A.J. Bernheim Brush

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http://research.microsoft.com/~ajbrush/

My area is human-computer interaction, focusing on ubiquitous computing and computer supported cooperative work (CSCW). I am particularly known for my research on technology for families as well as my expertise conducting field studies of technology. I co-lead of the Lab of Things (LoT) project at the HCI domain expert. LoT is a publicly available platform that enables research and teaching on connected devices that has been used by students and researchers around the world. I was General Co-Chair of UbiComp 2014, have been a member of the UbiComp/Pervasive steering committee since 2009, and served as VP of Membership and Communications for SIGCHI from 2006 – 2009. To encourage diversity in our field, I have been on the board of the CRA'S Committee on the Status of Women (CRA-W) since 2010 and am currently co-chair.

SIGNIFICANT ACHIEVEMENTS

Publicly Released Software
Lab of Things research platform, July 2013 – current, Downloaded more than 9,000 times as of July 2015, Used by educators and researchers around the world for teaching and research projects.

SNARF: the social network and relationship finder, Downloaded more than 65,000 times as of Feb. 2010. Inspired spam detection algorithms deployed in Microsoft Hotmail.

Award Publications
2011 Pervasive Computing Best Paper Award for "Learning Time-Based Presence Probabilities"
2011 Pervasive Computing Best Paper Nominee for "SpeakerSense: Energy Efficient Unobtrusive Speaker Identification on Mobile Phones"
2010 Pervasive Health Best Paper Award for "Automatic Classification of Daily Fluid Intake"
2006 CHI Best Paper Nominee for "A Digital Family Calendar in the Home: Lessons from Field Trials of LINC"

Product Contributions
MSR Technology Transfer Award, on{X} mode of transport, June 2012
MSR Technology Transfer Award, Win Phone 8 Room Calendar, Sept. 2012
Mobile Lab Incubation Team Family Room, 2011 for Windows Phone Family Room feature
Algorithms developed for SNARF email triage inspired spam detection algorithms in Hotmail Server, 2006
19 patents granted

Service Contributions
UbiComp 2014 Co-General Chair
Pervasive 2009 Program Committee Co-Chair
CRA Committee on the Status of Women, Co-Chair since Sept 2014, Board Member since 2010
SIGCHI VP for Membership & Communications, 2006 - 2009

Recognitions
2010 Borg Early Career Award
ACM Senior Member

EDUCATION

University of Washington, Seattle, WA, 2002
Ph.D., Computer Science and Engineering

Dissertation: “Annotating Digital Documents for Asynchronous Collaboration”
Advisor: Alan Borning
National Science Foundation Graduate Fellowship, 1996-1998, 1999-2000
ARCS Scholarship (Achievement Rewards for College Scientists), 1996-1998, 1999-2000

University of Washington, Seattle, WA, 1998
M.S., Computer Science and Engineering
Advisor: David Salesin
Outstanding CSE 142 Teaching Assistant Award (Nominated by students), winter 1998

Williams College, Williamstown, MA, 1996
B.A., Summa cum Laude in Computer Science and Mathematics
Sigma Xi, Williams College, 1996
Phi Beta Kappa (Elected in junior year), Williams College, 1995

EXPERIENCE

Senior Researcher, April 2004 – present
Microsoft Research, Redmond, WA

MSR Next OS Technologies Group
Manager Galen Hunt, Nov 2014 – present.

Computational User Experiences Group
Manager: Desney Tan, 2009 – Nov. 2014

VIBE Group
Manager Mary Czerwinski, 2007 – 2009

Community Technologies Group
Manager Marc Smith, 2004 - 2007

Lab of Things/Home Automation (2010 – present)
I co-lead the Lab of Things project as the HCI domain expert. Lab of Things is a flexible platform for research that uses connected devices in homes built on our HomeOS software. Inspired by the availability of inexpensive connected devices—such as lights, water sensors, security cameras, power meters, and thermostats—we built the Lab of Things (LoT) platform to enable easy interaction with devices for a range of applications, including automation, security, energy management, and elder care. Our goal is to substantially lower the barrier for researchers and students to develop and experiment with new technologies for the home environment. LoT provides a common framework to write applications that use connected devices and includes a set of cloud services that enable remote command/control of devices, monitoring of system health, and data collection. We released the LoT SDK in July 2013 for non-commercial use and it has been downloaded more than 9,000 times as of July 2015. Educators around the world have used it for class projects including at University of Washington, University of Maryland, University College London and Kookmin University, Korea (see LoT teaching page). Research is being conducted using the Lab of Things platform both by ourselves and others (see Research and Publications page).

Technology for Family Coordination and Connectedness (2005 – present)
Investigating how technology can help people and families with everyday problems including coordination and staying connected with their extended family is a passion of mine. Highlights include

- Building and studying LINC, an inkable digital family calendar. This project resulted in several high profile publications including a ToCHI journal paper, a CHI 2006 Best Paper nomination (fewer than 5% of paper selected), and GI 2007 Best Student paper award for my student collaborator.

- Together with my collaborators, I studied the sharing and use of technology in the home (Ubicomp 2007) and proposed a novel user account model better suited to shared computers in the home (CSCW 2008).
- My research in this area has also led to my recognition as an expert in conducting field studies of technology. I recently authored a book chapter on Ubiquitous Computing Field studies for a book on Ubiquitous Computing Fundamentals and taught tutorials on the subject at two Pervasive computing conferences (2008, 2010).
- Microsoft's Family Room feature on Windows Phone was heavily influenced by this research and I was a member of the incubation team.

Context-Enabled Mobile User Experiences (2009 – 2013)

- Enabling mobile devices to continuously sense and infer context opens up a range of new application possibilities from memory assistance to proactive alerting. CarFinder, our prototype to infer activity based navigation to help you retrace your steps, was presented at Mobile HCI 2010 and featured in a Technology Review article. Additional publications explored programming abstractions for context, and how phones can infer where people are keeping them (e.g. body, pocket, bag). Algorithms were productize and released in Microsoft product On{x}.

Email Triage (2004 – 2006)

My studies of email triage with my collaborators resulted in the SNARF prototype, an exploration of using social metadata to assist with the task of email triage, and several publications (2005 CHI Short Paper, CEAS 2005 Long Paper, CSCW 2006 Note). SNARF was released to the public in Dec. 2005. The prototype has been downloaded more than 65,000 times and was reviewed by PC Magazine. This research inspired spam detection algorithms deployed in the Hotmail servers.

Postdoctoral Fellow, UrbanSim Project September 2002 – March 2004
Computer Science and Engineering, University of Washington, Seattle, WA
Supervisor: Alan Borning

I led the user-centered design work for UrbanSim, an urban simulation system. I also conducted usability research on remote user studies and evaluated the use of 'today' status email messages for lightweight group awareness.

Research Intern, Collaboration and Multimedia Systems Group June 2000 – December 2001
Microsoft Research, Redmond, WA
Mentors: David Bargeron, Jonathan Grudin, Manager: Anoop Gupta

I conducted the research for my Ph.D. dissertation on annotating digital documents for asynchronous collaboration. This research included extensive software development building WebAnn, an online annotation system, and developing enhancements to notifications in Microsoft Office Web Discussions. I evaluated my software in two large-scale field studies.

Research Assistant, UrbanSim Project Fall 1999 – Spring 2000
Computer Science and Engineering, University of Washington, Seattle, WA
Advisor: Alan Borning

I worked on design and development of a visualization system to aid in understanding and analyzing the results of UrbanSim.

Research Assistant, Graphics Group Fall 1997 – Spring 1998
Computer Science and Engineering, University of Washington, Seattle, WA
Advisor: David Salesin

I worked on illustrating L-system models in a watercolor style.

Software Developer, Tripos Inc., St. Louis, MO July 1998 – August 1999
Manager: Jim Daues

I did extensive Java development and user-centered design work for ChemEnlighten, a web-based client-server application supporting rational drug design.

Internships and Summer Undergraduate Research

Software Developer Intern, WRQ Inc., Seattle, WA, Summer 1997
Supervisor: Thomas Ormond
I created the Reflection for IBM Conversion Tool and wrote a competitive analysis.

Software Developer Intern, Microsoft, Redmond, WA, Summer 1996
Supervisor: Christopher Peltz
I developed ActiveX controls for the Link View feature in Visual InterDev and contributed to internationalization work.

Honors Thesis Research, Williams College, Williamstown, MA, Summer 1995
Advisor: Duane Bailey
I implemented a distributed tuple space, a parallel programming model, including a debugger.

CRA-W Distributed Mentorship Program Participant, University of Oregon, Summer 1994
Mentor: Janice E. Cuny
I worked with another undergraduate on prototyping a debugger for ZPL, a parallel language.

TEACHING EXPERIENCE

Dissertation Committees
Marshini Chetty, Georgia Tech, graduated Aug 2011

PROFESSIONAL ACTIVITIES

Recent Invited Talks

Closing Keynote, Inventing Technology for Homes and Families, Go, Girl, Go workshop ICRA 2015. June 2015

MPE 2013+ Workshop on Data-aware Energy Use, Lab of Things: An extensible platform for Home Sensing, Data Collection, and Actuation, October 2014.

UC Berkeley Swarm Lab Seminar, Lab of Things: a Devices Research and Teaching Platform for Home and Beyond, September 2014.

Closing Keynote, Lab of Things: A Devices Research and Teaching Platform for Home and Beyond, SIGCSE 2014, March 2014

Keynote, Inventing Technology for Homes & Families, First Caribbean Celebration of Women in Computing (CCWiC 2014), February 2014.

Invited Speaker, Home Automation: Is It Finally Ready for the Mainstream? Williams College CS25 Anniversary, April 2013

Speaker, Balancing Graduate School and Personal Life, CRA-W Grad Cohort, April 2013

Speaker, CRA-W CAPP Mentoring Workshop, November 2012

Faculty Member, Pervasive 2012 Doctoral Consortium, June 2012

Featured Speaker, CRA-W Distinguished Lecture at Cal Poly San Luis Obispo, April 2012

Keynote Speaker, Phone Sense workshop, ACM SenSys 2011

Panelist, Home Networking panel at IEEE Computer Communications Workshop 2011

Featured Speaker, New York Celebration of Women in Computing 2011

Tutorial Instructor at Pervasive 2010, Pervasive Computing User Studies

Invited Speaker, Designing and Evaluating Affective Aspects of Sociable Media to Support Social Connectedness workshop, CHI 2010

Panelist, UbiComp's Role in CSCW panel at CSCW 2008

Tutorial Instructor at Pervasive 2008, Field Studies for Pervasive Computing

Panelist, Interaction and Infrastructure: Crossing the Divide in UbiComp Research panel at UbiComp 2006

Interns Supervised

UWHCID Capstone project mentor for the Sound Choice project, Summer 2014

Dimitris Papanikolaou, Harvard, Summer 2014 (with Asta Roseway)

Erin Griffiths, University of Virginia, Summer 2013.
Sarah Mennicken, University of Zurich, Summer 2013 (with Asta Roseway)
Jason Wiese, CMU, Summer 2012 (with Scott Saponas)
Ryder Ziola, University of Washington, Summer 2011 (with Scott Saponas)
Hong Lu, Dartmouth, Summer 2010 (with Bodhi Priyantha, Jie Liu, Amy Karlson)
Shahriyar Amini, CMU, Summer 2010 (with John Krumm, Amy Karlson, Jaime Teevan)
Andres Neyem, University of Chile, Summer 2009 (with Ranveer Chandra)
Lana Yarosh, Georgia Tech, Summer 2009 (with Kori Inkpen)
Junius Gunaratne, University of California, Irvine, Summer 2009
Marshini Chetty, Georgia Tech, Summer 2008
Adrienne Andrew, UW, Spring 2008 (with Amy Karlson)
Serge Egelman, CMU, Winter 2008 (with Kori Inkpen)
Kate Everitt, UW, Summer 2007 (with Merrie Morris)
Andrea Grimes, Georgia Tech, Summer 2006
Kimberly Tee, University of Calgary, Summer 2006, Spring 2007
Carman Neustaedter, University of Calgary, Summer 2004, Summer 2005
CRA-W Distributed Mentorship Program Mentor at University of Washington, Summer 2003
Morgan Ames from University of California, Berkeley
Tasha Hollingsed from University of Texas, El Paso

SERVICE

Steering and Organizing Committees

Chair, UbiComp 2015 Broadening Participation Workshop
UbiComp 2014 Co-General Chair
CRA-W Board Member 2010 – present, Co-Chair since Sept 2014
Joint UbiComp and Pervasive Steering Committee 2009 – present
Organizer, HomeSys 2013 workshop at UbiComp 2013
MSR Redmond Women's Research Group, co-organizer 2006 - 2012
ACM SIGCHI VP for Membership & Communications, 2006 - 2009
Pervasive 2009 Program Committee Co-Chair
UbiComp 2008 Poster Co-Chair
Organizer, Pervasive 2008 Workshop on Pervasive Computing @ Home
Organizer, CSCW 2008 Workshop on Designing for Families
Group 2007 Workshop Co-chair
CSCW 2004 Notes Co-Chair

Program Committees/Doctoral Consortium

CHI Program Committee: 2012, 2014, CHI 2007 Notes Program Committee

CHI 2009 Doctoral Consortium Faculty Member,
CSCW Program Committee: 2006, 2008, 2010, 2011, 2013
e-Energy Program Committee: 2013, 2015
Group 2010 Program Committee
Pervasive Program Committee: 2007, 2010
UbiComp Program Committee: 2006, 2007, 2008, 2009, 2011, 2013
UbiComp 2010 Doctoral Consortium Faculty Member

Editorial Positions – Journals
IEEE Pervasive Computing Editorial Board, 2014 - current

Editorial Advisory Board Member, International Journal of Human-Computer Interaction, 2008-2011

SOFTWARE RELEASED

Lab of Things: a flexible platform for research that uses connected devices in homes, July 15, 2013
Available at https://labofthings.codeplex.com/, Downloaded more than 9,000 times as of July 2015.

SNARF: the social network and relationship finder, December 16, 2005. Available at http://research.microsoft.com/downloads, Downloaded more than 65,000 times as of Feb. 2010.

PATENTS

19 patents granted, 4 inventions patent pending as of July 2015

P19. Simple Secure Wifi Association,
A.J. B Brush, Ratul Mahajan, Steve E Hodges, James W. Scott
United States Patent # 8948390 Granted 3 February 2015

P18. Scaling Social Networks
A.J. B Brush, Rebecca A. Norlander, John Oberon, Dragos A Manolescu, Susan T. Dumais, Owen C. Braun, Lili Cheng, Erik Meijer, Simon C. Muzio, Alex D Daley
United States Patent #8850325 Granted 30 September 2014

P17. Context-Driven Data Sharing
A.J. B Brush Junius A Gunaratne
United States Patent # 8818350 Granted 26 August 2014

P16. Device Locking with Hierarchical Activity Preservation
Stuart E Schechter, Karin Strauss, Oriana Riva, A.J. B Brush, Eiji Hayashi
United States Patent # 8732822 Granted 20 May 2014

P15. Energy-Efficient Unobtrusive Identification of a Speaker
A.J. B Brush, Jie Liu, Amy Karlson, Bodhi B. Priyantha, Hong Lu
United States Patent #8731936 Granted 20 May 2014

P14. Management and Marketplace for Distributed Home Devices
Victor Bahl, A.J. B Brush, Ratul Mahajan, Sharad Agarwal, Bongshin Lee, Colin K Dixon, Stefan Saroiu
United States Patent #8719847 Granted 6 May 2014

P13. System Initiated Speech Interaction
Jean Ku, Connie A. Missimer, Paul R. Johns, Seung M. Yang, Jen L Anderson, A.J. B Brush
United States Patent # 8600763 Granted 3 December 2013

P12. Owner privacy in a shared mobile device
Amy Karlson, Stuart E Schechter, A.J. B Brush
United States Patent # 8549657 Granted 1 Oct 2013

P11. Transient Networks
Rebecca A. Norlander, Simon C. Muzio, Lili Cheng, Mary P. Czerwinski, A.J. B Brush, Owen C. Braun, Susan T. Dumais, John Oberon, Erik Meijer, Dragos A Manolescu, Alex D Daley
United States Patent #8370425 Granted 5 February 2013

P10. Linking Digital and Paper Document
A.J. B Brush, Andy D. Wilson, Meredith Ringel J. Morris, Kate Everitt
United States Patent #8286068 Granted 9 October 2012

P9. Control and Visibility for Digital Calendar Sharing
Aaron W. H. Con, Shawn L. Morrissey, Danyel A Fisher, A.J. B Brush, Ryan E Gregg, Andrew J. Sullivan, *Andrea Grimes, United States Patent # 8122362 granted 21 February 2012*

P8. User Interface for an Inkable Family Calendar
A.J. B Brush, Carman Neustaedter
United States Patent # 8074175 granted 6 December 2011

P7. Bifocal View: A Novel Calendar User Interface
Jason C. Mayans, Danyel A Fisher, A.J. B Brush
United States Patent #8069417 granted 29 November 2011

P6. Sharing Content Using Selection and Proposal
A.J. B Brush, Kori Inkpen M Quinn, Kimberly Tee
United States Patent #7953796 granted 31 May 2011

P5. A Foot-Based Interface for Interacting with a Computer
Steven M. Drucker, A.J. B Brush, Brian R. Meyers, Marc A. Smith
United States Patent #7830359 granted 9 November 2010

P4. Robust Anchoring of Annotations to Content
A.J. B Brush, Dave M Bargeron, Anoop Gupta
United States Patent # 7747943 granted 29 June 2010

P3. Ordering Personal Information Using Social Metadata
Danyel A Fisher, A.J. B Brush, Andy W. Jacobs, Marc A. Smith, Carman G Neustaedter
United States Patent #7720916 granted 18 May 2010

P2. Notification of Activity around Documents
Alice Jane (A.J.) B. Brush, David M. Bargeron, Anoop Gupta
United States Patent #7,568,151, granted 28 July 2009

P1. Mobile Access to Information Using Images
Alice Jane (A.J.) B. Brush, Carman Neustaedter
United States Patent #7,392,041, granted 24 June 2008

Publications

Book Chapters
A.J. Brush, Ratul Mahajan, Arjmand Samuel, "**Lab of Things: Simplifying and Scaling Deployments of**

Experimental Technology in Homes," Handbook of Smart Homes, Health Care, and Well-Being, Editors: Joost van Hoof, George Demiris and Eveline Wouters, Springer Reference Library, In preparation.

A.J. Brush, Brian Meyers, and James Scott (2014), "**In-Home Deployments**" in Studying and Designing Technology for Domestic Life, Editors: Tejinder Judge & Carman Neustaedter. (pp. 159-179). Morgan Kaufmann

Brush, A.J. (2009) **Ubiquitous Computing Field Studies**, in John Krumm (Eds.), Ubiquitous Computing Fundamentals, (pp. 161-202). Chapman & Hall.

Journal Papers

The Calendar is Crucial: Coordination and awareness through the family calendar
Carman Neustaedter, A.J. Bernheim Brush, Saul Greenberg
ACM Transactions on Computer-Human Interaction, Vol 16, Issue 1, April 2009

Exploring Communication and Sharing Between Extended Families
Kimberly Tee, A.J. Bernheim Brush, Kori Inkpen
IJHCS Special Issue on Family Communication Technologies, Sept. 2008

Refereed Conference Papers

C39. BodyPods: Designing Posture Sensing Chairs for Capturing and Sharing Implicit Interactions,
Dimitris Papanikolaou, A.J. Brush, Asta Roseway, TEI 2015, 28% Acceptance rate.

C38. Health chair: implicitly sensing heart and respiratory rate,
Erin Griffiths, T. Scott Saponas, A.J. Bernheim Brush, UbiComp 2014, 16% Acceptance rate

C37. The Latency, Accuracy, and Battery (LAB) Abstraction: Programmer Productivity and Energy Efficiency for Continuous Mobile Context Sensing, Aman Kansal, T. Scott Saponas, A.J. Bernheim Brush, Kathryn S. McKinley, Todd Mytkowicz, Ryder Ziola, OOPSLA 2013, 26% Acceptance rate

C36. Home Computing Unplugged: Why, Where and When People Use Different Connected Devices at Home, Fahim Kawsar, A.J. Bernheim Brush, UbiComp 2013, 23.4% Acceptance rate

C35. Phoneprioception: Enabling Mobile Phones to Infer Where They are Kept
Jason Wiese, T.Scott Saponas, A.J. Bernheim Brush, CHI 2013, 20% Acceptance rate

C34. Digital Neighborhood Watch: Investigating the Sharing of Camera Data Amongst Neighbors
A.J. Bernheim Brush, Jaeyeon Jung, Ratul Mahajan, Frank Martinez, CSCW 2013. 35.6% Acceptance Rate

C33. Goldilocks and the Two Mobile Devices: Going Beyond All-Or-Nothing Access to a Device's Applications Eiji Hayashi, Oriana Riva, Karin Strauss, A.J. Brush, and Stuart Schechter, Symposium On Usable Privacy and Security (SOUPS) 2012, 21% Acceptance Rate

C32. "You're Capped!" Understanding the Effects of Bandwidth Caps on Broadband Use in the Home
Marshini Chetty, Richard Banks, A.J. Bernheim Brush, Jonathan Donner, Rebecca E. Grinter, CHI 2012, 23% Acceptance Rate

C31. An Operating System for the Home
Colin Dixon, Ratul Mahajan, Sharad Agarwal, AJ Brush, Bongshin Lee, Stefan Saroiu, and Victor Bahl, NSDI, USENIX, April 2012, 18% Acceptance Rate

C30. PreHeat: Controlling Home Heating Using Occupancy Prediction
James Scott, A.J. Bernheim Brush, John Krumm, Brian Meyers, Mike Hazas, Steve Hodges and Nicolas Villar, Ubicomp 2011, 17% Acceptance Rate

C29. Learning Time-Based Presence Probabilities
John Krumm and A.J. Bernheim Brush, Pervasive 2011, **Best Paper Award,** 24% Acceptance Rate

C28. SpeakerSense: Energy Efficient Unobtrusive Speaker Identification on Mobile Phones
Hong Lu, A.J. Bernheim Brush, Bodhi Priyantha, Amy Karlson, Jie Liu. Pervasive 2011, **Best Paper Nominee,** 24% Acceptance Rate

C27. Home Automation in the Wild: Challenges and Opportunities
A.J. Bernheim Brush, Bongshin Lee, Ratul Mahajan, Sharad Agarwal, Stefan Saroiu, Colin Dixon
CHI 2011, In Press, 26% Acceptance Rate

C26. The Home Needs an Operating System (and an App Store)
Colin Dixon, Ratul Mahajan, Sharad Agarwal, A.J. Brush, Bongshin Lee, Stefan Saroiu, Victor Bahl, HotNets 2010, 21% Acceptance Rate

C25. Exploring End User Preferences for Location Obfuscation, Location-Based Services, and the Value of Location A.J. Bernheim Brush, John Krumm, James Scott, UbiComp 2010, 19% Acceptance Rate

C24. User Experiences with Activity-Based Navigation on Mobile Devices
A.J. Bernheim Brush, Amy Karlson, James Scott, Raman Sarin, Andy Jacobs, Barry Bond, Oscar Murillo, Galen Hunt, Mike Sinclair, Kerry Hammil, Steven Levi, Mobile HCI 2010, 23% Acceptance Rate

C23. Newport: Enabling Sharing During Mobile Calls
Junius A. Gunaratne and A.J. Bernheim Brush, CHI 2010, 22% Acceptance Rate

C22. Video Playdate: Toward Free Play across Distance
Svetlana Yarosh, Kori M. Inkpen, A.J. Bernheim Brush, CHI 2010, 22% Acceptance Rate

C21. Automatic Classification of Daily Fluid Intake
Jonathan Lester, Desney Tan, Shwetak Patel, A.J. Bernheim Brush**,** Pervasive Health 2010,
Best Paper Award, 31% Acceptance Rate

C20. Investigating the Use of Voice and Ink for Mobile Micronote Capture
Adrienne Andrew, Amy K. Karlson, A.J. Bernheim Brush, Interact 2009. 27% Acceptance Rate

C19. It's no secret: Measuring the security and reliability of authentication via 'secret' questions Stuart Schechter, A. J. Bernheim Brush, Serge Egelman, 2009 IEEE Symposium on Security and Privacy. 10% Acceptance Rate

C18. It's Not Easy Being Green: Understanding Home Computer Power Management
Marshini Chetty, A.J. Brush, Brian Meyers, Paul Johns. CHI 2009. 25% Acceptance Rate

C17. SPARCS: Exploring Sharing Suggestions to Enhance Family Connectedness
A.J. Bernheim Brush, Kori M. Inkpen, Kimberly Tee, CSCW 2008. 23% Acceptance Rate

C16. Family Accounts: A new paradigm for user accounts within the home environment
Serge Egelman, A.J. Bernheim Brush, Kori M. Inkpen. CSCW 2008. 23% Acceptance Rate

C15. SuperBreak: Using Interactivity to Enhance Ergonomic Breaks
Dan Morris, A.J. Bernheim Brush, Brian Meyers, CHI 2008. 22% Acceptance Rate

C14. Reading Revisited: Evaluating the Usability of Digital Display Surfaces for Active Reading Tasks.
Merrie Morris, A.J. Bernheim Brush, Brian Meyers, IEEE Tabletop 2007.

C13. Yours, Mine, and Ours? Sharing and Use of Technology in Domestic Environments.
A.J. Bernheim Brush and Kori M. Inkpen, UbiComp 2007. 19% Acceptance Rate

C12. A Digital Family Calendar in the Home: Lessons from Field Trials of LINC
Carman Neustaedter, A.J. Bernheim Brush, Saul Greenberg, Graphics Interface 2007.
Best Student Paper for Carman Neustaedter

C11. "LINC-ing" the Family: The Participatory Design of an Inkable Family Calendar
Carman Neustaedter and A.J. Bernheim Brush, CHI 2006. **Best Paper Award Nominee**
23% Acceptance Rate

C10. Scanning Objects in the Wild: Assessing an Object Triggered Information System
A.J. Bernheim Brush, Tammara Combs Turner, Marc A. Smith, Neeti Gupta, UbiComp 2005.
10% Acceptance Rate

C9. The Social Network and Relationship Finder: Social Sorting for Email Triage
Carman Neustaedter, A.J. Bernheim Brush, Marc A. Smith, Danyel Fisher. CEAS 2005.

C8. Assessing Differential Usage of Usenet Social Accounting Meta-Data
A.J. Bernheim Brush, Xiaoqing Wang, Tammara Combs Turner, Marc A. Smith, CHI 2005, 889-898.
25% Acceptance Rate

C7. 'Today' Messages: Lightweight Support for Small Group Awareness via Email
A.J. Bernheim Brush and Alan Borning, HICSS 2005. **Best Paper Award Nominee**

C6. Exploring the Relationship Between Personal and Public Annotations
Catherine C. Marshall and A.J. Bernheim Brush, JCDL 2004, 349-357.

C5. Notification for Shared Annotation of Digital Documents
A.J. Bernheim Brush, David Bargeron, Jonathan Grudin, Anoop Gupta, CHI 2002, 89-96.
15% Acceptance Rate

C4. Supporting Interaction Outside of Class: Anchored Discussion vs. Discussion Boards
A.J. Bernheim Brush, David Bargeron, Jonathan Grudin, Alan Borning, Anoop Gupta, CSCL 2002

C3. Robust Annotation Positioning in Digital Documents
A.J. Bernheim Brush, David Bargeron, JJ Cadiz, Anoop Gupta, CHI 2001, 285-292.
20% Acceptance Rate

C2. Design of Visualizations for Urban Modeling,
L. Denise Pinnel, Matthew Dockery, A.J. Bernheim Brush, Alan Borning
Proceedings of 2000 Joint Eurographics-IEEE TCVG Symposium on Visualization

C1. Interactive Arrangement of Botanical L-System Models
Joanna Power, A.J. Bernheim Brush, David Salesin, Przemyslaw Prusinkiewicz
Proceedings of the 1999 Symposium on Interactive 3D Graphics

Refereed Short Conference Papers

S12. SpeechToast: Augmenting Notifications with Speech Input Focus
A.J. Bernheim Brush and Paul Johns, AVI 2012, 46% Acceptance Rate

S11. Trajectory-Aware Mobile Search
Shahriyar Amini, A.J. Bernheim Brush, John Krumm, Jaime Teevan, Amy Karlson, CHI 2012,
23% Acceptance Rate

S10. Your Phone or Mine? Fusing Body, Touch and Device Sensing for Multi-User Device-Display Interaction Mahsan Rofouei, Andrew W. Wilson, A.J. Bernheim Brush, Stewart Tansley,
CHI 2012 23% Acceptance Rate

S9. Understanding the Importance of Location, Time, and People in Mobile Local Search Behavior Jaime Teevan, Amy Karlson, Shahriyar Amini, A.J. Bernheim Brush, John Krumm, Mobile HCI 2011, 23% Acceptance Rate

S8. Understanding Family Communication across Time Zones
Xiang Cao, Abigail Sellen, A.J. Bernheim Brush, David Kirk, Darren Edge, Xianghua Ding. CSCW 2010 Short Paper. In Press. 20% Acceptance Rate

S7. Can I Borrow Your Phone? Understanding Concerns When Sharing Mobile Phones
Amy Karlson, A.J. Bernheim Brush, Stuart Schechter, CHI 2009 Note. 25% Acceptance Rate

S6. Exploring Awareness Needs and Information Display Preferences Between Coworkers,
A.J Bernheim Brush, Brian R. Meyers, James Scott, Gina Venolia, CHI 2009 Note. 25% Acceptance Rate

S5. Life Scheduling to Support Multiple Social Roles
Andrea Grimes and A.J. Bernheim Brush, CHI 2008 Short paper. 22% Acceptance Rate

S4. Understanding Memory Triggers for Task Tracking
A.J. Bernheim Brush, Brian Meyers, Desney Tan, Mary Czerwinski
CHI 2007 Short paper. 25% Acceptance Rate

S3. Revisiting Whittaker & Sidner's "Email Overload"; Ten Years Later
Danyel Fisher, A.J. Bernheim Brush, Eric Gleave, Marc A. Smith, CSCW 2006 Note.
20% Acceptance Rate

S2. Beyond "From" and "Received": Exploring the Dynamics of Email Triage
Carman Neustaedter, A.J. Bernheim Brush, Marc A. Smith, CHI 2005, 1977-1980.
25% Acceptance Rate

S1. A Comparison of Synchronous Remote and Local Usability Studies for an Expert Interface
A.J. Bernheim Brush, Morgan Ames, Janet Davis, CHI 2004, 1179-1183. 16% Acceptance Rate

Workshops, Case Studies, Posters, Videos, and Demonstrations

Finding Roles for Interactive Furniture in Homes with EmotoCouch, Sarah Mennicken, A. J. Bernheim Brush, Asta Roseway, James Scott, HomeSys 2014 workshop at UbiComp 2014

Video Abstract: Exploring Interactive Furniture with EmotoCouch, Sarah Mennicken, A. J. Bernheim Brush, Asta Roseway, James Scott, Video at UbiComp 2014.

Demo Abstract: Lab of Things: A Platform for Conducting Studies with Connected Devices in Multiple Homes, A.J. Brush, Evgeni Filippov, Danny Huang, Jaeyeon Jung, Ratul Mahajan, Frank Martinez, Khurshed Mazhar, Amar Phanishayee, Arjmand Samuel, James Scott, Rayman Preet Singh, UbiComp 2013 Demos.

Video Abstract: Peek: context sharing on request with notifications,
A.J. Bernheim Brush, T. Scott Saponas, Ryder Ziola, Greg Smith, Paul Johns, Asta Roseway, CSCW 2013 Videos.

Demo Abstract: Augmenting Homes with Custom Devices using .NET Gadgeteer and HomeOS
James Scott, A.J. Bernheim Brush, Ratul Mahajan, BuildSys 2012 Demos.

Sustainability does not begin with the individual
Mike Hazas, A.J. Bernheim Brush, James Scott, Sustainability in (Inter)action Forum, Interactions, September +

October 2012.

HomeLab: Shared Infrastructure for Home Technology Field Studies
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