Welcome to CHI 2012!

After nearly two years of preparation, we are thrilled to welcome you to CHI 2012 in Austin, Texas. Austin is justifiably proud of being the Live Music Capital of the World (R), and it is home to a world-class university, innovative technology and design firms, superb restaurants, exciting culture and nightlife, and genuinely friendly people—what a perfect fit for our CHI conference. We encourage you to get out and explore the city.

But we also are working hard to lure you back indoors with a phenomenal technical program. At the core of the program are over a hundred technical sessions with research papers and notes, case studies, and other exciting presentations that bring you the best new work on human-computer interaction.

We give thanks to our hundreds of review committee members and our more than one thousand reviewers—they invested thousands of hours to help make sure that we've picked the best content. All of the technical content can be found in the ACM Digital Library.

At the same time, we hope to lure you into our useful courses, engaging panels, and thoughtful invited talks. We're very excited to have Margaret Gould Stewart and Hugh Herr as our keynote speakers. In spanning from Margaret's talk on connecting the world through video to Hugh's talk on designing intelligent orthotics and prosthetics we span the scope of this conference—from social interaction with each other through computing to the very personal and intimate interaction of a human with computerized limbs or other assistive devices. We're also excited to have two special invited talks: Stu Card, SIGCHI's 2000 Lifetime Achievement Award winner, will talk about what interaction science means in today's environment; and Richard Shusterman will bridge HCI and the humanities as he introduces us to Somaesthetics and how it can improve our understanding and experience. We are also honored to have Dan Olsen, Joy Mountford, and Batya Friedman--SIGCHI's Lifetime Research, Lifetime Practice, and Social Impact awardees--each giving talks at CHI 2012. Each of the three of them has made an indelible impact on our field.

The theme of this year's CHI conference is "It's the Experience!" and from the beginning it has been our goal to ensure that CHI 2012 attendees don't only hear about HCI, but experience it with all of their senses. We are therefore delighted to have more than 60 interactivity demonstrations and installations—opportunities for you to see, feel, hear, and interact with exciting new technologies and also to reflect on technologies of the past, thanks to Roger Ibars' HWD collection—a hands-on installation of historic hard-wired input devices. We'll be featuring the full set of interactivity on Tuesday afternoon and Wednesday lunchtime; selected installations will be available at other times—check the Interactivity tab for more details. Our video program will provide another way to experience innovative forms of HCI.

CHI 2012 has new depth in Computer Games (including a new student games competition), digital arts, and the humanities. We have an unusually rich collection of Digital Arts installations—we invite you to take some time to interact with the artists and learn about how art—like science, engineering, and design—has its own ways of posing and exploring challenging questions.

And there's so much more. We will also have over 250 posters representing exciting works-in-progress and much more. Student venues at CHI 2012 include our doctoral consortium—an intimate opportunity for extensive mentoring and peer support; student research and design competitions, and the games competition. Come see the competition finalists! And let's not forget CHI Madness—a frenetic but highly efficient whirlwind tour through each days technical papers.

Even before we "formally" open the conference Monday morning, we will have had an intensive weekend of workshops where CHI attendees gather to address emerging fields, tackle challenging questions, and simply support each other in areas of common interest. The mutual support continues both in formal SIG gatherings and in informal gatherings in the convention center halls and at tables in our exhibit hall. We particularly invite you to gather together in affinity groups built around our nine communities—these communities not only shape our program, they also can help enrich your experience as an attendee.

In the end, though, it has been quite an Experience! for us. We are grateful to all the dedicated volunteers and staff that have made this conference possible. We appreciate the support of our sponsors and participation of our exhibitors. And most of all, we thank you for joining us here at the conference. We hope you find things some things that are useful, some things that are inspiring, and some things that are just plain fun. We hope you have an incredible CHI 2012 Experience!

Joseph A. Konstan  
University of Minnesota  
CHI 2012  
General Conference Chair

Ed H. Chi  
Google  
CHI 2012  
Technical Program Chairs

Kristina Höök  
Mobile Life at KTH  
CHI 2012  
Technical Program Chairs
From ACM SIGCHI's President and Vice President for Conferences

SIGCHI is proud to sponsor the premier annual conference in the field of human-computer interaction. We are extremely grateful to the CHI 2012 Conference Chair Joseph Konstan, to Technical Program Chairs Ed Chi and Kristina Höök, and to their wonderful crew, who succeeded to build an impressive program and experience.

CHI 2012 marks the 30th anniversary of our society. The first conference, on Human Factors in Computer Systems, took place in Gaithersburg, MD, on March 15-17, 1982.

The second and third conferences were a year and a half apart, and from then on CHI, as the conference has been called since 1983, has been an annual event with the official name: "ACM Conference on Human Factors in Computing Systems".

The first conference drew over 900 attendees, and since then CHI has continued to grow and broaden its range of topics and contributing disciplines: the founding psychologists and software engineers began to meet new visions from ethnography, sociology, communication sciences and arts, among others. Relevant industries, as well as research institutes and academia, showed an increasing-and often long-lasting-interest and involvement (through volunteers and through sponsorship for conference expenses).

CHI is an ideal forum for people to meet formally as well as informally, to exchange knowledge and views, to share experiences, and to learn. The CHI conference brings together professionals from research and practice; people from industry, academia, and from government; long-term veterans of HCI, young professionals and students; all in an environment designed to encourage interaction. We invite you to actively participate in that interaction: introduce yourself to people, interact with presenters and speakers, renew old friendships and make new ones.

CHI is organized on behalf of ACM's Special Interest Group on Computer-Human Interaction (SIGCHI), an international community of professionals who share an interest in the many diverse facets of HCI. SIGCHI is committed both to advancing the field of HCI, to facilitate exchange of information within the SIGCHI community, and to support students to enter the domain.

The CHI conference is arguably the single most visible activity of SIGCHI, but we also sponsor and support a wide range of specialized conferences in areas ranging from interactive systems design to user interface technology to computer-supported cooperative work to "intelligent" user interfaces. Visit the SIGCHI website at http://www.sigchi.org to find our conference schedule, listing upcoming as well as past conferences.

SIGCHI and ACM produce some of the most respected publications in the field. All members receive interactions, a highly-acclaimed magazine covering the broad field of HCI and user interface design. ACM Transactions on Computer-Human Interactions (ToCHI), now in its 18th year, is our flagship journal - a quarterly publication with the top-quality archival research aimed at researchers and those translating research into practice.

SIGCHI is truly an international organization, with over 30 local chapters and 3 student chapters in 19 countries on 5 continents. We encourage all SIGCHI members to join their local chapter - or if there isn't one in your area, we would love to help you create one. And don't forget virtual communities! SIGCHI hosts dozens of electronic mailing lists on topics ranging from HCI and the Web, to HCI educations, to public policy and beyond. Those lists range from dozens of subscribers to thousands, and are an excellent way to keep up with the field and with friends and colleagues.

Finally, on behalf of ACM SGICHI, we again want to thank the conference committee and all of the hundreds of volunteers who make this conference possible. Their work makes this a rewarding experience for all of us.

Gerrit C. van der Veer
SIGCHI President

John "Scooter" Morris
SIGCHI Vice-President for Conferences
ABOUT SIGCHI

CHI 2012 is sponsored by ACM’s Special Interest Group on Computer-Human Interaction (ACM SIGCHI). ACM, the Association for Computing Machinery, is an educational and scientific society uniting the world’s computing educators, researchers, and professionals to inspire dialogue, share resources, and address the field’s challenges. ACM strengthens the profession’s collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking. ACM offers its more than 100,000 worldwide members cutting edge technical information through world class journals and magazines, dynamic special interest groups, and globally recognized conferences.

Visit www.acm.org for more information about the ACM.

SIGCHI is the premier international society for professionals, academics, and students who are interested in human-computer interaction (HCI). We provide a forum for the discussion of all aspects of HCI through our conferences, including our flagship CHI conference, publications, web sites, email discussion groups, and other services. We advance education in HCI through courses, workshops, and outreach, and we promote informal access to a wide range of individuals and organizations involved in HCI. Members can be involved in HCI-related activities with others in their region through local SIGCHI chapters. Come to the SIGCHI Town Hall meeting on Wednesday at 12:50 in Meeting Room 16AB, 4th Floor or visit www.sigchi.org to learn more about SIGCHI.

ACM, the Association for Computing Machinery http://www.acm.org/, is an educational and scientific society uniting the world’s computing educators, researchers and professionals to inspire dialogue, share resources and address the field’s challenges. ACM strengthens the profession’s collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking. ACM offers its 87,000 global members cutting-edge technical information through world class journals and magazines, dynamic special interest groups and globally recognized conferences.
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Cuong Nguyen, Portland State University, USA
Yuzhen Niu, Portland State University, USA
Feng Liu, Portland State University, USA

Video as Memorabilia: User Needs for Collaborative Automatic Mobile Video Production
Sami Vihavainen, Aalto University, Helsinki Institute for Information Technology, Finland
Sujeet Mate, Nokia Research Center, Finland
Lassi Liikkanen, Aalto University, Helsinki Institute for Information Technology, Finland
Igor D. D. Curcio, Nokia Research Center, Finland

130: Sustainability & Behavior Change
Session Chair: May 7, 4:30 PM Room: 18CD

Collapse Informatics: Augmenting the Sustainability & ICT4D Discourse in HCI (Page 655)
Bill Tomlinson, University of California, Irvine, USA
M. Six Silberman, Bureau of Economic Interpretation, USA
Donald Patterson, University of California, Irvine, USA
Yue Pan, Indiana University, USA
Eli Blevis, Indiana University, USA

James Pierce, Carnegie Mellon University, USA
Eric Paulos, Carnegie Mellon University, USA

The Dubuque Water Portal: Evaluation of the Uptake, Use and Impact of Residential Water Consumption Feedback (Page 675)
Thomas Erickson, IBM T.J. Watson Research Center, USA
Mark Podlaseck, IBM T.J. Watson Research Center, USA
Sambit Sahu, IBM T.J. Watson Research Center, USA
Jing D. Dai, IBM T.J. Watson Research Center, USA
Tian Chao, IBM T.J. Watson Research Center, USA
Milind Naphade, IBM T.J. Watson Research Center, USA

Embedded Interaction in a Water Fountain for Motivating Behavior Change in Public Space (Page 685)
Ernesto Arroyo, Universitat Pompeu Fabra, Spain
Leandro Bonanni, Massachusetts Institute of Technology, USA
Nina Valkanova, Universitat Pompeu Fabra, Spain

129: Interacting With Robots & Agents
Session Chair: Antonello De Angeli, University of Trento, Italy May 7, 4:30 PM Room: 16AB

Ripple Effects of an Embedded Social Agent: A Field Study of a Social Robot in the Workplace (Page 695)
Min Kyung Lee, Carnegie Mellon University, USA
Sara Kiesler, Carnegie Mellon University, USA
Jodi Forlizzi, Carnegie Mellon University, USA
Paul Rybski, Carnegie Mellon University, USA

Designing Effective Gaze Mechanisms for Virtual Agents (Page 705)
Sean Andrist, University of Wisconsin - Madison, USA
Tomislav Pejsa, University of Wisconsin - Madison, USA
Bilge Mutlu, University of Wisconsin - Madison, USA
Michael Gleicher, University of Wisconsin - Madison, USA

120: Hot Moves: Shape-changing & Thermal Interfaces
Session Chair: Lars Erik Holmquist, Yahoo!, USA May 7, 4:30 PM Room: Ballroom

"Baby It's Cold Outside": The Influence of Ambient Temperature and Humidity on Thermal Feedback (Page 715)
Martin Halvey, University of Glasgow, UK
Graham Wilson, University of Glasgow, UK
Stephen A. Brewster, University of Glasgow, UK
Stephen A. Hughes, SAMH Engineering, Ireland

PINOKY: A Ring That Animates Your Plush Toys (Page 725)
Yuta Sugiura, Keio University & JST ERATO Igarashi Design Interface Project, Japan
Calista Lee, Keio University & JST ERATO Igarashi Design Interface Project, Japan
Masayasu Ogata, Keio University & JST ERATO Igarashi Design Interface Project, Japan
Anusha Withana, Keio University, Japan
Yasutoshi Makino, Keio University, Japan
Daisuke Sakamoto, JST ERATO Igarashi Design Interface Project & The University of Tokyo, Japan
Masahiko Inami, Keio University & JST ERATO Igarashi Design Interface Project, Japan
Takeo Igarashi, JST ERATO Igarashi Design Interface Project & The University of Tokyo, Japan

Shape-Changing Interfaces: A Review of the Design Space and Open Research Questions (Page 735)
Majken Rasmussen, Aarhus School of Architecture, Denmark
Esben Pedersen, University of Copenhagen, Denmark
Marianne Petersen, University of Aarhus, Denmark
Kasper Hornbæk, University of Copenhagen, Denmark

MimicTile: A Variable Stiffness Deformable User Interface for Mobile Devices (Page 745)
Yusuke Nakagawa, The University of Tokyo, Japan
Akiya Kamimura, National Institute of Advanced Industrial Science & Technology, Japan
Yoichi Kawaguchi, The University of Tokyo, Japan

Animating Paper Using Shape Memory Alloys (Page 749)
Jie Qi, Massachusetts Institute of Technology, USA
Leah Buechley, Massachusetts Institute of Technology, USA

123: Intimacy & Connection
Session Chair: Mary Czerwinski, Microsoft Research, USA

Intimacy in Long-Distance Relationships Over Video Chat (Page 753)
Carman Neustaedter, Simon Fraser University, Canada
Saul Greenberg, University of Calgary, Canada

How Do Couples Use CheekTouch Over Phone Calls? (Page 763)
Young-Woo Park, Korea Advanced Institute of Science & Technology, Korea
Seok-Hyung Bae, Korea Advanced Institute of Science & Technology, Korea
Tek-Jin Nam, Korea Advanced Institute of Science & Technology, Korea

The Spread of Emotion via Facebook (Page 767)
Adam D. I. Kramer, Facebook, Inc., USA

It's Complicated: How Romantic Partners Use Facebook (Page 771)
Xuan Zhao, Cornell University, USA
Victoria Schwanda Sosik, Cornell University, USA
Dan Cosley, Cornell University, USA

Lost in Translation: Understanding the Possession of Digital Things in the Cloud (Page 781)
William Odom, Carnegie Mellon University, USA
Abigail Sellen, Microsoft Research, Cambridge, UK
Richard Harper, Microsoft Research, Cambridge, UK
Eno Thereska, Microsoft Research, Cambridge, UK

126: HCI4D: Business
Session Chair: Batya Friedman, University of Washington, USA

Understanding Negotiation in Airtime Sharing in Low-Income Microenterprises (Page 791)
Nithya Sambasivan, University of California, USA
Ed Cutrell, Microsoft Research India, India
183: Pen + Touch  
Session Chair: Carman Neustaedter, Simon Fraser University, Canada  

Natural Use Profiles for the Pen: An Empirical Exploration of Pressure, Tilt, and Azimuth (Page 801)  
Yizhong Xin, Kochi University of Technology & Shenyang University of Technology, Japan  
Xiaojun Bi, University of Toronto, Canada  
Xiangshi Ren, Kochi University of Technology, Japan  

A-Coord Input: Coordinating Auxiliary Input Streams for Augmenting Contextual Pen-Based Interactions (Page 805)  
Khalad Hasan, University of Manitoba, Canada  
Xing-Dong Yang, University of Alberta, Canada  
Andrea Bunt, University of Manitoba, Canada  
Pourang Irani, University of Manitoba, Canada  

Personalized Input: Improving Ten-Finger Touchscreen Typing Through Automatic Adaptation (Page 815)  
Leah Findlater, University of Maryland, College Park & University of Washington, USA  
Jacob O. Wobbrock, University of Washington, USA  

Bimanual Marking Menu for Near Surface Interactions (Page 825)  
François Guimbretière, Cornell University, USA  
Chau Nguyen, Cornell University, USA  

152: Affective Presence  
Session Chair: Albrecht Schmidt, University of Stuttgart, Germany  

Group Hedonic Balance and Pair Programming Performance: Affective Interaction Dynamics as Indicators of Performance (Page 829)  
Malte F. Jung, Stanford University, USA  
Jan Chong, OnLive, USA  
Larry J. Leifer, Stanford University, USA
Learning How to Feel Again: Towards Affective Workplace Presence and Communication Technologies (Page 839)
Anbang Xu, University of Illinois at Urbana-Champaign, USA
Jacob T. Biehl, FX Palo Alto Laboratory, Inc., USA
Eleanor Rieffel, FX Palo Alto Laboratory, Inc., USA
Thea Turner, FX Palo Alto Laboratory, Inc., USA
William van Melle, FX Palo Alto Laboratory, Inc., USA

AffectAura: an Intelligent System for Emotional Memory (Page 849)
Daniel McDuff, Microsoft Research & Massachusetts Institute of Technology, USA
Amy Karlson, Microsoft Research, USA
Ashish Kapoor, Microsoft Research, USA
Asta Roseway, Microsoft Research, USA
Mary Czerwinski, Microsoft Research, USA

Understanding Heart Rate Sharing: Towards Unpacking Physiosocial Space (Page 859)
Petr Slovák, Vienna University of Technology, Austria
Joris H. Janssen, Philips Research & Eindhoven University of Technology, The Netherlands
Geraldine Fitzpatrick, Vienna University of Technology, Austria

155: Games: Community + Communication
Session Chair: Steve Feiner, Columbia University, USA

Athletes and Street Acrobat: Designing for Play as a Community Value in Parkour (Page 869)
Annika Waern, Stockholm University, Sweden
Elena Balan, Mobile Life Centre, Sweden
Kim Nevelsteen, Mobile Life Centre & Interactive Institute, Sweden

Communication and Commitment in an Online Game Team (Page 879)
Laura Dabbish, Carnegie Mellon University, USA
Robert Kraut, Carnegie Mellon University, USA
Jordan Patton, Carnegie Mellon University, USA

Twiage: A Game for Finding Good Advice on Twitter (Page 889)
Max van Kleek, University of Southampton, UK
Daniel Alexander Smith, University of Southampton, UK
Ruben Stranders, University of Southampton, UK
m.c. schraefel, University of Southampton, UK

158: Healthcare + Technology: Putting Patients First
Session Chair: Katie Siek, University of Colorado at Boulder, USA

Findings of e-ESAS: A Mobile Based Symptom Monitoring System for Breast Cancer Patients in Rural Bangladesh (Page 899)
Munirul M. Haque, Marquette University, USA
Ferdaus Kawsar, Marquette University, USA
Md. Adibuzzaman, Marquette University, USA
Sheikh I. Ahamed, Marquette University, USA
Richard Love, International Breast Cancer Research Foundation, USA
Rumana Dowla, Amader Gram, Bangladesh
David Roe, International Breast Cancer Research Foundation, USA
Syed Mozammel Hossin, Amader Gram, Bangladesh
Reza Selim, Amader Gram, Bangladesh

Problems of Data Mobility and Reuse in the Provision of Computer-Based Training for Screening Mammography (Page 909)
Mark Hartwood, University of Manchester, UK
Rob Procter, University of Manchester, UK
Paul Taylor, University College London, UK
Lilian Blot, University of York, UK
Stuart Anderson, University of Edinburgh, UK
Mark Rouncefield, Lancaster University, UK
Roger Slack, University of Bangor, UK

Supporting Visual Assessment of Food and Nutrient Intake in a Clinical Care Setting (Page 919)
Rob Comber, Newcastle University, UK
Jack Weeden, Newcastle University, UK
Jennifer Hoare, Newcastle University, UK
Stephen Lindsay, Newcastle University, UK
Gemma Teal, Glasgow School of Art, UK
Alastair Macdonald, Glasgow School of Art, UK
Lisa Methven, University of Reading, UK
Paula Moynihan, Newcastle University, UK
Patrick Olivier, Newcastle University, UK

Tackling Dilemmas in Supporting "The Whole Person" in Online Patient Communities (Page 923)
Jina Huh, University of Washington, USA
Rupa Patel, University of Washington, USA
Wanda Pratt, University of Washington, USA

Interaction Proxemics and Image Use in Neurosurgery (Page 927)
Helena M. Mentis, Microsoft Research, UK
Kenton O'Hara, Microsoft Research, UK
Abigail Sellen, Microsoft Research, UK
Rikin Trivedi, Addenbrookes Hospital, UK

149: Critical Perspectives on Design
Session Chair: Peter Wright, Newcastle University, UK

What Should We Expect From Research Through Design? (Page 937)
William Gaver, Goldsmiths, University of London, UK

Sustainably Unpersuaded: How Persuasion Narrows Our Vision of Sustainability (Page 947)
Hrönn Brynjarsdóttir, Cornell University, USA
Maria Hákansson, Cornell University, USA
James Pierce, Carnegie Mellon University, USA
Eric P. S. Baumer, Cornell University, USA
Carl DiSalvo, Georgia Institute of Technology, USA
Phoebe Sengers, Cornell University, USA

Undesigning Technology: Considering the Negation of Design by Design (Page 957)
James Pierce, Carnegie Mellon University, USA

Affordances in HCI: Toward a Mediated Action Perspective (Page 967)
Victor Kaptelinin, University of Bergen, Norway
Bonnie Nardi, University of California, Irvine, USA

168: I Am How I Touch: Authenticating Users
Session Chair: Xiang Cao, Microsoft Research Asia, China

Biometric-Rich Gestures: A Novel Approach to Authentication on Multi-Touch Devices (Page 977)
Napa Sae-Bae, Polytechnic Institute of NYU, USA
Kowsar Ahmed, Polytechnic Institute of NYU, USA
Katherine Isbister, Polytechnic Institute of NYU, USA
Nasir Memon, Polytechnic Institute of NYU, USA

Touch Me Once and I Know It's You! Implicit Authentication Based on Touch Screen Patterns (Page 987)
Alexander De Luca, University of Munich, Germany
Alina Hang, University of Munich, Germany
Frederik Brudy, University of Munich, Germany
Christian Lindner, University of Munich, Germany
Heinrich Hussmann, University of Munich, Germany

WebTicket: Account Management Using Printable Tokens (Page 997)
Eiji Hayashi, Carnegie Mellon University, USA
Bryan A. Pendleton, Carnegie Mellon University, USA
Fatih Kursat Ozenc, Autodesk Inc., USA
Jason I. Hong, Carnegie Mellon University, USA

186: Visionary Models + Tools
Session Chair: Duncan Brumby, University College London, UK

Color Naming Models for Color Selection, Image Editing and Palette Design (Page 1007)
Jeffrey Heer, Stanford University, USA
Maureen Stone, Tableau Software, USA
The Untapped Promise of Digital Mind Maps (Page 1017)
Haakon Faste, Carnegie Mellon University, USA
Honray Lin, Carnegie Mellon University, USA

Delta: A Tool for Representing and Comparing Workflows (Page 1027)
Nicholas Kong, Autodesk Research & University of California, Berkeley, USA
Tovi Grossman, Autodesk Research, Canada
Björn Hartmann, University of California, Berkeley, USA
George Fitzmaurice, Autodesk Research, Canada
Maneesh Agrawala, University of California, Berkeley, USA

QuickDraw: Improving Drawing Experience for Geometric Diagrams (Page 1037)
Salman Cheema, University of Central Florida, USA
Sumit Gulwani, Microsoft Research, USA
Joseph J. LaViola, Jr., University of Central Florida, USA

147: It's a Big Web!
Session Chair: Wayne Lutters, University of Maryland, Baltimore County, USA

Talking in Circles: Selective Sharing in Google+ (Page 1065)
Sanjay Kairam, Stanford University, USA
Michael J. Brzozowski, Google, Inc., USA
David Huffaker, Google, Inc., USA
Ed H. Chi, Google, Inc., USA

Omnipedia: Bridging the Wikipedia Language Gap (Page 1075)
Patti Bao, Northwestern University, USA
Brent Hecht, Northwestern University, USA
Samuel Carton, Northwestern University, USA
Mahmood Quaderi, Northwestern University, USA
Michael Horn, Northwestern University, USA
Darren Gergle, Northwestern University, USA

Social Annotations in Web Search (Page 1085)
Aditi Muralidharan, University of California, Berkeley, USA
Zoltan Gyongyi, Google, Inc., USA
Ed H. Chi, Google, Inc., USA

162: Tools & Stats in Evaluation Studies
Session Chair: Jeff Heer, Stanford University, USA

Comparing Averages in Time Series Data (Page 1095)
Michael Correll, University of Wisconsin-Madison, USA
Danielle Albers, University of Wisconsin - Madison, USA
Steven Franconeri, Northwestern University, USA
Michael Gleicher, University of Wisconsin - Madison, USA

Rethinking Statistical Analysis Methods for CHI (Page 1105)
Maurits Kaptein, Eindhoven University of Technology & Philips Research, The Netherlands
Judy Robertson, Heriot-Watt University, UK

A Spatiotemporal Visualization Approach for the Analysis of Gameplay Data (Page 1115)
Günter Wallner, University of Applied Arts Vienna, Austria
Simone Kriglstein, University of Vienna, Austria

153: Values in Research Practice
Session Chair: Giulio Jacucci, Helsinki Institute for Information Technology, Finland

Next Steps for Value Sensitive Design (Page 1125)
Alan Borning, University of Washington, USA
Michael Muller, IBM Research, USA

Being in the Thick of In-the-Wild Studies: the Challenges and Insights of Researcher Participation (Page 1135)
Rose Johnson, University College London, UK
Yvonne Rogers, University College London, UK
Janet van der Linden, The Open University, UK
Nadia Bianchi-Berthouze, University College London, UK
The Envisioning Cards: A Toolkit for Catalyzing Humanistic and Technical Imaginations (Page 1145)
Batya Friedman, University of Washington, USA
David G. Hendry, University of Washington, USA

157: Literacy on the Margin
Session Chair: Juan Pablo Hourcade, University of Iowa, USA

Improving Literacy in Developing Countries Using Speech Recognition-Supported Games on Mobile Devices (Page 1149)
Anuj Kumar, Carnegie Mellon University, USA
Pooja Reddy, American Institute for Research, USA
Anuj Tewari, University of California, Berkeley, USA
Rajat Agrawal, Carnegie Mellon University, USA
Matthew Kam, Carnegie Mellon University, USA

Interactive Visualization for Low Literacy Users: From Lessons Learnt to Design (Page 1159)
Neesh Kodagoda, Middlesex University, UK
B L William Wong, Middlesex University, UK
Chris Rooney, Middlesex University, UK
Nawaz Khan, Middlesex University, UK

159: Participatory Design with Older People
Session Chair: Steven Dow, Carnegie Mellon University, UK

Questionable Concepts: Critique as Resource for Designing with Eighty Somethings (Page 1169)
John Vines, Northumbria University & Newcastle University, UK
Mark Blythe, Northumbria University, UK
Stephen Lindsay, Newcastle University, UK
Paul Dunphy, Newcastle University, UK
Andrew Monk, University of York, UK
Patrick Olivier, Newcastle University, UK

Senior Designers: Empowering Seniors to Design Enjoyable Falls Rehabilitation Tools (Page 1179)
Stephen Uzor, Glasgow Caledonian University, UK
Lynne Baillie, Glasgow Caledonian University, UK
Dawn A. Skelton, Glasgow Caledonian University, UK

Cheque Mates: Participatory Design of Digital Payments with Eighty Somethings (Page 1189)
John Vines, Northumbria University & Newcastle University, UK
Mark Blythe, Northumbria University, UK
Paul Dunphy, Newcastle University, UK
Vassilis Vlachokyriakos, Newcastle University, UK
Isaac Teece, Newcastle University, UK
Andrew Monk, University of York, UK
Patrick Olivier, Newcastle University, UK

150: Personas & Design
Session Chair: Shaowen Bardzell, Indiana University, USA

Personas and Decision Making in the Design Process: An Ethnographic Case Study (Page 1209)
Erin Friess, University of North Texas, USA

How Do Designers and User Experience Professionals Actually Perceive and Use Personas? (Page 1219)
Tara Matthews, IBM Research - Almaden, USA
Tejinder K. Judge, Google Inc., USA
Steve Whittaker, University of California, Santa Cruz, USA
141: Kick it! Interfaces for Feet & Walking
Session Chair: Yang Li, USTB, China

Putting Your Best Foot Forward: Investigating Real-World Mappings for Foot-Based Gestures (Page 1229)
Jason Alexander, Lancaster University, UK
Teng Han, University of Bristol, UK
William Judd, University of Bristol, UK
Pourang Irani, University of Manitoba, Canada
Sriram Subramanian, University of Bristol, UK

ShoeSense: A New Perspective on Gestural Interaction and Wearable Applications (Page 1239)
Gilles Bailly, TU Berlin, Germany
Jörg Müller, TU Berlin, Germany
Michael Rohe, University of Munich, Germany
Daniel Wigmor, University of Toronto, Canada
Sven Kratz, University of Munich, Germany

Bootstrapper: Recognizing Tabletop Users by Their Shoes (Page 1249)
Stephan R. Richter, Hasso Plattner Institute, Germany
Christian Holz, Hasso Plattner Institute, Germany
Patrick Baudisch, Hasso Plattner Institute, Germany

179: Music Across CHI
Session Chair: Rebecca Fiebrink, Princeton University, USA

Using Rhythmic Patterns as an Input Method (Page 1253)
Emilien Ghomi, Univ Paris-Sud & CNRS, France
Guillaume Faure, Univ Paris-Sud & CNRS, France
Stéphane Huot, Univ Paris-Sud & INRIA, France
Olivier Chapuis, Univ Paris-Sud & CNRS, France
Michel Beaudouin-Lafon, Univ Paris-Sud & CNRS & INRIA, France

PULSE: The Design and Evaluation of an Auditory Display to Provide a Social Vibe (Page 1263)
David McGookin, University of Glasgow, UK
Stephen Brewster, University of Glasgow, UK

Listening Factors: A Large-Scale Principal Components Analysis of Long-Term Music Listening Histories (Page 1273)
Dominikus Bau, University of Munich, Germany
Jennifer Büttgen, University of Munich, Germany
Andreas Butz, University of Munich, Germany

142: Space: The Interaction Frontier
Session Chair: Chris Harrison, Carnegie Mellon University, USA

Going Beyond the Surface: Studying Multi-Layer Interaction Above the Tabletop (Page 1277)
Martin Spindler, University of Magdeburg, Germany
Marcel Martsch, University of Magdeburg, Germany
Raimund Dachselt, University of Magdeburg, Germany

A Comparative Evaluation of Finger and Pen Stroke Gestures (Page 1287)
Huawei Tu, Kochi University of Technology, Japan
Xiangshui Ren, Kochi University of Technology, Japan
Shumin Zhai, Google Research, USA

A Handle Bar Metaphor for Virtual Object Manipulation with Mid-Air Interaction (Page 1297)
Peng Song, Nanyang Technological University, Singapore
Wooi Boon Goh, Nanyang Technological University, Singapore
William Hutama, Nanyang Technological University, Singapore
Chi-Wing Fu, Nanyang Technological University, Singapore
Xiaopei Liu, Nanyang Technological University, Singapore

Fly: Studying Recall, Macrostructure Understanding, and User Experience of Canvas Presentations (Page 1307)
Leonhard Lichtschlag, RWTH Aachen University, Germany
Thomas Hess, RWTH Aachen University, Germany
Thorsten Karrer, RWTH Aachen University, Germany
163: The Tools of the Trade
Session Chair: Jennifer Thom-Santelli, IBM Research, USA

A Hybrid Mass Participation Approach to Mobile Software Trials
Alistair Morrison, University of Glasgow, UK
Donald McMillan, University of Glasgow, UK
Stuart Reeves, University of Nottingham, UK
Scott Sherwood, University of Glasgow, UK
Matthew Chalmers, University of Glasgow, UK

"Yours Is Better!" Participant Response Bias in HCI
Nicola Dell, University of Washington, USA
Vidya Vaidyanathan, San Jose State University, USA
Indrani Medhi, Microsoft Research India, India
Edward Cutrell, Microsoft Research India, India
William Thies, Microsoft Research India, India

Digital Pen and Paper Practices in Observational Research
Nadir Weibel, University of California, San Diego, USA
Adam Fouse, University of California, San Diego, USA
Colleen Emmenegger, University of California, San Diego, USA
Whitney Friedman, University of California, San Diego, USA
Edwin Hutchins, University of California, San Diego, USA
James Hollan, University of California, San Diego, USA

User See, User Point: Gaze and Cursor Alignment in Web Search
Jeff Huang, University of Washington, USA
Ryen W. White, Microsoft Research, USA
Georg Buscher, Microsoft Bing, USA

154: Publics & Civic Virtues
Session Chair: Ann Light, Northumbria University

Participation and Publics: Supporting Community Engagement
Christopher A. Le Dantec, Georgia Institute of Technology, USA

Viewpoint: Empowering Communities with Situated Voting Devices
Nick Taylor, Newcastle University, UK
Justin Marshall, University College Falmouth, UK
Alicia Blum-Ross, University of Surrey, UK
John Mills, University of Central Lancashire, UK
Jon Rogers, University of Dundee, UK
Paul Egglestone, University of Central Lancashire, UK
David M. Frohlich, University of Surrey, UK
Peter Wright, Newcastle University, UK
Patrick Olivier, Newcastle University, UK

Examining Technology That Supports Community Policing
Sheena Lewis, Northwestern University, USA
Dan A. Lewis, Northwestern University, USA

156: Promoting Educational Opportunity
Session Chair: Anthony Hornof, University of Oregon, UK

Collaboration in Cognitive Tutor Use in Latin America: Field Study and Design Recommendations
Amy Ogan, Carnegie Mellon University, USA
Erin Walker, Arizona State University, USA
Ryan S.J.D. Baker, Worcester Polytechnic Institute, USA
Genaro Rebolledo Mendez, Universidad Veracruzana, Mexico
Maynor Jimenez Castro, Universidad de Costa Rica, Costa Rica
Tania Laurentino, SENAI Institute, Brazil
Adriana de Carvalho, Carnegie Mellon University, USA

Evaluating the Implicit Acquisition of Second Language Vocabulary Using a Live Wallpaper
David Dearman, University of Toronto & Nokia Research Center, USA
Khai N. Truong, University of Toronto, Canada
160: Interfaces for Health & Well Being
Session Chair: Ian Li, Carnegie Mellon University, USA

ShutEye: Encouraging Awareness of Healthy Sleep Recommendations with a Mobile, Peripheral Display (Page 1401)
Jared S. Bauer, University of Washington, USA
Sunny Consolvo, Intel Labs, Seattle, USA
Benjamin Greenstein, Google, USA
Jonathan Schooler, University of Washington, USA
Eric Wu, University of Washington, USA
Nathaniel F. Watson, University of Washington, USA
Julie A. Kientz, University of Washington, USA

Using Mobile Phones to Present Medical Information to Hospital Patients (Page 1411)
Laura Pfiefer Vardoulakis, Microsoft Research & Northeastern University, USA
Amy K. Karlson, Microsoft Research, USA
Dan Morris, Microsoft Research, USA
Greg Smith, Microsoft Research, USA
Justin Gatewood, MedStar Institute for Innovation, USA
Desney S. Tan, Microsoft Research, USA

Engagement with Online Mental Health Interventions: An Exploratory Clinical Study of a Treatment for Depression (Page 1421)
Gavin Doherty, Trinity College Dublin, Ireland
David Coyle, University of Bristol, UK
John Sharry, Mater University Hospital, Ireland

Best Intentions: Health Monitoring Technology and Children (Page 1431)
Tammy Toscos, Indiana University-Purdue University, USA
Kay Connelly, Indiana University, USA
Yvonne Rogers, University College London, UK

151: Needle in the Haystack
Session Chair: Mark Dunlop, University of Strathclyde, UK

Representing "Too small to see" as "Too small to see" with Temporal Representation (Page 1441)
Minyoung Song, University of Michigan, USA
Chris Quintana, University of Michigan, USA

The Case of the Missed Icon: Change Blindness on Mobile Devices (Page 1451)
Thomas Davies, University College London, UK
Ashweeni K. Becharee, University College London, UK

The Bohemian Bookshelf: Supporting Serendipitous Book Discoveries Through Information Visualization (Page 1461)
Alice Thudt, University of Munich, Germany
Uta Himrichs, University of Calgary, Canada
Sheelagh Carpendale, University of Calgary, Canada

Reactive Information Foraging: An Empirical Investigation of Theory-Based Recommender Systems for Programmers (Page 1471)
David Piorkowski, Oregon State University, USA
Scott D. Fleming, University of Memphis, USA
Christopher Scaffidi, Oregon State University, USA
Christopher Bogart, Oregon State University, USA
Margaret Burnett, Oregon State University, USA
Bonnie E. John, IBM T.J. Watson Research Center, USA
Rachel K. E. Bellamy, IBM T.J. Watson Research Center, USA
Calvin Swart, IBM T.J. Watson Research Center, USA

146: Understanding Online Communication
Session Chair: Sharoda Paul, GE Global Research, USA

Profanity Use in Online Communities (Page 1481)
Sara Owsley Sood, Pomona College, USA
Judd Antin, Yahoo! Research, USA
Elizabeth F. Churchill, Yahoo! Research, USA
Consensus Building in Open Source User Interface Design
Discussions (Page 1491)
Roshanak Zilouchian Moghaddam, University of Illinois at Urbana-Champaign, USA
Brian P. Bailey, University of Illinois at Urbana-Champaign, USA
Wai-Tat Fu, University of Illinois at Urbana-Champaign, USA

"I Can't get no sleep": Discussing #insomnia on Twitter (Page 1501)
Sue Jamison-Powell, University of Lincoln, UK
Conor Linehan, University of Lincoln, UK
Laura Daley, University of Lincoln, UK
Andrew Garbett, University of Lincoln, UK
Shaun Lawson, University of Lincoln, UK

Introducing the Ambivalent Socialiser (Page 1511)
Bernd Ploderer, The University of Melbourne, Australia
Wally Smith, The University of Melbourne, Australia
Steve Howard, The University of Melbourne, Australia
Jon Pearce, The University of Melbourne, Australia
Ron Borland, The University of Melbourne & Cancer Council Victoria, Australia

Twitter and the Development of an Audience: Those Who Stay on Topic Thrive! (Page 1515)
Yi-Chia Wang, Carnegie Mellon University, USA
Robert Kraut, Carnegie Mellon University, USA

132: Performative Emergency Simulation
Session Chair: Olav W. Bertelsen, Aarhus University, The Netherlands
May 8, 2:30 PM
Room: Ballroom G

"Act Natural": Instructions, Compliance and Accountability in Ambulatory Experiences (Page 1519)
Peter Tolnai, University of Nottingham, UK
Steve Benford, University of Nottingham, UK
Martin Flintham, University of Nottingham, UK
Patrick Brundell, University of Nottingham, UK
Matt Adams, Blast Theory, UK
Nicholas Tandavantij, Blast Theory, UK
Ju Row-Farr, Blast Theory, UK
Gabriella Giannachi, The University of Exeter, UK

Supporting Improvisation Work in Inter-Organizational Crisis Management (Page 1529)
Benedikt Ley, University of Siegen, Germany
Volkmar Pipek, University of Siegen, Germany
Christian Reuter, University of Siegen, Germany
Torben Wiedenhoefer, University of Siegen, Germany

148: Crowdsourcing & Peer Production I
Session Chair: Mira Dontcheva, Adobe Advanced Technology Labs, USA
May 8, 2:30 PM
Room: 19AB

Communitysourcing: Engaging LocalCrowds to Perform Expert Work Via Physical Kiosks (Page 1539)
Kurtis Heimerl, University of California, Berkeley, USA
Brian Gawalt, University of California, Berkeley, USA
Kuang Chen, University of California, Berkeley, USA
Tapan S. Parikh, University of California, Berkeley, USA
Björn Hartmann, University of California, Berkeley, USA

LemonAid: Selection-Based Crowdsourced Contextual Help for Web Applications (Page 1549)
Parmit K. Chilana, University of Washington, USA
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