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CITIZENSHIP

I am a Canadian citizen, working in the United States on an H1-B visa.

RESEARCH INTERESTS

End-user control in interactive systems is key to an effective user experience. Control in ubiquitous computing systems is especially important as much of what occurs in these systems is based off of implicit user input and is, therefore, invisible to the user. My research focuses on the sensing-based interaction, the use of sensing systems to improve the human-computer experience, by putting end users in control of the systems they use. In particular, my research involves building applications and middleware and tools that programmers, designers and end users can use to build applications in the cross-section of human-computer interaction and ubiquitous computing.

EDUCATION

- 9/95 – 12/00 **College of Computing, Georgia Tech**, Atlanta, GA, USA
Ph.D. in Computer Science, specializing in context-aware and ubiquitous computing.
Thesis titled *Providing Architectural Support for Building Context-Aware Applications*. [T.2] Received Sigma Xi Outstanding Ph.D. Dissertation Award.
Received **Master of Science in Computer Science** at this time as well.
- 9/93 – 6/95 **School of Aerospace Engineering, Georgia Tech**, Atlanta, GA, USA
Master of Science in Aerospace Engineering
- 9/88 – 5/93 **Simon Fraser University (SFU)**, Burnaby, BC, Canada
Bachelor of Applied Science in Computer Engineering
Second in class. Thesis titled *Interface Design for the Rough-Ride-Syndrome Truck Diagnostic Project*. [T.1] Received Award of Distinction for thesis work.
Completed 5 internships as part of degree.

EMPLOYMENT HISTORY

- 8/01 – present **Senior Researcher**, Intel-Berkeley Lab, Intel Research, Berkeley, CA, USA
Building software infrastructure for ubiquitous and context-aware computing.
Focusing on sensor networks and intelligent environments.
- 2/02 – present **Adjunct Assistant Professor**, Electrical Engineering and Computer Science
Department, University of California at Berkeley, Berkeley, CA, USA
- 9/97 – 12/00 **Graduate Research Assistant**, College of Computing, Georgia Institute of
Technology, Atlanta, GA, USA
Built context-aware computing infrastructure and toolkit to support application

- designers in building context-aware applications. Work was for my PhD thesis.
<http://www.cc.gatech.edu/fce/contexttoolkit>
 [J.2] [J.3] [J.4] [B.1] [C.7] [C.8][C.9] [C.10] [C.11] [C.12] [C.13]
- 9/97 – 12/97 **Research Engineer**, Interval Research Corporation, Palo Alto, CA, USA
 Created an information visualization tool and a context-aware information access prototype.
<http://www.interval.com>
- 6/97 – 9/97 **Independent Contractor**, Motorola, Scottsboro, AZ, USA
 Extended previously built context-aware computing infrastructure for mobile computing environments.
<http://www.cc.gatech.edu/fce/cyberdesk>
- 10/96 – 6/97 **Graduate Research Assistant**, College of Computing, Georgia Institute of Technology, Atlanta, GA, USA
 Built context-aware computing infrastructure for desktop computing environments. Infrastructure provides runtime integration of applications and services to ease designer and user burden. Built using Java and WWW technologies.
<http://www.cc.gatech.edu/fce/cyberdesk>
 [J.1] [C.2] [C.3] [C.4] [C.5] [C.6]
- 6/96 – 10/96 **Research Engineer**, Motorola, Schaumburg, IL, USA
 Developed a prototype in the area of wireless internet services, for accessing various types of personal and public information. Tested the prototype for various human factors issues.
<http://www.cc.gatech.edu/fce/savoir>
- 9/95 – 6/96 **Graduate Research Assistant**, College of Computing, Georgia Institute of Technology, Atlanta, GA, USA
 Assisting in design of a Virtual Geographic Information System (VGIS), a real-time display of terrain, vehicles, and other information. Responsibilities include data conversion, real-time data transfer and construction of virtual environments based on VGIS.
<http://www.cc.gatech.edu/gvu/datavis/research/vgis.html>
- 9/93 – 9/95 **Graduate Research Assistant**, School of Aerospace Engineering, Georgia Institute of Technology, Atlanta, GA, USA
 Assisted in developing a real-time, high fidelity graphical flight simulation model for the Apache helicopter in the Georgia Institute of Technology flight simulation laboratory. Worked on several research projects involving unmanned autonomous helicopters including developing flight simulation models and designing the helicopters.
 Last and largest project was designing an autonomous helicopter that performs reconnaissance and surveillance missions for the US Army, using an Object Oriented Methodology in combination with Concurrent Engineering.
<http://asrt.cad.gatech.edu>
 [C.1]
- 6/92 – 5/93 **Research Engineer**, Andrew Engineering, Inc., Vancouver, BC, Canada
 Researched and designed a neural network for diagnosing vibration problems in tractor trailers. Designed and built vibration sensors and constructed various testing mechanisms. Work was for my undergraduate thesis, for which I received an Award

of Distinction.

- 6/92 – 5/93 **Teaching Assistant**, SFU Math Department, Burnaby, BC, Canada
Taught undergraduate calculus and statistics in a math lab.
- 5/91 – 8/91 **Research Engineer**, Indian Institute of Technology, New Delhi, India
Worked on a confidential defense project that included designing and building electronic circuits, programming microcomputers, and programming DSP chips.
- 9/90 – 12/90 **Research Engineer**, SFU Micromachining Lab, Burnaby, BC, Canada
Learned how to create and created microchips on silicon wafers. Built a micro-pump with width of only a few microns, when doing research on artificial heart valves.
- 1/90 – 4/90 **Research Engineer**, Alberta Telecommunications Research Co., Edmonton, Canada
Assisted a Ph.D. student in designing and building an opto-electronic switching matrix to be used for neural network research. Gained vast experience in fiber optics and in electronic design.
- 5/89 – 8/89 **Programmer**, Newnes Automation, Inc., Salmon Arm, BC, Canada
Wrote controller software to guide lasers in evaluating worth of lumber. Designed and built hardware and wrote software for a cable testing device.

HONORS AND AWARDS

- 2001 Sigma Xi Outstanding Ph.D. Dissertation, College of Computing, Georgia Institute of Technology. [T.2]
- 2000 Named Outstanding Graduate Research Assistant, College of Computing, Georgia Institute of Technology.
- 1996 – 2000 Research funding awarded through Motorola's University Partnership in Research (UPR) program. Received award for Outstanding UPR Presentation at Motorola's Science Advisory Board Associates annual meeting (1997).
- 1993 Award of Distinction on undergraduate thesis and Honor Roll at SFU.
Received Full Assistantship to attend Georgia Institute of Technology.
- 1992 Won Western Engineering Competition and Conference (WECC) Debate Competition and placed 5th in the Canadian Engineering Competition (CEC).
Member of SFU's Gold medal team in an International Micromouse engineering competition.
- 1988 – 1993 SFU Open Scholarship, covering all tuition for 5 years.
- 1998 - 1991 William and Ada Isabelle Steel Memorial SFU Entrance Scholarship, \$(CDN)15000/year for 4 years.

TEACHING EXPERIENCE

Courses and Seminars Taught

- Fall 2003 *Ubiquitous Computing*. EECS 294 (22 students).
Led to one short paper at CHI 2004.
- Spring 2002 *Tangible Interfaces: Crafting the Ubiquitous Experience*. EECS 294. (27 students, co-taught)
- 9/01 – 12/02 *Coffeetalk seminar*. Reading group on human-computer interaction and ubiquitous computing.

INDIVIDUAL STUDENT GUIDANCE

Ph.D. Students Supervised

Scott Lederer, since September 2001. Working on end-user privacy management in ubiquitous computing environments [C.17,C.19,NC.8,NC.12,TR.9,TR.11,TR.16,TR.17]

Alan Newberger, since August 2002. Working on building system infrastructure to support feedback and control in context-aware applications [NC.13,TR.13].

Chris Beckmann, since January 2003. Working on a tangible end-user programming environment [C.22,TR.15,O.9].

External Thesis Committees

Marcela Rodriguez, Centro De Investigación Científica Y De Estudios Superiores De Ensenada (CICESE), Monterey, Mexico. Thesis Proposal: *Autonomous Agents in Collaborative Ubiquitous Computing Environments*. January 2003 – present.

Csaba Kiss Kallo, University of Trento, Italy. Thesis Proposal: *Supporting Wireless Context-Aware Applications*. May 2003 – present.

Ph.D. Students Independent Study

Georgia Institute of Technology

Tanisha Hall, September 1999 – May 2000. Georgia Tech. Worked on a synchronized In/Out Board across multiple locations.

University of California at Berkeley

Kent Lyons, May 2002 – September 2002. Intern at Intel Research Berkeley, from the Georgia Institute of Technology. Built mobile interface for collecting data from a sensor network.

Gaurav Bhalotia, June 2002 – December 2002. Designed and implemented architecture for tangible instant messaging project.

Jeff Heer, November 2002 – May 2003. Designed and implemented machine learning algorithm for supporting word prediction based on contextual cues.

Louise Barkhuus, January 2003 – August 2003. Visiting Ph.D. student from the IT University of Copenhagen. Performing studies of privacy concerns and acceptability of context-aware services. [C.20] [C.21] [TR.18]

Raffay Hamid, May 2003 – August 2003. Designed and implemented sensor system and machine learning system to support the end-user programming by demonstration environment. [C.22]

Ed De Guzman, January 2003 – present. Added to tangible instant messaging infrastructure and implemented client software and hardware. [C.24]

Undergraduate Students

Georgia Tech: Supervised 8 students (3 female, 1 minority) between May 1997 and December 2000.

2 undergraduate students (Office of Naval Research intern) May 1997 – August 1997.

Cheryl Holifield (Office of Naval Research intern). May 1999 – August 1999. Worked on building an indoor-outdoor positioning system out of commercial location systems.
John Mooney, May 1999 – May 2000. Ported core components of the Context Toolkit to C++.
Yohan Kim, January 2000 – August 2000. Worked on a window blinds controller in support of home automation.

Carla Nelson (Office of Naval Research intern). May 2000 – August 2000. Worked on a medicine reminder system for the elderly.
Nelson Sepulveda (Office of Naval Research intern). May 2000 – August 2000. Worked on a context-aware baby monitor and environment control system.
Jeanette Kee, September 1999 – December 2000. Built a system to maintain kitchen inventory and construct weekly shopping list.

University of California at Berkeley: Supervised 22 students (9 female) between September, 2001 and present time. Of these, 5 students co-authored one or more submitted or accepted publications including [J.7,J.8,C.15,NC.10,O.10,TR.10,TR.12]

Steven Chan, September 2001 – May 2002. Worked on design of various ambient displays.
Lisa Chan, September 2001 – June 2002. Implemented stock-based ambient display and led effort on its evaluation.
Morgan Ames, September 2001 – May 2003. (David Scholar Fellow, CRA DMP student, CRA CREW student) Evaluated and designed ambient displays and built an ambient display indicating health of the city. [C.17] [TR.10] [O.10]
Chinmayi Bettadapur, September 2001 – May 2003. (CRA CREW student) Design of ambient displays, focusing on a health of the city display. [O.10]
Ted Mao, January 2002 – May 2002. Built GPS software system to support context-aware word prediction project and built web system for keeping track of upcoming conference deadlines.
Mira Sutijono, January 2002 – May 2003. Designed and built a mobile, wearable ambient display prototype to indicate safety of local surroundings.
Julie Kientz, May 2002 – August 2002. (SUPERB – Berkeley REU student) Visiting student from the University of Toledo. Implemented the busmobile and daylight ambient displays and evaluated them. [C.17]
Amy Mok, May 2002 – May 2003. Worked on design of large screen interfaces with multiple Mimio devices.
Tim Sohn, May 2002 – September 2003. Designed and implemented a visual environment that supported end users in building context-aware applications. [C.18] [NC.10] [TR.12]
Elizabeth Yang, September 2002 – December 2002. Conducted survey on use of instant messaging and generated ideas for tangible instant messaging clients.
Ho Kay (Gabriel) Yu, September 2002 – March 2003. Redesigned and implemented architecture for the mediation of context information (context-aware word prediction).
Karen Teng, September 2002 – March 2003 (URO student). Designed handheld user interface for end-user management of privacy in ubiquitous computing environments.
Amit Popat, November 2002 – December 2002. Built automatic user interface generator for Context Toolkit widgets.
Ian Li, May 2003 – August 2003. (SUPERB – Berkeley REU student) Worked on user interface for machine learning system that supports end-user programming-by-demonstration of context-aware applications. [C.22]
Vu Nguyen, May 2003 – September 2003. Improved visual environment for supporting end-users in building context-aware applications.
Arjun Ohri, August 2003 – December 2003 (URAP student). Visual prototyping of context-aware applications.

- Anthony Gagliano, May 2002 – present. Designed and implemented a tangible instant messaging client. [C.24]
- Gary Hsieh, May 2002 – present (URO student). Evaluation techniques of ambient displays. Work resulted in publication [C.17]
- Margaret Yau, September 2002 – present (URAP student, Haas Scholars Fellow, CRA Outstanding Undergraduate Award national finalist). Design and evaluation of tangible instant messaging system, focusing on applications for the elderly. [C.24]
- Austin Park, December 2002 – present. Design and evaluation of tangible instant messaging clients. [C.24]
- Daniel Hsu, January 2003 – present. Worked on machine learning system for end-user programming-by-demonstration of context-aware applications. [C.22]
- Jeff Hwang, January 2003 – present. Designed desktop user interface for end-user management of privacy in ubiquitous computing environments.
- Harlan Yu, May 2003 – present. Applying visual environment for supporting end-users in building context-aware applications to sensor network applications.
- Kun Gao, May 2003 – present. (CRA Outstanding Undergraduate Award national honorable mention) Working on tangible environment for supporting end-users in building context-aware applications.
- Stephanie Leung, August 2003 – present (URO student). Instrumenting smart spaces with sensors and actuators.
- Marti Motoyama, August 2003 – present. Supporting feedback and control of context-aware applications.

PUBLICATIONS

Theses

- [T.1] A.K. Dey. *Interface Design for the Rough-Ride-Syndrome Truck Diagnostic Project*. Simon Fraser University. B.Ap.Sc Thesis. Andrew Rawicz (advisor). May 1993.
- [T.2] A.K. Dey. *Providing Architectural Support for Building Context-aware Applications*. Georgia Institute of Technology. Atlanta, GA. Ph.D. Thesis. Gregory Abowd (advisor). December 2000.

Refereed Journal Papers

- [J.1] A.K. Dey, G.D. Abowd and A. Wood. *CyberDesk: A Framework for Providing Self-Integrating Context-aware Services*. Knowledge Based Systems 11(1). pp. 3-13. September 1998.
- [J.2] G.D. Abowd, A.K. Dey, J. Brotherton and R.J. Orr. *Context-awareness in Wearable and Ubiquitous Computing*. Virtual Reality Society International Journal 3. pp. 200-211. 1999.
- [J.3] A.K. Dey. *Understanding and Using Context*. Personal and Ubiquitous Computing Journal 5(1). pp. 4-7. 2001.
- [J.4] A.K. Dey, D. Salber and G.D. Abowd. *A Conceptual Framework and a Toolkit for Supporting the Rapid Prototyping of Context-aware Applications*. Anchor article of a special triple issue on context-aware computing. Human-Computer Interaction (HCI) Journal 16(2-4). pp. 97-166. 2001. Also published separately by Lawrence-Erlbaum as an edited book in January 2002, ISBN 0805896856.

- [J.5] A.K. Dey and J. Mankoff. *Designing mediation for context-aware applications*. To appear in Transaction of Computer-Human Interaction (ToCHI) special issue on Sensor-Based Interactions.

Published Books and Parts of Books

- [B.1] A.K. Dey, D. Salber and G.D. Abowd. *A Conceptual Framework and a Toolkit for Supporting the Rapid Prototyping of Context-aware Applications*. Book chapter adapted from [J.4] from special triple issue Human-Computer Interaction (HCI) Journal 16(2-4), special issue on context-aware computing. ISBN 0805896856. January 2002.
- [B.2] A.K. Dey and G.D. Abowd. *Support for adapting applications and interfaces to context*. Book chapter. In Seffah, A. and Javahery, H. (eds.) *Multiple User Interfaces: Cross-Platform Applications and Context-Aware Interfaces*. John Wiley & Sons. To appear, 2003.
- [B.3] J. Mankoff and A.K. Dey. *From Conception to Design: A Practical Guide to Designing Ambient Displays*. Book chapter. In O'Hara, K., Perry, M., Churchill, E. and Russell, D. (eds.) *Public and Situated Displays: Social and Interactional Aspects of Shared Display Technologies*. Kluwer Academic Publishers. To appear, 2003.

Refereed Conference Papers

- [C.1] A.K. Dey and S.A. Kondor. *Flight Test Planning and Tracking Tools for Autonomous UAV Systems*. Proceedings of the 22nd Annual Symposium of the Association of Unmanned Vehicle Systems (UAVS '95). Washington, DC. July 10-12, 1995.
- [C.2] A. Wood, A.K. Dey and G.D. Abowd. *CyberDesk: Automated Integration of Desktop and Network Services*. Technical Note in the Conference Companion of the 1997 ACM Conference on Human Factors in Computing Systems (CHI '97). Atlanta, GA. pp. 552-553. March 22-27, 1997.
- [C.3] A.K. Dey, G.D. Abowd, M. Pinkerton and A. Wood. *CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services*. Demonstration in the Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '97). Banff, Canada. pp. 75-76. October 14-17, 1997.
- [C.4] A.K. Dey and G.D. Abowd. *CyberDesk: The Use of Perception in Context-aware Computing*. Extended abstract in the Proceedings of the Workshop on Perceptual User Interfaces (PUI '97). Banff, Canada. pp. 26-27. October 19-21, 1997.
- [C.5] A. K. Dey, G.D. Abowd and A. Wood. *CyberDesk: A Framework for Providing Self-Integrating Context-aware Services*. Proceedings of the ACM International Conference on Intelligent User Interfaces (IUI '98). San Francisco, CA. pp. 47-54. January 6-8, 1998.
- [C.6] A.K. Dey. *Context-aware Computing: The CyberDesk Project*. Proceedings of the AAAI 1998 Spring Symposium on Intelligent Environments. Palo Alto, CA. Technical Report SS-98-02. pp. 51-54. March 23-25, 1998.
- [C.7] D. Salber, A.K. Dey and G.D. Abowd. *The Context Toolkit: Aiding the Development of Context-enabled Applications*. Proceedings of the 1999 ACM Conference on Human Factors in Computing Systems (CHI '99). Pittsburgh, PA. pp. 434-441. May 15-20, 1999.
- [C.8] A.K. Dey, M. Futakawa, D. Salber and G.D. Abowd. *The Conference Assistant: Combining Context-awareness with Wearable Computing*. Proceedings of the 3rd IEEE International Symposium on Wearable Computing (ISWC '99). San Francisco, CA. pp. 21-28. October 20-21, 1999.
- [C.9] A.K. Dey, D. Salber, and G.D. Abowd. *A Context-based Infrastructure for Smart Environments*. Proceedings of the 1st International Workshop on Managing Interactions

- in Smart Environments (MANSE '99), Dublin, Ireland. pp. 114-128. December 13-14, 1999.
- [C.10] A.K. Dey. *Enabling the Use of Context in Interactive Applications*. In the CHI 2000 Doctoral Consortium, in the Conference Companion of the 2000 ACM Conference on Human Factors in Computing Systems (CHI 2000), The Hague, Netherlands. pp. 79-80. April 1-6, 2000.
- [C.11] A.K. Dey and G.D. Abowd. *CybreMinder: A Context-Aware System for Supporting Reminders*. Proceedings of the 2nd International Symposium on Handheld and Ubiquitous Computing (HUC2K), Bristol, UK. pp. 172-186. September 25-27, 2000.
- [C.12] M.J. Covington, W. Long, S. Srinivasan, A.K. Dey, M. Ahamad and G.D. Abowd. *Securing Context-Aware Applications Using Environment Roles*. Proceedings of the 6th ACM Symposium on Access Control Models and Technologies (SACMAT 2001), Chantilly, VA. pp. 10-20. May 3-4, 2001
- [C.13] K. Nagel, C.D. Kidd, T. O'Connell, A.K. Dey and G.D. Abowd. *The Family Intercom: Developing a Context-Aware Audio Communication System*. Proceedings of UBIComp 2001, 3rd International Conference on Ubiquitous Computing, Atlanta, GA. pp. 176-183. September 30-October 2, 2001.
- [C.14] J. Mankoff, A.K. Dey, M. Moore and U. Batra. *Web Accessibility for Low Bandwidth Input*. Proceedings of the Fifth International ACM SIGCAPH Conference on Assistive Technologies (ASSETS 2002), Edinburgh, Scotland. pp. 17-24, July 8-10, 2002.
- [C.15] A.K. Dey, J. Mankoff, G.D. Abowd and S.A. Carter. *Distributed Mediation of Ambiguous Context in Aware Environments*. Proceedings of UIST 2002, Fifteenth Annual Symposium on User Interface Software and Technology, CHI Letters 4(2), pp. 121-130, October 27-30, 2002.
- [C.16] K. Edwards, V. Bellotti, A.K. Dey and M. Newman. *Stuck in the Middle: The Challenges of User-Centered Design and Evaluation for Middleware*. Proceedings of CHI 2003, ACM Conference on Human Factors in Computing Systems, CHI Letters 5(1): 297-304, April 5-10, 2003.
- [C.17] J. Mankoff, A.K. Dey, G. Hsieh, J. Kientz, M. Ames and S. Lederer. *Heuristic Evaluation of Ambient Displays*. Proceedings of CHI 2003, ACM Conference on Human Factors in Computing Systems, CHI Letters 5(1): 169-176, April 5-10, 2003.
- [C.18] T. Sohn and A.K. Dey. *iCAP: An Informal Tool for Interactive Prototyping of Context-Aware Applications*. Interactive Poster in the Extended Abstracts of CHI 2003, ACM Conference on Human Factors in Computing Systems, Orlando, FL. pp. 974-975, April 5-10, 2003.
- [C.19] S. Lederer, J. Mankoff and A.K. Dey. *Who Wants to Know What When? Privacy Preference Determinants in Ubiquitous Computing*. Short Talk in the Extended Abstracts of CHI 2003, ACM Conference on Human Factors in Computing Systems, pp. 724-725, April 5-10, 2003.
- [C.20] L. Barkhuus and A.K. Dey. *Location-based Services for Mobile Telephony: A Study of Users' Privacy Concerns*. Proceedings of INTERACT 2003, 9th IFIP TC13 International Conference on Human-Computer Interaction. September 1-5, 2003.
- [C.21] L. Barkhuus and A.K. Dey. *Is Context-aware Computing Taking Control Away From the User? Three Levels of Interactivity Examined*. Proceedings of UBIComp 2003, 5th International Conference on Ubiquitous Computing, pp. 149-156. October 12-15, 2003.
- [C.22] A.K. Dey, R. Hamid, C. Beckmann, I. Li and D. Hsu. *a CAPpella: Programming by Demonstration of Context-Aware Applications*. To appear in CHI Letters 6(1), 2004.
- [C.23] T. Matthews, H-W. Gellersen and A.K. Dey. *Augmenting Collections of Everyday Objects: A Case Study of Clothes Hangers as an Information Display*. To appear in Pervasive 2004.

- [C.24] E.S De Guzman, M. Yau, A. Gagliano, A. Park and A.K. Dey. *Exploring the Design and Use of Peripheral Displays of Awareness Informaiton*. Short Paper in to appear in the Extended Abstracts of CHI 2004, ACM Conference on Human Factors in Computing Systems, April 25-29, 2004.

Non-Refereed Conference and Workshop Papers

- [NC.1] A.K. Dey and G.D. Abowd. *Position Paper on Wearable Computing*. Presented at the CHI 1997 (ACM Conference on Human Factors in Computing Systems) Workshop on Wearable Computing, Atlanta, GA. March 22-27, 1997.
- [NC.2] G.D. Abowd, A.K. Dey, R. Orr and J. Brotherton. *Context-awareness in Wearable and Ubiquitous Computing*. Poster in the Proceedings of the 1st International Symposium on Wearable Computing (ISWC '97), Boston, MA. October 13-14, 1997, pp. 179-180.
- [NC.3] A.K. Dey and G.D. Abowd. *Towards a Better Understanding of Context and Context-Awareness*. Presented at the CHI 2000 (ACM Conference on Human Factors in Computing Systems) Workshop on the What, Who, Where, When, Why and How of Context-Awareness, The Hague, Netherlands. April 1-6, 2000.
- [NC.4] A.K. Dey and G.D. Abowd. *The Context Toolkit: Aiding the Development of Context-Aware Applications*. Proceedings of the Workshop on Software Engineering for Wearable and Pervasive Computing, Limerick, Ireland. June 6, 2000.
- [NC.5] T. O'Connell, P. Jensen, A.K. Dey and G.D. Abowd. *Location in the Aware Home*. Presented at the UBICOMP 2001 (3rd International Conference on Ubiquitous Computing) Workshop on Location Modeling for Ubiquitous Computing, Atlanta, GA. September 30, 2001.
- [NC.6] A.K. Dey. *Evaluation of Ubiquitous Computing Systems: Evaluating the Predictability of Systems*. Presented at the UBICOMP 2001 (3rd International Conference on Ubiquitous Computing) Workshop on Evaluation Methods for Ubiquitous Computing, Atlanta, GA. September 30, 2001.
- [NC.7] *Ambient Displays*. 020202: A Social Technologies Dialogue, Berkeley, CA. February 2, 2002.
- [NC.8] S. Lederer, A.K. Dey and J. Mankoff. *Everyday Privacy in Ubiquitous Computing Environments*. Presented at the UBICOMP 2002 (4th International Conference on Ubiquitous Computing) Workshop on Socially-informed Design of Privacy-enhancing Solutions in Ubiquitous Computing, Goteborg, Sweden. September 29, 2002.
- [NC.9] J. Mankoff and A.K. Dey and J. Mankoff. *Evaluation of Ambient Displays*. Presented at the UBICOMP 2002 (4th International Conference on Ubiquitous Computing) Workshop on the Design and Evaluation of Notification Interfaces for Ubiquitous Computing, Goteborg, Sweden. September 29, 2002.
- [NC.10] A.K. Dey and T. Sohn. *Supporting End User Programming of Context-Aware Applications*. Presented at the CHI 2003 (ACM Conference on Human Factors in Computing Systems) Workshop on End User Development. Orlando, FL. April 5, 2003.
- [NC.11] A.K. Dey and J. Mankoff. *Applying Heuristic Evaluation to Ambient Displays*. Presented at the CHI 2003 (ACM Conference on Human Factors in Computing Systems) Workshop on Providing Elegant Peripheral Awareness. Orlando, FL. April 5, 2003.
- [NC.12] S. Lederer, J. Mankoff and A.K. Dey. *Towards a Deconstruction of the Privacy Space*. Presented at the UbiComp 2003 (Fifth International Conference on Ubiquitous Computing) Workshop on UbiComp Communities: Privacy as Boundary Negotiation. Seattle, WA. October 12, 2003.

- [NC.13] A. Newberger and A.K. Dey. *System Support for Context Monitoring and Control*. Presented at the Ubicomp 2003 (Fifth International Conference on Ubiquitous Computing) Workshop on At the Crossroads: The Interaction of HCI and Systems Issues in UbiComp. Seattle, WA. October 12, 2003.

Other Journal and Conference Participation

- [O.1] G.D. Abowd and A.K. Dey. *Towards a Better Understanding of Context and Context-Awareness*, panel moderator. Proceedings of the 1st International Symposium on Handheld and Ubiquitous Computing (HUC '99). Karlsruhe, Germany. pp. 304-307. September 27-29, 1999.
- [O.2] D.R. Morse, A.K. Dey and S. Armstrong. *The What, Who, Where, When, Why and How of Context-Awareness*. Workshop organizer, in the Proceedings of the CHI 2000 (ACM Conference on Human Factors in Computing Systems), The Hague, Netherlands. p. 371. April 1-6, 2000.
- [O.3] A. K. Dey. *Building Context-Aware Applications*. Tutorial presented at the 2nd International Symposium on Handheld and Ubiquitous Computing (HUC2K), Bristol, UK. September 25-27, 2000.
- [O.4] A.K. Dey and G.D. Abowd. *Building Context-Aware Applications*, Tutorial accepted (but declined by author) at CHI 2001 (ACM Conference on Human Factors in Computing Systems), Seattle, WA. March 31 - April 5, 2001.
- [O.5] A.K. Dey, P. Ljungstrand and A. Schmidt. *Distributed and Disappearing User Interfaces in Ubiquitous Computing*, workshop organizer. In the CHI Conference Companion at CHI 2001 (ACM Conference on Human Factors in Computing Systems), Seattle, WA. March 31 - April 5, 2001.
- [O.6] A.K. Dey, G. Kortuem, A. Schmidt and D. Morse. Co-editor and co-author of editorial of issue on *Situated Interaction and Context-Aware Computing*. *Personal and Ubiquitous Computing*, 5 (1), 2001.
- [O.7] V. Bellotti, A.K. Dey, T. Erikson and L. Nigay. Co-editor of CHI 2003 DVD Video Program, ISBN # 1-58113-669-2. CHI 2003 (ACM Conference on Human Factors in Computing Systems), Orlando, FL. April 5-10, 2003.
- [O.8] G. Cockton, P. Korhonen, E. Bergman, S. Bjork, P. Collings, A.K. Dey, S. Draper, J. Gulliksen, T. Keinonen, J. Lazar, A. Lund, R. Molich, K. Nakakoji, L. Nigay, R. Oliveira Prates, J. Rieman, J and C. Synder. Co-editor of CHI 2003 Extended Abstracts CD-ROM, ISBN # 1-58113-637-4. CHI 2003 (ACM Conference on Human Factors in Computing Systems), Orlando, FL. April 5-10, 2003.
- [O.9] C. Beckmann and A.K. Dey. *SiteView: Tangibly Programming Active Environments with Predictive Visualization*. Poster at the 5th International Conference on Ubiquitous Computing (UBICOMP 2003), Seattle, WA. October 12-15, 2003.
- [O.10] M. Ames, C. Bettadapur, A.K. Dey and J. Mankoff. *Healthy Cities Ambient Displays*. Poster at the 5th International Conference on Ubiquitous Computing (UBICOMP 2003), Seattle, WA. October 12-15, 2003.
- [O.11] Anthony Jameson, Antonio Krueger and A.K. Dey. Co-editor and co-author of issue on *Ubiquitous Computing and User Modeling*. *User Modeling and User-Adapted Interaction*. To appear, 2005.
- [O.12] A.K. Dey and M. Ebling. *Workshop on Context-Awareness*. Workshop organizer, at Mobisys 2004., Boston, MA. June 6, 2004.

Software

- [S.1] A.K. Dey, G.D. Abowd and D. Salber. *The Context Toolkit*. Software framework for the development of context-aware computing applications.
<http://www.cc.gatech.edu/fce/ctk/distribution/ctk-022400.zip>

Technical Reports

- [TR.1] A.K. Dey, L.D. Catledge, G.D. Abowd and C. Potts. *Developing Voice-only Applications in the Absence of Speech Recognition Technology*. Technical Report GIT-GVU-97-06, GVU Center, Georgia Institute of Technology, February 1997.
- [TR.2] A.K. Dey, G.D. Abowd, M. Pinkerton and A. Wood. *CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services*. Technical Report GIT-GVU-97-10, GVU Center, Georgia Institute of Technology, April 1997.
- [TR.3] G.D. Abowd, A.K. Dey and A. Wood. *Applying Dynamic Integration as a Software Infrastructure for Context-Aware Computing*. Technical Report GIT-GVU-97-18, GVU Center, Georgia Institute of Technology, September 1997.
- [TR.4] D. Salber, A.K. Dey and G.D. Abowd. *Ubiquitous Computing: Defining an HCI Research Agenda for an Emerging Interaction Paradigm*. Technical Report GIT-GVU-98-01, GVU Center, Georgia Institute of Technology, February 1998.
- [TR.5] A.K. Dey and G.D. Abowd. *Towards a Better Understanding of Context and Context-Awareness*. Technical Report GIT-GVU-99-22, GVU Center, Georgia Institute of Technology, June 1999.
- [TR.6] A.K. Dey, D. Salber, M. Futakawa and G.D. Abowd. *An Architecture To Support Context-Aware Applications*. Technical Report GIT-GVU-99-23, GVU Center, Georgia Institute of Technology, June 1999.
- [TR.7] D. Salber, A.K. Dey, R.J. Orr and G.D. Abowd. *Designing for Ubiquitous Computing: A Case Study in Context Sensing*. Technical Report GIT-GVU-99-29, GVU Center, Georgia Institute of Technology, July 1999.
- [TR.8] D. Morse and A.K. Dey. Proceedings of the CHI 2000 (ACM Conference on Human Factors in Computing Systems) Workshop on The What, Who, Where, When, Why and How of Context-Awareness Technical Report GIT-GVU-00-18, GVU Center, Georgia Institute of Technology, October 2000.
- [TR.9] S. Lederer, A.K. Dey and J. Mankoff. *A Conceptual Model and a Metaphor of Everyday Privacy in Ubiquitous Computing Environments*. Technical Report UCB-CSD-02-1188, Computer Science Division, University of California, Berkeley and Technical Report IRB-TR-02-017, Intel Research Berkeley, July 30, 2002.
- [TR.10] M. Ames and A.K. Dey. *Description of Design Dimensions and Evaluation for Ambient Displays*. Technical Report UCB-CSD-02-1211, Computer Science Division, University of California, Berkeley, November 6, 2002.
- [TR.11] S. Lederer, J. Mankoff and A.K. Dey. *Managing Personal Information Disclosure in Ubiquitous Computing Environments*. Technical Report IRB-TR-03-015, Intel Research Berkeley, July 8, 2003.
- [TR.12] T. Sohn and A.K. Dey. *Interactive Prototyping of Context-Aware Applications*. Technical Report IRB-TR-03-016, Intel Research Berkeley, July 8, 2003.
- [TR.13] A. Newberger and A.K. Dey. *Designer Support for Context Monitoring and Control*. Technical Report IRB-TR-03-017, Intel Research Berkeley, July 8, 2003.
- [TR.14] T. Matthews, T. Rattenbury, S. Carter, A.K. Dey and J. Mankoff. *A Peripheral Display Toolkit*. Technical Report IRB-TR-03-018, Intel Research Berkeley, July 8, 2003;

- Technical Report UCB-CSD-03-1258, Computer Science Division, University of California, Berkeley, 2003.
- [TR.15] C. Beckmann and A.K. Dey. *SiteView: Tangibly Programming Active Environments with Predictive Visualization*. Technical Report IRB-TR-03-019, Intel Research Berkeley, July 8, 2003.
- [TR.16] S. Lederer, J.I. Hong, X. Jiang, A.K. Dey, J.A. Landay and J. Mankoff. *Towards Everyday Privacy for Ubiquitous Computing*. Technical Report UCB-CSD-03-1283, Computer Science Division, University of California, Berkeley, October 20, 2003; Technical Report IRB-TR-03-037, Intel Research Berkeley, 2003.
- [TR.17] S. Lederer, J. Hong, A.K. Dey and J. Landay. *Personal Privacy Through Understanding and Action: Five Pitfalls for Designers*. Technical Report IRB-TR-03-035, 2003.
- [TR.18] L. Barkhuus, and A.K. Dey. *When Communication Technology Changes Users; Behavior: a Comparative Study of Two Types of Instant Text Communication*. Technical Report IRB-TR-041, 2003.

PRESENTATIONS

Invited Keynote and Distinguished Lecture Presentations

- [K.1] *Future Living Environments*. SISCTI XXVIII, Monterey, Mexico. March 1, 2003.
- [K.2] *Control in Ubiquitous Computing Environments*. 15th Seminario Integrado de Software e Hardware (SEMISH) at the 23rd Conference of the Brazilian Computer Society (SBC2003), Campinas, Brazil. August 4, 2003.

Invited Talks

- [I.1] *Emerging Technologies for the World Wide Web*. Center for Disease Control, Atlanta, GA. October 1997.
- [I.2] *Context-aware Computing*. Motorola Science Advisory Board Associates Annual Meeting, San Diego, CA. October 1997.
- [I.3] *The Broadband Institute Residential Laboratory: a.k.a. the Aware Home*. Intel Microprocessor Research Laboratory, Beaverton, OR. April 18, 2000.
- [I.4] *The Context Toolkit: Building Context-aware Applications*. Intel Microprocessor Research Laboratory, Beaverton, OR. April 18, 2000.
- [I.5] *The Context Toolkit: Building Context-aware Applications*. British Telecom Laboratories, Ipswich, UK. July 24, 2000.
- [I.6] Invited Lecture *Supporting Context-aware Applications*. British Telecom Laboratories, Ipswich, UK. July 26, 2000.
- [I.7] *The Aware Home: Testbed for Context-aware Computing*. British Telecom Laboratories, Ipswich, UK. July 26, 2000.
- [I.8] *Context Toolkit Tutorial*. British Telecom Laboratories, Ipswich, UK. July 27, 2000.
- [I.9] *The Context Toolkit: An Investigation of Context-aware Computing*. University of Maryland Human Computer Interaction Laboratory (HCIL) Fall 2000 Seminar Series, College Park, MD. November 14, 2000
- [I.10] *The Context Toolkit: Supporting Context-aware Computing*. University of Karlsruhe: Lecture in the Winter 99/00 course on Ubiquitous Computing, Karlsruhe, Germany. January 18, 2001.
- [I.11] *The Aware Home: Testbed for Context-aware Computing*. SAP Labs, Karlsruhe, Germany. January 19, 2001.

- [I.12] *Context-aware Computing*. Naval Postgraduate School, Monterey, CA. October 25, 2001.
- [I.13] *Ambient Interfaces for Peripheral Awareness*. Workshop on Displaying Information in Public Spaces, Berkeley, CA. June 11, 2002.
- [I.14] *User Interfaces for Pervasive Computing*. Pervasive Computing Special Interest Group, Panel on User Interfaces for Pervasive Computing, Palo Alto, CA. June 26, 2002.
- [I.15] *User Interfaces for Ubiquitous Computing*. Tamagawa University, Tokyo, Japan. July 23, 2002.
- [I.16] *Sensor-based User Interfaces for Ubiquitous Computing*. Sony Computer Science Laboratory, Tokyo, Japan. July 23, 2002.
- [I.17] *Supporting the Construction of Context-Aware Applications*. Tamagawa University, Tokyo, Japan. July 24, 2002.
- [I.18] *Sensor-based User Interfaces for Ubiquitous Computing*. IBM Tokyo Research Lab, Tokyo, Japan. July 24, 2002.
- [I.19] *Informal Design in Ubiquitous Computing*. Tamagawa University, Tokyo, Japan. July 25, 2002.
- [I.20] *Sensor-based User Interfaces for Ubiquitous Computing*. National Institute of Advanced Industrial Science and Technology Digital Human Laboratory, Tokyo, Japan. July 25, 2002.
- [I.21] *Building Context-aware Applications*. Dagstuhl Summer School on Ubiquitous Computing. Dagstuhl, Germany. August 7, 2002.
- [I.22] *Augmenting Humans via Objects and the Environment*. Dagstuhl Summer School on Ubiquitous Computing. Dagstuhl, Germany. August 9, 2002.
- [I.23] *Evaluation of Ubiquitous Computing Systems: Exercise in Frustration or a Research Opportunity*. Dagstuhl Summer School on Ubiquitous Computing. Dagstuhl, Germany. August 12, 2002.
- [I.24] *Dealing with Ambiguity in Context-aware Environments*. IFIP Working Group 2.7/13.4 Meeting, Paris, France. October 31, 2002.
- [I.25] *A Research Agenda for Ambient and Peripheral Displays*. Fuji-Xerox Palo Alto Laboratory (FX-PAL), Palo Alto, CA. February 5, 2003.
- [I.26] *Sensing-Based Interaction*. Intel Research Seattle Seminar Series, Seattle, WA. July 2, 2003.
- [I.27] *Control in Ubiquitous Computing Environments*. Graduate Seminar at the Instituto de Ciências Matemáticas e de Computação (ICMC), University of São Paulo, São Carlos, Brazil. August 6, 2003.
- [I.28] *Predictions of the Future: The Ubiquitous Computing Story*. HKN Honor Society Monthly Meeting. University of California at Berkeley, Berkeley, CA. October 28, 2003.

News Articles

- [N.1] NY Times, *The To-Do List that Knows Where You Are*, (Yudhijit Bhattacharjee). November 8, 2001.
- [N.2] Berkeley Lab Notes, *Art, Technology, Process and Product*, (David Pescovitz). July 2002. <http://www.coe.berkeley.edu/labnotes/0702/tangible.html>
- [N.3] Berkeley Engineering News, *EECS professors design 'aware chair' communication system for physically and speech-impaired*. January 20, 2003, 73 (1S). <http://www.coe.berkeley.edu/engnews/fall02/1S/Awarechair.html>
- [N.4] Wired.com, *Making Wines Finer with Wireless*, April 4, 2003. <http://www.wired.com/news/wireless/0,1382,58312,00.html>

- [N.5] Berkeley Engineering Lab Notes, *Ambient Displays that Don't Distract*, (David Pescovitz). May 2003. <http://www.coe.berkeley.edu/labnotes/0503/mankoff.html>
- [N.6] The Feature, *Wireless Winemaking*, (Jeff Goldman). July 2003. <https://www.thefeature.com/index.jsp?url=article.jsp?pageid=45405>
- [N.7] India Abroad, *Lessons of Color: Have Attitudes Towards Foreign Teachers Changed for the Better*, (Shakti Dhatt). September 5, 2003.

FUNDING

- 1999 PI, State of Georgia's Broadband Telecommunications Center (\$10000) to investigate "Computing in the Home".
- 2002 Co-PI, NSF ITR (\$2.3 million), *Human-Centered Design of Context-Aware Computing: Scalability, Usability and Privacy*, with James Landay and Jennifer Mankoff. 15% of submitted proposals funded. [J.6] [C.15] [C.16] [C.17] [C.18] [TR.9] [TR.11] [TR.13] [TR.15] [TR.16] [TR.17] [TR.18]
- 2002 Computing Research Association's (CRA) Collaborative Research Environment for Women (CREW) (\$2000), *Ambient Displays*, with Jennifer Mankoff for Chinmayi Bettadapur and Morgan Ames.
- 2002 University of California at Berkeley David Scholars Program (\$4000), *Healthy Cities Ambient Display*, with Morgan Ames.
- 2002 University of California at Berkeley Haas Scholars Program (\$1500), *Tangible Instant Messaging for the Elderly*, with Margaret Yau.
- 2003 Senior Personnel, NSF ITR (\$3.4 million), *A Scalable Enabling IT Infrastructure for Developing Countries*, PIs were Eric Brewer, Jennifer Mankoff, Steven Weber, Jan Rabaey and Vivek Subramanian. 10% of submitted proposals funded.

SERVICE

Conference Committee Activities

- 1999 ACM UIST '99, Student Volunteer Chair
- 2001 UBICOMP 2001, Technical Notes and Workshop Chair
- 2002 UBICOMP 2002, Doctoral Consortium Chair
- 2003 CHI 2003, Demonstrations Co-Chair; UBICOMP 2003, Program Co-Chair; ICMI 2003, Registration Chair
- 2005 CONTEXT 2005, Program Co-Chair

Editorial Positions

- 2001 – present Personal and Ubiquitous Computing Journal, Springer-Verlag

Program committee member

- 2001 User Modeling 2001 Workshop on User Modeling for Context-Aware Applications
- 2002 2nd ACM International Workshop on Mobile Commerce, 2002; UIST 2002; UBICOMP 2002
- 2003 4th International Interdisciplinary Conference on Modeling and Using Context (CONTEXT 2003; 1st International Conference on Appliance Design; Workshop on Wireless Security and Privacy; CHI 2003 short papers and interactive posters; User Modeling 2003 Workshop on User Modeling in Ubiquitous Computing; UBICOMP 2003; UIST 2003 Demonstrations; OZCHI 2003

2004 Graphics Interface 2004; International Conference on Pervasive Computing 2004, CHI 2004 short papers and interactive posters

Reviewer: Conferences and Journals

1999 UIST 1999
2000 UIST 2000; HUC2K
2001 UIST 2001; UBICOMP 2001; HCII 2001; CHI 2001
2002 Pervasive Computing; CSCW 2002; UIST 2002; UBICOMP 2002; CHI 2002; *IEEE Pervasive*
2003 UIST 2003; UBICOMP 2003; CHI 2003 full papers, student posters and tutorials; MobiSys 2003; HCI 2003 short papers; InfoViz 2003; INTERACT 2003 full papers and posters; ISWC 2003; SENSYS 2003; *IEEE Pervasive*; *ACM Mobile Computing and Communications Review*; *IEEE Transactions on Mobile Computing Review*; *ACM Transactions on Software Engineering and Methodology*; *ACM Transactions on Computer-Human Interaction*; *Applied Artificial Intelligence*; *Software Process Improvement and Practice*
2004 CHI 2004 full papers, doctoral consortium and tutorials; International Conference on Pervasive Computing 2004; Mobisys 2004; *ACM Mobile Computing and Communications Review*; *IEEE Pervasive*

Mentor Programs

1997 – 2000 Ph.D. Mentor for National Science Foundation Fellowship winners
1997 – 2000 Office of Naval Research intern program; Mentor for internal Georgia Tech PhD program
2002 CRA-W DMAP
2002 – 2003 CRA CREW; University of California at Berkeley SUPERB (undergraduate REU program); University of California at Berkeley David Scholars Program; Intel Undergraduate Research Award
2002 – 2004 University of California at Berkeley Undergraduate Research Opportunities (URO) Program; University of California at Berkeley Undergraduate Research Apprentice Program (URAP)
2003 ACM CHI 2003 full papers
2003 – 2004 University of California at Berkeley Haas Scholars Program
2004 ACM CHI 2004 full papers