a SIG summary and survey findings will be posted on the Researcher-Practitioner Interaction wiki:

<http://research-practice-interaction.wikispaces.com/>

We will also use social media to engage people before, during and after the SIG, such as creating a twitter hash tag (like #chirpi), asking participants and attendees to live tweet it, invite others who are not attending to tweet their questions, and to use the same tag for ongoing conversations after the SIG.

Organizers' Backgrounds

Elizabeth Buie has 34 years of experience in information systems, focusing on HCI and user experience in web sites, web applications, desktop applications, and complex systems. Elizabeth has master's degrees in Mathematics and in Human Development. She served on the editorial board of *<interactions>*, where she edited a column for practitioners, and she currently serves on the editorial board of the UPA's online *Journal of Usability Studies*. She is a member of ACM, SIGCHI, UPA, and IxDA. Her web site is www.luminanze.com

Susan Dray is a consultant who has spoken, taught, and published widely. She is a Fellow of the Human Factors and Ergonomics Society and an ACM Distinguished Engineer. Dr. Dray was North American editor of *Behaviour and Information Technology* and Business column editor for *<interactions>* and is UPA's Director of Publications. She has helped to build a new professional community for Human-Centered Design for Development (HCD4D). She has a doctorate in Psychology from UCLA and is a Board-Certified User Experience Professional (CUXP). Her web site is www.dray.com

Keith Instone is the Information architecture lead for ibm.com, in the CIO's office. For the past 10 years he has focused on applying HCI research and principles to large web sites. For the first half of his career, he was an HCI researcher, specializing in how hypertext systems were being used. He is active in the user experience community, including serving on the board of UXnet. His web site is www.instone.org

Jhilmil Jain is a User Experience Research Lead in the Intelligent Information Management Lab at Hewlett-Packard Labs. Dr. Jain has several publications and patents in information visualization, user research, multimodal interaction modeling, personal information management systems, and experimental evaluation. She has served on the program committees of various conferences such as CHI, HCII, and UPA; on the editorial board for the International Journal of Handheld Computing Research; on the review boards for two books "Handheld Computing for Mobile Commerce: Applications, Concepts and Technologies" and "The Psychology of Facebook". Her web site is www.hpl.hp.com/personal/Jhilmil_Jain/

Gitte Lindgaard is the Director of the Human Oriented Technology Lab (HOTLab) and professor in the Department of Psychology, Carleton University, Ottawa, Canada. She holds the NSERC/Cognos Senior Industry Research Chair in User-Centred Product Design. She has been active in HCI research and practice for 26 years. She holds a Ph.D. in HCI from Monash University, Melbourne, Australia. Her website is www.carleton.ca/~glindgaa

Arnie Lund is Principal Director, User Experience at Microsoft, and User Experience Community Lead for Microsoft IT; and occasional instructor at the University of Washington. Dr. Lund's PhD is in experimental psychology (with a focus on cognition, human learning and memory) from Northwestern University. He co-chaired the CHI conferences in 1998 and 2008. A Fellow of the Human Factors Society (HFES), he has served on the HFES Executive Committee, where he oversaw various US standards activities (including the first US HCI standard). He was the president of the

Board of Certification for Professional Ergonomists, and holds a CUXP certification. Arnie has been a researcher and research manager at companies such as Bell Labs, Ameritech, US West, Sapient, and Microsoft, as well as delivering innovative products for the companies. Dr. Lund has published widely and holds 20 patents.

References

- [1] Anderson, N., Herriot, P. & Hodgkinson, G.P.. The practitioner-researcher divide in industrial, work and organizational (IWO) psychology: Where we are now, and where do we go from here? *Journal of Occupational and Organizational Psychology*, 74 (2001), 391-411.
- [2] Bellenger, D.N. The marketing manager's view of marketing research, *Business Horizons*, 22 (1979), 59-65.
- [3] Cooke, L. & Mings, S. Connecting usability education and research with industry needs and practices, *IEEE Transactions on Professional Communication*, 48(3) (2005), 296-312.
- [4] Delaney, B.C., Fitzmaurice, D.A., Lester, H., Shaw, S. & Carter, Y.H. Moving the research agenda to where it matters: It's time to rattle the academic cage in primary care, *British Medical Journal (BMJ)*, 319 (1999), 206-207.
- [5] Hewett, T.T. *ACM SIGCHI curricula for human-computer interaction*, Technical report, ACM Press (1992).
- [6] Lee, S., Koh, S., Yen, D. & Tank H-L. Perception gaps between IS academics and IS practitioners: An exploratory study, *Information & Management*, 40 (2002), 51-61.
- [7] Schweitzer, J.C. How academics and practitioners rate academic research, *Proceedings 68th Annual Meeting of the Association for Journalism and Mass Communication*, Memphis, TN (1985), 2-33.
- [8] Wixon, D. Evaluating usability methods: Why the current literature fails the practitioner, *<interactions>*, 10 (4) (2003), 28-34.