

Jennifer Mankoff
Professor, HCI Institute, Carnegie Mellon University
2/7/2017

ADDRESS

Human-Computer Interaction Institute
Carnegie Mellon University
Newell-Simon Hall, Rm 3612E
5000 Forbes Ave
Pittsburgh, PA 15213

CONTACT INFORMATION

(412) 268-1295
jmankoff@cs.cmu.edu
<http://www.cs.cmu.edu/~jmankoff>

RESEARCH INTERESTS

My focus is on using data-driven, computational approaches to improving our ability to build physical interfaces, focusing on 3D printing and IOT. Example application areas include sustainability, assistive technologies and health.

EDUCATION

2001 PhD, Computer Science [T.2]. Georgia Institute of Technology, College of Computing Atlanta, GA. **Thesis Advisors:** Gregory Abowd and Scott Hudson
1995 BA, Computer Science [T.1]. Oberlin College, Oberlin, OH. High Honors.
1991 HS. Green Meadow Waldorf School, Spring Valley, NY.

EMPLOYMENT

Su 2016 – present Full Professor, HCII, CMU, Pittsburgh, PA
F 2014 – present Consultant, Disney
S 2014 – F 2016 Consultant, Cincinnati Children’s Hospital Medical Center
F 2015 – present Affiliate Faculty Member, ECE, CMU, Pittsburgh, PA
Su 2008 – Su 2016 Associate Professor, HCII, CMU, Pittsburgh, PA
S 2012 – Su 2012 Visiting Professor, ETH (Sabbatical)
Su 2011 – F 2011 Visiting Professor, IIIT Hyderabad (Sabbatical)
F 2004 – S 2008 Assistant Professor, CMU, Pittsburgh, PA
F 2001 – S 2004 Assistant Professor, UC Berkeley, Berkeley, CA
Su 2000 Research Assistant, Georgia Tech, Atlanta, GA. Drs. Moore & Mynatt
Investigated training and user interface techniques supporting disabled users with extremely limited input channels [C.6]
S 2000 Teaching Assistant, Georgia Tech, Atlanta, GA. Dr. Potts. Introduction to HCI.
F 1999 – S 2000 Research Assistant, Georgia Tech, Atlanta, GA. Dr. Abowd
Su 1999 Research Assistant, CMU, Pittsburgh, PA. Dr. Hudson
F 1998 – F 1999 Research Assistant, Georgia Tech, Atlanta, GA. Dr. Abowd
Investigated the toolkit-level infrastructure needs inherent in recognition-based input [C.4, C.5, J.1]
Su 1996 Research Assistant, FX Pal, Palo Alto, CA. Dr. Schilit
Investigated placement of computing resources around office place at “points of need”. Experimented initially with paper prototype, then touch-screen displays [C.1]
F 1995 – Su 1997 NSF Traineeship Recipient, Georgia Tech, Atlanta, GA
Investigated computing in the home, specifically focusing on bringing techniques for bringing physically separated people and places together [C.2]

Su 1994 Research Assistant, AT&T Bell Labs, Naperville, IL. Dr. Wills

Designed and implemented C++ object hierarchy to display simple, colorful, interactive, graphs of univariate data (*e.g.*, histogram, boxplot, barplot).

Su 1993 Research Assistant, Argonne National Laboratories, Argonne, IL. Dr.

Gaasterland

Designed and implemented general graphical user interface for biological genobase databases. Also extended phylogenetic tree visualization program to encode data using color.

F 1992 – S 1995 Teaching /Research Assistant, Oberlin College, Oberlin, OH.

Worked with students in undergraduate classes including pre-calculus, introduction to programming, introduction to graphics, programming languages, calculus and algorithms. Work included tutoring, grading, recitations and curriculum development with goal of “leveling the playing field” for students with diverse backgrounds. Also gave regular seminars on topics including EMACS, UNIX and repetitive strain injury.

PERSONAL

2014 – present Facilitator of Pittsburgh Lyme Support group

2010 – present Run the Pittsburgh Lyme mailing list & mentor and advise anyone who approaches me about Lyme disease

1997 – 2000 Canine Companions for Independence: Trained guide dogs for work with people with disabilities.

1995 – present Chamber music. Won audition for noon concert series at UC Berkeley, Spring, 2004. Also, at various times Orchestra member and Viola/Piano Teacher

1990 – present Artist, with focus on paint & craft-based artifacts.

EVIDENCE OF EXTERNAL REPUTATION

CITATIONS AND AWARDS

- **CHI 2017, 2016, 2015, 2013, 2005 Best Paper Honorable Mentions**
- **2016 AMiner Most Influential Scholar (top 100 in field)**
- **CHI 2016 Best Paper Award**
- **Ubicomp 2016, Best Paper Honorable Mention**
- **Mobile HCI 2014 Best Paper Award**
- **ASSETS 2010 Best Paper Award**
- **2007 Nominated for MIT Technology Review Magazine’s top innovators under 35 award**
- **2007 Alfred P. Sloan Research Fellow \$45,000**
- **2006 IBM Faculty Fellowship \$30,000, “Adaptive Assistance: Dynamically tailoring assistive technologies for interactive computer users”**
- **2004 IBM Faculty Fellowship \$40,000, “Tools for supporting early-stage, accessible design”**
- **2000 IBM Graduate Fellowship**
- **2000 Intel Fellowship** (declined in favor of IBM).
- **2000 CHI Doctoral Consortium** participant
- **1999 & 2000 Human Computer Interaction Consortium** Nominated attendee.
- **1995 Elected to Sigma Xi**, Science Honor Society.
- **F 1995 – S 1997 NSF Traineeship Fellowship** (two year fellowship to study Human Computer Interaction). Investigated Computing in the Home. [C.1, C.2]
- **1994 Elected to Phi Beta Kappa**, Honor Society.

INVITED TALKS, SEMINARS & COLLOQUIA

- 2013 *Defining an agenda for Computational Sustainability*. Invited plenary talk, ICT for Sustainability conference (www.ict4s.org)
- 2012 *Rethinking the role of feedback in encouraging energy saving*. Invited talk, ETH IED Energy Science Center
- 2012 *Challenges in Making the Hidden Visible*. Invited talk, ETH Computer Science Department (also given for SwissCHI)
- 2011 *Personal informatics: Making the hidden visible*. Invited talk, IIIT Hyderabad
- 2011 *Energy Feedback Techniques*. Invited talk, IBM Research Delhi
- 2011 *A Tale of Two Motivations: The greening of IT, impact, and the climate crisis: Finding a path forward*. Invited keynote, IBM Academy of Technology 3rd Conference on Technology and Humans
- 2011 *Information and power: Making the unknown available*, Invited talk, Techease conference (<http://www.techease.in/>)
- 2011 *Making Important Information Available Visually*, Invited talk, Rajiv Gandhi University of Knowledge Technologies
- 2009 *Lessons learned in the course of addressing real world problems through research*. Invited speaker at the Grace Hopper Conference on Women and Computing, Tuscon, AZ.
- 2009 *Impact of Online Information on Individuals with Lyme disease: Potential and pitfalls*. Invited talk at the Greater New York Lyme Neuroborreliosis Support Group, New York, NY.
- 2008 *Facebook and A Polar Bear may persuade people to pare down their energy use*. Invited Google Tech Talk (<http://www.youtube.com/watch?v=9ftlw8ja1iQ>) and Intel Research Colloquium Talk
- 2007 *Leveraging social networks to motivate voluntary change in energy use*. Invited talk at the first conference on Behavior, Energy and Climate Change Conference, Sacramento, CA.
- 2006 *Flexible, mobile and responsive techniques for making important audio events available visually*. University of Pittsburgh, Pittsburgh, PA.
- 2006 *Exiting the Cleanroom: Tools and techniques for situated iterative design of Ubiquitous Computing applications*. Microsoft Research, Seattle, WA. (<http://www.researchchannel.org/prog/displayevent.aspx?rID=4913&fID=569>)
- 2004 *Making Accessibility Accessible to Designers*. IBM T. J. Watson, Hawthorne, NY.
- 2003 *A Research Agenda for Ambient and Peripheral Displays*. Fx Palo Alto. With Anind Dey.
- 2003 *Experiences as a woman in Computer Science*, Stanford Speaker Series for Women in Computer Science, Stanford University, CA.
- 2002 *Ambiguity in User Interfaces: Representations and Resolutions* San Jose State CoE Engineering Seminar.
- 2002 *An Architecture and Interaction Techniques for Handling Ambiguity in Recognition-based Input*. Sonoma State University.
- 2002 *When user interfaces and users don't match up: Automating universal access* International Computer Science Institute, Berkeley, CA.
- 2000 *Interface Techniques for Handling Recognition Errors and Ambiguity in Recognition-based Input*. University of Maryland Human Computer Interaction Laboratory (HCIL), Fall 2000 Seminar series. 2000.

- 2000 *Programming support for natural interaction*. Job talk. Given at: UC Berkeley, Georgia State, Harvard, UC Boulder, IBM, Indiana University, Karlsruhe, University of Maryland, Northwestern, NYU, Stanford, UIUC, University of Washington, and SFU.

PUBLICATION LIST

REFEREED JOURNAL PAPERS - PUBLISHED

- [J.14] Ni, H., Cho, S., Mankoff, J., Yang, J., & Dey, A. K. (2017). Automated Recognition of Hypertension Through Overnight Continuous HRV Monitoring. *Journal of Ambient Intelligence and Humanized Computing*, **1-13**, August, 2017. doi:10.1007/s12652-017-0471-y
- [J.13] Lazar, J., Churchill, E. F., Grossman, T., Van der Veer, G., Palanque, P., Morris, J., & Mankoff, J. Making the field of computing more inclusive. *Communications of the ACM*, March, 2017. To Appear.
- [J.12] McCann, J., Albaugh, L., Narayanan, V., Grow, A., Matusik, W., Mankoff, J., & Hodgins, J. (2016). A compiler for 3D machine knitting. *ACM Transactions on Graphics (TOG)*, **35**(4), 49.
- [J.11] Johnson, L., Wilcox, S., Mankoff, J. & Stricker, R. (2014) Severity of chronic Lyme disease compared to other chronic conditions: A quality of life survey. *PeerJ*, **2**: e322.
- [J.10] Hurst, A., Hudson, S. E., Mankoff, J. & Trewin, S. (2013) Distinguishing users by pointing performance in laboratory and real world tasks. *ACM Transactions on Accessible Computing*. **5**(2):Article 5.
- [J.9] S. Carter and J. Mankoff and S. Klemmer and T. Matthews. "Exiting the cleanroom: On ecological validity and ubiquitous computing," *HCI Journal*. **23**(1):47-99, 2008.
- [J.8] T. Matthews, J. Fong, F. W.-L. Ho-Ching and J. Mankoff. "Evaluating non-speech sound visualizations for the deaf," *Behavior and Information Technology*. **25**(4):333-351, 2006.
- [J.7] S. Carter and J. Mankoff. "Prototypes in the wild: Lessons learned from evaluating three Ubicomp systems," *IEEE Pervasive Computing*. **4**(4):51-57, 2005.
- [J.6] A. Dey and J. Mankoff. "Designing mediation for context-aware applications," *ACM Transactions on Computer-Human Interaction* (Special issue on Sensing-Based Interactions). **12**(1):53-80, 2005.
- [J.5] J. Mankoff, H. Fait and R. Juang. "Evaluating accessibility through simulating the experiences of users with vision or motor impairments," *IBM Systems Journal*. **44**(3):505-518, 2005.
- [J.4] Carter, S. and J. Mankoff and P. Goddi. "Building connections among loosely coupled groups: Hebb's rule at work," *Journal of CSCW*. **13**(3):305-327, 2004.
- [J.3] C. Newman, M. Bauer, A. M. Agogino, J. Mankoff. "Perceptions of the design process: An examination of gendered aspects of new product development," *International Journal of Engineering Education*. **20**(2), 2004. Also presented at the Mudd Design Workshop IV, "Designing Engineering Education." 10-12 July, 2003.
- [J.2] M. Y. Ivory, J. Mankoff and A. Le. "Using automated tools to improve web site usage by users with diverse abilities," *Information and Society*. **3**(1):195-236, 2003.

- [J.1] J. Mankoff, G.D. Abowd and S.E. Hudson. "Techniques for handling ambiguity in recognition-based input," *Computers & Graphics* (Special Issue on Calligraphic Interfaces). **24**(6):819-834, December, 2000.

REFEREED CONFERENCE/WORKSHOP PAPERS

- [C.76] Perry-Hill, J., Shi, P., Mankoff, J. & Ashbrook, D. Understanding Volunteer AT Fabricators: Opportunities and Challenges in DIY-AT for Others in e-NABLE. *Accepted to CHI 2017*
- [C.75] Banovic, N., Wang, A., Jin, Y., Chang, C., Ramos, J., Dey, A. & Mankoff, J. Leveraging human routine models to detect and generate human behaviors. *Accepted to CHI 2017*
- [C.74] Rivera, M., Moukperian, M., Ashbrook, D., Mankoff, J. & Hudson, S. Stretching the bounds of 3D printing with embedded textiles. *Accepted to CHI 2017*
- [C.73] Guo, A., Kim, J., Chen, X. A., Yeh, T., Hudson, S., Mankoff, J. & Bigham, J. Facade: Auto-generating tactile interfaces to appliances. *Accepted to CHI 2017*
- [C.72] Banovic, N., Rao, V., Saravanan, A., Dey, A. & Mankoff, J. Quantifying aversion to costly typing errors in expert mobile text entry, *Accepted to CHI 2017*. (**Best Paper Honorable Mention**)
- [C.71] Early, K., Fienberg, S., & Mankoff, J. (2016, March). Cost-Effective Feature Selection and Ordering for Personalized Energy Estimates. In Workshop on AI for Smart Grids and Smart Buildings at the Thirtieth AAAI Conference on Artificial Intelligence.
- [C.70] Hofmann, M., Burke, J., Pearlman, J., Fiedler, G., Hess, A., Schull, J., ... & Mankoff, J. (2016, October). Clinical and Maker Perspectives on the Design of Assistive Technology with Rapid Prototyping Technologies. In Proceedings of the 18th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 251-256). ACM.
- [C.69] Guo, A., Kim, J., Chen, X. A., Yeh, T., Hudson, S. E., Mankoff, J., & Bigham, J. P. (2016, October). Facade: Auto-generating Tactile Interfaces to Appliances. In Proceedings of the 18th International ACM SIGACCESS Conference on Computers and Accessibility (pp. 315-316). ACM.
- [C.68] Banovic, N., Buzali, T., Chevalier, F., Mankoff, J., & Dey, A. K. (2016, May). Modeling and Understanding Human Routine Behavior. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (pp. 248-260). ACM. (**Best Paper Honorable Mention**)
- [C.67] Hofmann, M., Harris, J., Hudson, S. E., & Mankoff, J. (2016, May). Helping Hands: Requirements for a Prototyping Methodology for Upper-limb Prosthetics Users. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (pp. 1769-1780). ACM.
- [C.66] Spielberg, A., Sample, A., Hudson, S. E., Mankoff, J., & McCann, J. (2016, May). RapID: A Framework for Fabricating Low-Latency Interactive Objects with RFID Tags. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (pp. 5897-5908). ACM. (**Best Paper Award**)
- [C.65] Early, K., Fienberg, S. E., & Mankoff, J. (2016, September). Test time feature ordering with FOCUS: interactive predictions with minimal user burden. In Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (pp. 992-1003). ACM. (**Best Paper Honorable Mention**)

- [C.64] Chen, X. A., Kim, J., Mankoff, J., Grossman, T., Coros, S., & Hudson, S. E. (2016, October). Reprise: A Design Tool for Specifying, Generating, and Customizing 3D Printable Adaptations on Everyday Objects. In Proceedings of the 29th Annual Symposium on User Interface Software and Technology (pp. 29-39). ACM.
- [C.63] Chen, A. X., Coros, S., Mankoff, J., Hudson, S. E. (2015). Encore: 3D printed augmentation of everyday objects with printed-over, affixed and interlocked attachments. *UIST 2015*, pp. 73-82
- [C.62] Peng, H., Mankoff, J., Hudson, S. E., McCann, J. (2015). A layered fabric 3D printer for soft interactive objects. *CHI 2015*, pp. 1789-1798. **(Best Paper Honorable Mention)**
- [C.61] Kim, S., Mankoff, J. & Paulos, E. (2015). Exploring barriers to the adoption of mobile technologies for volunteer data collection campaigns. *CHI 2015*, pp. 3117-3126.
- [C.60] Schwarz, J., Mankoff, J. & Hudson, S. E. (2015). An architecture for generating interactive feedback in probabilistic user interfaces. *CHI 2015*, pp. 2545-2554. **(Best Paper Honorable Mention)**
- [C.59] Crawford, J., Guo, C., Schroeder, J., Arriaga, R. I. & Mankoff, J. (2014). Is it a question of trust? How search preferences influence forum use. *Pervasive Health 2014*, 118-125.
- [C.58] Chen, A. X., J. S., Harrison, C., Mankoff, J., & Hudson, S. E. (2014). Air+ Touch: Interweaving touch & In-air gestures. *UIST 2014*, 519-525.
- [C.57] Jain, M., Chhabra, D., Mankoff, J. & Singh, A. Energy usage attitudes of urban India. *ICT4S 2014*, 208-217.
- [C.56] Koehler, C., Oakley, I., Mankoff, J., Dey, A. & Banovic, N. Introducing indoor-ALP: An adaptive indoor location prediction system. *UbiComp 2014*, 171-181.
- [C.55] Chen, X., Schwarz, J., Harrison, C., Mankoff, J. & Hudson, S. Around-body interaction: Sensing & interaction techniques for proprioception-enhanced input with mobile devices. *Mobile HCI 2014*, 287-290.
- [C.54] Banovic, N., Brant, C., Mankoff, J. & Dey, A. Proactive tasks: The short of mobile device use sessions. *Mobile HCI 2014*, 243-252. **Best Paper Award.**
- [C.53] Schwarz, J., Marais, C., Leyvand, T., Hudson, S. & Mankoff, J. (2014). Combining body pose, gaze and gesture to determine intention to interact in vision-based interfaces. *CHI 2014*, To Appear.
- [C.52] Schwarz, J., Xiao, R., Mankoff, J., Hudson, S., Harrison, C. (2014) Probabilistic palm rejection using spatiotemporal touch features and iterative classification. *CHI 2014*, 2009-2012.
- [C.51] Huang, K., Kiesler, S., Smailagic, A., Mankoff, J. & Siewiorek, D. (2014). A technology probe of wearable in-home computer-assisted physical therapy. *CHI 2014*, 2541-2550.
- [C.50] Dillahunt, T., Mankoff, J. (2014) Understanding factors of successful engagement around energy consumption between and among households. *CSCW 2014*, pp. 1246-1257
- [C.49] Koehler, C., Ziebart, B. D., Mankoff, J., Dey, A. K. (2013) TherML: Occupancy prediction for thermostat control. *UbiComp 2013*, pp. 103-112
- [C.48] Banovic, N., Franz, R. L., Truong, K. N., Mankoff, J., Dey, A. K. (2013) Uncovering information needs for independent spatial learning for users who are visually impaired. *ASSETS 2013*, Article No. 24, 8 pages.
- [C.47] Mankoff, J., Faste, H., Rode, J. (2013) Looking past yesterday's tomorrow: Using futures studies methods to extend the research horizon. *CHI 2013*, 1629-1638.

(Best Paper Honorable Mention; CHI 2013 sustainability award nomination)

- [C.47] Kuksenok, K., Brooks, M., Mankoff, J. (2013) Accessible online content creation by end users. *CHI 2013*, 59-68.
- [C.46] Shrinivasan, Y., Jain, M., Seetharam, D., Choudhary, A., Huang, E., Dillahunt, T., Mankoff, J. (2013) Deep conservation in urban India and its implications for the design of conservation technologies. *CHI 2013*. 1969-1978.
- [C.45] Kim, S., Mankoff, J., Paulos, E. (2013) inAir: A longitudinal study of indoor air quality measurements and visualizations. *CHI 2013*. 2745-2754.
- [C.44] Kim, S., Mankoff, J., Paulos, E. (2013) Sensr: Evaluating a flexible framework for authoring mobile data-collection tools for citizen science. *CSCW 2013*, 1453-1462.
- [C.43] Chapman, L., Mankoff, J., Ishizaki, S., and Marcu, G. Design for chronic illness: Exploring service systems and new technologies for patients with Type 2 diabetes. In *Proc Design and Emotion 2012*. London, UK. Sept. 11-14, 2012.
- [C.42] Gulotta, R., Faste, H. & Mankoff, J. (2012) Curation, provocation, and digital identity: Risks and motivations for sharing provocative images online. In *CHI 2012*, 387-390.
- [C.41] Mankoff, J., Kuksenok, K., Rode, J. A. Rode, Kiesler, S. & Waldman, K. (2011) Competing online viewpoints and models of chronic illness. In *CHI 2011*, 589-598
- [C.40] Schwarz, J., Mankoff, J. & Hudson, S. E. (2011) Monte carlo methods for managing interactive state, action and feedback under uncertainty. In *UIST 2011*, 235-244
- [C.39] Grevet, C., Mankoff, J. & Anderson, S. D. (2010) Design and Evaluation of a Social Visualization Aimed at Encouraging Sustainable Behavior. In *HICSS 2011*, 1-8
- [C.38] Mankoff, J., Hayes, G. & Kasnitz, D. (2010) Disability Studies as a source of critical inquiry for the field of Assistive Technology. In *ASSETS 2010*, 3-10
- (Best Paper Award)**
- [C.37] Dillahunt, T., Mankoff, J., Paulos, E. (2010). Understanding conflict between landlords and tenants: Implications for energy sensing and feedback. In *UbiComp 2010*, 149-158
- [C.36] Schwarz, J., Hudson, S., Mankoff, J., A Robust and Flexible Framework for Handling Inputs with Uncertainty. In *UIST'10*, pp. 47-56.
- [C.35] J. Mankoff, S. R. Fussell, T. Dillahunt, R. Graves, C. Grevet, M. Johnson, D. Matthews, H. S. Matthews, R. McGuire, R. Thompson, A. Shick and L. Setlock, Stepgreen.org: Increasing energy saving behaviors *via* social networks, In *ICWSM '10*, pp. 106-113.
- [C.34] J. Schwarz, C. Harrison, S. Hudson and J. Mankoff, Cord Input: An intuitive, high-accuracy, multi-degree-of-freedom input method for mobile devices, In *CHI '10*, pp. 1657-1660
- [C.33] A. Hurst, S. E. Hudson, and J. Mankoff, Automatically Identifying Targets Users Interact With During Real World Tasks. In *IUI 2010*, To Appear.
- [C.32] T. Dillahunt, J. Mankoff, E. Paulos, S. Fussell, It's not all about "green": Energy use in low-income communities. In *UbiComp 2009*, pp. 255-264
- [C.31] J. Froehlich, T. Dillahunt, P. Klasnja, J. Mankoff, S. Consolvo, B. Harrison, J. A. Landay, UbiGreen: Investigating a Mobile Tool for Tracking and Supporting Green Transportation Habits. In *CHI 2009*, 1043-1052

- [C.30] J. Schwarz, J. Mankoff, H. Scott Matthews. Reflections of everyday activity in spending data. In *CHI 2009*, 1737-1740
- [C.29] A. Hurst, J. Mankoff, S. E. Hudson. Understanding pointing problems in real world computing environments. In *ASSETS 2008*, 43-50
- [C.28] A. Hurst, S. E. Hudson, J. Mankoff, S. Trewin. Automatically detecting pointing performance. In *IUI 2008*, 11-19.
- [C.27] A. Hurst, J. Mankoff, A. K. Dey and S. E. Hudson. Dirty desktops: using a patina of magnetic mouse dust to make common interactor targets easier to select. In *UIST 2007*, 183-186
- [C.26] S. Carter, J. Mankoff and J. Heer. Momento: Support for situated ubicomp experimentation. In *CHI 2007*. pp 125-134.
- [C.25] A. Hurst, S.E. Hudson and J. Mankoff, Dynamic detection of novice versus skilled use without a task model. In *CHI 2007*, 271-280.
- [C.24] J. Mankoff, D. Matthews, S. R. Fussell and M. Johnson. Leveraging social networks to motivate individuals to reduce their ecological footprints. In *HICSS 2007*, 87.
- [C.23] S. Carter, A. Hurst, J. Mankoff, and J. Li. Dynamically adapting GUIs to diverse input devices. In *ASSETS 2006*, 63-70.
- [C.22] S. E. Hudson and J. Mankoff. Rapid construction of functioning physical interfaces from cardboard, thumbtacks, tin foil and masking tape. In *UIST 2006*, 289-298.
- [C.21] T. Matthews, S. Carter, C. Pai, J. Fong and J. Mankoff. Scribe4Me: Evaluating a mobile sound translation tool for the deaf. In *Ubicomp 2006*, 159-176.
- [C.20] D. Mankoff, A. Dey, J. Mankoff, and K. Mankoff. Supporting interspecies social awareness: Using peripheral displays for distributed pack awareness. In *UIST 2005*, pp. 253-258. Satire.
- [C.19] T. Matthews, J. Fong and J. Mankoff. Visualizing non-speech sounds for the Deaf. In *ASSETS 2005*, pp. 52-59.
- [C.18] J. Mankoff, H. Fait and T. Tran. Is your web page accessible? A comparative study of methods for assessing web page accessibility for the blind. In *CHI 2005*, pp. 41-50.
- [C.17] S. E. Hudson, J. Mankoff and I. Smith. Extensible input handling in the subArctic toolkit. In *CHI 2005*, pp. 381-390.
- [C.16] S. Carter and J. Mankoff. When participants do the capturing: The role of media in diary studies. In *CHI 2005*, pp. 899-908. **(Best Paper Honorable Mention)**
- [C.15] T. Matthews, A. Dey, J. Mankoff, S. Carter, and T. Rattenbury. A toolkit for managing user attention in peripheral displays. In *UIST 2004*, 247-256.
- [C.14] J. Heer, N. Good, A. Ramirez, M. Davis and J. Mankoff. Presiding over accidents: System mediation of human action. In *CHI 2004*, pp. 463-470.
- [C.13] W. Ho-Ching, J. Mankoff and J. Landay. Can you see what I hear? The design and evaluation of a peripheral sound display for the deaf. In *CHI 2003*, pp. 161-168.
- [C.12] J. Mankoff, A. Dey, G. Hsieh, J. Kientz, and S. Lederer. Heuristic evaluation of ambient displays In *CHI 2003* pp. 169-176.
- [C.11] J. Wang, and J. Mankoff. Theoretical and architecture support for input device adaptation. In *CUU 2003*, 85-92.
- [C.10] S. Lederer, J. Mankoff and A. K. Dey. Who wants to know what when? Privacy preference determinants in ubiquitous computing. In *Extended Abstracts of CHI 2003*, Short Papers. ACM Press, 724-725.
- [C.9] J. Mankoff, G. Hsieh and H.C. Hung and S. Lee and E. Nitao. Using low-cost sensing to support nutritional awareness. In *Ubicomp 2002*. Technical Note. October, 2002, 371-378.

- [C.8] J. Mankoff, A. Dey, U. Batra and M. Moore. Web accessibility for low bandwidth input. In *ASSETS 2002*, 17–24.
- [C.7] A. Dey, J. Mankoff, G.D. Abowd, and S. Carter. Distributed Mediation of ambiguous context in aware environments In *UIST 2002*, pp. 121–130. Originally published as “A.K. Dey, J. Mankoff and G.D. Abowd. Distributed mediation of imperfectly sensed context in aware environments. GIT GVU-Technical Report. #GIT-GVU-00-14. Summer, 2000.”
- [C.6] M. Moore, E. Mynatt, P. Kennedy and J. Mankoff. Nudge and shove: Frequency thresholding for navigation in direct brain-computer interfaces. In *CHI 2001 Conference Companion*. Technical Note. March, 2001, 361-362.
- [C.5] J. Mankoff, S.E. Hudson and G.D. Abowd. Interaction techniques for ambiguity resolution in recognition-based interfaces. In *UIST 2000*, pp. 11-20
- [C.4] J. Mankoff, S.E. Hudson and G.D. Abowd. Providing integrated toolkit-level support for ambiguity in recognition-based interfaces. In *CHI 2000*, pp. 368-375
- [C.3] J. Mankoff and G.D. Abowd. Cirrin: A word-level unistroke keyboard for pen input. In *UIST'98*. Technical Note. November, 1998,213-214.
- [C.2] J. Mankoff, J. Somers and G. D. Abowd. Bringing people and places together with dual augmentation. In *Collaborative Virtual Environments (CVE'98)*. Manchester, 1998, 81-86.
- [C.1] J. Mankoff and B. Schilit. Supporting knowledge workers beyond the desktop with PALplates. In *CHI 97 Conference Companion*. Technical Note. March, 1997. p.550-551.

BLOGS, NON-REFEREED ARTICLES, CHAPTERS IN BOOKS, ETC.

- [NR.11] Spielberg, A., Sample, A., Hudson, S. E., Mankoff, J., & McCann, J. (2016). Building a toolkit for fabricating interactive objects. *XRDS: Crossroads, The ACM Magazine for Students*, 22(3), 38-43.
- [NR.10] Peng, H., Hudson, S., Mankoff, J., & McCann, J. (2016). Soft printing with fabric. *XRDS: Crossroads, The ACM Magazine for Students*, 22(3), 50-53.
- [NR.9] Mankoff, J. (2016). The wicked problem of making SIGCHI accessible. *interactions*, 23(3), 6-7.
- [NR.8] Mankoff, J. Thoughts on the SIGCHI Accessibility Report. *Interactions Blog*, <http://interactions.acm.org/blog/view/thoughts-on-the-sigchi-accessibility-report>
- [NR.7] Silberman, M. S., Nathan, L. P., Knowles, B., Bendor, R., Clear, A. K., Håkansson, M., Dillahunt, T. & Mankoff, J. Next steps for sustainable HCI. *Interactions* 21(5): 66-69 (2014)
- [NR.6] Hudson, S.E. & Mankoff, J. (2014) Concepts, Values, and Methods for Technical Human–Computer Interaction Research, in *Ways of Knowing in HCI*, J. Olsen & W. Kellogg, Ed. Springer-Verlag
- [NR.5] J. Mankoff. “HCI and Sustainability: A Tale of Two Motivations,” *Interactions*. **19**(3): 16-19.
- [NR.4] Dillahunt, T. & Mankoff, J. (2011) In the dark, out in the cold. *ACM Crossroads* **17**(4):39-41
- [NR.3] Tara Matthews, Gary Hsieh, Jennifer Mankoff (2009). Evaluating Peripheral Displays. P. Markopoulis, B. D. Ruyter & W. Mackay (Ed), Chapter 19 of *Awareness Systems: Advances in Theory, Methodology and Design*, Human Computer Interaction Series, Springer-Verlag London. pp. 447-472.
- [NR.2] J. Mankoff, R. Kravets, E. Bleviss. “Some computer science issues in creating a sustainable world,” *IEEE Computer*. 41(8):102-105, August, 2008 (also

- published in the IEEE e-zine on energy and sustainability, www.earthzine.net, 11/17/08.
- [NR.1] J. Mankoff and A. K. Dey. “From Conception to Design: A practical guide to designing ambient displays” In *Public and Situated Displays*. K. O’Hara et al., eds. Kluwer Academic Publishers, 2003;.
 - [BL.3] Blog: Invited blogger for ACM Interactions (starting in 2013). Top Posts: “What would it take to be inclusive” (2013)
 - [BL.2] Blog: Lassi & Fondue (tenuretravels.wordpress.com)—37 posts total; ~2000 views in 2012.
 - [BL.1] Blog [retired]: SCS Green (scsgreen.cs.cmu.edu)—20 posts total; created website. ~2500 views in 2014.
 - [BL.0] Blog: A Lyme Disease Journal (gotlyme.wordpress.com) – over 15,000 hits/year; 146 posts since inception

ORGANIZED THE FOLLOWING WORKSHOPS, SIGS AND PANELS

- [Org.5] Jennifer Ann Rode, Erin Brady, Erin Buehler, Shaun K. Kane, Richard E. Ladner, Kathryn E. Ringland, Jennifer Mankoff: SIG on the State of Accessibility at CHI. CHI Extended Abstracts 2016: 1100-1103
- [Org.4] J. Mankoff, J. Teevan, B. Bederson, G. D. Abowd. Organized Invited Discussion: Real Life and Real Work: Real Experiences Negotiating the Competing Needs of Illness, Disability, Children, and Work. CHI 2009.
- [Org.3] E. Blevis, E. M. Huang, J. Mankoff, L. P. Nathan, B. Tomlinson. Organized workshop on: Defining the role of HCI in the challenges of sustainability. CHI 2009, *Extended Abstracts of CHI 2009*, 4827-4830.
- [Org.2] J. Hasbrouck, T. Igoe, J. Mankoff and A. Woodruff. Organized workshop on: Ubiquitous Sustainability: Technologies for Green Values. *Proc. Ubicomp 2007*, pp. 567-568.
- [Org.1] J. Mankoff, E. Blevis, A. Borning, B. Friedman, S. R. Fussell, J. Hasbrouck, A. Woodruff and P. Sengers. Organized SIG on: Environmental sustainability and interaction. CHI 2007 SIG, *Extended Abstracts of CHI 2007*, 2121-2124

OTHER CONFERENCE AND WORKSHOP PARTICIPATION

- [O.45] Lea Albaugh, April Grow, Chenxi Liu, James McCann, Gillian Smith, Jennifer Mankoff: Threadsteading: Playful Interaction for Textile Fabrication Devices. CHI Extended Abstracts 2016: 285-288
- [O.44] Hudson, S. & Mankoff, J. Revolutionizing assistive device creation *via* advanced distributed fabrication: An interdisciplinary project. Crossfab Workshop, *CHI 2016*.
- [O.43] Chen, X. A., Coros, S., Mankoff, J., Hudson S. E. (2015), Encore: 3D printed augmentation of everyday objects with printed-over, affixed and interlocked attachments. *SIGGRAPH Posters 2015*, 3:1
- [O.34] Brady, MD, P. W., Eric Kirkendall, Kathleen Walsh, Kristen Timmons, Jennifer Mankoff, Xin Lei, Mike Zender, Andrew Davis, Heather Kaplan (2015). MSCE: Developing an end-user designed data display for oxygen trends: an ethnographic study. Selected for an oral presentation at the 2015 *Academy for Healthcare Improvement’s conference on Teaching and Disseminating Methods to Improve Healthcare Quality and Affordability*, October 29-30, Alexandria, VA 22311.
- [O.33] Kim, S., Mankoff, J. & Paulos, E. (2014) Exploring the opportunities of mobile technology use in nonprofit organizations, *CHI 2014 WIP* Poster.
- [O.32] Mankoff, J. (2013) Defining an agenda for computational sustainability. *ICT4S*

2013, p. 4

- [O.31] T. Dillahunt & J. Mankoff, The impact of community connectedness on social energy applications *BECC 2013* Poster
- [O.30] Chapman, L., Mankoff, J., Ishizaki, S. & Marcu, G. Design for chronic illness: exploring service systems and new technologies for patients with Type 2 Diabetes. In *Design and Emotion 2012*.
- [O.29] T. Dillahunt & J. Mankoff, Social Sharing and Engagement Around Community Energy Monitoring. *BECC 2012 Lightning Presentation*
- [O.28] R. Gulotta, J. Mankoff, H. Faaste, K. Kuksenok, Ethical challenges in online health community research. Accepted at the workshop on *Ethics, Logs and Videotape*. *CHI '11*
- [O.27] Koehler, C., Dey, A., Mankoff, J., & Oakley, I. (2010) Motivate environmentally sustainable thermostat-use through goal-setting, just-in-time recommendations, and behavior reflection. In *NIMD 2010*, pp. 27-30.
- [O.26] K. Waldman; advised by K. Kuksenok and J. Mankoff, Use of Internet resources by individuals with Lyme Disease. *RESNA '10*
- [O.25] V. Hanson, L. Gibson, J. Mankoff, S. Kiesler, J. Richards, Grass Roots Distributed Healthcare. Panel presentation for *Grand Challenges in Computing Research '10*, April, 2010.
- [O.24] J. Mankoff, S. Kiesler, K. Kuksenok, and K. Waldman, Uncertainty in chronic illness and patients' online experiences, In *WISH '10*.
- [O.23] T. Dillahunt, J. Mankoff, J. Forlizi, A proposed framework for assessing environmental sustainability in the HCI community. Presented at the workshop on Examining Appropriation, Re-Use, and Maintenance of Sustainability, *CHI '10*.
- [O.22] K. Rector, with J. Mankoff and S. Hudson, Prototyping custom devices using infrared communication, *Grace Hopper Celebration '09*, poster session from DREU.
- [O.21] K. Kuksenok, K. Waldman, J. Mankoff, S. Kiesler, and M.A. Sevick, Conflict and care: how conflict affects individuals with chronic illness, *Grace Hopper Celebration '09*, Technical Poster.
- [O.20] K. Kuksenok, J. Mankoff, End-user moderation of cognitive accessibility in online communities: Case study of brain fog in the Lyme community. In *ASSETS '09*, pp. 233-234.
- [O.19] T. Dillahunt, G. Becker, J. Mankoff, R. Kraut. Motivating environmentally sustainable behavior changes with a virtual polar bear. Presented at the workshop on Pervasive Persuasive Technology and Environmental Sustainability, *Pervasive '08*.
- [O.18] Froehlich, J., Consolvo, S., Dillahunt, T., Harrison, B., Klasnja, P., Mankoff, J., Landay, J. UbiGreen: Using Mobile Phones as a Persuasive Technology to Affect Daily Transportation Practices. Abstract accepted for presentation at *Behavior, Energy and Climate Change*, November, 2008.
- [O.17] J. Mankoff. Applying ethics to the practice, research, and teaching of Human Computer Interaction. Presented at the workshop on Reflective HCI: Articulating a Research Agenda for Critical Practice, *CHI 2006*.
- [O.16] J. Mankoff. Case study of Service-Learning for HCI: Practical guidelines for successful integration. Experience Report, *Extended abstracts of CHI 2006*, pp. 201-206.
- [O.15] S. Davidoff, S. Carter and J. Mankoff. Can early-stage tools and techniques for iterative design help researchers understand a problem space? Presented at the

- UbiApp Workshop, (What makes for good application-led research in ubiquitous computing), *Pervasive*, 2005.
- [O.14] S. Davidoff, C. Bloomberg, I. A. R. Li, J. Mankoff and S. R. Fussell. The book as user interface: lowering the entry cost to email for elders. *Extended Abstracts of CHI 2005* (Poster), 1331-1334.
- [O.13] J. Mankoff and S. Carter. Crossing qualitative and quantitative evaluation in the domain of ubiquitous computing. Presented at the CHI Workshop on Usage Analysis: Combining logging and qualitative methods, *CHI 2005*.
- [O.12] T. Matthews and J. Mankoff. A toolkit for evaluating peripheral awareness. Presented at the CHI Workshop on Awareness Systems, *CHI 2005*.
- [O.11] Lederer, S., Mankoff, J, Dey, A.K. Towards a deconstruction of the privacy space. Presented at the UBICOMP 2003 Workshop on UbiComp Communities: Privacy as Boundary Negotiation, *UbiComp*, 2003.
- [O.10] W-L. Ho-Ching, J. Mankoff and J. Landay Using peripheral displays to provide the deaf with awareness of environmental audio. Presented at the Workshop on Providing Elegant Peripheral Awareness, *CHI 2003*.
- [O.9] A.K. Dey and J. Mankoff Applying heuristic evaluation to ambient displays. Presented at the Workshop on Providing Elegant Peripheral Awareness, *CHI 2003*.
- [O.8] M. Ames, C. Bettadapur, A. K. Dey and J. Mankoff. Healthy cities ambient displays. Student poster and extended abstract. *UbiComp 2003*.
- [O.7] A.K. Dey and J. Mankoff Evaluation of ambient displays to ambient displays. Presented at the Workshop on Design and Evaluation of Notification Displays, *UbiComp 2002*.
- [O.6] S. Lederer, A. K. Dey, and J. Mankoff Everyday privacy in ubiquitous computing environments. Presented at the Workshop on Socially-informed Design of Privacy-enhancing Solutions in Ubiquitous Computing, *UbiComp 2002*.
- [O.5] J. Hong, J. Landay, A.C. Long and J. Mankoff. Sketch recognizers from the designer's and the programmer's perspective. *AAAI Symposium on sketch understanding*, 2002.
- [O.4] J. Mankoff. Providing integrated toolkit-level support for ambiguity in recognition-based interfaces. In *CHI 2000 Conference Companion*, Doctoral Consortium, 77-78.
- [O.3] Participated in Workshop on Designing the user interface for pen and speech multimedia applications. In *CHI Conference Companion*. p. 176. May, 1999.
- [O.2] J. Mankoff, J. Somers and G.D. Abowd. Bringing people and places together. Papers from the *AAAI Spring Symposium on Intelligent Environments*. Technical Report SS-98-02. March, 1998.
- [O.1] Seamless augmented environments on the scale of a building, a room and a desk. In Panel on Augmenting Home Environments, *ACM ASSETS 1998*.

THESES

- [Th.2] J. Mankoff. An architecture and interaction techniques for handling ambiguity in recognition based input. Georgia Institute of Technology, Atlanta, GA. PhD Thesis. Gregory Abowd and Scott Hudson (co-advisors). Summer, 2001.
- [Th.1] J. Mankoff. IIC: Information in context. Oberlin College. Honors Thesis. Rhys Price-Jones (advisor). High Honors. Spring, 1995.

TECHNICAL REPORTS

- [T.11] Dillahunt, T. & Mankoff, J. (2012) Design implications for social-energy applications. Technical Report CMU-HCII-12-100, Carnegie Mellon, 2012.
- [T.10] S. Carter and J. Mankoff. Memento: Early stage prototyping and evaluation for mobile applications. Technical Report UCB-CSD-05-1380, Computer Science Division, University of California, Berkeley, April, 2005.
- [T.9] S. Carter and J. Mankoff. Challenges for ubicomp evaluation Technical Report UCB-CSD-04-1331, Computer Science Division, University of California, Berkeley, 2004.
- [T.8] G. Hsieh and J. Mankoff. A comparison of two peripheral displays for monitoring email: Measuring usability, awareness, and distraction Technical Report UCB-CSD-03-1286, Computer Science Division, University of California, Berkeley, October, 2003.
- [T.7] Lederer, S., Hong, J.I., Jiang, X., Dey, A.K., Landay, J.A., Mankoff, J. Towards everyday privacy for ubiquitous computing. UCB-CSD-03-1283, Computer Science Division, University of California, Berkeley, October 2003.
- [T.6] S. Lederer, J. Mankoff, and A.K. Dey Managing personal information disclosure in ubiquitous computing environments Technical Report UCB-CSD-03-1257 and IRB-TR-03-015, Computer Science Division, UC Berkeley and Intel Research Berkeley, July, 2003.
- [T.5] S. Lederer, A. K. Dey, and J. Mankoff. A conceptual model and metaphor of everyday privacy in ubiquitous computing environments. Computer Science Division, UC Berkeley and Intel Research Berkeley. UCB-CSD-02-1188 and IRB-TR-02-017. July, 2002.
- [T.4] J. Mankoff, J. Rowan, E.D. Mynatt, M. McJunkin and S.E. Hudson. Ten inch pixels: ambient art for remote awareness. GIT GVU-Technical Report GVU-01-07.
- [T.3] J. Mankoff, G.D. Abowd and S.E. Hudson. Interacting with multiple alternatives generated by recognition technologies. GIT GVU-Technical Report #GIT-GVU-99-26. August, 1999.
- [T.2] J. Mankoff and G.D. Abowd. Error correction techniques for handwriting, speech, and other ambiguous or error prone systems. GVU Technical Report #GIT-GVU-99-18. June, 1999.
- [T.1] J. Mankoff and G. Abowd. Domisilica: Providing ubiquitous access to the home. GIT GVU Technical Report #GIT-GVU-97-17, May 1997.

PATENTS AND INVENTION DISCLOSURES

- [I.1] J. Mankoff, A system and method for mobile transcription and translation of speech, environmental sounds, or text, CMU Invention Disclosure 2006-097.
- [I.2] J. McCann, H. Peng, S. Hudson and J. Mankoff, Three-Dimensional Printer with an Inverted Cutting Surface and a Movable Platform, Disney, 2015.

EXHIBITS

- [E.2] Albaugh, L., Grow, A., Liu, C., McCann, J., Smith, G. & Mankoff, J. Threadsteading: Playful Interaction for Textile Fabrication Devices. *CHI 2016 Interactivity. To Appear*
- [E.1] G. Smith, A. Grow, C. Liu, L. Albaugh, J. Mankoff & J. McCann. *Threadsteading: A single-line, two-player, territory-control game for quilting and embroidery machines.* alt.ctrl.GDC 2016.

SOFTWARE ARTIFACTS

- [A.9] *Site-overload* was designed to support user studies but can also support internationalization and other needs (such as multiple clients of an overarching system). It works especially nicely when changes are minor (such as variations in a user study, logo changes, and so on). It is designed to work with an already functioning (Ruby on Rails) site with no changes necessary (to the site).
- [A.8] *StepGreen.org* is a deployed social website supporting green behavior [C.24]. It includes a public API for client support and has been used in support of third party organizations including the Pittsburgh Zoo and Cornell University.
- [A.7] *Momento* supports the rapid creation of Ubicomp interfaces sufficient for evaluation. Based on a user centered design process, it addresses challenges found in Ubicomp evaluation. It supports peripheral monitoring of incoming data, can leverage existing devices and provides integrated support for quantitative and qualitative data [T.10].
- [A.6] *Reporter* aids researchers performing diary studies that involve digital capture of media such as audio and photographs. It enables communication between study participants and researchers, and allows sharing and annotation of captured media [C.16].
- [A.5] *EASE* (Evaluating Accessibility through Simulation of user Experience) simulates the impact of motor impairments and low vision on computer use [J.5]. *EASE* can help developers identify disability-related usability problems early in the design process. *EASE* can also be used to allow fine-grained exploration of user capabilities that are difficult to account for, such as typing speed.
- [A.4] *The Peripheral Display Toolkit* (PDTk) provides structured support for managing user attention in the development of peripheral displays (a subset of Ubicomp applications that allow a person to be aware of information while she is attending to some other primary task or activity) [C.19].
- [A.3] *IAT* is a toolkit that can help applications to be optimized to the needs of people with motor impairments. It uses a formal model of input, based on Markov information sources, to translate a user's input to a form recognizable by any Windows-based application [C.11, C.23].
- [A.2] *The Organized Option Pruning System* (OOPS) is a toolkit that enables backwards-compatible inclusion of recognition based input in GUI interfaces. A major contribution of OOPS is its fine-grained control of the methods used by end users to resolve ambiguities due to recognition errors, through a process called mediation [J.6, T.2, C.5, C.4, J.1, O.2].
- [A.1] *Cirrin* is a novel, circular soft keyboard that supports pen input of ASCII characters using word-level unistrokes [C.3].

NEWS ARTICLES & OTHER COVERAGE

- [N.21] Bruce Brown HealthTech Insider, March 8, 2017. 3D Printing for Assistive Technology Fabrication [video] <http://healthtechinsider.com/2017/03/08/3d-printing-assistive-technology-fabrication-video/>
- [N.20] Jennifer Mankoff #ALD15 @findingada <https://blog.adafruit.com/2015/10/13/jennifer-mankoff-ald15-findingada/>
- [N.19] Essential Pittsburgh, June 23, 2015. <http://wesa.fm/post/essential-pittsburgh-homegrown-terror-series-explores-americans-joining-isis>
- [N.18] CBS Local, May 18, 2015. New Website And App Designed To Help Renters Estimate Utility Bills, by Jon Delano, <http://pittsburgh.cbslocal.com/2015/05/18/new-website-and-app-designed-to-help-renters-estimate-utility-bills/>

- [N.17] Futurity, May 11, 2015. New 3D-printed objects are soft and fuzzy
<http://www.futurity.org/3d-printing-fabric-917612>
- [N.16] Post Gazette, May 29, 2012 Renters examine electric usage in TREK program by Diana Nelson Jones, <http://www.post-gazette.com/stories/local/neighborhoods-city/renters-examine-electric-usage-in-trek-program-638010/?p=1>
- [N.15] Computer Scientist researched her own condition, Lyme Disease, Pohla Smith, Post Gazette, April, 2011, <http://old.post-gazette.com/pg/11101/1138165-114.stm>
- [N.14] National Wildlife Federation Magazine, May 14, 2010 Nudging People to Combat Climate Change by Peter Aldhous <http://www.nwf.org/News-and-Magazines/National-Wildlife/News-and-Views/Archives/2010/Nudging-People-to-Combat-Climate-Change.aspx>
- [N.13] Ada Lovelace Day, Scott Carter, March, 2009.
<http://palblog.fxpal.com/?p=496>
- [N.12] Centerpiece of High End Computing: Cell Phones, ABC News, November, 2008
- [N.11] Carnegie Mellon's StepGreen tracks our sustainable lifestyle, Debra Smit, Pop City, July, 2008
- [N.10] OurSpace (Talk of the Quad), Peter Frick-Wright, Sierra Club Magazine, November/December 2006.
<http://www.sierraclub.org/sierra/200711/coolsschools/talk.asp>
- [N.9] What Happened?, Lisa Steinfeld, i711.com, March, 2006.
<http://www.i711.com/my711.php?tab=2&article=6>
- [N.8] EECS professors design 'aware chair' communication system for physically and speech-impaired, Engineering News, January 20, 2003, Vol 73 No. 1S.
<http://www.coe.berkeley.edu/engnews/fall02/1S/Awarechair.html>
- [N.7] Able Computing, Oberlin Alumni Magazine,
http://www.oberlin.edu/alummag/fall2003/notes_03.html
- [N.6] Ambient Displays that Don't Distract, David Pescovitz, Berkeley Engineering Lab Notes, May, 2003. <http://www.coe.berkeley.edu/labnotes/0503/mankoff.html>
- [N.5] New York Times, "Glass that Glows and Gives Stock Information" (Barnaby Feder), June 10, 2003.
<http://nytimes.com/2003/06/10/technology/10AMBI.html?8hpib>
- [N.4] Nature, "Artificial intelligence: Fast hands-free writing by gaze direction" (Lidia Pringle), Aug. 22, 2002.

Safe.millennium.berkeley.edu coverage (N.1-N.3)

Helped to create <http://safe.millennium.berkeley.edu> website to help people find out if friends and family were safe in the aftermath of September 11th.

Website is archived at:

<http://web.archive.org/web/20010919065820/safe.millennium.berkeley.edu/>

Website was mentioned in numerous articles around the world shortly after 9/11, including Newsbytes news network, and the International Herald Tribune (see [N.1]), as well being mentioned on ABC by Peter Jennings and posted on CNN, Yahoo and MSNBC. Project was also featured on Business Newswire, as well as in several UC Berkeley news articles [N.2] and discussed in academic venues [N.3].

- [N.1] News articles mentioning safe.millennium.berkeley.edu
- Help Sites Spring Up In Aftermath Of WTC Assaults, Steve Gold, Newsbytes News Network, 9/12/01
 - While phone lines went down in New York, people flocked to the net, Andy Farquarson, Guardian Unlimited, UK, 9/20/01 <http://www.guardian.co.uk/>

Archive/Article/0,4273,4260488,00.html (just mentions site, not directly discussed)

- Internet Sites Offering More Information, International Herald Tribune, 9/13/01
- Net in aid of attack victims' kin, Raman Mohan, Tribune, India, <http://www.tribuneindia.com/2001/20010920/haryana.htm#1>
- Internet becomes only link after cell phones fail, Kevin Coughlin, The Star Ledger, 9/12/01 <http://www.nj.com/specialprojects/index.ssf?/specialprojects/terror/internetcell.html>
- Web Site Lists Safety Of Loved Ones Following Terrorist Attacks, Science Daily, 9/13/01 <http://www.sciencedaily.com/releases/2001/09/010913075428.htm>
- Universities nationwide help victims, Maria Sprow, Michigan Daily, 9/18/01
- Disaster sets web humming, webmasters, users scrambling, Steve Caulk News Staff Writer. Rocky Mountain News. Denver, Colo.: Sep 17, 2001. pg. 1.B
- E-Business: The Web at Its Worst: Pranks Turn Cruel, Rage Finds Outlets, Dennis Berman. Wall Street Journal (Eastern edition). New York, N.Y.: Sep 17, 2001. p. B.6

[N.2] News articles focused specifically on safe.millennium.berkeley.edu

- UC Berkeley Professor, Students, Create Web Site to Help Public Know If Loved Ones are Safe Following Today's Terrorist Attacks, News Editors, Business Wire, 9/11/01 http://www.findarticles.com/p/articles/mi_m0EIN/is_2001_Sept_11/ai_78135107
- Web Site Helps Families, Friends Track Loved Ones, Robert Sanders and Cyrus Farivar. Berkleyan: 20 September 2001. http://www.berkeley.edu/news/berkeleyan/2001/09/20_web.html (articles also appeared in other UC venues including California Alumni http://www.alumni.berkeley.edu/Alumni/Cal_Monthly/November_2001/After_September_11-_The_campus_responds_.asp, the Daily Californian <http://www.dailycal.org/sharticle.php?id=6255>, and OCUP news <http://www.ucop.edu/news/archives/2001/sept12art3.htm>)

[N.3] Academic articles by others mentioning or featuring safe.millennium.berkeley.edu

- Campuses Near World Trade Center Plan to Resume Classes; Elsewhere, Flag-Waving and Retaliation Are Debated, Dana Mulhauser, the Chronicle of Higher Education, 9/18/01.
- Operating an Emergency Information Service, Ka-Ping Yee, Communications of the ACM, 44(12): 25-28, Dec 2001.
- The Internet in the Aftermath of the World Trade Center Attack, Briavel Holcomb, Philip B. Bakelaar, Mark Zizzamia, Journal of Urban Technology, 10(1):111-128, April, 2003.

PROFESSIONAL ACTIVITIES AND SERVICE

CONFERENCES AND WORKSHOPS ORGANIZED

- Winter 2017: Organized 3D Printing Summit at CMU
- Spring 2016: Organized Joint Summit on 3D Printing and Accessibility with the E-Nable Community Foundation and the University of Pittsburgh [C.70]
- Fall 2016: Helped organize Capacity Building for Accessibility event sponsored by University of Washington's ACCESS Computing

[\(https://www.scs4all.cs.cmu.edu/photos/capacity-building-for-accessibility--cmu/](https://www.scs4all.cs.cmu.edu/photos/capacity-building-for-accessibility--cmu/)
& <https://www.scs4all.cs.cmu.edu/news/new-workshop-capacity-building-for-accessibility-at-cmu/>)

NATIONAL AND INTERNATIONAL SERVICE

- 2017-Present: Member of CHI Steering Committee
- 2014-Present: Elected Chair, ACM SIGACCESS Accessibility Community.
- 2013: Accessibility Chair for Ubicomp 2013.
- 2010-2012: Member of the *Computing Research for Environmental and Societal Sustainability* committee of the National Research Council's Computer Science and Telecommunication Board. (report: http://www.nap.edu/catalog.php?record_id=13415&utm_medium=email&utm_source=The%20National%20Academies%20Press&utm_campaign=NAP+mail+new+7.03.12&utm_content=&utm_term=#description)
- 2004-2006: SIGACCESS Vice President
- 2003: Registration/Student Volunteer Chair ACM ICMI-PUI, (with Anind Dey)
- 2002: Doctoral Consortium Chair ACM ASSETS
- 2000: Student Volunteer Chair ACM UIST

EDITORIAL BOARD MEMBERSHIPS; PROGRAM COMMITTEES; AND OTHER REVIEWING SERVICE

- 2017 Chair of UIST Program Committee Chair (with Chris Harrison)
- 2017 ASSETS Doctoral Consortium Chair (with Chieko Asakawa)
- 2016-present: Associate Editor, PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
- Program Committee Member: ACM ASSETS '14 '07,'05,'00; ACM CHI 16, '11, '03, ACM UIST '16, '15, '10, '08, '06, '02, '01; Ubicomp '15, '07; Design and Evaluation of Ambient Information Systems (Workshop at Pervasive '07); COMSNETS E6 Workshop (Energy in Communication, Information, and Cyber-Physical Systems 2013); ICT4S '14, '13.
- 2008-2010: Editorial Board, ACM Transactions on Accessible Computing
- 2009: Invited Co-editor, Pervasive Magazine, Special Issue on Environmental Sustainability, Issue published: January-March 2009.
- NSF Panelist: '14, '07,

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

- Association for Computing Machinery (Lifetime)
- Enable Community Foundation Affiliate (2016 Onward)

UNIVERSITY AND DEPARTMENT SERVICE AND COMMITTEE WORK

- 2015-onward Junior faculty mentoring lead for HCII
- 2015-2016 Carnegie Mellon University Diversity Committee: Member
- Hiring Committee 2016/17 (Head); 2015/16 (Head); 2014/15 (Head); 2013/14 (Head); 2012/2013
- MCDS *Human Centered Data Science Track*: Track head 2014-2016
- UCRE Reorganization 2010, 2012
- Co-created & run DIY-AT seminar with Scott Hudson, 2014-onward
- Created *SCS Green* website & blog 2012-2014
- Created *CS Sustainability* seminar 2010

- Curriculum Committee, HCII, CMU 2014/15; 2009, 2004-2007
- Orientation Coordinator, HCII, CMU, 2006
- Graduate Admissions Committee, HCII, CMU 2004-2006
- Helped to organize regular meetings of female engineering faculty at both UCB and CMU, 2002-2006
- Disability Studies Advisory Board, UC Berkeley 2002, 2003, 2004
- RSI Lending Library Coordinator, Georgia Tech (1995-2001); UC Berkeley (2002-2004)
- Undergraduate Study Committee, EECS, UC Berkeley 2003, 2004
- Graduate Admissions Committee, EECS, UC Berkeley 2002, 2003
- Undergraduate Advising Committee, EECS, UC Berkeley 2002, 2003

CONTRIBUTIONS TO EDUCATION

COURSES TAUGHT AT CARNEGIE MELLON

- S 2015 **Web Accessibility**: Co-taught with Jeff Bigham. A mini which covers the history and practice of creating websites that enable a broad population to use them and meet government guidelines that are increasingly being enforced across the web.
- F 2014 **SSUI**: This course considers the basic and detailed concepts that go into building software to implement user interfaces. It considers factors of input, output, application interface, and related infrastructure as well as the typical patterns used to implement them. It will also consider how these components are organized and managed within a well-structured object oriented system. After considering these fundamental concepts in the first portion of the class, the later part will consider advanced topics related to emerging future concepts in user interface design.
- S 2014, S 2015, S 2016 **Interactive Data Science**: A project based introduction to the data-driven interactive systems. This course explores the new opportunities enabled by this data through a combination of guest lectures, discussion of current literature, and practical skills development. Over the course of the semester, students learn about the entire data pipeline from sensing to cleaning data to different forms of analysis and computation.
- S 2013, S 2011 (with Jill Miller), S 2010A3 **Environmental Hackfest**: A project-based introduction to the confluence of environmental issues and technology, focused on project-based interventions and multidisciplinary group work. Students range from art to engineering to design to computer science and HCI.
- Su 2010 & 2011 **Media Computation**: A 6-week intensive introduction to programming, taught online (in Java).
- S 2009, S 2007 **Computer Science Perspectives in HCI**: a seminar-style deep exploration of the innovations and challenges that have been tackled by the pioneers of our field over the past 60 years.
- F 2013, F 2009, F 2008, F 2007, F 2004 **Process and Theory**: Introduction to Graduate Research. Covers multidisciplinary research, skills, and includes a project.
- F 2007 & F 2012 **UCRE**: Required introduction to HCI evaluation methods taken by Masters students and 2nd Majors.

- S 2005 **Assistive Technology and Accessibility**: Graduate Seminar. Typically includes extremely diverse, cross-disciplinary students and community members. Included service learning.

COURSES TAUGHT ELSEWHERE

- S 2014, F 2015, F 2016 **Making & Computation Club**, Waldorf School of Pittsburgh. Founded and led 3d printing/computation/making club at the Waldorf School of Pittsburgh with 6-8 grade students.
- S 2015, S 2014 **Computational Thinking**, 8th grade at the Waldorf School of Pittsburgh
- Su 2014 **Data Pipeline Short Course**, University of Zürich
- S 2012 **Environment, Technology & Society**, ETH, CH
- F 2011 **Human Computer Interaction**, IIIT Hyderabad, India
- F 2003 **Teaching Hearing Technology to the Hard of Hearing**, DeCal course, UC Berkeley: Faculty adviser, taught students to work with and for hard of hearing people, learning and teaching about hearing technology.
- F 2003, 2002 **Human Computer Interaction**, EECS Dept, UC Berkeley: Undergraduate course. Included service-learning theme.
- S 2003 **Partnership in Education**, DeCal course, UC Berkeley: Faculty adviser, mentoring class for local disabled community college students
- S 2003 **Designing Technology for Girls and Women**, Freshman Seminar, UC Berkeley: With Dr. Agogino. Co-listed in Engineering and Women's Studies. Included service learning.
- S 2003 **Human Computer Interaction**, EECS Dept, UC Berkeley: Graduate course. Focused on Research Methods
- S 2002 **Assistive Technology and Accessibility**: Graduate Seminar, UC Berkeley: Typically includes extremely diverse, cross-disciplinary students and community members. Included service learning.

CURRICULUM DESIGN (COURSE MATERIALS AT WEBSITES)

- **Web Accessibility (2015)**: <http://www.accessibilitycourse.com> With Jeff Bigam, designed an introduction to accessibility centered on web in particular for graduate and undergraduate students in SCS and beyond.
- **Computational Thinking (2014)**: Designing and introduction to computation for middle school students based in part on Carnegie Mellon's Computer Science Unplugged Curriculum.
- **Interactive Data Science (2014)**: <http://data.cmubi.org> Designed new course from scratch. Course is designed to be accessible to programmers and non-programmers, which meant developing a series of 7 tutorials that walk students through the basic programming and data analysis skills necessary to complete the midterm and final projects. All programming exercises are on Google Appspot to help the students develop a portfolio. Currently pursuing funding for further development of the online portion of the course as part of CMU's new Data Science initiative.
- **User Centered Research and Evaluation (2012)**: Wholesale redesign based on workshop run by Karen Holtzblatt & Hugh Beyer. The entire first half of the course was redesigned to involve students directly in real world application of the materials being taught and provide a hands-on introduction to contextual inquiry. Also updated parts of the second half of the course with more real-world applied work, and created a two-week module on accessibility analysis.

- **Media Computation (2009):** <http://oli.web.cmu.edu> Designed and implemented a 6 week intensive introduction to programming especially for the HCII Masters Students. This course makes use of the OLI infrastructure and includes live lectures 3 times a week as well as interactive online exercises, homeworks, quizzes, and web pages describing all of the programming concepts that need to be learned. Currently available free and open online at <http://oli.web.cmu.edu>, where *over 20,000 students have registered to take the public and free version*, and 10 instructors at external schools have registered to teach it.
- **Environmental Hackfest, 2010-2013:** <http://hackfest.cmubi.org> Designed curriculum for a new class pushing the boundaries of multidisciplinary work to create positive environmental change.
- **Computer Science Perspectives in HCI, 2006-2009:** <http://csmini.cmubi.org> Designed curriculum for a seminar-style deep exploration of the innovations and challenges that have been tackled by the pioneers of our field over the past 60 years. The intersection of humans and computation has reflected dramatic changes in technology over time, from the vision of Vannevar Bush to the ability to predict human interruptibility with sensors.
- **Process and Theory, 2004-2009:** <http://pandt.cmubi.org> Helped to re-design the curriculum for the introduction to graduate studies to ensure that it covers key skills needed for success in the graduate program, including issues from skimming papers and writing literature surveys to research ethics.
- **Assistive Technology, 2002-2005:** <http://www.cs.cmu.edu/~jmankoff/assistive-tech/S2005> Designed curriculum for assistive technology and accessibility course. Focused on educating engineering, computer, and human computer interaction students about disability studies, and encouraging diverse, cross-disciplinary projects. No similar course to base this on, it combines aspects of disability studies, rehabilitation, computer science, and Human Computer Interaction.

OTHER

- **Undergraduate research experience, 2001-2005:** Explored different models for mentoring undergraduates, especially during early stages of their career, and exposing them to research. General model involves a combination of regular advising and exposure to skills and topics ranging from how to interview to time management, along with participation in a research project. Many of the undergraduates involved in different variations on this effort have gone on to top PhD programs including HCII (Julia Schwarz, Gary Hsieh and Ruth Wylie); UC Berkeley SIMS (Morgan Ames and Tu Tran); Stanford (Lisa Chan); Georgia Tech (Catherine Grevet) and UW (Katie Kuksenok) while many others have gone on to successful jobs, other degrees, or other fields. Many students expressed the value of this approach to me, and as an example, one student currently working at NASA said “I don't think I ever properly thanked you for opportunities and encouragement you provided while I was working on the Nutrition project... my time with the I/O group was very formative and definitely helped me with future research endeavors,” (Eric Park) while another student recently emailed “Thank you for all the ways you've supported and encouraged us. You have definitely been someone who has made an impact in my life and I'm forever grateful.” (Hanyi Wang)

- **Clinical Module** (F06-F07) Providing technical information for the planning of a new course on clinical and translational research as part of the University of Pittsburgh's new Multidisciplinary Clinical Research Scholar's Program.
- **Gender and design** (S03) Explored issues of gender among first year engineers, leading to publication: [J.3].
- **Service Learning** (S02-S04) Experimented with Service learning in four courses over 2 years. Research conducted during this time was published as an experience report at CHI [O.6], leading to contacts with faculty members at two other institutions who wished to use service learning in their own courses. One said "You reignited my desire to do service learning," (Sophie Quigley, 5/1/06) while another said "after your CHI experience report I was inspired to try service learning myself." (Khai Truong, 12/1/06)
- **Active Learning** (S02; Summer 02) CRA Academic Careers and Teaching Workshop (S02) and NSF New Century Scholars (Su 02) Attendee. Learned about teaching skills and active learning, methods applied to all classes.

STUDENT ADVISING

POST DOCS & VISITORS

Alex Chen: 2015-2016. Worked on WebAnywhere.

Hongbo Ni: 2015-2016. Worked on hypertension detection.

Nur Camellia Binte Zakaria: 2016-2017. Worked on eating prediction

Kasthuri Jayarajah: 2016. Worked on student location prediction

Jeeun Kim: 2016. Worked on 3D printing under uncertainty.

CURRENT PHD STUDENTS

Rushil Khurana: (Informally Co-advised with Mayank Goel)

- PhD, CMU HCII, in progress. Entered in Fall 2015.

Mike Rivera: (Co-advised with Scott Hudson)

- PhD, CMU HCII, in progress. Entered in Fall 2015.

Mark Baldwin (Informally Co-advised with Gillian Hayes):

- PhD, UC Irvine, in progress. Entered UC Irvine in Fall 2014.

Kirsten Early (Co-advised with Stephen Fienberg):

- PhD, CMU ML, in progress. Entered in Fall 2012.

Nikola Banovic (Co-advised with Anind Dey):

- PhD, CMU HCII, in progress. Focused on Routines. Entered Fall 2012.

COMPLETED PHD STUDENTS

Christian Koehler, 2015, Carnegie Mellon ECE, (Co-advised with Anind Dey; First position at Samsung). [C.56] [C.49] [C.27]

Julia Schwarz (Co-advised with Scott Hudson, NSF Fellowship; First position at Qeexo):

- PhD, CMU HCII, Fall 2014. "Monte Carlo Methods for Managing Uncertain User Interfaces" [C.69, C.40, C.36, C.34, C.30]

Sunyoung Kim (Co-advised with Eric Paulos; First position Post-Doc at Harvard):

- PhD, CMU HCII, Fall 2014. "Democratizing Mobile Technology in Support of Volunteer Activities in Data Collection" [C.61, C.44, C.45]

Tawanna Dillahunt (GEM Fellowship; IBM Fellowship; First position at U of Michigan):

- PhD, CMU HCII, Spring 2013, “Using Social Technologies to Increase Sharing and Communication around Household Energy Consumption in Low-Income and Rental Communities.” [NR.4, C.31, C.32, C.35, C.37, O.23, O.19, O.18, T.11, C.50]

Amy Hurst (Co-advised with Scott Hudson, NSF Fellowship; First position at UMBC):

- PhD, CMU HCII, Spring 2010, “Automatically detecting user capabilities and needs.” [C.23, C.25, C.27, C.28, C.29, C.33, J.10]

Scott Carter (First position at FX Pal)

- PhD, UC Berkeley CS, Spring 2007, “Ubiquitous computing support for evaluation” [A.6, A.7, C.16, J.7, J.9, C.26]
- MS, Spring 2004: “The design of Hebb, a peripheral system supporting awareness and communication, and a study of its impact on small, distributed groups.” UC Berkeley. Masters Report. [J.4]

Tara Matthews (NSF Fellowship; First position at IBM):

- PhD, UC Berkeley CS, Spring 2007: Evaluation of ambient displays [C.19, C.21, J.9, J.8, O.12]
- MS, Spring 2005: “Peripheral Display Toolkit: A toolkit for managing user attention in peripheral displays.” UC Berkeley. Masters Report. [A.4, C.15]

MASTERS THESES

Lauren Chapman (co-advised with Suguru Ishizaki): MS in Design, Spring 2011: “Design for Chronic Illness: Exploring service systems & new technologies for patients with type 2 diabetes.”

Ana Ramirez (co-advised with Mark Davis, SIMS; NSF Fellowship): MS, Fall 2005: “Designing systems that direct human action,” UC Berkeley, Masters Report, 2005.

Scott Lederer (co-advised with Anind Dey; NDSEG Fellowship): MS, Fall 2003: “Designing disclosure: Interactive personal privacy at the dawn of ubiquitous computing.” UC Berkeley. Masters Report, 2003. [T.5, U.3, C.10, C.12, T.6, T.7, U.7];

Holly Fait MS, 2003: “Simulation of user interaction experiences to improve evaluation for accessibility.” UC Berkeley, Masters Report, 2003. [J.5, C.18];

Wai-Ling Ho-Ching (Co-advised with James Landay): MS, 2003. “Can you see what I hear? The design and evaluation of a peripheral sound display for the deaf,” UC Berkeley, Masters Report, 2003. [C.13];

NON-PHD THESES AND RESEARCH PROJECTS

Have directly supervised over 75 students from High School through Masters level, many leading to publications [*e.g.*, C.59, C.39, C.30, J.5, C.9, C.12, J.2, J.3, C.8, O.4]. Created experimental, sustainable undergraduate-only research project focused on peer learning (2001-2004, Nutrition project). Below, students that I directly supervised are listed, along with the number of years I supervised them and any awards or honors or publications.

HONORS THESES

Duncan McIsaac, 2016: Re-envisioning the Keyboard as a Spatial User Interface

Catherine Grevet, 2009: “Motivating Community-Oriented Behavior through an Online Social visualization,” Wellesley College. Undergraduate Honors Thesis [C.39, C.35].

Ruth Wylie, ~2003: “The Effects of Computers on Cognitive Assessment,” UC Berkeley. Undergraduate Honors Thesis.

Devin Blais, ~2007: “Green Facebook Applications: A competitive Analysis,” Carnegie Mellon University. Undergraduate Honors Thesis.

MIDDLE & HIGH SCH., UNDERGRADUATE & MASTERS PARTICIPATION

Publications listed are all authored by undergraduates involved with the project. Primarily includes students I directly advised.

DIY-AT (2014-present): Joyce Liu (2015), Nanako Era (2015), Jeff Harris (2015), Megan Hofmann (2015-2017), Duncan McIsaac (2015-2016)

eDigs (2014-present): Exploring the impact of better information on prospective tenants. Vikram Kamath (2014-2015), Vinay Ramkrishnan (2014-2015), Nidhi Vyas (2014-2016), Omead Kohanteb (2014), Chandramouli Sharma (2014), Victor Li (2014).

Data Science (2014): Advisor to Ubiquitous Learning Research Lab (led by Chandramouli Sharma, India, Teach for India).

ChronicWeb (2008-2013): Exploring the impact of the social web on the experience of chronic illness. Kateryna Kuksenok (W09, DMP Su09) [C.41, O.20, O.21, O.24, O.26, O.28]; Kelly Waldman (QoLT REU student, Su09) [C.41, O.21, O.24, O.26]; Akshay Minosha (IIIT Hyderabad, 2012), Rohan Arora (MS 2013), Jessie Schroeder (DMP Su13) [C.59], Jamie Waldman (HCII MS student 2013/14), Cheng Guo (Pitt MS Student 2013/14) [C.59].

StepGreen (2006-2013): Exploring human behavior change in the context of global warming. Creating a system for motivating consumers to reduce energy consumption. Aubrey Schick (2006-07); William Wedler (Initial demo, 2006); Devin Blais (2006-08); Anish Mathur (Interviews & Data Analysis, 2006-07, IFYRE); Ayca Akin (Design, 2007); Rachel Glaves (Design, 2007) [C.35]; Laura Seitz (Civil and Environmental Engineering, 2007); Raye Gomez (DMP, 2007); April Wensel (DMP, 2007); Shiva Kaul (Main system, 2007-08); Hee Young Jeong (Design, Interviews, 2007-08); Karalyn Baca (Testing, 2007-2008, IFYRE); Catherine Grevet (DMP 2008) [C.39, C.35]; Julia Schwarz (DMP 2008) [C.30]; Kwadwo Som-Pimpong (Misc, 2009-10); Jenny Schweers (Misc, 2009-10); Pratibha Singh (Marketing, 2009-10); Lavanya Shaji (Marketing, 2010); Margaret Hall (Marketing, 2010); Malavika Gopal (Marketing, 2010); Sophie Zhou (Facebook game, 2010-11); Young Jae Park (CarbonScore, 2010-11); Erik Irvin-Williams (Android app, 2010-present); Louis de Valliere (CampusGreen, 2010-11); Kelly Lau-Kee (Misc, 2011); Eshan Chordia (Misc, 2010); Eva Schlinger (Misc, 2010); Meghana Koushik (Misc); Freeson Wang (Facebook Game, 2010-11); Ting Luo (Visualization software, 2011); Jeho Oh -- KAIST (Visualization software, 2011); Mi Sun – (Visualization software, 2011); Renaud Tircher (Visualization Software, 2011); Ariel Liu (2011-2012); Joheun Lee (2011-2012); Tianle Huang (2012, VLIS NILM); Peng Zhang (2012, VLIS NILM); Yogesh Dalal (2012, VLIS NILM); Chandramouli Sharma (S2013, Housing Site)

Ubicomp Toolkits (2001-2009): Exploring toolkits to enhance evaluation and development of ubiquitous technologies. Kyle Rector (DMP Su09).

Intel First Year Research (IFYRE) students (2006-2008): The IFYRE program aims to involve first and second year CMU students in research, and specifically targets minority students. Below is a list of IFYRE students I have advised/am advising.

These students participate in a weekly group meeting, and additionally are assigned to a variety of research projects in my lab. Karalyn Baca (F07-Su08) Anish Mathur (F06-S07), Kelly Phouyaphone (F06-S07), Jenny Han (F06-S07), Austin Sung (F06-S07).

Adaptabilities (2002-present): Creating software that can sense and adapt to changing user needs. Aubrey Shick (Su06), Madhu Prabaker (Su06), Kelly Phouyaphone (F06, IFYRE), Jenny Han (F06, IFYRE), Austin Sung (F06, IFYRE). Also looking at novice/expert users. Jim Lin (Su06), Daniel Zinzow (Su06). Mark Baldwin (MS 2013, Braille display). Omari Payne (S2013, HS, Braille Display), Chandramouli Sharma (S2013, Braille Display)

Gendered aspects of engineering education (2003): Project to explore gendered aspects of engineering education. Marisa Bauer (S03, "Certificate of Achievement" award for commitment to women's issues in CS), [J.3].

Talc (2002-2003): Project to explore web accessibility for people with disabilities [J.2, J.5]. Group included undergraduate and masters students. Audrey Le (F02-S03); Tony Lai (F02-S04); Carol Pai (F03-S04); Ray Juang (F03-S04).

Cognitive Assessment (2002-2003): Project designed and led by a student to develop a computational tool for cognitive assessment. Ruth Wylie (F02-S03, Highest Honors, currently a CMU PhD Student).

Nutrition (2001-2003): Experimental undergraduate-only research project. Teaching goal was to develop a community of undergraduate researchers that is self-supporting (result was successful). Research goal is to design and evaluate system for reasoning about extremely ambiguous information; goal is to suggest nutritional lapses and persuade users to shop differently to address lapses [C.9]. Sharon Lee (F01-S04); Elizabeth Nitao (F01-S03); Gary Hsieh (F01-S02); Ho Chak Hung (F02-S03); Eric Park (F03-S04); Doris Lin (F02-S04); Hanyi Wang (S01-F03); Dana Wu (F02-S04); Anjali Koppal (F03-S04); Lexin Shan (F03-S04); Eric Diep (F03-S04).

Ambient (2001-2003): Project to explore applications, evaluation, and development of ambient and peripheral displays. Group included undergraduate, masters, PhD students and multiple faculty. [C.12, O.4].

General Involvement Lisa Chan (F01-S03); Steven Chan (F01-S02); Chinmayi Bettadapur (F01-S04, CREW); Gary Hsieh (S02-S03); Morgan Ames (F01-S03); Adebola Osuntogun (Su03, SUPERB); Kyle Rector (Su09, nCRA DMP)

Evaluation Project to explore evaluation of ambient displays. Gary Hsieh (F02-S04), Morgan Ames (F01-S03). [C.12]

Healthy Cities Project to develop public display of city health. Morgan Ames (F02-S03), Chinmayi Bettadapur (F02-S03). [O.4]

PH.D. THESIS COMMITTEE SERVICE

Adrian DeFreitas, 2016, CMU HCII, Anind Dey (adviser).

Kyle Rector, 2015, University of Washington, Richard Ladner (adviser).

Lisa Anthony, 2008, CMU HCII, Kenneth R. Koedinger (adviser).

Jake Wobbrock, 2006, CMU HCII, Brad Myers (adviser) "EdgeWrite: A versatile design for text entry and control." Technical Report CMU-HCII-06-104.

Jimmy Lin, 2005, UC Berkeley, James A. Landay (adviser). “Using design patterns and layers to support the early-stage design and prototyping of cross-device user interfaces.”

Jennae Bulat, 2005, UC Berkeley, Anne Cunningham (adviser). “The role of print exposure in the development of early literacy skills among kindergarten students.”

Scott Klemmer, 2004, UC Berkeley, James A. Landay (adviser). “Tangible user interface input: Tools and techniques.”

M.S. THESIS COMMITTEE SERVICE

Taylor Raack (Masters Project, CMU VLIS, Stepgreen NILM support 2011-12)

Marty McGuire (Masters Project, CMU VLIS, Stepgreen Social Website 2007-08)
[C.35]

Christopher Beckmann, 2004 MS Thesis “Transcate: Accountable interface techniques for context-aware applications,” UC Berkeley. Masters Report.

Miriam Walker, 2003 MS Thesis “High-Fidelity or Low-fidelity, paper or computer? Choosing attributes when testing web prototypes,” UC Berkeley, Masters Report, 2003; Assistive Technology Research

MENTORSHIP PARTICIPATION

(2016-present) Do-IT (Disability, Opportunities, Internetworking, and Technology)

(2013) School 2 Career

(2004-present) IFYRE

(2001-present) CRA CREW and CRA-W (research experiences for undergraduate women) (2001-present)

(as needed) CHI student author program

(as needed) ASSETS author mentoring program.

(2001-2004) Computer Technologies Program (IT training for people with disabilities)

(2001-2004) Berkeley SUPERB (undergraduate REU program)

CONTRACT AND GRANT SUPPORT

CURRENT

- **XX Autodesk Fusion Forge Grant XX**
- 9/17, J. Mankoff, S. Lucey & S. Hudson, \$161,180, Manufacturing Futures Initiative “Simplifying 3D Model Design”
- 1/15, A. Dey & J. Mankoff: “Yahoo! InMind Proposal: Modeling Routines”, \$100,000
- 9/14, J. Bigham, B. Parmato, & others: “RERC on Information and Communication Technology (ICT) Access—From Cloud to Smartphone: Accessible and Empowering ICT”, \$941,026

PAST (FUNDED AND COMPLETED)

- 9/15, S. Rosenthal, J. Mankoff & S. Hudson, \$175,000, Software Engineering Institute: “Supporting software architecture best practices in additive manufacturing.”
- 1/15, A. Dey, Y. Agarwal & J. Mankoff: “Scott Institute Energy Seed Grant”, \$70,000
- 9/15, J. Mankoff & S. Fienberg, \$50,000, Siebel Foundation: “Encouraging Better Infrastructure through Intelligent Prediction of Utility Costs.”

- 1/15, J. Mankoff & C. Tonkinwise, \$25,000, Metro21 Initiative: “Eco-Digs. Easy. Economical. Excellent Housing.”
- 09/12, J. Mankoff & S. Hudson, \$499,919: “HCC: Small: New Infrastructure Concepts for Robust Handling of Inputs with Uncertainty” (plus REU supplements \$16,000 in 5/15 and \$19,200 in 5/13)
- 9/09 J. Mankoff, NSF, \$492,079: “Helping People Negotiate Uncertain Information Online” (plus REU Supplement, \$12,000 in 5/10 and \$12,000 in 5/11 and \$12,000 in 2012)
- 9/09, J. Mankoff, H. S. Matthews & J. Landay, NSF, \$235,988, Collaborative Research: Mobilizing Information Technology Systems to Motivate Reduced Energy Consumption and Carbon Dioxide Emissions
- 9/09, J. Mankoff, S. Kiesler, \$70,000, “Google Research Proposal: Helping People Find Trustworthy Health Information Online”
- 8/08 J. Mankoff, S. Fussell, and H. S. Matthews, NSF, \$450,000: “StepGreen: Mobilizing social networks and context awareness to motivate reduced energy consumption” (plus REU supplements: \$16,000 in 5/09 and \$16,000 in 5/10 and \$16,000 in 5/11)
- 8/08 J. Mankoff, H. S. Matthews, PITA, \$86,788: “Improving Household Awareness of Energy Use and Greenhouse Gas Emissions with Personalized Data Streams”
- 1/08 A. K. Dey, J. Forlizzi, S. E. Hudson, J. Mankoff, Intel Research, Equipment grant: 8 MSP units.
- 1/08 J. Mankoff, S. Fussell, D. Matthews, Google Research Grant, \$60,000: “Google Grant Proposal: Energy Reduction through Personalized Suggestions on Social Networks”
- 5/08 J. Mankoff, S. Fussell, NSF REU supplement, \$12,000, SGER: Footprints: Exploring methods of personalizing suggestion for actions in an energy conservation social network site”
- 9/07 J. Mankoff, S. Fussell, D. Matthews, M. Johnson, NSF SGER IIS-0745885, \$96,610, “SGER: Footprints: Exploring methods of personalizing suggestions for actions in an energy conservation social network site”
- 9/07 J. Mankoff, Sloan Fellowship \$45,000, “Systems support for diversity”
- 1/07 (3 years) J. Mankoff, S. Fussell, D. Matthews and M. Johnson, Intel Research, \$263,000, “Leveraging computational technologies to support behavior change”
- 9/06 J. Mankoff and S. Hudson, PITA \$43,468, “Adapting Computer Interfaces”
- 9/06 J. Mankoff, S. Hudson and R. Simpson QoLT ERC HSI Thrust, selected project, Two years of salary for Amy Hurst.
- 8/06 J. Mankoff, IBM Faculty Fellowship, \$30,000, “Adaptive assistance: Dynamically tailoring assistive technologies for interactive computer users”
- 5/06 J. Mankoff, NSF REU, \$12,000, Supplement to “Web Accessibility for Low Bandwidth Input”
- 5/04 J. Mankoff, MICRO award, \$66,556, “Evaluation for Universal Accessibility”
- 5/04 J. Mankoff, Intel Research, \$60,000, “Tools for supporting Ubicomp Evaluation”
- 9/04 J. Mankoff, IBM Faculty Fellowship, \$40,000, “Tools for supporting early-stage, accessible design”
- 9/03 J. Mankoff, MICRO award, \$44,000 “Early-stage evaluation of Ubiquitous Computing Applications”

- 9/03 PI Eric Brewer, NSF ITR (5 years, \$2.6 mill) “A Scalable Enabling IT Infrastructure for Developing Countries”
- 9/03 J. Mankoff, Service Learning Mini-Grant, Service Learning R&D Center, \$1000.
- 6/03 J. Mankoff, NSF REU, \$12,000, Supplement to “Human-Centered Design of Context-Aware Computing”
- 6/03 J. Mankoff, URAP Program, \$2,000. Nutrition Project. With Doris Lin.
- 1/03 J. Mankoff, CITRIS Seed Grant, \$5,000, “Nutrition awareness & support”
- 1/03 J. Mankoff, HP Research, \$17,000, “Group awareness support”. Written with PhD. Scott Carter.
- 12/02 J. Mankoff, Intel Research, \$50,000, “UbiComp design and evaluation”
- 9/02 J. Landay, A. Dey and J. Mankoff NSF ITR IIS-0205644 (\$2.3 million, 5 P.I.’s), “Human-Centered Design of Context-Aware Computing: Scalability, Usability, and Privacy”
- 9/02 A. Dey and J. Mankoff, Collaborative Research Environment for Women (CREW) proposal, \$2,250, “Ambient Displays,” for Chinmayi Bettadapur and Morgan Ames. 19/41 accepted.
- 9/02 J. Mankoff, NSF IIS-0511895 (was IIS-0209213) on “Web Accessibility for Low Bandwidth Input” (3 years, extended to 4, \$240,000)
- 9/02 PI Alice Agogino, DiMI Program Opportunity Award 01-42, \$10,000: “Learning in the Palm of Your Hand” To run a workshop on learning using palmtop devices
- 4/02 J. Mankoff, Junior Faculty Research Grant, \$6,500, Committee on Research
- 1/02 J. Mankoff, CommerceNet grant of one summer student plus server machine, in association with PANGEA foundation, \$7,500