Bridging a Bridge: Bringing Two HCI Communities Together

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Abstract

ACM SIGCHI is the largest association for professionals in HCI that bridges computer science, information science, as well as the social and psychological sciences. Meanwhile, a parallel HCI community was formed in 2001 within the Association of Information Systems (AIS SIGHCI) community. While some researchers have already bridged these two HCI sub-disciplines, the history and core values of these respective fields are quite different, offering new insights for how we can move forward together to sustain the future of HCI research. The main goal of this workshop is to begin building a bridge between these two communities to maximize the relevance, rigor, and generalizability of HCI research.

Author Keywords

Human-Computer Interaction; Interdisciplinary; Theory; Methods

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous

Introduction

No research design is perfect; thus, triangulation and interdisciplinary collaborations are the keys to robust and high-quality research. There is a three-horned problem that all researchers must tackle, which is to optimize the trade-offs between: 1) *precision* of how

Confirmed Panelists

- **Dennis Galletta**, University of Pittsburgh. AIS Fellow, LEO (AIS lifetime achievement award) winner, former President of AIS (2007-2008), and Co-Editor-in-Chief *AIS Transactions on Human-Computer Interaction*.
- **Gloria Mark**, University of California, Irvine. General Chair of CHI 2017, ACM CHI Academy Member, and Associate Editor of *ACM Transactions on Human-Computer Interaction*.
- **Michael Muller**, IBM Research and Wellesley College. Co-organizer of the CHI Early Career Symposium; Co-chair of ECSCW 2018 exploratory papers, and ACM Distinguished Scientist.
- **Fiona Fui-Hoon Nah**, Missouri University of Science and Technology. Co-Founder and former Chair of the AIS SIGHCI, and Associate Editor of *International Journal of Human-Computer Studies*.

well the phenomena of interest are measured and the scientific *rigor*, 2) *realism* of the context being studied, and 3) *generalizability* of findings to a broader population than the sub-population of participants being studied [16]. For example, controlled experiments conducted in a laboratory setting sacrifice realism for the sake of precision; case studies increase realism but achieving a high degree of control and generalizability is difficult due to the presence of extraneous factors and typically small sample sizes; surveys can be used to increase generalizability but the degree of control is limited [5,8]. Social issues and interpretive research methods will also provide interesting areas to discuss. Finally, there are unexplored commonalities between two major thrusts: "research through design" [10] in the CHI community and "design science" [12] in the HCI community.

Interestingly, when tackling this three-horned dilemma, different disciplines place stronger emphasis on some research goals over others. For instance, the ACM SIGCHI community prides itself on making real-world contributions (i.e., realism and relevance), while also addressing individual differences (or nuance) that drives different user needs to increase generalizability [1,19]. Because it grew up from a positivist paradigm [15], the AIS SIGHCI community tends to place more emphasis on high standards of scientific rigor but has been criticized of doing it at the expense of relevance [4]. Thus, while these two fields both strive to produce high-quality research, they often seek to make significantly different types of HCI contributions.

By beginning to bridge the ACM SIGCHI and AIS SIGHCI communities, this workshop intends to increase the impact of both fields and ensure the sustainability of HCI research as a whole. We strive to address the classic three-horned dilemma faced by all researchers, and more specifically, within the context of HCI research. Therefore, we invite submissions that examine and address this dilemma from a wide variety of perspectives with the goal of identifying synergies and potential collaborations across different sub-disciplines of HCI research.

Workshop Themes
The workshop has two broad themes:

1. Bridging the potentially different perspectives and priorities within and across the ACM SIGCHI and AIS SIGHCI communities.
2. Working together to address the issue of optimizing rigor, relevance, and generalizability in HCI research.

Through this workshop, we hope to gain a better understanding of different HCI research methodologies and, more importantly, of one another as researchers. We also hope to create synergies by fostering new collaborations across the greater community of HCI researchers and practitioners at large.

Background
Below, we provide a brief introduction to the AIS SIGHCI and ACM SIGCHI communities from the joint understanding of the workshop co-organizers and based on the literature. We encourage others who may have different perspectives to attend the workshop and co-create a broader, shared understanding of both communities as an outcome of the workshop.

Confirmed PC Members
- Constantinos Coursaris, Michigan State University
- Ann Fruhling, University of Nebraska at Omaha
- David Gurzick, Hood College
- Camille Grange, HEC Montreal
- Jens Grossklags, Technical University of Munich
- Shion Guha, Marquette University
- Traci Hess, University of Massachusetts Amherst
- Najmul Islam, University of Turki, Finland
- Mohammad Hossein Jarrahi, University of North Carolina Chapel Hill
- Haiyan Jia, Lehigh University
- Zhenhui Jack Jiang, National University of Singapore
- Richard Johnson, University of Albany
- Alfred Kobsa, University of California, Irvine
- Bart Knijnenburg, Clemson University
- Nima Kordzadeh, Worcester Polytechnic Institute
- Cliff Lampe, University of Michigan
- Young "Anna" Lee, Michigan State University
- Younghwa "Gabe" Lee, Miami University

Origins of AIS SIGHCI

Management Information Systems (MIS) began as an academic discipline in the 1970s. Some of the core research topics of this field include how information impacts business strategy and the business value of information technology (through efficiency and effectiveness) within organizational contexts. The Association for Information Systems (AIS) was formed in 1994, and in 2001, the Special Interest Group in HCI (SIGHCI) was born. As one of the largest SIGs in AIS, SIGHCI promotes HCI-related research within business, managerial, and organizational contexts [17]. Many in this community study the ways humans interact with information, technologies, and tasks in these various contexts [20], but have spread out into more social and other technology contexts as well.

MIS researchers strongly value theory development that abstracts (or generalizes) a phenomenon to analyze, explain, predict, or influence how information systems support organizations and/or individuals [11]. Yet, MIS researchers have begun reflecting on the state of their own community as a means of trying to balance between the theoretical rigor and cumulative tradition valued within the community and the relevance of their scholarly work [14]. Senior MIS researchers have expressed concerns regarding an identity crisis in the discipline [3], where phenomena too distantly related with IT-based systems are over-emphasized, and the IT artifact is often overlooked [18]. Meanwhile, others have embraced broadening the field, so that it can become even more interdisciplinary in nature [9].

Brief History of ACM SIGCHI

The Association for Computing Machinery (ACM) was founded in 1947 and is touted as the world's largest educational and scientific society [22]. It covers a diverse range of computing related fields and is home to more than thirty special interest groups. The Special Interest Group in Computer Human Interaction (SIGCHI) was created in 1982 with a focus on human-technology and HCI that are studied in many personal, social, and even organizational contexts. Wobbrock and Kientz delineated seven core contributions made by ACM SIGCHI researchers: 1) empirical research, 2) technology artifacts, 3) methodological approaches, 4) theoretical contributions, 5) datasets, 6) surveys or meta-analyses, and 7) opinions. Among them, empirical studies and system artifacts tend to be the most common contributions within ACM SIGCHI [19].

There is a fundamental tension in the ACM SIGCHI community between novel research and incremental advances that need to be made to develop more generalizable and enduring theories, as well as a deeper understanding of a given phenomenon [6], which has led to critiques about a detrimental "novelty effect" that threatens the sustainability of HCI research [2]. Similarly, a "Transparent Statistics" community recently emerged within SIGCHI to address some of the issues related to using statistical reporting as a means of persuasion instead of scientific advancement [13]. Further, SIGCHI's emphasis on "implications for design," as opposed to valuing a deeper understanding of the context, has also been problematized by leaders in the SIGCHI community [7].

Bridging the Two HCI Communities

Given that SIGCHI and SIGHCI study such similar phenomena, the goal of this workshop is to bring the communities together. Coming from different traditions, the two HCI communities described above seem to

PC Members Continued

- Eleanor Loiacono, Worcester Polytechnic Institute
- Bonnie Nardi, University of California, Irvine
- Aaron Quigley, University of St. Andrews
- Patrick Shih, Indiana University
- Heshan Sun, Clemson University
- Nathan Twyman, Missouri University of Science and Technology
- Wietske Van Osch, Michigan State University
- Yvette Wohn, New Jersey Institute of Technology
- Dezhi Wu, Southern Utah University

grapple with almost diametrically opposed problems: AIS SIGHCI's question of "*how can we uphold theoretical rigor while improving relevance?*" versus ACM SIGCHI's question of, "*how can we uphold our relevance while improving rigor and theoretical understanding?*" Given the complementary nature of these difficult questions, this workshop aims to help the two communities to share best practices and insights for advancing the field of HCI by working together.

Some bridging between these communities has already occurred; AIS SIGHCI members (including some of the workshop co-organizers [21]) participated in the "User Experience Development Consortium" at CHI 2005, which aimed to address the number of competing professional organizations targeted towards HCI and User Experience (UX) [23]. A number of researchers have also independently chosen to bridge both communities (including many of the workshop co-organizers and PC members). Yet, for the most part, the two fields are still very separate and some real barriers exist that prevent sustainable collaborations.

For example, the AIS SIGHCI community highly values a limited number of top-tier journals (taking multiple years for publication), while ACM SIGCHI has generally adopted the conference model. Unlike ACM, AIS does not take copyright and treats conference papers as non-archival presentations meant for refinement and later journal publications. This difference in itself equates to different criteria for promotion and tenure, as well as standards for publications, that complicate cross-disciplinary HCI collaborations between the two communities. With the new journal-based model being introduced for ACM SIGCHI's CSCW conference (*The Proceedings of the ACM: HCI*), this is a unique

opportunity to test the notion of building a more enduring bridge between the two HCI communities.

This workshop will give researchers from the two fields an opportunity to have a frank and generative conversation, even discussing potential misconceptions and biases between the communities. We believe this will help open avenues toward future collaborations that are beneficial to researchers in both communities. Examples of questions, issues, and discussion points of interest include: Is there an optimal solution to the three-horned problem of attaining high rigor, relevance, and generalizability? How do we prioritize the trade-offs between theory development and the practicality of empirical research? How can we build greater synergy that tap diverse expertise across these two HCI communities to further advance HCI research and practice? More importantly, what are the shared goals of and/or problems faced by the two communities that we can move forward to achieve and solve in unison?

Workshop Goals

There are four goals of this workshop: 1) introduce the ACM SIGCHI and AIS SIGHCI communities to one another in hopes of facilitating a mutual understanding across the respective fields, 2) foster synergistic collaborations between the two fields in a way that leads to transformative innovation and knowledge generation, 3) identify opportunities and challenges related to the three-horned dilemma described above, and 4) identify challenges involved in interdisciplinary work that bridges multiple fields (e.g., reconciling different value systems, standards of quality, social norms, acceptable publication venues, etc.). We believe that the diversity of experiences and perspectives that come from the different communities will be key to a

deeper understanding and appreciation for the challenges we all face, as well as help us achieve the goal of high-quality and sustainable HCI research.

Pre-Workshop Plans

We plan to build a WordPress site and purchase the domain name www.BridgingHCI.org to advertise the workshop. We will recruit broadly from the ACM SIGCHI and AIS SIGHCI communities via in-person conference meetings, posts on listservs and social media, and personal invitations. We will also encourage the numerous PC members to submit position papers and attend the workshop.

Call for Participation

We will hold a one-day workshop for up to 30 participants who are interested in building a sustainable bridge between the ACM SIGCHI and AIS SIGHCI research communities; both academic and industry participants will be recruited. Potential participants should submit a 2-4 page position paper in the SIGCHI extended abstracts format that addresses the workshop themes and topics highlighted in the call. Papers will be peer-reviewed by the workshop program committee (See sidebar for confirmed PC members, representing both communities), and submissions will be accepted based on the relevance of the topic as well as the potential for the individual to contribute to the workshop discussions and goals. Topics of interest include, but are not limited to:

- Comparisons between ACM SIGCHI and AIS SIGHCI core values based on the experience of people who have already bridged the two fields.
- Conceptual papers about different types of HCI contributions (e.g., theory building, social impact)

made by either or both fields, as well as potential weaknesses that could be mitigated by bridging.
- Methodological papers from either HCI discipline (e.g., qualitative and quantitative approaches) that speak to the three-horned problem.
- Forward-thinking proposals for how to build synergies and sustainable collaborations among researchers from both HCI communities.

Workshop Activities

- **Welcome and Introductions** (9:00 AM): Lightning talk presentations (2 minutes each)
- **Large-group Discussion** (10:00 AM): Brainstorm core values of ACM SIGCHI and AIS SIGHCI and draw comparisons between the two
- **Coffee Break** (10:45 AM): Networking between workshop participants
- **Panel Discussion** (11:00 AM): A panel consisting of 2 ACM SIGCHI, 2 AIS SIGHCI, and 2 other researchers who bridge both communities. Panelists will be experienced and established researchers within their respective communities.
- **Lunch** (12:30 PM)
- **Break-out Groups** (2:00 PM): Small group exercise guided by workshop co-organizers focused on ways to bridge between the two communities.
- **Synthesize Outcomes** (3:30 PM): Summarizing outcomes of breakout sessions with the entire group. Each group will share their proposals and the conclusions they draw from their discussion.
- **Next Steps** (4:30 PM): As an entire group, we will solidify 3-5 key strategies along with tactics for achieving these goals to accomplish after the conclusion of the workshop within the next year.

Proposed Timeline

- **December 8, 2017:** Call for proposals and workshop website goes live
- **January 29, 2018:** Position paper CFP deadline
- **January 30, 2018 – February 16, 2018:** Submissions reviewed by program committee
- **February 21, 2018:** Notifications sent to authors
- **March 5, 2018:** Camera-ready versions of position papers due and linked on website

Post-Workshop Plans

At the workshop, we will co-create strategies and tangible tactics to achieve these shared goals. As co-editor-in-chief of *AIS Transactions on Human-Computer Interaction*, Dennis Galletta has agreed to work with us to produce a position paper based on the workshop outcomes and possibly a special issue for bridging the two communities. Similarly, we plan to reach out to our panelist Gloria Mark (Associate Editor) to see a special issue of *ACM Transactions on Human-Computer Interaction* would be possible. We will also contact the editors of the *Proceedings of the ACM on Human-Computer Interaction* about a journal special issue. Finally, we will work to have a similar bridging workshop at a future AIS conference.

About the Organizers

(Presented in alphabetical order by last name)

Soussan Djamasbi is an Associate Professor in Information Systems at Worcester Polytechnic Institute (WPI). She received her PhD from the CIS interdisciplinary program at University of Hawaii at Manoa. She is the founder and director of the User Experience and Decision Making eye tracking laboratory at WPI. Her research emphasizes value creation with user experience and focuses on investigating factors that influence the effectiveness of systems used for organizational and individual decision making.

Dennis Galletta is Professor of Business Administration, Ben L. Fryrear Fellow, and Director of the PhD Program at the Katz Graduate School of Business, University of Pittsburgh. He is an AIS Fellow, LEO (AIS lifetime achievement award) winner, and former President of AIS (2007-2008). His PhD in MIS is from the Carlson School of Business, U. of Minnesota. His research has focused on user attitudes, behavior, and performance as well as a more recent focus on behavioral security. He occasionally attends SIGCHI but primarily works in the AIS Community.

Fiona Fui-Hoon Nah is a Professor of Business and Information Technology and Director of the Laboratory for Information Technology Evaluation at the Missouri University of Science and Technology. Her research interests include HCI, virtual communities and virtual worlds, user behavior in cybersecurity, and neuro-IS. Her publications have appeared in journals such as MIS Quarterly, Journal of the Association for Information Systems, and International Journal of Human-Computer Studies. She is a co-Founder and former Chair of the AIS SIGHCI. She received her Ph.D. in Management Information Systems from the U. of British Columbia.

Xinru Page is an Assistant Professor in the Department of Computer Information Systems at Bentley University. Her research focuses on social media adoption and non-use, networked privacy, and the role of individual traits and values in our increasingly mediated communications. She received best dissertation awards from both the iSchools organization

and Yahoo!. Her work draws from a variety of disciplines, having obtained degrees in Computer Science, HCI, and Informatics, and she is now housed in an Information Systems department.

Lionel P. Robert Jr. is an Associate Professor at the U. of Michigan School of Information. His research focuses on collaboration through and with technology; and includes virtual teams, crowdwork, teamwork with robots, autonomous vehicles, and the sharing economy. He was a BAT Doctoral Fellow and KPMG Scholar at Indiana University, where he completed his Ph.D. in Information Systems and minored in Social Informatics through the Center for Social Informatics.

Pamela Wisniewski is an Assistant Professor in the Department of Computer Science at the U. of Central Florida. She obtained her Ph.D. from the U. of North Carolina at Charlotte. She started out as a member of the AIS community but has since transitioned to ACM SIGCHI, where her work has received Best Papers and Honorable Mentions. She was recently selected as an inaugural member of the ACM Future Leaders Academy. Her research is user-centered and lies is at the intersection of Social Computing and Privacy.

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