Gregory D. Abowd
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College of Computing
Georgia Institute of Technology
Atlanta, Georgia 30332-0280

EDUCATIONAL BACKGROUND

D. Phil., 1991, University of Oxford, United Kingdom, Computation

M.Sc., 1987, University of Oxford, United Kingdom, Computation.

B.S. (*summa cum laude*), 1986, University of Notre Dame, Honors Mathematics.

EMPLOYMENT HISTORY

Associate Professor, College of Computing, Georgia Institute of Technology, 2000-present.

Visiting Faculty, Intel Research Seattle, July 2004-June 2005.

Director of Aware Home Research Initiative, Georgia Institute of Technology, 2000-2003. 2005-present

Associate Director for Broadband Institute in charge of Residential Laboratory, 1998-2003.

Assistant Professor, College of Computing, Georgia Institute of Technology, 1994-2000.

Visiting Scientist (honorary position), Software Engineering Institute, Carnegie Mellon University, 1994–97.

Postdoctoral Research Associate, Computer Science Department and Software Engineering Institute, Carnegie Mellon University, 1992-1994.

Research Associate, Human-Computer Interaction Group, Computer Science Department, University of York, 1989-1992.

CURRENT FIELDS OF INTEREST

My research involves the application-driven aspects of ubiquitous computing. As such, I am interested in problems that concern both the Human-Computer Interaction (HCI) and Software Engineering research communities. Specifically, I am interested in the development of techniques to support the rapid prototyping and evaluation of mobile and ubiquitous computing applications that will be prevalent in future computing environments. The impact on our human experience will be exciting to discover, but we will not be able to achieve this vision without significant advances in the engineering of the software for ubiquitous computing. The challenges for designing, implementing and evolving software for everyday human use that runs reliably, continuously and appropriately on the wide variety of worn, held and embedded platforms are numerous and complex. From an HCI perspective, significant research themes emerge only when future computing technology is put into real-life situations. To date, I have lead a group of that has examined such "living laboratories" in application domains of education, personal information management, and the home/office environment. The research themes to have emerged from such work are: automated capture and access to live experiences; context-aware applications; and natural interfaces between the physical and electronic worlds. One of the new focuses of my research involves the application of capture technologies to support the understanding of interventions for children with autism and the caregiver network associated with them.

I. TEACHING

A. Courses Taught

<u>Computer Science Department, Carnegie Mellon University</u>

Fall, 1993, 15-772 *Methods of Software Development*. 15 students. New course team-taught with two other faculty.

<u>College of Computing, Georgia Instititute of Technology, Atlanta, Georgia</u>

Term, Year	Course	# Students	Comments
Fall 1994	CS 4753 *Human Factors in Software Development*	31	
Winter 1995	CS 3302 *Introduction to Software Engineering*	50	
	CS 8112M *Software Engineering Seminar: Software Architecture*.	20	
Spring 1995	CS 8113H *Specification and Analysis of Interactive Systems*	10	
Fall 1995	CS 2390 *Modeling and Design*	51	
	CS 8011H *Future Computing Environments Seminar*	20	Team
Winter 1996	CS 6751 *Human–Computer Interaction*	26	
	CS 3302 *Introduction to Software Engineering*	50	
	CS 8011A *Future Computing Environments Seminar*	20	Team
Spring 1996	CS 3302 *Introduction to Software Engineering*	56	
	CS 8011D *Future Computing Environments Seminar*	20	Team
Fall 1996	CS 6751 *Human–Computer Interaction*	38	
	CS 4310/1/2 *Software Engineering Lab*	25	
	CS 8011A *Future Computing Environments Seminar*	25	Team
Winter 1997	CS 8011D *Future Computing Environments Seminar*	30	Team
Spring 1997	CS 3302 *Introduction to Software Engineering*	50	
	CS 8011D *Future Computing Environments Seminar*	20	Team
Fall 1997	CS 4310/1/2 *Software Engineering Lab*	30	
	CS 6751 *Human–Computer Interaction*	41	
	CS 8013 *Future Computing Environments Seminar*	20	Team
Winter 1998	CS 8013 *Future Computing Environments Seminar*	20	Team
Spring 1998	CS 3302 *Introduction to Software Engineering*.	89	2 sections
	CS 8011 *Future Computing Environments Seminar*	20	Team
Fall 1998	CS 6751 *Human–Computer Interaction*	42	
	CS 8011 *Future Computing Environments Seminar*	20	Team
Winter 1999	CS 3302 *Introduction to Software Engineering*	44	
	CS 8011 *Future Computing Environments Seminar*	20	Team
Spring 1999	CS 8113C *Mobile and Ubiquitous Computing*	35	Team
Fall 1999	CS 6750A *Human–Computer Interaction*	31	
	CS 7001 *Introduction to Graduate Studies*	52	

	CS 8001 B *Future Computing Environments Seminar*	40	Team
	CS 4801 A *Building Ubiquitous Computing Devices and Software*	8	Team
Spring 2000	CS 8001 *Future Computing Environments Seminar*	40	Team
Fall 2000	CS 7001 *Introduction to Graduate Studies*	51	
	CS 8001 *Future Computing Environments Seminar*	40	Team
Fall 2001	CS 4750 *Human-Computer Interface Design and Evaluation*	69	2 sections
	CS 8001 *Future Computing Environments Seminar*	30	Team
Spring 2002	CS 8001 *Human-Computer Interaction Seminar*	15	New, team
	CS 8011 *Building Ubiquitous Software and Hardware Devices*	18	
Fall 2002	CS 4470/6456 *Principles of User Interface Software*	30/18	Ugrad + grad
	CS 8001 *Human-Computer Interaction Seminar*	25	Team
Spring 2003	CS 7470/8803e *Mobile and Ubiquitous Computing*	29	Co-taught (Ramachandran)
	CS 8001 *Human-Computer Interaction Seminar*	25	Team
Fall 2003	CS 4470/6456 *Principles of User Interface Software*	23/18	Ugrad + grad
Spring 2004	CS/PSYC 6750 *Human-Computer Interaction*	35	
Fall 2005	CS/PSYC 6750 *Human-Computer Interaction*	47	
	CS 8001 *Ph.D. Job Hunting Seminar*	25	Co-taught (Leo Mark)

B. Continuing Education

Object-Oriented Programming, September 11–14, 1995. Prepared and presented lectures for first two days and assisted in labs for remaining two days.

Object-Oriented Programming, February 8–9, 1996.

Introduction to Java Programming, Prepared and presented 1/2 day seminar on numerous occasions in 1996.

Advanced Java Programming, Prepared 2-day course. Presented as 5-week evening course to College of Computing undergraduate TAs, August-September 1996. To present 2-day course September 30-October 1,1996 and November 4-5, 1996

C. Curriculum Development

Co-author of textbook, *Human-Computer Interaction*, published by Prentice-Hall in 1993. Second edition published in November 1997. Third edition published in 2004. This text is one of the most popular HCI textbooks in the world, and has currently been translated into German, Chinese, Italian and Greek. A complete companion Web site has been developed for the book at http://www.hcibook.com, including answers to all exercises, overhead slides for every chapter, additional case studies, and project suggestions. A fourth edition has been requested by the publishers and will be planned for 2006 or 2007 release.

I have designed a course on Mobile and Ubiquitous Computing jointly with Thad Starner. The first instance of this course was given in the Spring Quarter of 1999 and it is now part of the regular graduate curriculum as CS 7470. In Spring 2003, I taught this course jointly with Kishore Ramachandran, bringing in much more influence from the systems perspective. I have also been involved over the past year with efforts

within the Ubiquitous and Pervasive Computing research communities to assemble and understand best practices for teaching these topics to undergraduates and graduates.

I was involved in some of the course-specific curriculum development activities for the semester conversion. Courses that I have involvement in are the Software Engineering course, the studio project course, and graduate courses in Human–Computer Interaction and Ubiquitous Computing.

D. Individual Student Guidance

D.1.   Postdoctoral Fellows supervised

Daniel Salber, October 1997-September 1999. Worked on ubiquitous computing and context-aware computing. Work has resulted in conference publications [J.16], [C.38], [C.40], [C.45], [C.51], [TR.22], [TR.25], [TR.26], [TR.32], [TR.33]. Work has resulted in Context Toolkit software system [S/W.2]. Formerly a Research Scientist at IBM T.J. Watson Labs, currently back in France.

Renata Fortes, January 2000-January 2001. Visiting Scientist from University of San Paolo, Brazil. Working in automated support for capture and access to meetings.

Maria da Graca Pimentel, October 1998-January 2000. Visiting Scientist from University of San Paolo, Brazil. Working in automated support for capture and access to live experiences in the Classroom 2000 project. Work has resulted in publications [J.15], [C.49], [C.55] as well as other publications authored jointly with Khai Truong. Collaboration has also led to a joint NSF/CNPq grant from July 2000 – June 2003.

Masayasu Futakawa, August 1998-August 1999. Visiting Scientist from Hitachi, Ltd. in Japan. Working on context-aware computing. Work resulted in publications [C.45], [TR.32].

Yoshihide Ishiguro, since October 1998-September 1999. Visiting Scientist from NEC in Japan. Working on content-based retrieval for Classroom 2000. Work has resulted in publications [J.15], [C.49].

Mikiya Tani, September 1996-August 1997. Visiting Scientist from NEC in Japan. Work on retrieval interfaces for Classroom 2000. Work has resulted in publications [C.21], [TR.12].

Hideyuki Nakanishi, 2005. Visting faculty from Keio University. Work on wearable computing and language support.

D.2. Research Scientists Supervised

Lamar Gardere, June 2005-present. Research programmer employed to develop CareLog FBA system for use in schools.fs

Annie Jacobs, January 2001-September 2002. Research Scientist examining socio-legal implications of research in the Aware Home. Work has resulted in publication [J.19].

Thomas O'Connell, May 2001-present. Research Scientist in charge of managing Residential Laboratory. Work has resulted in publications [C.61], [CnP.11], [TR.43]. Work has resulted in the Location Service system [S/W.7].

Cory D. Kidd, May 2000-May 2001. Research Scientist in charge of managing Residential Laboratory. Work has resulted in publications [C.44], [C.61], [TR.39].

D.3.   Ph.D. Students Supervised

Graduated

Richard Kurt Stirewalt, (co-advised with S. Rugaber) graduated December 1997. Thesis "Automatic Generation of Interactive Systems from Declarative Models." Currently Associate Professor (with

tenure) at Michigan State University. Work has resulted in publications [C.36], [TR.11], [TR.23]. NSF Career Award winner 2000.

Anind Dey, 1995-2000, graduated December 2000. Thesis: "Providing Architectural Support for Building Context-Aware Applications." Currently Research Scientist at Intel Research, Berkeley and Adjunct Professor at University of California, Berkeley. Work resulted in publications [J.8], [J.9], [J.10], [J.16],[B.7], [B.9], [C.23], [C.25], [C.26], [C.29], [C.40], [C.45], [C.51], [C.56], [C.58], [C.61], [C.65], [CnP.7],[CnP.8], [CnP.9], [CnP.10], [CnP.11], [TR.14], [TR.16], [TR.17], [TR.18], [TR.20], [TR.22], [TR.25], [TR.32], [TR.33], [TR.38], [I.7]. Work resulted in Context Toolkit software system [S/W.2]. Named 2000 College of Computing Outstanding Graduate Research Assistant.

Jennifer Mankoff, 1996-2001, graduated August 2001. Thesis: "An architecture and interaction techniques for handling ambiguity in recognition-based input." Currently Assistant Professor at University California, Berkeley. Work resulted in publications [J.14], [C.31], [C.34], [C.37], [C.52], [C.57], [C.65], [TR.31], [TR.34], [TR.37]. Work resulted in OOPS toolkit [S/W.4]. Named 2001 College of Computing Outstanding Graduate Research Assistant.

Jason Brotherton, 1996-2001, graduated December 2001. Thesis: "Enriching Everyday Activities through the Automated Capture and Access of Live Experiences: eClass: Building, Observing and Understanding the Impact of Capture and Access in an Educational Domain." Working on automated capture and access for live experiences. Work has resulted in publications [J.10], [J.22], [J.22], [C.25], [C.30], [C.32], [C.35], [C.46], [C.60], [CnR.3], [B.8], [TR.18], [TR.29], [TR.35]. Work has resulted in Zen-Star software system [S/W.1]. Was Assistant Professor at Ball State University. Awarded British Society Postdoctoral Fellowship 2002 and is now on the research faculty at University College, London.

Robert Waters, 1997-2004, graduated December 2004. Thesis: "Obtaining Architectural Descriptions from Legacy Systems: The Architectural Synthesis Process (ASP)." Work has resulted in publications [C.47], [C.48], [TR.28] Currently a full-time instructor for Software Engineering in the College of Computing at Georgia Tech.

Heather Richter, 1997-2005, graduated May 2005. Thesis: "Designing and Evaluating Meeting Capture and Access Services." Will be Assistant Professor in Dept. of Information Science at University of North Carolina Charlotte.Work has resulted in publications [J.20], [J.22], [C.39], [C.62], [C.68], [C.69], [C.74], [C.89], [C.94], [CnP.12], [TR.27], [TR.35]. Work has resulted in software TeamSpace system [S/W.6].

Khai Truong, 1998-2005. Thesis: "INCA: An Infrastructure to Support the Generation, Preservation & Use of Memories from Everyday Life." Work has resulted in publications [J.18], [C.42], [C.46], [C.60], [C.74], [C.75], [C.76], [C.78], [C.81], [C.82], [C.83], [C.91], [C.97], [TR.29], [TR.35], [TR.40], [TR.41]. Work has resulted in StuPad software system [S/W.5] and INCA toolkit [S/W.5]and PAL system [S/W.10].

Lonnie Harvel, since Fall 1999. Thesis: "Using Student Generated Notes as an Interface to a Digital Repository." Work has resulted in publications [C.77], [C.78], [CnR.3].

Current

Kris Nagel, since May 2000. Work on context-aware communication in the home and other informal environments. Work has resulted in publications [C.61], [C.73], [C.87], [TR.39], [CnP.13]. 2005 Google Anita Borg Fellowship.

Jay Summet, since January 2002. (co-advisor Jim Rehg) Co-supervised with Jim Rehg. Work on projective displays. Work has resulted in publications [C.71], [C.90], [C.97], [TR.42], [TR.44], [TR.46], GVU Procams Toolkit and the Virtual Rear Projection system [S/W.17] and the Capture Resistant Environment..

Gillian Hayes, since January 2003. Co-supervised with Jeff Pierce. Work on ubiquitous note capture and organization. Work has resulted in publications [C.66], [C.74], [TR.45], [C.81], [C.83], [C.91], [C.96], CareLog system [S/W.12] and PAL application [S/W.10].

Giovanni Iachello, since January 2003. Co-supervised with Colin Potts. Work on privacy in ubiquitous computing. Work has resulted in publications [C.81], [C.95], [C.98], [CnP.14]and PAL application [S/W.10]. NSF Graduate Fellow, 2003-2006.

Shwetak Patel, since August 2003. Work on automated meta-data tagging and video production. Work has resulted in publications [C.70], [C.81], [C.84], [C.85], [C.86], [C.97], [C.99], [TR.49], the Family Video Archive system [S/W.9], PAL application [S/W.10], Context Cam [S/W.14], Multi-User Card Game Engine [S/W.15], LoCoL mobile phone game [S/W.16], Capture Resistant Environment. NSF Graduate Fellow, 2005-2008.

Julie Kientz, since January 2004. Work on automated capture systems to support children with special needs. Work has resulted in publications [C.81], [C.83],[C.96], [TR.49], the Abaris system [S/W.11] and LoCoL mobile phone game [S/W.16]. NSF Graduate Fellow, 2004-2007.

External thesis committees

Joao Sousa, Carnegie Mellon University School of Computer Science. Advisor: David Garlan. Thesis topic: Saving users from the distractions of ubiquity: an architectural framework. External committee member. Fall 2002-2005.

D.4.   Ph.D. Special Problems students

College of Computing, Georgia Tech

(Only listing students who are not directly supervised as Ph.D. students)

2002-2005 Xuehai Bian, since January 2002. Work on sound source location and activity recognition. Work has resulted in publications [C.92], [TR.48], [TR.50] and Sound Source Localization system [S/W.13].

Summer 2004-Fall 2004. Tarang Taunk, PhD student in College of Architecture. Worked on analysis of communication needs in caregiver network for children with autism.

Spring 2003. Laercio Augusto Baldochi, Jr., Alessandra Alaniz Macedo, Jose Antonio Camacho-Guerrero. Visiting students from University of Sao Paolo at Sao Carlos in Brazil. Working on automated capture and access tools for classroom and meeting domains. Visit supported in part by joint NSF/CNPq grant with Profs. Abowd and Pimentel (Brazil)

Spring 2001-Spring 2002. Caroline Gattein.

Spring 2002. Lenin Singaravelu, Mohamed Mansour, Rajat Sharma

Fall 2001. Rudinei Goularte (visiting student from Univ. Sao Paolo at Sao Carlos)

Fall 1999-Fall 2000. Tanisha Hall

Summer 1999. Jochen Rick.

Spring 1999. Bolot Kerimbaev (resulting in publications [J.15], [C.49]).

Winter 1999. Patrick Widener, Tanisha Hall, Bolot Kerimbaev.

Spring 1998. Mike Cramer.

Winter 1998. Jason Ellis, Rebecca Yount, Joshua Berman.

Fall 1997. Jason Ellis.

Spring 1997. Dav Haas, Jason Ellis.

Winter 1997. Ron Hutchins, Dav Haas, Jason Ellis, Sunil Mishra.

Fall 1996. Lara Catledge (work resulted in publication [TR.16]), Reggie Hobbs, Viren Shah.

Spring 1996. Reggie Hobbs.

2/96-12/96. Andy Wood. Visiting Ph.D. student from University of Birmingham working on software architectures for tool integration. Work resulted in publications [J.9], [C.23], [C.29], [TR.17], [TR.20].

Winter 1996. Scott McCrickard (resulted in publication [C.19]) Qiang Zhao, Colleen Kehoe, Anind Dey, Reggie Hobbs.

Fall 1995. Zongming Fei, Colleen Kehoe, Reginald Hobbs.

Summer 1995. Jun Yan, Colleen Kehoe.

Winter-Spring 1995. Jim Pitkow (resulted in publications [C.15], [TR.8]).

Winter 1995. Allison Elliott.

D.5. M.S. Thesis/Project students.

College of Computing, GeorgiaTech

Jennifer Wiley, Fall 2005. MS HCI project on communications technologies for the aging.

Ja-Young Sun, Summer 2005-Fall 2005. MS HCI project on design of context-aware communications aids for homes.

Sebastian Boring, 2004-2005. Visiting student from LMU, Munich Germany. Work on discrete trial training capture system for children with autism. Work has resulted in publications [C.96].

Janna Kimmel, Yelena Nakhimovsky, Spring 2005. Masters projects on detecting autonomic and physiological characteristics of children with autism.

Lamar Gardere, 2004-2005. Masters project on use of the Intel Personal Server for cataloguing behaviors of children with autism in the natural environment.

Michael Biebl, 2004. Visiting student from Karlsruhe University, Germany. Work on programming interface for Smart-Its.

Jeremy Johnson 2004-2005. Masters project on universal remote control using the V2 standard in the Aware Home.

Peter Jensen, Spring 2004. Masters project on automated meta-data tagging for Family Video Archive system [S/W.9].

Matthias Gauger and Andreas Lachenmann, Spring 2003-Summer 2003. Contextual tagging and access of archived and automatically captured video. Work resulted in publication [C.72] and software [S/W.9].

David White, Summer 2002-Spring 2003. MS in HCI student. Working on automated capture prototype to assist in tracking of development for children with autism. Work resulted in publication [CnP.15]and Walden tracking system [S/W.8].

Molly Stevens, Fall 2001-Spring 2002. Masters student in IDT program. Working on capture and access of family memories. Work has resulted in publications [J.18], [C.63], [C.67].

Pallavi Garg, Spring 2002. Work on distributed video capture applications.

Ramswaroop Somani, Fall 2001-present. Work on large-scale input surfaces. Work has resulted in publication [TR.42].

Gabe Hoffman, Fall 2001-present. Work on handheld computer applications in the Aware Home.

Venkataswaraman Ramachandran, Fall 2001-present. Work on location system and interfaces for Aware Home.

Arpit Agarwal, Fall 2001-Fall 2001. Work on location-aware infrastructure in Aware Home.

Agathe Battestini, Spring 2001-present. Work on context-aware computing infrastructure in Aware Home. Work has resulted in publications [TR.43]

Kuleen Mehta, 2000-present. Work on context-aware computing and automated capture.

Thomas O'Connell, 2000-present. Work on ubiquitous computing in the home. Work has resulted in publications [C.61], [TR.39].

Gregory Krohne, 1999-2000. Work on automated capture for military application.

Vishal Dalal, 1998-99. Work on distributed computing and networking infrastructure for ubiquitous capture applications.

Roy Rodenstein, 1997-98. Work on peripheral awareness. Work resulted in publication [C.41], [TR.24].

Mike Pinkerton, 1996-7. graduated June 1997. Thesis: "Ubiquitous Computing: Extending Access To Mobile Data". GVU Technical Report GIT-GVU-97-09. Work has resulted in publications [J.8], [TR.14], [TR.17].

Sue Long, 1995-96. graduate June 1996. Master's project work resulted in publications [J.8], [C.17], [C.20], [TR.14].

Nitin Sawhney, 1995-1996. Masters in IDT program. Work resulted in publications [C.21], [TR.10], [TR.12].

D.6. *M.S. Special Problems students.*

College of Computing, Georgia Tech

Spring 2004, Tunc Aydin, David White

Fall 2003, Hemanshu Narsana, Worked on RF ID in the Aware Home.

Michael Biebl, Spring 2004-Summer 2004. Visiting student from University of Karlsruhe. Worked on wireless sensor network applications.

Alessandra A. Macedo and Jose Antonio Camacho-Guerrero, Spring 2003-Summer 2003. Visiting students from University of Sao Paulo at Sao Carlos. Work on automated capture of live experiences.

Niels van Hese. Spring 2002-Fall 2002. Visiting Masters student from Delft University. Worked on contextual tagging of archived video.

Summer 2002. Michael Holloway. Worked on handheld prototype of personal audio loop reminder system.

Spring 2002-Summer 2002, Othmar Lehman (visiting German student). Work on infrastructure for context-aware computing.

Fall 2001, Florian Vollmer (visiting German student). Work on industrial design applied to living memory box. Work has resulted in publications [C.63], [C.67].

Summer 1999. Alessandra Macedo, Fulvio Parmejjani, Daniel Pires. Visiting masters students from University of Sao Paulo, Brazil.

Spring 1999. Vishal Dalal

Winter 1999. Irwin Coleman, Vishal Dalal.

Fall 1998. Vishal Dalal.

Summer 1997. Johan LeMon and Tommy Enqvist. Visiting masters students from Sweden. Work resulted in publication [C.32].

3/97-3/98. Pascal Schuchhard. Visiting masters student from Delft University, The Netherlands. Work resulted in publication [C.39], [TR.27].

Spring 1997. Ben Arnette, Joseph Bayes.

Winter 1997 Joerg Lepler, Peter Ilberg.

Fall 1996 Valerie Guth, Wasim Khan.

Summer 1996 Wasim Khan.

Spring 1996. Mike Pinkerton, Wasim Khan, Rob Kooper, James Seymour. Work with Kooper and Pinkerton resulted in publications [J.8], [TR.14].

Winter 1996. Sue Long, Rob Kooper, (resulted in publications [C.20], [TR.14],), Savita Chandran, Yoosuf Goolamabbas, Ami Feinstein (resulted in publications [C.21], [TR.12]).

4/96-3/97 Lein Ton. Visiting masters student from Delft University working on automated verification of human-computer dialogues. Work resulted in publication [C.18].

Summer 1995. Harinarayanan Balakrishnan.

Spring 1995. Kipp Jones.

4/95-3/96. Dietmar Aust - April 1995 - March 1996. Visiting masters student from Germany working on intelligent mobile tour guides with vision. Work resulted in publication [C.17].

Computer Science Department, Carnegie Mellon University

Paul Rehmet, Summer 1993. Independent study project on process support software.

Neal Reizer, Summer 1993. Independent study project on using formal methods for requirements specification. Resulted in publication [C.7].

Marco Schumacher, Fall 1993. Independent study project on formal methods and data modeling.

Peter Abowd, Spring 1994. Independent study project for on the formal specification of an architecture for embedded automotive radio systems.

Hung-Ming "Matt" Wang, Spring 1994. Independent study project on the formal specification of the software architecture for a robotics navigation system.

Hung-Ming "Matt" Wang, Summer 1994. Independent study project on automated verification of dialogue models. Resulted in publications [C.13].

D.7. Undergraduate Special Problems students.

College of Computing, Georgia Tech

Fall 2005. The following students were advised on independent research projects: Tejesh Patel, Ellen Matthews, Roman Savaryn, Ping Taing, Tina Chou.

Spring 2005. The following students were advised on independent research projects: Asif Ladak, Jonathan McAbee Reher, Sunil Venkataram, Lauren Griffin, Forest Andrew Skaggs, Derek DeRaps. The following students were supervised on Senior Design projects: Tim Dorr, Kevin Kane , Nate Padgett, Eric Derenne, Axel Molina, Ping Taing, In Jae yi, Robert, Soe Htet, Will Clarke, Akash Shah, and

Jarvis Greene, Shamsuddim Lakha

Fall 2004. The following students were advised on independent research projects: Brian Adle, Patrick Jarrett, John Ndukuba, Forest Andrew Skaggs, Carlo Tambuatco, Jaime Yap, Irfan Kassam. The following students were supervised on Senior Design projects: Matt Balaun, Ray Cole, James Gaythwaite, Cory Jacobsen,

Spring 2004. The following students were advised on independent research projects in the Aware Home: William Allen, James Robert Farmer, Trevor Mann, Abiodun Otolorin, Ian Port, T. Scott Saponas. The following students were advised by Gregory Abowd on Senior Design projects (CS 3911): John Bunch, Kyle Forkner, Logan Johnson, Tiffany Johnson and Michael Rosack.

Fall 2003. The following students were advised on independent research projects in the Aware Home Mohammad Ashraf, Meghan Byrne, Adam Gent, Christopher Gooley, Pavel Kremer, T. Scott Saponas, Wen Tian. The following students were on Senior Design project teams 3911 supervised by Gregory Abowd: Timothy Morton, Jonathan Razza, David Sharpe, Kevin Wong, William Allen, Kanishk Kapur, Ian Port, John Woehler, Mark Bernardi, Aldrian Harjati, Pavel Kremer and Christianto Widjaja.

Spring 2003. Shwetak Patel, Jesse Shieh, Nasir Barday, Tim Hardcastle, Scott Saponas, Trayton Otto, Adrian Abraham, Branden Hughes, Robert Martoncik, Dino Tufekcic.

Fall 2002. Shwetak Patel, Jesse Shieh, Nasir Barday, Scott Saponas, Trayton Otto, Samir Kaushal, Harold Owen Noll, Borna Safabaksh, Shuo Wang, Johnny S. Yen, Mohammed Ashraf, Lloyd Engebretsen, Lev Parnas.

Summer 2002. Randall Hutchison, Kamal Patel, Shwetak Patel, Jesse Shieh, Shuo Wang, Liang Wen, Johnny Yen.

Spring 2002. Christopher Gooley, Seth Lilavivat, Belinda Nambooze, T. Scott Saponas, Timothy Bethea, Logan Hauenstein, Branden Hughes, Robert Martoncik, James McDuffie, Tali Padan, Hossein Sharifi, Maxwell Speyer, Andrew Wightwick, Christopher Geisler.

Summer 2001-Spring 2002. Peter Jensen. Work on indoor positioning and wireless sensor networks in Aware Home. Work has resulted in publications [CnP.11].

Summer 1999. Cheryl Kay Holifield and Jamonica DeRamus. Summer interns on ONR intern program.

Winter 1999-Summer 1999. Cory Kidd. Work resulted in publication [C.44].

Winter 1999. Mark Chapman.

Fall 1998. Gregor Altvater, John Desetto, Colin Waters.

Spring-Summer 1998. Mike Holloway, Thinh To, Lynn Bacher and Jimmy Nesmith.

Fall 1997-Spring 1998. Janak Bhalodia (resulted in publications [C.33], [C.35] and Zen-Star software system [S/W.1]), Ahmad Aslami, Khai Truong, Dale Everett, Vergilia Chin and Paul Gulley .

Spring 1997. Paul Gulley, Darin Heuerman, Jonathan Somers (resulted in publications [C.31] and [C.34]).

Fall 1996-Winter 1997. Jason Anderson, Jason Pierce, Kristin, Chris Reynolds, Senior Design project.

Winter–Spring 1997. Caleb Billingsley, Tristan Jackson,Stephen Rushton, Senior Design project.

Fall 1996 - Winter 1997. Thierry Ways, Kyle Phillips, Yonatan Feldman, Senior Design project.

Winter 1997. Paul Gulley, Jonathan Somers, Jason Hong.

Fall 1996. David Chow, Darin Heurmann, Jason Hong (resulted in publications [J.8], [TR.14]).

Summer 1996. Paul Gulley, Dale Everett, Scott Campbell.

Summer 1995. Greg Hankins, Summer 1995, Casey Powell.

Winter 1995. Matt DiIorio and John Lindsey.

E. Teaching Honors and Awards

April 1997 *College of Computing William A. "gus" Baird Outstanding Faculty Teaching Award.*

April 1998. *Georgia Tech, Outstanding Use of Innovative Educational Technology Award.*

II. RESEARCH AND CREATIVE SCHOLARSHIP

A.   Thesis

[T.1]   Formal Aspects of Human-Computer Interaction, D. Phil. thesis, September 1991, Mr. Bernard Sufrin (advisor), Programming Research Group, University of Oxford. Technical Monograph PRG-97.

[T.2]   *Arabic Word Processing*, M.Sc. thesis, September 1987, Dr. J. Michael Spivey (advisor), Programming Research Group, University of Oxford.

B. Published Journal Papers (refereed)

[J.1]   Abowd, Gregory D. and Kozak, John J. (Abowd is principal author, based on research work directed by Kozak) Pattern Development in Cellular Automata Triggered by Site-Specific Reactive Processes, *Physics Letters A*, **127**(3), February 15, 1988.

[J.2]   Abowd, Gregory D. and Dix, Alan J. (Equal contribution by both authors) Giving undo attention, *Interacting with Computers*, **4**(3):317:342, 1992.

[J.3]   Abowd, Gregory D., Robert Allen, and David Garlan. (Significant contribution by all authors with Abowd as principal author) Formalizing style to understand descriptions of software architecture. *ACM Transactions on Software Engineering and Methodology*. **4**(4):319-364, October 1995.

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[B.8] Abowd, Gregory D. and Jason Brotherton (equal contribution by both authors) eClass. Chapter 6 in Hazemi, Reza, Stephen Hailes and Steve Wilbur (eds.) *The Digital University: Building a Learning Community*, London: Springer Verlag, 2002, pp.252, ISBN 185233-478-9.

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D. Conference Presentations

D.1. Invited Keynote and Distinguished Lecture addresses

[K.1] The Impact of New Technology in Education: Classroom 2000 and Beyond. Keynote presentation at Mobility Foundation Annual Conference, Los Angeles, CA. March 1, 1998.

[K.2] Building Software for Mobile and Ubiquitous Computing Applications. Invited presentation at IEEE CS Annual Workshop on VLSI: System Level Design. Orlando, FL, April 16, 1998.

[K.3] Building a digital library of captured experiences. International Conference on Digital Libraries. Invited

keynote address, Kyoto, Japan, November, 2000.

[K.4] Designing and Building Living Laboratories for Ubiquitous Computing Research: Opportunities for Software Engineering Research. Keynote address for Promodis (Programming of Modular and Distributed Systems) Swedish National conference, December 11, 2000.

[K.5] Computing in living laboratories: Beyond dreaming beyond the desktop. State of Louisiana Center for Advanced Computing Studies Distinguished Lecture, Lafayette, March 8, 2002.

[K.6] Computing in living laboratories: A grand challenge. Invited keynote address at the High Performance and Distributed Computing Conference (HPDC 2002), Edinburgh, Scotland, July 22-24, 2002.

[K.7] Research challenges in ubiquitous computing. Invited keynote speaker at National Academy of Engineering Joint North America/Japan Frontiers in Engineering Symposium, Japan October 2002.

[K.8] Abowd, Gregory D. Programming environments…literally: Ubicomp's grand challenge for software engineering. Opening keynote at ACM SIGSOFT Foundations of Software Engineering conference, Charleston, S.C., Nov. 20-22, 2002.

[K.9] Challenges for applications research in ubiquitous computing. University of California, Irvine Institute for Research on Software (IROS) Distinguished Lecture, Irvine, CA, Jan. 17, 2003.

[K.10] Ubiquitous computing: Information technology challenges for the next 40 years. Invited keynote at 40th anniversary of the Chicago chapter of ACM, Chicago, IL, April 23, 2003.

[K.11] Programming Environments: A grand challenge for ubiquitous computing. Invited keynote address at ENC 2003, the Fourth Mexican International Conference on Computer Science, September 10, 2003.

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[C.30] Brotherton, Jason and Gregory Abowd (significant contributions by Brotherton and Abowd, principal authorship by Brotherton) Rooms Take Note: Room Takes Notes! *Proceedings of the AAAI Spring Symposium on Intelligent Environments.* AAAI Technical Report SS-98-02, pages 23-30, March 1998.

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[C.44] Kidd, Cory K., Robert Orr, Gregory D. Abowd, Christopher G. Atkeson, Irfan A. Essa, Blair MacIntyre, Elizabeth Mynatt, Thad E. Starner and Wendy Newstetter.(principal contributions and authorship by Kidd and Abowd) The Aware Home: A Living Laboratory for Ubiquitous Computing Research. *Proceedings of the Second International Workshop on Cooperative Buildings — CoBuild'99. Position paper.* October 1999.

[C.45] Dey, Anind K., Masayasu Futakawa, Daniel Salber and Gregory D. Abowd. (significant contributions by Dey, Salber and Futakawa, principal authorship by Dey, Salber and Abowd) The Conference Assistant: Combining context-awareness with wearable computing. In the *Proceedings of the International Symposium on Wearable Computers — ISWC'99*, pp. 21-28, October 1999.

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[C.50] Chervenak, Ann L., Vivekand Vellanki, Nissim Harel and Gregory D. Abowd (principal research and authorship by Chervenak, Vellanki and Harel) Workload of a Media-Enhanced Classroom Server. *Proceedings of the IEEE Workshop on Workload Characterization*, October 1999.

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[C.53] Orr, Robert and Gregory D. Abowd (principal research and authorship by Orr) The smart floor: A mechanism for natural user identification and tracking. *Companion Proceedings of CHI 2000*, Short paper. May 2000.

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[C.59] Maria Pimentel, Alessandra Macedo and Gregory Abowd (significant research and authorship by Pimente and Macedo) Linking Homogeneous Web-based Repositories. *International Workshop on Information Integration on the Web -Techologies and Applications*, April 9-11, 2001, Rio de Janiero, Brazil.

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[C.61] Nagel, Kristine, Cory Kidd, Thomas O'Connell, Anind Dey and Gregory D. Abowd (significant research by all, principal authorship by Nagel and Abowd) The Family Intercom: Developing a context-aware audio communication system. *Proceedings of Ubicomp 2001*, September 30-October 2, 2001, Atlanta, GA, pp. 176-183.

[C.62] Richter, Heather, Gregory D. Abowd, Werner Geyer, Ludwin Fuchs, Shahrokh Daijavad and Steven Poltrock (significant research by all, principal authorship by Richter and Abowd) Integrating meeting capture within a collaborative team environment. *Proceedings of Ubicomp 2001*, September 30-October 2, 2001, Atlanta, GA, pp. 123-138.

[C.63] Stevens, Molly, Florian Vollmer and Gregory D. Abowd (principal work by Stevens and Vollmer, shared authorship) The Living Memory Box: Function, Form and User Centered Design. In *Proceedings of CHI 2002, Companion Proceedings.* Interactive poster. Minneapolis, MN, April 2002.

[C.64] Abowd, Gregory D. Programming Environments: A Grand Challenge for Computing. To be presented at Computing Research Association Grand Challenges in Computing workshop, June 23-26, 2002. One of 50 invitees to attend conference based on submitted paper. Online version available at http://www.cra.org/Activities/grand.challenges/proposals.html.

[C.65] Dey, Anind, Jennifer Mankoff, Gregory D. Abowd and Scott Carter (principal research and authorship by Dey and Mankoff) Distributed mediation of ambiguous context in aware environments. In *Proceedings of the Symposium on User Interface Software Technology — UIST* 2002, Paris, France, October, 2002, pp. 121-130.

[C.66] Hayes, Gillian, Jeff Pierce and Gregory D. Abowd (principal research by Hayes, authorship by all; 38% acceptance rate) Practices for Capturing Short Important Thoughts, In *Proceedings of CHI 2003, Companion Proceedings.* Interactive poster. Ft. Lauderdale, FL, April 2003.

[C.67] Stevens, Molly, Gregory D. Abowd, Khai N. Truong and Florian Vollmer (principal research and authorship by Stevens; 50% acceptance rate) Getting into the Living Memory Box: Family archives and holistic design. In *Proceedings of the 1st Internaitonal Conference on Appliance Design (1AD)*, Bristol, England, May 6-8, 2003.

[C.68] Heather A. Richter, Chris Miller, Gregory D. Abowd, and Harry Funk. (principal research and authorship by all) Tagging Knowledge Acquisition To Facilitate Knowledge Traceability. In *Proceedings of the Conference on Software Engineering and Knowledge Engineering (SEKE)*, pp. 432-439 July 2003.

[C.69] Werner Geyer, Heather A. Richter, and Gregory D. Abowd. (principal research and authorship by Geyer and Richter) Making Multimedia Meeting Records More Meaningful. In *Proceedings of the IEEE International Conference on Multimedia and Expo (ICME 2003)*, Baltimore, MD, pp. 669-672, Vol.2. July 2003.

[C.70] Patel, Shwetak N. and Gregory D. Abowd (principal research and authorship by both) A 2-way laser-assisted selection scheme for handhelds in a physical environment. In *Proceedings of the International Conference on Ubiquitous Computing (Ubicomp 2003)*. Seattle, WA, October 2003. pp. 200-207.

[C.71] Summet, Jay, Matthew Flagg, Jim Rehg, Gregory Corso and Gregory D. Abowd (principal research and authorship by Summet, Flagg and Rehg). Increasing the usability of Virtual Rear Projection. *IEEE International Workshop on Projector-Camera Systems (PROCAMS)* held in conjunction with the *International Conference on Computer Vision (ICCV 2003)*, Nice, France, October 2003.

[C.72] Abowd, Gregory D., Matthias Gauger and Andreas Lachenmann (principal research and authorship by all; workshop accepted 15 of 90 submissions) The Family Video Archive: An annotation and browsing environment for home movies. In *ACM Workshop on Multimedia Information Retrieval (MIR 2003)*, Berkeley, CA, November 7, 2003, pp. 1-8.

[C.73] Ruddaraju, Ravi Antonio Haro, Kristine Nagel, Quan Tran, Irfan Essa, Gregory D. Abowd and Elizabeth Mynatt (principal research by Ruddaraju and Haro, authorship by Ruddaraju, Haro, Nagel, Tran and Essa) Perceptual User Interfaces using Vision-Based Eye Tracking. *Proceedings of the Fifth International Conference on Multimodal Interfaces (ICMI-PUI'03)*, November 2003, pp. 227-233, ACM Press, Vancouver B.C., Canada.

[C.74] Truong, Khai N., Heather Richter, Gillian R. Hayes and Gregory D. Abowd (principal research and authorship by Truong and Richter) Devices for Sharing Thoughts and Affection at a Distance. In the *Extended Abstracts of ACM Human Factors in Computing Systems: CHI 2004* (April 24-29, 2004, Vienna, Austria), 2004, pp. 1203-1206.

[C.75] Truong, Khai N., Elaine M. Huang, Molly M. Stevens and Gregory D. Abowd (principal research and

authorship by Truong and Huang) How do users think about ubiquitous computing? In the *Extended Abstracts of ACM Human Factors in Computing Systems: CHI 2004* (April 24-29, 2004, Vienna, Austria), 2004, pp. 1317-1320.

[C.76] Truong, Khai N. and Gregory D. Abowd (principal research by Truong, authorship by both) INCA: A software infrastructure to facilitate the construction and evolution of ubiquitous capture and access applications. In *Proceedings of Pervasive 2004: The 2nd International Conference on Pervasive Computing*, Vienna, Austria, April 2004, pp. 140-157.

[C.77] Harvel, Lonnie D., Ling Liu, Gregory D. Abowd, Yu-Xi Lim, Chris Scheibe and Chris Chatham (principal research by Harvel, authorship by Harvel, Liu and Abowd) Context Cube: Flexible and effective manipulation of sensed context data. In *Proceedings of Pervasive 2004: The 2nd International Conference on Pervasive Computing*, Vienna, Austria, April 2004, pp. 51-68.

[C.78] Harvel, L., Newstetter, W., Truong, K., Abowd, G.D., (principal research and authorship by Harvel) WIP: Supporting automatic capture in problem based learning environments; *Proceedings of the Frontiers in Education Conference 2004,* Savannah, Georgia, October 2004.

[C.79] Pak, Richard, Rodney E. Peters, Wendy A. Rogers, Arthur D. Fisk and Gregory D. Abowd (principal research by Pak and Peters, principal writing by Pak) Toward an understanding of why older adults lose and how they find everyday objects in the home. *Proceedings of the 10th Cognitive Aging Conference*, Atlanta, GA, April 1-4, 2004.

[C.80] Pak, Richard, Rodney E. Peters, Wendy A. Rogers, Arthur D. Fisk and Gregory D. (principal research by Pak and Peters, principal writing by Pak) An analysis of why people lose objects, how they find them, and their attitudes about a technology aid. In *Proceedings of the Human Factors and Ergonomics Society 48th Annual Meeting*, New Orleans, LA, September 20-24, 2004.

[C.81] Gillian R. Hayes, Shwetak N. Patel, Khai N. Truong, Giovanni Iachello, Julie Kientz, Rob Farmer and Gregory D. Abowd (principal research and authorship by Hayes, Patel, Truong, Iachello, Kientz and Abowd) The Personal Audio Loop: Designing a ubiquitous audio-based memory aid. In the *Proceedings of Mobile HCI 2004: The 6th International Conference on Human Computer Interaction with Mobile Devices and Services* (September 13-16, Glasgow, Scotland), 2004, pp. 168-179.

[C.82] Truong, K.N., Elaine M. Huang and Gregory D. Abowd. (principal research and authorship by Truong and Huang, less than 20% acceptance rate) CAMP: A magnetic poetry interface for end-user programming of capture applications for the home. In the *Proceedings of UBICOMP 2004: The 6th International Conference on Ubiquitous Computing*, Nottingham, England, September 7-10, 2004, pp.143-160.

[C.83] Hayes, Gillian.R., Julie A. Kientz, Khai N. Truong, David R. White, Gregory D. Abowd and Trevor Pering. (principal research by Hayes, Kientz and White, authorship by all, less than 20% acceptance rate) Designing Capture Applications to Support the Education of Children with Autism. In the *Proceedings of UBICOMP 2004: The 6th International Conference on Ubiquitous Computing*, Nottingham, England, September 7-10, 2004, pp.161-178.

[C.84] Patel, Shwetak N. and Gregory D. Abowd. The ContextCam: Automated point of capture video annotation. In the *Proceedings of UBICOMP 2004: The 6th International Conference on Ubiquitous Computing*, Nottingham, England, September 7-10, 2004, pp.301-318.

[C.85] Patel, Shwetak N., John. A. Bunch, Kyle.D. Forkner, Logan.W. Johnson, Tiffany M. Johnson, Michael.N. Rosack and G. D. Abowd. (principal research by Bunch, Forknew, Johnson and Rosack, principal authorship by Patel) The Design and Implementation of Multi-player Card Games on Multi-user Interactive Tabletop Surfaces. In the *Proceedings of International Conference on Entertainment Computing (ICEC)* 2004, September, Eindhoven, The Netherlands, 2004.

[C.86] Patel, Shwetak N., Jeffrey S. Pierce and Gregory D. Abowd. (principal research and authorship by Patel and Pierce, less than 20% acceptance rate) A Gesture-based Authentication Scheme for Untrusted Public Terminals. To appear in the Proceedings of UIST 2004, October, Sante Fe, NM, 2004.

[C.87] Nagel, Kristine, James M. Hudson and Gregory D. Abowd (principal research by Nagel and Hudson, authorship by all, less than 20% acceptance rate) Predictors of availability in home life context-mediated communication. *In Proceedings of Computer Supported Collaborative Work (CSCW '04)*, Chicago, IL, November, 2004, pp. 497-506.

[C.88] Modahl, Martin, T. Scott Saponas, Bikash Aggarwal, Matthew Wollenetz, Umakishore Ramachandran and Gregory D. Abowd (principal research by all, principal authorship by Modahl, Saponas and Aggarwal, 58% acceptance rate). Toward a standard ubiquitous computing framework. In *Proceedings of the 2nd International Workshop on Mddleware for Pervasive and Ad-hoc Computing (MPAC 2004)*, Toronto, Canada, October 2004.

[C.89] Richter, Heather, Andrew Skaggs, and Gregory D. Abowd. (Principal work and authorship by Richter and Skaggs, acceptance rate 25%) Indexing Unstructured Activities with Peripheral Cues. In the *Extended Abstracts of ACM Human Factors in Computing Systems (CHI 2005)*, Portland, OR, April 2-7, 2005.

[C.90] Summet, Jay, Gregory D. Abowd, Gregory M. Corso and James M. Rehg (Principal work by Summet, Corso and Abowd, principal authorship by Summet and Abowd, acceptance rate 25%). Virtual rear projection: Do shadows matter? In the *Extended Abstracts of ACM Human Factors in Computing Systems (CHI 2005),* Portland, OR, April 2-7, 2005.

[C.91] Hayes, Gillian, Khai N. Truong, Gregory D. Abowd and Trevor Pering (Principal work by Hayes and Truong, principal authorship by all, acceptance rate 25%) Experience Buffers: A socially appropriate, selective archiving tool for evidence-based care. In the *Extended Abstracts of ACM Human Factors in Computing Systems (CHI 2005),* Portland, OR, April 2-7, 2005.

[C.92] Xuehai Bian, Gregory D. Abowd and James M. Rehg. (Principal work by Bian, principal authorship by Bian and Abowd, 15% acceptance rate) Using Sound Source Localization in a Home Environment. In *Proceedings of The 3rd International Conference on Pervasive Computing*. Munich, Germany, May 9-11, 2005. Springer-Verlag LNCS Volume 3660, pp 19-36.

[C.93] Ian Smith, Sunny Consolvo, Anthony LaMarca, Jeffrey Hightower, James Scott, Timothy Sohn, Jeff Hughes, Giovanni Iachello, and Gregory D. Abowd. (Principal work and authorship by all, 15% acceptance rate) Social Disclosure of Place: From Location Technology to Communication Practices. In *Proceedings of The 3rd International Conference on Pervasive Computing*. Munich, Germany, May 9-11, 2005. Springer-Verlag LNCS Volume 3660, pp 134-151.

[C.94] Richter, Heather, Chris Miller, Gregory D. Abowd and Idris Hsi (Principal work and authorship by Richter; authorship by all, 29% acceptance rate) An Empirical Investigation of Capture and Access for Software Requirements Activities. In *Proceedings of Graphics Interface 2005*, Victoria, British Columbia, Canada, May 9-11, 2005.

[C.95] Giovanni. Iachello, Ian Smith, Sunny Consolvo, Michael Chen, and Gregory .D. Abowd. (Principal work and authorship by Iachello) Developing Privacy Guidelines for Social Location Disclosure Applications and Services, *Proceeding of the 2005 Symposium On Usable Privacy and Security (SOUPS)*, July 6–8, 2005, ittsburgh, PA. ACM Press (2005) 65–76. **Best paper award.**

[C.96] Julie Kientz, Sebastian Boring, Gregory D. Abowd and Gillian R. Hayes. (principal work and authorship by Kientz, Boring, and Abowd, acceptance rate 9%) Abaris: Evaluating automated capture applied to structured autism interventions. *International Symposium on Ubiquitous Computing (Ubicomp 2005)*, Tokyo, Japan, March 2005, Springer-Verlag LNCS Volume 3660, pp 322-339.

[C.97] Patel, Shwetak N., Khai N. Truong, Jay Summet and Gregory D. Abowd (principal work and authorship by Patel, Truong and Summet, acceptance rate 9%) Preventing camera recording by designing a capture-resistant environment. *International Symposium on Ubiquitous Computing (Ubicomp 2005)*, Tokyo, Japan, March 2005, Springer-Verlag LNCS Volume 3660, pp 73-86.

[C.98] Giovanni Iachello, Gregory D. Abowd, Ian Smith, Sunny Consolvo (principal work by Iachello, Abowd, Smith and Consolvo, principal authorship by Iachello and Abowd, acceptance rate 9%). Control, deception and communication: Evaluating the deployment of a location-enhanced messaging service. *International*

Symposium on Ubiquitous Computing (Ubicomp 2005), Tokyo, Japan, March 2005, Springer-Verlag LNCS Volume 3660, pp 213-231.

[C.99] Shwetak N. Patel, Jun Rekimoto and Gregory D. Abowd (principal work by Patel and Rekimoto, principal authorship by Patel and Abowd, acceptance rate 13%) iCam: Precise at-a-distance Interaction in the Physical Environment. To appear in *Proceedings of The 4ᵗʰ International Conference on Pervasive Computing*. Dublin, Ireland, May 7-10, 2006. **Nominated for best paper award.**

D.3. Conference Presentations with Proceedings (non-refereed)

[CnR.1] Harrison, M. D., Gregory D. Abowd and Alan J. Dix. (Significant contribution by all three authors, presented by Harrison) State of the art: Formal aspects of user interfaces. Invited presentation at Eurographics'90 conference, May 1990.

[CnR.2] Abowd, Gregory D. (extended abstract reviewed by program committee) Using formal methods for the specification of user interfaces. In Selby, R., editor, Proceedings of the 2ndAnnual Irvine Software Symposium — ISS'92, pp. 109– 130. Irvine Research Unit in Software, University of California, Irvine, 1992.

[CnR.3] Abowd, Gregory D., Lonnie Harvel and Jason Brotherton (principal research and authorship by Abowd and Harvel). Building a digital library of captured educational experiences. Proceedings of 2000 International Conference on Dig*ital Libraries*, Invited paper to accompany keynote presentation [K.3]. Kyoto, Japan, November 2000.

D.4. Conference Presentations without Proceedings

[CnP.1] Abowd, Gregory D. Using formal methods of software engineering in HCI. Position paper for Basic Research Symposium at INTERCHI'93 conference, Amsterdam, April 1993.

[CnP.2] Abowd, Gregory D. and Bonnie E. John. (Significant contribution by Abowd through research directed by John) Using formal methods to improve the usability of Soar. Poster presented at HCI Consortium Winter Workshop, Fraser, Colorado, February 1994.

[CnP.3] Abowd, Gregory D. and Bonnie E. John. (Significant contribution by Abowd through research directed by John) Using formal methods to improve the usability of Soar. Paper presented at Soar-13 Workshop, Columbus, Ohio, March 1994.

[CnP.4] Abowd, Gregory D. Interface refinement. Position paper for Basic Research Symposium at CHI'94 conference, Boston, MA, April 1994.

[CnP.5] Abowd, Gregory D. Defining reference models and software architectural styles for cooperative systems. Position paper for CSCW'94 workshop on software architectures for cooperative systems, October 1994.

[CnP.6] Abowd, Gregory D. Automated dialogue verification. Position paper for Basic Research Symposium at CHI'95 conference, Denver, CO, May 1995.

[CnP.7] Dey, Anind and Gregory Abowd. (principal contributions and authorship by Dey) Position paper on wearable computing. Submitted to CHI'97 Workshop on Wearable Computing, January 1997.

[CnP.8] Dey, Anind and Gregory D. Abowd (Significant contributions from Dey, principal authorship by Dey). Cyberdesk demonstration. Presented at the User Interface Software Technology Symposium — UIST'97. October 1997.

[CnP.9] Dey, Anind K. and Gregory D. Abowd (principal research and authorship by Dey and Abowd) Towards a Better Understanding of Context and Context-Awareness. Presented at the CHI 2000 Workshop on The What, Who, Where, When, Why and How of Context-Awareness, April 1-6, 2000.

[CnP.10] Dey, Anind K. and Gregory D. Abowd (principal research and authorship by Dey) The Context Toolkit: Aiding the Development of Context-Aware Applications. In Workshop on Software Engineering for Wearable and Pervasive Computing, workshop affiliated with ICSE 2000 conference, Limerick, Ireland, June 6, 2000.

[CnP.11] O'Connell, Thomas, Peter Jensen, Anind Dey and Gregory D. Abowd. Location in the Aware Home. Position

paper for Workshop on Location Modeling for Ubiquitous Computing, at Ubicomp 2001 conference, September 30, 2001. See http://www.teco.edu/locationws.

[CnP.12] Richter, Heather and Gregory D. Abowd. Evaluating capture and access through authentic use. Position paper for Workshop on Evaluation Methodologies for Ubiquitous Computing, at Ubicomp 2001 conference, September 30, 2001. See http://zing.ncsl.nist.gov/ubicomp01.

[CnP.13] Nagel, Kristine S. and Gregory D. Abowd (principal research and authorship by Nagel). Developing a Context-Aware Audio System Supporting Interpersonal Communication Presented at the HCI Consortium Annual Workshop, January, 2002, Fraser, Colorado.

[CnP.14] Iachello, Giovanni and Gregory D. Abowd (principal research and writing by Iachello) Security requirements for environmental sensing technology, 2nd Workshop on Ubicomp Security, in conjunction with Ubicomp 2003. Oct. 2003, Seattle, WA, USA.

[CnP.15] White, David R., Jose Antonio Camacho-Guerrero, Khai N. Truong, Gregory D. Abowd, Michael J. Morrier, Pooja C. Vekaria and Diane Gromala (principal research by White and Camacho-Guerrero, principal authorship by White and Abowd) Mobile capture and access for assessing language and social development in children with autism. Ubicomp 2003 companion proceedings. Demo paper. Oct. 2003, Seattle, WA, USA.

D.5.   Conference tutorials

[CT.1]   Harrison, Michael D. and Gregory D. Abowd. (Significant contribution by both authors and equal presentation) Formal methods in human-computer interaction: a tutorial. Tutorial presentation for CHI'91 conference, New Orleans, LA, April 1991.

[CT.2]   Dix, Alan J. and Gregory D. Abowd. (Significant contributions by both authors and equal presentation) Applying formal methods to HCI research. Tutorial presentation for HCI'92 conference, York, England, September 15, 1992.

[CT.3]   Abowd, Gregory D. Evaluating user interface tools. Tutorial presented at HCI'94 conference, Glasgow, Scotland, August 23, 1994.

[CT.4]   Dix, Alan J. and Gregory D. Abowd. (Significant contributions by both authors and equal presentation) Formal methods and HCI. Tutorial presented at HCI'94 conference, Glasgow, Scotland, August 23, 1994.

[CT.5]   Abowd, Gregory D. Models and notations for interactive systems design and analysis. Tutorial presented at SIGSOFT'94 conference, New Orleans, LA, December, 1994.

[CT.6]   Abowd, Gregory D., Colin Potts and Spencer Rugaber. MORALE: Integrating techniques to support the evolution of software systems. Tutorial presented at the *International Conference on Software Maintenance — ICSM'99*. Oxford, England, August 30, 1999.

E. Other

E.1. Submitted Journal Papers

E.2.   Submitted Conference Papers

7 current submissions under review for CHI 2006 conference.

E.3. Submitted Books or Parts of Books

E.4. Journal papers (unrefereed)

[JnR.1]   Appelbe, B. and Abowd, G.D. (Equal contributions by both authors) Beyond objects: A response. *Software Engineering Notes,* **20**(3):45–48.

[JnR.2]   Abowd, Gregory D. What's in a name? Article in Beyond the Desktop: considering the future of interaction. In *SIGCHI Bulletin*, 2000.

[JnR.3]   Abowd, Gregory D. Challenges to construction beyond the desktop. Article in Beyond the Desktop: considering the future of interaction. In *SIGCHI Bulletin*, 2001.

[JnR.4]   Scholtz, Jean, Heather Richter and Gregory D. Abowd.. Report from Ubicomp 2001 Workshop: Evaluation methodologies for ubiquitous computing. Article in Beyond the Desktop: considering the future of interaction. In *SIGCHI Bulletin*, 2001.

[JnR.5]   Abowd, Gregory D. A search is a search… The impact of awareness technologies on privacy litigation. Article in Beyond the Desktop: considering the future of interaction. In *SIGCHI Bulletin*, 2001.

[JnR.6]   Abowd, Gregory D. Is that a PDA in your pocket, or are you just happy to see me? Article in Beyond the Desktop: considering the future of interaction. In *SIGCHI Bulletin*, 2002.

[JnR.7]   Abowd, Gregory D. Sometimes we aim too high. Article in Beyond the Desktop: considering the future of interaction. In *SIGCHI Bulletin*, 2002.

[JnR.8]   Edwards, Keith, Beki Grinter and Gregory D. Abowd. Smart Homes or homes that smart? Article in Beyond the Desktop: considering the future of interaction. In *SIGCHI Bulletin*, 2002

[JnR.9]   Abowd, Gregory D., Gaetano Borriello and Gerd Kortuem (equal contributions by all authors). Report from the Ubicomp education workshop. In *IEEE Pervasive Computing Magazine*, Volume 3, Number 1, January-March 2004, pp. 94-98.

E.5. Software

[S/W.1]   Zen-Star 1.0. Software system for automated capture, integration and access of university lectures. Produced as part of the Classroom 2000 project. Designers: Gregory Abowd, Jason Brotherton, Christopher Atkeson and Janak Bhalodia.

[S/W.2]   The Context Toolkit 1.0. Software framework for the development of context-aware computing applications. Designers: Gregory Abowd, Anind Dey and Daniel Salber.

[S/W.3]   StuPad 1.0. Software system that works with Zen-Star system [S/W.1], to provide personalized note-taking by students in Classroom 2000.

[S/W.4]   OOPS toolkit. Software system that supports reusable mediation strategies to handle ambiguity in recognition-based interfaces. Designers: Jennifer Mankoff, Scott E. Hudson (CMU) and Gregory D. Abowd.

[S/W.5]   INCA toolkit. Software framework for development of automated capture and access applications. Designers: Khai Truong and Gregory D. Abowd.

[S/W.6]   TeamSpace. Software for distributed meeting capture. Designers: Heather Richter, Khai Truong, Ludwin Fuchs (Boeing), Werner Geyer (IBM/Lotus) and Gregory Abowd

[S/W.7]   The Location Service. System to support fusion of separate location-sensing technologies. Designers: Thomas O'Connell and Agathe Battestini and Gregory Abowd.

[S/W.8]   The Walden automated tracking system prototype. Prototype capture application for mobile analysis of behaviors of children with autism. Designers: David White,

[S/W.9]   The Family Video Archive. System to support annotation and browsing of digital home movies. Designers: Gregory Abowd, Matthias Gauger, Andreas Lachenmann and Shwetak Patel.

[S/W.10] The Personal Audio Loop. Application developed for Motorola i-series handheld phones to support near-term audio reminders. Designers: Khai Truong, Shwetak Patel, Gillian Hayes, Julie Kientz, Giovanni Iachello, Rob Farmer and Gregory Abowd.

[S/W.11] Abaris. An automated capture application to support the discrete trial intervention therapy of ABA. Designers: Gregory Abowd. David White, Julie Kientz and 3911 Senior Design team (Aldrian Harjati, Mark Bernardi, Pavel Kremer, Chris Widjaja). Version 2.0 developed in Fall 2004 by Gregory D. Abowd, Julie Kientz and Sebastian Boring.

[S/W.12] CareLog. A system using the Intel Personal Server to support monitoring, diagnosis and intervention treatments of behavioral and learning disabilities in children. Designers: Gillian Hayes, Gregory Abowd and Trevor Pering (Intel).

[S/W.13] GT Sound Source Location system An indoor 16-microphone array system to deliver location of sound sources. Designers: Xuehai Bian, Jim Rehg and Gregory Abowd.

[S/W.14] The ContextCam. Automated video annotation system. Designers: Shwetak Patel and Gregory Abowd.

[S/W.15] Multi-user Card Game Engine for the DiamondTouch. Designers: Shwetak Patel. Gregory D. Abowd and 3911 Senior Design team (John Bunch, Kyle Forkner, Logan Johnson, Tiffany Johnson, Michael Rosack).

[S/W.16] LoCoL: a multiplayer location-aware game for mobile phones. Designers: Julie Kientz, Shwetak Patel and Jose Zagal.

[S/W.17] GVU Procams Toolkit. Designers: James Rehg, Jay Summet and Matt Flagg. Offers a programming interface designed to allow programmers quickly build projector/camera applications on a Win32 platform. Virtual Rear Projection system variants have been produced with this toolkit, under the advisement of Rehg and Abowd.

[S/W.18] The Capture Resistant Environment: Khai Truong, Jay Summet, Shwetak Patel and Gregory D. Abowd. Camera-projector system that prevents CCD-CMOS based phones and camcorders from being able to capture sensitive information in the environment. Selected as New York Times Magazine 2005 Top Idea of the Year and patent pending.

[S/W.19] Experience Buffers, Bufferware, CareLog FBA: Gillian Hayes, Khai Truong, Lamar Gardere, Ellen Matthews. Selective archiving infrastructure used to support informal sensor data capture with annotation. Subject of pending utility patent.

E.6. Technical Reports

[TR.1]   Abowd, Gregory D, Alan J. Dix, Michael D. Harrison, Roger Took and Jonathan Bowen. (Significant contributions by Abowd, Dix, Harrison and Took, Bowen was editor). User interface languages: a survey of existing methods. Oxford University Computing Laboratory, Programming Research Group, Technical Report PRG-TR-5-89, October 1989.

[TR.2]   Abowd, Gregory D., editor. A collection of papers on HCI. Department of Computer Science, University of York, Technical Report YCS 156, 1991.

[TR.3]   Abowd, Gregory D., Peter C. Wright and Michael D. Harrison. (Significant contributions by Abowd and Wright as research directed by Harrison) User-centred design of avionics systems: State of the art and current practice at BAe. Dependable Computing Systems Centre, University of York, Technical Report TR/92/10, 1992.

[TR.4]   Abowd, Gregory D., Len Bass, Larry Howard and Linda Northrop. (Significant contribution by all authors, Abowd principal author) Structural modeling: an application framework and development process for flight simulators. Software Engineering Institute, Carnegie Mellon University, Technical Report CMU/SEI-93-TR-14, ESC-TR93-192, August 1993.

[TR.5]   Kazman, Rick, Len Bass, Gregory D. Abowd and S. Mike Webb. (Significant contribution by Kazman, Bass and Abowd, Kazman as principal author) Analyzing the properties of user interface software. Computer Science Department, Carnegie Mellon University, Technical Report CMU-CS-93-201, October 1993.

[TR.6]   Wang, Hung-Ming and Gregory D. Abowd. (Significant contribution by both authors, Wang principal author) A tabular interface for automated verification of event-based dialogs. Computer Science Department, Carnegie Mellon University, Technical Report CMU-CS-94-189, October 1994.

[TR.7]   Abowd, Gregory D., Rob Allen and David Garlan. (Significant contribution and authorship by all authors) Using style to understand the descriptions of software architectures. Computer Science Department, Carnegie Mellon University, Technical Report CMU-CS-95-111, January1995.

[TR.8]   Abowd, Gregory D., Jim Pitkow and Rick Kazman. (Significant contributions from all, with Abowd as principal author) Analyzing differences between Internet information system software architectures. GVU Center, Georgia Institute of Technology, Technical Report, GIT-GVU-95-34, October 1995.

[TR.9]   Kazman, Rick, Gregory D. Abowd, Len Bass and Paul Clements. (Significant contributions from Kazman, Abowd and Clements) Scenario-Based Analysis of Software Architecture. College of Computing, Georgia Institute of Technology, Technical Report GIT-CC-95-33, October 1995. Version of paper submitted for review to *IEEE Software*.

[TR.10] Sawhney, Nitin, Gregory D. Abowd and Christopher G. Atkeson.(principal research by all, principal authorship by Abowd) Can Electronic Notebook Enhance the Classroom? GVU Center, Georgia Institute of Technology, Technical Report, GIT-GVU-96-06, February, 1996.

[TR.11] Stirewalt, Kurt, Spencer Rugaber and Gregory D. Abowd. (principal research by Stirewalt, principal authorship by Stirewalt) Automating the Design of Specification Interpreters. GVU Center, Georgia Institute of Technology, Technical Report, GIT-GVU-96-14, March, 1996.

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[TR.40] Truong, Khai N. and Gregory D. Abowd (principal research by Troung, joint authorship) Enabling the generation, preservation and use of records and memories of everyday life. GVU Technical Report GIT-GVU-02-02, January 2002.

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[TR.42] Summet, Jay, Ramswaroop Somani, Gregory D. Abowd and Jim Rehg (principal research and authorship by all) Interactive walls: addressing the challenges of   large-scale interactive surfaces. Georgia Institute of Technology, GVU Center Technical Report GIT-GVU-02-35, September 2002.

[TR.43] Abowd, Gregory D., Agathe Battestini and Thomas O'Connell (principal research by all, primary authorship by Abowd) The Location Service: A framework for handling multiple location sensing technologies. GVU Technical Report GIT-GVU-03-07, March 2003.

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[TR.45] Hayes, Gillian. R., Jeff S. Pierce and Gregory D. Abowd (principal research and authorship by Hayes and Pierce) User Trends in the Capture and Access of Short Important Thoughts. Georgia Institute of Technology Technical Report GIT-GVU-03-09. April 2003.

[TR.46] Summet, Jay, Gregory D. Abowd, Gregory M. Corso and Jim Rehg (principal research by Summet, authorship by Abowd and Summet) Virtual Rear Projection: A comparison study of projection technologies large interactive displays. Georgia Institute of Technology, GVU Center Technical Report GIT-GVU-03-36, November 2003.

[TR.47] Peters, Rodney E., Rich Pak, Gregory D. Abowd, Wendy A. Rogers and A. Dan Fisk (principal research by Peters and Pak, authorship by all) Finding Lost Objects: Informing the design of ubiquitous computing services for the home. Georgia Institute of Technology, GVU Center Technical Report GIT-GVU-04-01, January 2004.

[TR.48] Bian, X., Rehg, J. and Abowd, G.D. Sound Source Localization in Home Environment. Georgia Institute of Technology, GVU Center Technical Report GIT-GVU-04-06, February 2004.

[TR.49] Patel, S.N., Kientz, J. A. and Zagel, J.P. LoCoL: Encouraging Social Interaction and Exploration Through a Distributed, Multi-Media, Location-Based Mobile Game. Georgia Institute of Technology, GVU Center Technical Report GIT-GVU-04-17, May 2004.

[TR.50] Bian, X., Abowd, G.D., and Rehg, J.M. Using Sound Source Localization to Monitor and Infer Activities in the Home. Georgia Inst. of Technology, GVU Center Technical Report GIT-GVU-04-20 (2004)

E.7. Patents and other Relevant Intellectual Property

[IP.1] Gregory D. Abowd, Khai N. Truong, Jay Summet and Shwetak Patel. Systems and Methods for Disabling Recording Features of Cameras. U.S. Patent Application Serial No. 20040202382. Pending as of November 2005.

[IP.2] Gregory D. Abowd, Khai N. Truong, and Gillian R. Hayes. Systems and Methods for Archiving of Continuous Capture Bufers. U.S. Patent Application (no serial number assigned yet). To be submitted December 2005.

F. Panels and other Invited Presentations

[I.1]   (with Jason A. Brotherton) Classroom 2000: An experiment in automated capture and access in an educational environment. Invited lecture at Microsoft Research, January 15, 1999.

[I.2]   Classroom 2000: An experiment in automated capture and access in an educational environment. Distinguished Lecture, Computer Science Department, Brown University. March 12, 1999.

[I.3]   Research experiences in automated capture applied to an educational environment. Distinguished Lecture Vassar University, April 15, 1999.

[I.4]   (with Barry Boehm, John Knight and David Parnas) Panel: The relevance to industry of software engineering research in academia. Motorola Software Engineering Symposium — SES'99, Ft. Lauderdale, FL, June 23, 1999.

[I.5]   (with Richard N. Taylor) Panel: Software Architecture trends. Motorola Software Engineering Symposium — SES'99, Ft. Lauderdale, FL, June 23, 1999.

[I.6]   Gregory D. Abowd. Panel: Technology Enhanced Learning. Internet2 Sociotechnical Summit. Ann Arbor, MI, Sept. 13-15, 1999.

[I.7]   Gregory D. Abowd and Anind Dey (moderators); Peter J. Brown, Nigel Davies, Mark Smith and Pete Steggles (panelists). Panel: Towards a better understanding of context and context-aware computing. International Symposium on Handheld and Ubiquitous Computing — HUC'99. Karlsruhe, Germany, September 27-29 1999.

[I.8]   Classroom 2000: Investigating automated capture in an educational setting. Carnegie Mellon HCI Institute Seminar, Pittsburgh, PA, October 13, 1999.

[I.9]   Computing Beyond Your Dreams: Opportunities and Challenges for Cyberenvironments. Georgia Tech College of Computing John P. Imlay Dean's Lecture, November 4, 1999.

[I.10]   Automated capture in a living laboratory: Classroom 2000. University of Washington Computer Science Seminar, Seattle, WA, November 22, 1999.

[I.11]   Ubiquitous computing environments: Research accomplishments and future visions. Oregon Graduate Institute Center for Human-Computer Communication Distinguished Lecture Series on the Future of Human-Computer Interaction, February 4, 2000.

[I.12]   Examining ubiquitous computing and automated capture and access in a living laboratory. Michigan-Ohio SIGCHI Chapter, invited lecture, February 11, 2000.

[I.13]   Future Computing Environments Research. Invited talk to Andersen Consulting (now Accenture) Center for Strategic and Advanced Research (CSTaR), June 5, 2000. Joe McCarthy host.

[I.14]   Research Challenges in Ubiquitous Computing. Invited lecture as Schlumberger Technical Fellow, September 15, 2000. Meyer Bengio host.

[I.15]   Research in Future Computing Environments. Invited presentation at Sony Computer Science Labs, Tokyo, Japan, November 13, 2000. Jun Rekimoto host.

[I.16]   Research in Future Computing Environments. Invited presentation at ATR MIC Labs, Kyoto, Japan, November 17, 2000. Kenji Mase host.

[I.17]   Research in Future Computing Environments. Invited presentation at NEC Research Labs, Kyoto, Japan, November 17, 2000. Mikiya Tani and Yoshihide Ishiguro hosts.

[I.18]   Research in Future Computing Environments. Invited presentation at the Interactive Institute, Gothenberg, Sweden, December 12, 2000. Lars-Erik Holmquist host.

[I.19]   Abowd, Gregory D. Beyond Dreaming Beyond the Desktop: Challenges in Building and Evaluating Ubiquitous Computing Applications. Invited talk at IBM Research, Watson talk, May 2001.

[I.20]   Abowd, Gregory D. Beyond Dreaming Beyond the Desktop: Challenges in Building and Evaluating Ubiquitous Computing Applications. Invited talk at Lucent Labs, Illinois, June 11 2001.

[I.21]   (with James Rowan). Intel Smart Home Forum invited talk: As We May Live: Building an Aware Home. August 2, 2001.

[I.22]   As We May Live: The Georgia Tech Broadband Institute Residential Laboratory and the Aware Home Research Initiative. Invited 45-minute presentation as part of panel for American Society of Interior Designers meeting, New Orleans, LA, Feb. 16, 2002.

[I.23]   If a classroom could listen, would anyone care? Experiences with eClass. Invited lecture at University of Toronto Knowledge Media Design Institute Spring 2002 Seminar Series, March 6, 2002.

[I.24] Building a research program on ubiquitous computing in the home. Invited lecture at University of Texas, Arlington, March 25, 2002.

[I.25] Applications research in ubiquitous computing. Invited talk for National Academy of Engineering Joint Japan America Frontiers of Engineering Symposium, Nov. 2002.

[I.26] (joint with T. Rodden, W. Gaver, J. Wejchert) Panel on ubiquitous computing in the home. At Ubicomp 2002 conference, Gothenberg, Sweden, October 2002.

[I.27] As we may live. Invited talk to Michigan-Ohio ACM SIGCHI Special Interest Group (MOCHI), Ann Arbor, MI, Feb. 12, 2003.

[I.28] As we may live. Invited talk to Microsoft Research, Seattle, WA, March 3, 2003.

[I.29] As we may live. Invited talk to Intel Research, Seattle, WA, March 4, 2003.

[I.30] The Role of Technology for Healthy Aging. Statement prepared and presented by Gregory D. Abowd to U.S. Senate Special Committee on Aging, hearing on Baby Boomers at the Gate: Enhancing Independence through Innovation and Technology. May 20, 2003. Full statement available at http://aging.senate.gov/hearings/hr101ga.pdf

[I.31] The Role of Technology for Healthy Aging. Presentation to the National Governor's Association annual meeting, New Orleans, October 11, 2003.

[I.32] Ubiquitous Computing: An overview of research accomplishments and challenges. Delivered to Samsung Electronics Research, Seoul, Korea, Nov. 18, 2003.

[I.33] eClass: A retrospective. Invited presentation to Web Group at University of Notre Dame, Indiana, March 2, 2004.

[I.34] Realizing the dream of ubiquitous computing: It's all in the family. Invited seminar to CSE Department, University of Notre Dame, Indiana, March 2, 2004.

[I.35] Progress update on the Aware Home Research Initiative. Invited presentation to Intel, Hillsborough, OR, March 11, 2004.

[I.36] Pervasive Technologies and applications for a Smart Home. Invited presentation and panel participation at George Washington University, May 20, 2004.

[I.37] Technologies to Track Interventions for Autism. Invited presentation to Cure Autism Now Innovative Technologies for Autism Think Tank, June 11-13, 2004, San Francisco, CA.

[I.38] Application-led research in ubiquitous computing. Panel presentation in UbiApp workshop, held in conjunction with Pervasive Computing Conference, May 11, 2005. Munich, Germany. Other panelists included Gaetano Borriello, William Newman, and Abigail Sellen.

G. Research Proposals and Grants (Principal Investigator)

G.1. Awarded

1. An architectural case study in telecommunications
Bell Northern Research
Amount awarded: $20,000 for one year, beginning June 1995.

2. Software architectures for global information systems
Motorola University Partnerships in Research Program
Amount awarded: $27,389 for one year, beginning September 1996 and renewable yearly.

3. MORALE: Mission Oriented Architectural Legacy Evolution
Gregory Abowd, Ashok Goel, W. Michael McCracken, Melody Moore, Colin Potts, Spencer Rugaber and Linda Wills.
ARPA Grant awarded in response to BAA #95–05 Evolutionary Design of Complex Software
Amount awarded: $1,226,108 for 44 months, beginning July 1996.

4. Classroom 2000

Gregory Abowd and Christopher Atkeson
GVU Industrial Affiliates Program funding from NEC
Amount awarded: $30,000 for one year, beginning January 1996.

5. Ubiquitous Computing
   Gregory Abowd and Christopher Atkeson
   GVU Industrial Affiliates Program funding from FX-PAL
   Amount awarded: $25,000 for one year, beginning September 1996.

6. Applications of Java to the monitoring and control of physical systems
   Gregory Abowd and Christopher Atkeson
   GVU Industrial Affiliates Program funding from Siemens
   Amount awarded: $30,000 for one year, beginning April 1997.

7. Future Computing Environments
   Gregory Abowd
   GVU Industrial Affiliates Program funding from Mitsubishi Electronic Research Laboratory
   Amount awarded: $30,000 for one year, beginning January 1997.

8. Service creation and development environments for audio interfaces.
   G. Abowd and C. Potts
   Proposal to Motorola Cellular Infrastructure Group
   Amount awarded: $100,000 for one year, beginning January 1997.

9. The Home Information Infrastructure lab
   G. Abowd, K. Calvert, D. Howard
   Proposal to Intel to fund research through the Broadband Telecommunications Center
   Amount awarded: $60,000 for one year, beginning January 1997.

10. Research in Mobile and Ubiquitous Computing
    G. Abowd and C. Atkeson
    Grant from the Mobility Foundation (a subsidiary of Mobile Insights) for continued work on projects
    such as Classroom 2000
    Amount awarded: $19,000, in March and October1997.

11. Investigating research issues in ubiquitous computing:The capture, integration, and access problem
    Gregory Abowd
    NSF CAREER program
    Amount requested: $438,376 over 5 years, beginning September 1997.
    Amount awarded: $438,376 under grant IRI-9703384

12. Classroom 2000 infrastructure
    Gregory Abowd
    Sun Microsystems Academic Equipment Grant
    Amount requested: $270,000 as equipment
    Amount awarded: $270,000.

13. Educational innovation
    joint proposal by College of Computing and Electrical and Computer Engineering
    Hewlett-Packard
    Amount awarded: $1.3 million deep-discounted equipment (CoC receives $289,360 in first year).

14. Research in capture, integration and access
    Gregory Abowd
    Corporation for National Research Initiatives
    Amount awarded: $25,000 cash and $8000 equipment

15. Collaborative environments for capturing military tactics
    Gregory Abowd
    Army Research Laboratory
    Amount requested: $85,000, May-September 1998
    Amount awarded: $85,000, extended March-September 1999 for $50,000 with GTRI as collaborator

16. Automated Understanding of Captured Experience
    G. Abowd, C. Atkeson and I. Essa
    Submitted to NSF Experimental Software Systems Program
    Amount requested: $850,000 for 3 years, starting July 1998.
    Amount awarded: $850,000

17. Future Computing Environments research
    Gregory Abowd
    Hitachi Corporation
    Amount awarded: $30,000 for one year, starting August 1998.

18. Future Computing Environments research
    Gregory Abowd
    NEC Corporation
    Amount awarded: $50,000 for one year, starting October 1998.

19. Augmenting the Capture and Understanding of Everyday Experiences
    Gregory Abowd (PI), Atkeson, Essa,MacIntyre, Mynatt, Potts, Ramachandran, Ribarsky, Rugaber and Starner (co-PIs)
    National Science Foundation CISE Infrastructure Grant
    Amount requested: $200,000 (with $67,000 matching from Georgia Tech)
    Amount awarded: $120,000 (with $40,000 matching from Georgia Tech), 3 years starting January 1999.

20. Inter-Agency Workshop on Smart Environments
    Gregory D. Abowd (PI)
    National Science Foundation
    Amount requested: $27,496
    Amount rewarded: $27,496, August-December 1999.

21. Development and Understanding of Automated Capture Environments to Support Long-Term Use
    Gregory D. Abowd (PI), Maria da Graca Pimentel (co-PI through CNPq in Brazil)
    Joint program between National Science Foundation and CNPq in Brazil
    Amount requested: $201,670 (with $18,000 GT matching)
    Amount rewarded: $201,670 (with $18,000 GT matching), July, 2000 - June 2003

22. Handling sensed context in a ubiquitous computing setting
    Gregory D. Abowd
    DARPA ITO Ubiquitous Computing/Expeditions seed grant
    Amount requested: $200,000

Amount awarded: $200,000 January - December 2000

23. Battlefield Visualization System
   Gregory Abowd and Kirk Pennywitt (GTRI), co-PIs
   Army Research Labs
   Amount requested: approx. $100,000 for CoC.
   Amount awarded: appox. $100,000 for CoC

24. Security and the Context Toolkit
   Gregory D. Abowd and Mustaque Ahamad (co-PIs)
   Georgia Tech Broadband Institute
   Amount requested: $60,000
   Amount awarded: $60,000, July 2000 - June 2001

25. The Aware Home Research Initiative
   Gregory D. Abowd (director), Aaron Bobick (former co-director), Irfan Essa, Blair MacIntyre,
   Elizabeth Mynatt,Thad Starner
   Gift program to GT Foundation from corporate sponsors to sponsor FCE activities in the Aware Home
   Amount received: $410,000 from Intel, HP, MERL, Motorola, Accenture CSTaR for 2000-2001. For
   2001-2002, we have received $195,000 from Intel, Motorola, Visteon and HP Labs. For 2002-2003,
   we received $100K from Intel and HP Labs.

26. The Aware Home: Sustaining the Quality of Life for an Aging Population
   G. Abowd (PI), Aaron Bobick, Irfan Essa, Elizabeth Mynatt and Wendy Rogers (Psyhology) (co-PIs)
   Proposal submitted to NSF Information Technology Research Initiative
   Amount requested: $5,000,000 over 5 years, starting September 2001.
   Amount awarded: $1,600,000 over 5 years (with $90,000 GT matching)

27. NSF/NMI: Exploration of Middleware Technologies for Ubiquitous Computing with Applications to
   Grid Computing
   PI: Umakishore Ramachandran, co-PIs: Gregory Abowd, Raj Kumar (HP Labs), Sujoy Basu (HP
   Labs)
   Proposal submitted to NSF Middleware Initiative (NMI)
   Amount requested: $500,000 over 3 years, submitted March 2003.

28. Developing automated capture applications for the Personal Server.
   PI: Gregory Abowd
   Proposal submitted to Intel Research SRP directed by Roy Want
   Amount awarded: $50,000 in December 2003.

29. Sensor and Actuator Infrastructure for Digital Home
   PI: Gregory Abowd
   Proposal submitted to Intel Corporation, through Intel Research Berkeley, co-directed by Kurt Brown
   Amount awarded: $10,000

30. Technology support to track the effectiveness of interventions therapies for children with autism
   PI: Gregory Abowd
   Proposal submitted to the Cure Autism Now Foundation Innovative Technologies for Autism program
   Amount awarded: $36,294 for one year, starting January 1, 2005.

31. People and Devices: Application-driven research into mobile phones as individual proxies

PI: Gregory D. Abowd
Intel Research Council (AIM Committee)
Amount awarded: $75,000 for one year starting July 2005.

32. Using capture technologies to support digital health
    PI: Gregory D. Abowd
    Intel Research (Roy Want)
    Amount awarded: $50,000 for one year starting August 2005.

G.2.   Pending

1. Project IMPROVE: Engineering Research Center for Proactive Health
   PI: Philippe Fauchet (U. Rochester), co-PIs: Gregory Abowd, Kent Larson (MIT), Abdelsalam Helal (U. Florida)

G.3. Not Funded (last three years)

1. Engineering Research Center for Proactive Health
   PI: Philippe Fauchet (U. Rochester), co-PIs: Gregory Abowd, Kent Larson (MIT), Abdelsalam Helal (U. Florida)
   National Science Foundation
   Amount requested: $2-4 million for 10 years, submitted 2002

2. ITR: Capture Access & Assessment for Distributed Engineering Education
   Tom Barnwell (PI, GT-ECE), co-PIs: Catherine Finnegan (BoR) Libby Morris (BoR), Gregory Abowd (PI), Monson Hayes (GT ECE)
   Proposal submitted to NSF Information Technology Research Initiative
   Amount requested: $5,000,000 over 4 years, submitted Feb. 2003.

3. ITR: Notes Without Borders: Building an Intangible, Everywhere Notebook
   PI: Jeff Pierce, co-PIs: Charles Isbell, Gregory Abowd and Ron Ferguson
   Proposal submitted to NSF Information Technology Research Initiative
   Amount requested: $2,00,000 over 4 years, submitted Feb. 2003.

H. Research Proposals and Grants (Contributor)

1. Research Infrastructure Grant
   Ramachandran (PI)
   National Science Foundation
   Amount requested: $2,000,000 over three years
   Awarded: July 1999

2. DARPA ASSIST
   PI: Starner (GT) Pentland (MIT); Co-Pis: Abowd, Essa, Isbell, Picard (MIT)
   DARPA ITO
   Amount awarded: $2,000,000 over 18 months, starting June 2005

I.   Research Honors and Awards

December, 1993. SIGSOFT'93/FSE-1 conference paper [C.6] commended for high technical merit and recommended for extension and submission to ACM TOSEM journal [J.3].

November, 1994. One of two nominatees by Georgia Tech for NSF Presidential Faculty Fellows Program.

May, 1995. Received Georgia Tech nomination for Packard Foundation Fellowship.

November, 1996. MobiCom'96 paper [C.20] commended as one of top 9 papers in conference and recommended for submission to *ACM Wireless Networks* journal [J.8].

May 1997. Sigma Xi, Georgia Tech Chapter Young Faculty Research Award.

July 1997. NSF CAREER award recipient.

January 1998. Intelligent User Interface'98 conference paper [C.29] nominated as one of top papers at conference and recommended for extension and submission to *Knowledge Based Systems* journal [J.9].

April 1998. Georgia Tech, Outstanding Use of Innovative Educational Technology Award.

June 1999. Georgia Tech, College of Computing, Oustanding Junior Faculty Research Award.

September 2000. Schlumberger Foundation Technical Fellow, with $35,000 award.

May 2001. IBM Research Faculty Fellowship, with $20,000 award.

September 2001. Schlumberger Foundation Technical Fellow, with $25,000 award.

September 2002. Selected to attend National Academy of Engineering Symposium on Frontiers in Engineering, Irvine, CA.

May 2005. Best paper award at *Symposium On Usable Privacy and Security (SOUPS)*. See [C.95].

December 2005. Best paper nominations at *The 4th International Conference on Pervasive Computing*. See [C.99].

December 2005. Top Technology Idea from *New York Times Magazine*. Awarded to Capture Resistant Environment. See [C.97], [S/W.18] and [IP.1].

III. SERVICE

A. Professional Activities

A.1. *Memberships and Activities in Professional Societies*

Member, IEEE Computer Society, 1992-present. Nominated for Senior Membership 2005 (pending).

Member, ACM SIGSOFT, 1993-present.

Member, ACM SIGCHI, 1994-present.

Member, IFIP Working Group 2.7 (User Interface Engineering), 1990-1998, elected position.

Member, Phi Beta Kappa, 1985-present, elected position.

A.2. *Conference Committees Activities*

Chair, CHI'94 Basic Research Symposium, 1994

Panels review committee, CHI'94, 1994.

Program committee, IFIP 2.7 Working Conference on Engineering for Human-Computer Interaction, 1992, 1995.

External reviewer, Design, Specification and Verification of Interactive Systems—DSV-IS'95.

External reviewer CSEE'96.

Workshop organizer, CHI'96 workshop on formal methods for interactive systems.

Program committee, BCS Formal Aspects of Human–Computer Interaction, BCS-FAHCI, 1996.

Program committee, Design, Specification and Verification of Interactive Systems—DSV-IS'96.

SIGSOFT'96 Symposium on Foundations of Software Engineering (FSE-4), Tutorials and Panels Chair.

ICSE'97 International Conference on Software Engineering, Student Volunteers co-chair.

1st International Symposium for Wearable Computing, program committee, 1997.

CHI'97 Workshop on Ubiquitous Computing, co-organizer, 1997.

NSF Program on Experimental Systems, grant reviewer, 1997.

SIGGRAPH'98 paper reviewer.

UIST'98 and UIST'99 panels committee.

AAAI 1998 Spring Symposium on Intelligent Environments, program committee.

British HCI'98 conference, paper reviewer.

Foundations of Software Engineering, FSE'98, program committee.

ICSE'99, program committee and doctoral consortium committee.

DARPA/NSF/NIST Inter-Agency Workshop on Smart Environments. Atlanta, GA July 25-26, 1999. Local organizer.

CHI'2000, papers and panels reviewer.

Program chair for First International Workshop on Software Engineering Issues for Wearable and Pervasive Computing, held in conjunction with ICSE'2000 in Limerick, Ireland, June 2000.

Handheld and Ubiquitous Computing Symposium (HUC'2000) program committee, September 2000.

IEEE Workshop on Mobile Computing Systems and Applications (WMCSA 2000), program committee, December 2000.

Ubicomp 2001 (formerly HUC conference series), General Chair, September 2001.

CHI 2002 Associate Papers chair, Doctoral Consortium faculty panel, 2002.

IEEE Workshop on Perceptive User Interfaces (PUI 2001), program committee, November 2001

IEEE Workshop on Mobile Computing Systems and Applications (WMCSA 2002), program committee, 2002.

AAAI 2002 conference, program committee, 2002.

UIST 2003, Program Chair (joint with Blair MacIntyre)

Workshop on Mobile Computing Systems and Applications (WMCSA '03) program committee, 2003.

Pervasive Computing 2004 conference program committee.

MobiSys 2004 program committee

Ubicomp conference series, Chair and Founding member of Executive Steering Committee, October 2003-present.

Ubicomp 2005 conference program committee.

Pervasive Computing 2006 conference program committee.

B. On-Campus Committees

College of Computing, Ph.D. Review Committee, 1994–5.

College of Computing, Ph.D. Admissions Committee, 1995–6.

College of Computing, Undergraduate advising Committee, 1996–7.

GVU Center, Associate Director for External Affairs, 1996–8.

Broadband Telecommunications Center, Applications Area co-leader, 1996–present.

Georgia Tech, Selection committee for Research Author Award, 1997.

College of Computing Faculty Hiring Committee, 1998.

Georgia Tech, Selection committee for Sigma Xi Junior Faculty Research award, March 1998.

College of Computing, Dean's Advisory Council, 1998-99.

Georgia Tech Student Computer Ownership Committee, January 1999-2002. Chair in 2001-2002 academic year.

College of Computing, Faculty recruiting committee, 1999-2003. Acted as co-chair in 2002 and vice-chair in 2003.

College of Computing HCI Area advisory, 2000-1 academic year.

Georgia Tech Prestigious Scholarships committee, September 2001-present.

Georgia Tech, Student Activities Committee, elected to 3-year term 2002-2005.

Executive RPT committee, Fall 2002-2005.

College of Computing, Human-Centered Computing Ph.D. program 2003. Member of sub-committee for HCC PhD in charge of defining core computing competency requirements for candidates.

College of Computing Interactive Computing Division (ICD), faculty recruiting committee.

Georgia Tech Honors Committee, August 2005-present.

C. Consulting

Caring Technologies, Inc. 2005-present.

Ultra Large Scale Software Systems panel, Carnegie Mellon University Software Engineering Institute, August 2005-April 2006.

NICTA, Sydney Australia. Visiting researcher teaching a course on HCI and Ubiquitous Computing, June 2005.

External member of Board of Directors, HomeCom Communications, Inc. 1997-1999.

Motorola Satellite Communications Division, Software architecture evaluation, April 10–11, June 28–29

1995.

Ford Motor Company, Electronics Division, Software architecture evaluation, April 28, 1995.

Motorola Cellular Infrastructure Group, Software architecture evaluation, August 22, 1995.

Software Engineering Institute, Software architecture evaluation report for Sandia Labs, two days consulting over summer 1995.

HomeCom Communications, Inc., Future interests in the Internet, May 6, 1995.

HomeCom Communications, Inc. Board of directors, September 1996–present.

Schlumberger, architecture consulting, January 1999.

Intel Microprocessor Research Labs (MRL) Board of Advisors, September 2000-present.

Expert witness, December 2000.

National Science Foundation Science and Technology Center at UCLA (Deborah Estrin, PI), Architectural Advisory Board, 2001--present.

University of Florida, consulting on development of laboratory for home technologies, September 2003.

Samsung Electronics, consulting on commercial potential of automated capture applications, Sep-Dec. 2003.

University of Florida CREATE Center academic advisory board, 2004-2008.

Advisory Board for Cure Autism Now Innovative Technologies for Autism (ITAB), since 2004.

Intel Research Seattle Visiting Faculty, July 2004-June 2005.

IV.   NATIONAL & INTERNATIONAL PROFESSIONAL RECOGNITION

A.   *Honors and Awards*

December 1985, Rhodes Scholar, Marshall scholar (declined).

March 1986. NSF Graduate Fellow (declined).

September 2000. Schlumberger Foundation Technical Fellow.

September 2001. Schlumberger Foundation Technical Fellow.

May 2001. IBM Research Faculty Fellow.

September 2004, Appointed to the Cure Autism Now Foundation Innovative Technologies for Autism Board.

B. *Invited conference session chairmanships*

HCI'94 conference session chair (Formal methods in HCI).

SIGSOFT'96. Foundations of Software Engineering Symposium (FSE-4), conference session chair (Reusability). October 1996.

SIGCHI CHI'98 Conference, session chair, April 1998.

ICSE'99, session chair, May 1999.

UIST 2002, 2003 session chair

Ubicomp 2002, 2003 session chair

C. Editorial and Reviewer Work for Technical Journals

Reviewer for *IEEE Transactions on Software Engineering, Human-Computer Interaction Journal, ACM Transactions on CHI, International Journal on Human-Computer Studies, Software Practice & Experience, IEEE Pervasive Computing.*

Associate Editor, *Human-Computer Interaction Journal,* since 2000.

Associate Editor and member of founding editorial board, *IEEE Pervasive Computing Magazine*, since 2001.

Editor, *ACM SIGCHI Bulletin,* column on challenges to computing beyond the desktop. 2001-2003

Foundations and Trends in HCI, founding editor in chief, since 2004.

D. Media Coverage

General

Fall 1999. Georgia Tech Alumni magazine faculty profile.

March 27, 2001. NPR Interview, Public Interest with Kojo Nnamdi (see http://www.wamu.org/pi/)

The Classroom 2000 / eClass project

Details can be found at http://www.cc.gatech.edu/fce/c2000/media.

September 8, 1999. CNN story by Brian Cabell on Classroom 2000 airs on Headline News.

September 3, 1999. Atlanta Journal-Constitution, Ernie Suggs, "Tech harnesess technology for learning," page 1.

March 1, 1999. Georgia Tech Research Review, "A revolutionary high-tech classroom is user- and learning- friendly," page 27.

February 18, 1999. Television story on Classroom 2000 shown during WAGA-TV (Fox Atlanta) Good Day Atlanta morning.

Fall 1999, Fall 2000. Gregory Abowd featured on Georgia Tech Public Service Announcement using Classroom 2000.

December 2, 1998. The Atlanta Journal-Constitution. "Classroom 2000- it's not what your father remembers," page 18.

November 4, 1998, The Atlanta Journal-Consitution, Ernest Holsendorph. "Heads-up Learning," pages F9a-b.

September 17, 1997. CNN Newsroom story on Classroom 2000.

March 1, 1997. Atlanta Computer Currents, "Streetbytes: Demo Days," page 24.

The Aware Home project

Details can be found at http://www.cc.gatech.edu/fce/house/media.

October 18, 1999. Atlanta Business Chronicle, Brian Moran, "High-tech home is habitat for `lifestyle computing'," On the topic of the Broadband Institute Residential Laboratory (overseen by Prof. Nikil Jayant) and the Aware Home research efforts, led by the FCE faculty, including Dr. Abowd.

May 1, 2000. Grand opening ceremony for Broadband Institute Residential Laboratory, covered by Atlanta local CBS and NBC affiliates.

May 15, 2000. ABC News Good Morning America. Good Morning America's Science Editor Michael

Guillen shows us how technology is creating the smart home for the future. "Joining the Jetsons" Filmed at the Residential Laboratory.

Printed media coverage on the Residential Laboratory over the year 2000 has resulted in publications in the *Atlanta Journal-Constitution*, *Scientific American, The New York Times*, and several popular trade magazines.

usatoday.com article on Gregory Abowd and Aware Home by John Makulowich. On the Ledge article (see usatoday.com/ledge).

March 19, 2002. Appearance on NBC Today Show with Katie Couric for segment on Forever Young series focusing on technology for an aging population.

Feb. 23, 2004. Quoted in story in Wall Street Journal on homes of the future. Work to be featured in NBC companion story as well.

V. OTHER CONTRIBUTIONS

A. Seminar Presentations

Abowd, G. D. Using a formal agent language to describe interactive systems. Invited talk to Artificial Intelligence Group at the Imperial Cancer Research Fund, London, England, November 1991.

Abowd, G. D. Formal descriptions of user interfaces. Invited talk and paper for Colloquium on Theory in HCI, IEE Professional Group C5 (Man-machine interaction), Digest No. 1991/192, London, England, December 17, 1991.

Abowd, G. D. A constructive approach to formal methods in HCI. Invited talk for Software Engineering Research Division, Motorola, Arlington Heights, IL, December 1991.

Abowd, G. D. Usability as a software quality measure. Invited talk for British HCI Specialist Group Annual General Meeting, London, England, May 20, 1992.

Abowd, G. D. Interface refinement. Invited talk for Glasgow Interactive Systems Centre, Glasgow, Scotland, May 21, 1992.

Abowd, G. D. HCI for Avionics Systems. Invited talk for British Aerospace Information Technology Liaison Committee, Human-Computer Interaction Special Interest Group Symposium on Current Issues in HCI, Bristol, England, June 25, 1992.

Abowd, G. D. Giving undo attention. Invited seminar at Department of Computer Science, Virginia Tech University, March 31, 1993.

Abowd, G. D. The judicious application of formal methods. Invited talk to Electronics Division, Ford Motor Company, Dearborn, MI, December 22, 1993.

Abowd, G. D. and Abowd, P. S. (Significant contribution by both authors, presentation by G. Abowd) Applying formal specification in the design of an embedded audio system. Distinguished lecture for Electronics Division Software Forum, Ford Motor Company, Dearborn, MI, June 16, 1994.

Abowd, G. D. and Bass, L. (Significant contribution by Abowd with assisted presentation by Bass) Software architecture: A tutorial introduction. Invited tutorial seminar for Motorola 1994 Software Engineering Symposium, Lincolnshire, IL, August 9, 1994.

Abowd, G.D. Software architecture: Introduction and evaluation. Two-day short course given to Motorola Advanced Software Architecture Group, Satellite Communications Division, Motorola, April 10–11, 1995.

Abowd, G.D. Software architecture: An introduction and evaluation. One-day short course given at Ford

Motor Company, Electronic Components Division, April 28, 1995.

Abowd, G. D. and Bass, L. (Significant contribution by Abowd with assisted presentation by Bass) Software architecture: A tutorial introduction. Invited tutorial seminar for Motorola 1995 Software Engineering Symposium, Lincolnshire, IL, June 28, 1995.

Abowd, G.D. Software architecture: A tutorial introduction. Invited tutorial seminar for Motorola Cellular Infrastructure Group, August 22, 1995.

Abowd, G.D. Java: Programming Language for the Internet. Invited talk for CDC/Orkan Distinguished Lecture Series, February 13, 1996.

Abowd, G.D. Future Computing Environments Research at Georgia Tech. Invited talk for Apple Research Labs, April 22, 1996.

Abowd, G.D. Future Computing Environments Research at Georgia Tech. Invited talk for Fuji Xerox Palo Alto Labs and Xerox Palo Alto Research Center, August 14, 1996.

Abowd, G.D. Java: The Promises and Possibilities. Invited panel presentation at the 2nd National Conference on Information Network for Public Health Officials, September 10, 1996.

Abowd, G.D. Future Computing Environments Research at Georgia Tech. Invited talk at IBM T.J. Watson Research Labs, January 21, 1997.

Abowd, G.D. Future Computing Environments Research at Georgia Tech. Distinguished lecture at Mitsubishi Electronics Research Labs, January 23, 1997.

Abowd, G.D. and Jason Brotherton. Presentation on Classroom 2000 technology. Proxima Corporation, March 10, 1997.

Abowd, G.D. Future Computing Environments Research at Georgia Tech. Corporation for National Research Initiatives, November 1997.

Abowd, G.D., Chris Atkeson and Irfan Essa. Future Computing Environments Research at Georgia Tech. Microsoft Research, November 1997.

Abowd, G.D. Software Architecture Analysis and Ubiquitous Computing. Invited lecture at University of South Florida Information Systems Department graduate seminar, March 16, 1998.

Abowd, G.D. The Family Video Archive: or What I did on my summer vacation. GVU Center Brown Bag talk, November 2003.

B. Special Activities

Presentation on GVU Center for Parents Weekend, Fall 1996.

FOCUS program speaker, January 16, 1997.

Co-organizer of Georgia Tech College of Computing weekly Hack Fest, Fall 1996 to present.

Georgia Tech Battle of the Bands judge, October 1997.

Rhodes Foundation, Georgia State Selection Committee, 1998-2000