

Using Wearables to Augment Social Interactions and Teach Social Skills for Adults with Autism

Gillian R. Hayes, Associate Professor, Robert A. and Barbara L. Kleist Chair in Informatics; Director of Technology Research, The Center for Autism and Neurodevelopmental Disorders; 5072 Donald Bren Hall, UC Irvine, Irvine CA 92697-3440, gillianrh@ics.uci.edu

Collaborator within UCI: Donald J. Patterson, Associate Professor, Departments of Informatics and Computer Science

Collaborator outside UCI: Monica Tentori, CICESE, Ensenada Mexico

RESEARCH ABSTRACT AND GOALS

This work will establish the effectiveness of using the Glass platform to teach and provide real-time support for social skills for adults with autism and related disorders. Additionally, a multi-month deployment of a wearable system to support socialization will provide evidence of the underlying mechanism by which improvements are gained as well as an in-depth understanding of the design features that are effective for this population.

TECHNICAL DESCRIPTION

Individuals with autism and other neurodevelopmental disorders (ND) can require substantial assistance from caregivers to successfully work, socialize, and engage in other “adult” activities, thereby jeopardizing their autonomy [Stahmer 1992] and their opportunities to engage with other members of their communities [O’Leary & Dubey 1979]. Although many people with autism crave sociality, autism is characterized by communications and social skills impairments. Individuals with autism exhibit problems when initiating and terminating interactions, learning the interests of others, and joining social groups [Gonzalez-Lopa & Kamps 1997].

Interventions to support communication and socialization for individuals with autism and other related neurodevelopmental disorders often involve the use of visual supports (i.e., those things we see that enhance the communication process [Cohen & Sloan 2008]) that sometimes use words, images, or tangible objects to represent activities that will take place or have taken place) arranged in temporal order. Visual supports contribute to understanding of time, events, and places, and have been shown to reduce the symptoms associated with autism and ND [Cohen & Sloan 2008], and help individuals with autism to manage their schedules [Hirano *et al.* 2010] and to remediate their speech and language disabilities [Hayes *et al.* 2010]. A special type of visual support that provides step-by-step guidance for accomplishing daily tasks are “cookbooks,” like a chef uses a cookbook to create a meal [Hogdon 2002]. Cookbooks use visual aids including the exchange or display of a variety of images, drawings or photographs to represent tasks, needs, goals and rewards. Each step is represented with a visual image and text annotation (Figure 1). Caregivers often place these cookbooks throughout homes and schools. However, these tools are not everywhere they are needed, and where they are in place, they may be out of date or uninteresting to their users. Tools to support social skills are often less task-oriented but still involve visual supports as well as social stories (e.g., picture-based descriptions of social situations [Gray 2004]).

Interactive technologies have the potential to provide a more appealing and exciting learning experience, provide new therapeutic advances, and enable clinicians and caregivers to monitor progress more closely. In particular, wearable interfaces can **cut down on the stigma** associated with assistive technologies while providing **seamless interaction** for users. Finally, by automatically recording surrounding events, the system makes available a wide range of data for diagnosis, monitoring, and self-reflection not currently in existence.

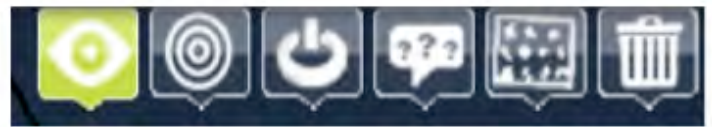


Figure 1: Visual supports as part of a social skills curriculum. From left to right: eye contact, space and proximity, start an interaction, ask questions, share interest, and finish an interaction.

reflection not currently in existence.

Preliminary Work: Over the last five years, we developed and evaluated MOSOCO [Escobedo *et al.* 2012], an Android-based assistive application that uses augmented reality and the visual supports of a validated curriculum, the Social Compass, to help children with ASD practice social skills in real-life situations. MOSOCO was evaluated in both Southern California at a public school and in Tijuana, Mexico at a private autism clinic. Use of these tools appears to provide positive educational and social outcomes for both individuals with ASD and those around them. Additionally, the use of an Android smartphone—rather than custom single use assistive technology device—reduces the stigma associated with use of assistive devices. They still however, require engagement with a screen and a handheld system. For a population trying hard to blend in, learn and practice social skills, and keep track of the steps of various interactions at once, use of a device can still be daunting. Additionally, interacting with a smartphone in the middle of a social interaction, job interview, or other conversation might distract the conversation partner. Thus, Google Glass devices represent a major leap forward and an opportunity to change assistive technologies in dramatic ways.

Based on our past ten years of fieldwork and design of MOSOCO and other smartphone based assistive technologies as well as participatory design sessions

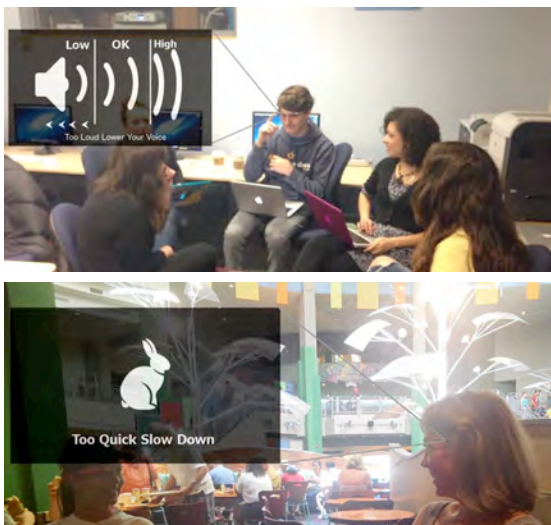


Figure 2: Glass-based system for providing feedback on speech volume (top) and prosody (bottom).

specifically focused on teaching social skills and language for Glass, we designed and developed a prototype system called WAES (Wearable Augmented & Engaged Socialization) that runs on Glass using support from the Glass Accessibility Program. WAES provides similar educational support for specific social behaviors as MOSOCO. However, the use of the Glass platform has enabled two additional key interventions. First, we detect and provide visual information about the volume of the wearer's speech. Second, we analyze the incoming speech to evaluate and provide feedback on the speaker's prosody (see Figure 2). The wearable approach provides a unique opportunity to provide real time support in addition to traditional educational information unavailable on any other platform. Our preliminary work positions us well for the research proposed here in terms of our ability to gain access to the people and settings of interest, our deep understanding of the domain and the potential for technologies within this domain, and our existing prototypes.

Research Objectives: There are two specific objectives to our proposed work. First, to understand the **effectiveness** of a wearables approach, we will **deploy** our prototype social skills system through a youth transition program. Second, because people with such varying cognitive, motor, and perceptual capabilities will use these technologies, we will understand through our research, **what accessibility and design features in the Google Glass API are most useful and important and which should be made available that are not currently.**

Research Plan: In the next year, we will use the designs developed in collaboration with clinicians, teachers, and families over the last several months to finalize our system development. We will ensure that the system is robust enough for an empirical study and that the design is in keeping with updated Glass design patterns and any recent developments to the Glass API. We will then evaluate the system for real world effectiveness through a deployment study with transition age youth (16 to 25) currently pursuing either post-secondary education or work. We will enroll twenty individuals with ASD in a deployment and allow them to use the technology for approximately three months, which should be sufficient time for novelty to wear off and sustained use to be measured. During this time, they will continue to receive social skills and transition related instruction as part of their training programs, with MOSOCO for Glass incorporated into the intervention curriculum. We will recruit individuals with ASD through existing collaborative relationships with six school districts in the LA and Orange County areas as well as through the PI's role as Director of Technology Research at the Center for Autism and Neurodevelopmental Disorders of Southern California. The Center currently treats more than 2000 patients each year, enabling us to recruit from a large pool. We will conduct surveys and interviews at the beginning of the deployment to evaluate perceptions related to use of a wearable assistive technology for teaching, practicing, and supporting social skills, concerns about use of the platform, relationship of the technology to other assistive devices, and so on. We will also assess the level of social skills for each participant using the Contextual Assessment of Social Skills (CASS) [White *et al.* 2014]. We will repeat these measures at the end of the study. The CASS has been used to demonstrate measurable social skills differences from interventions with as few as five participants in the past. Thus, we expect statistically significant improvement in outcomes from the deployment study.

Timeline:

- Months 1 and 2: Finalize system development. File IRB protocol for deployment study. Procure and set up Glass and Android hardware.
- Months 2 and 3: Recruitment of potential users.
- Months 3 to 9: Conduct deployment study. Collect empirical data regarding the effectiveness of MOSOCO for Glass in developing and supporting social skills.
- Months 10 to 12: Analyze empirical data from deployment. Prepare code for open source distribution. Write up results of work.

EXPECTED OUTCOMES, RESULTS, AND BENEFIT TO THE RESEARCH COMMUNITY

This work will provide multiple significant outcomes, both in terms of research results and the software systems themselves. First, we will use previously collected interview, observation, and participatory design session data to understand the ways in which Glass technologies might be meaningfully deployed as visual supports for individuals with autism. Specifically, in this work, we are focused on understanding how the Social Compass curriculum—first translated to an augmented reality Android platform and now to Glass—can meaningfully be used to not only teach social skills but also to support their use in real life situations. The ability to view visual supports naturally without having to reference a carried device will make great strides in the ability of people with disabilities to have natural interactions in both their social lives and as part of employment. The empirical data collected from our deployment will demonstrate effectiveness of this approach in real life settings as well as inform design requirements for wearable and assistive technologies to support individuals with autism more broadly. We will publish our design requirements and process as well as the results from the empirical study in relevant human-computer interaction, wearable and ubiquitous computing, and autism-specific venues such as ISWC, Ubicomp, CHI, and IMFAR (International Meeting for Autism Research). Additionally, the software developed will be made available online and released as open source to other researchers, enabling them to design and develop new related systems and to adopt the tools for other purposes.

POTENTIAL GOOGLE SPONSORS: Thad Starner, Luping Lin

ADDITIONAL GOOGLE CONTACTS FAMILIAR WITH WORK: Judy Chen, Sunny Consolvo

BUDGET

This work includes development as well as substantial evaluation work. A highly skilled MS student who has been conducting research in this area for two years and is supported by funds from the PI's role through the Center for Autism will work on this project alongside the

graduate student supported on this budget. We already have contacts within the community, and the prototype in this work is based on a large existing set of fieldwork, some existing code (e.g., services to retrieve data from school servers, vision algorithms in support of augmented reality applications, and so on), and work recently completed with support from Google. Thus, work on this project can begin immediately upon funding. The remainder of the budget includes support for the evaluation study, including a request for 15 Glass units and 20 Android phones to be used in the deployment and testing of our final prototype support. We will leverage the 5 Glass devices we already have in this study.

One graduate student for one academic year, including tuition, fees, and benefits:	\$42,682
Participant compensation for enrolled individuals:	20 * \$300 = \$6,000
15 Glass devices and 20 Android phones (or in-kind hardware donation)	\$20,000
Data service for mobile phones	20 * \$100/month * 3months = \$6000
	TOTAL: \$74,682

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OUTCOMES FROM PREVIOUS GOOGLE SUPPORT

We are grateful for the support of two projects focused on the use of mobile tools to support high-risk infants and their families:

- 2010 "Supporting Healthy Outcomes for High-Risk Infants Using Mobile Computing and Personal Health Records"
- 2012 "Providing Privacy-Sensitive Social Support for Families of High-Risk Infants Using Mobile Computing"

Additionally, Google recently supported the preliminary work leading up to this proposal:

- 2014 Glass Accessibility Award: "Wearable Visual Supports for People with Autism Spectrum and other Neurodevelopmental Disorders"

Google funded work has resulted in journal and conference papers already with additional articles in preparation or under review.

- Hayes, G.R., Patterson, D.J., Singh, M., Gravem, D., Rich, J., & Cooper, D. Supporting the Transition from Hospital to Home for Premature Infants Using Integrated Mobile Computing and Sensor Support. *Personal and Ubiquitous Computing*. 2011. (15)8: 871-885.
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We released the source code and documentation, including both technical resources and research instruments and data, for this work to the general public under creative commons license. If this proposal is funded, we will also release the source code from this work.

Gillian R. Hayes

Department of Informatics, Donald Bren School of
Information and Computer Sciences
School of Education

Department of Pediatrics, School of Medicine
University of California, Irvine 92617-3440

gillianrh@ics.uci.edu
http://www.gillianhayes.com
5072 Donald Bren Hall
+1.949.824.1483

EDUCATION

Georgia Institute of Technology, Atlanta, GA 2007
Ph.D. in Computer Science
*Documenting and Understanding Everyday Activities Through the
Selective Archiving of Live Experiences*. Doctoral Thesis. UMI
Order Number: AAI3271519

Vanderbilt University, Nashville, TN 1999
B.S. in Computer Science and Mathematics, Cum Laude

PROFESSIONAL EXPERIENCE

University of California, Irvine

Robert A. and Barbara L. Kleist Chair in Informatics June 2014-Present
Associate Professor, Department of Informatics, Donald Bren School of Information and Computer Sciences July 2013-Present
Associate Professor, School of Education
Associate Professor, Department of Pediatrics, School of Medicine
Vice Chair, Graduate Affairs, Department of Informatics July 2014-Present
Co-Director for the Intel Science and Technology Center for Social Computing (UCI Site) July 2014-May 2015
Faculty Director of Civic and Community Engagement, Division of Undergraduate Education, UCI March 2014-July 2017
Director of Technology Research, The Center for Autism and Neurodevelopmental Disorders December 2012-Present
Assistant Professor, Department of Informatics, Donald Bren School of Information and Computer Sciences July 2007-June 2013
Assistant Professor, School of Education June 2010-June 2013

Georgia Institute of Technology August 2002-May 2007
Graduate Research Assistant, College of Computing

Georgia Institute of Technology May 2005-August 2005
Instructor, College of Computing

Avanade, Inc. February 2001-April 2002
Solutions Development Consultant

Deloitte Consulting June 1999-February 2001
Systems Analyst

HONORS AND AWARDS AS FACULTY

- UCI School of ICS Dean's Mid-Career Award for Research 2014
- UCI School of ICS Dean's Award for Undergraduate Teaching 2013
- UCI Celebration of Teaching Award for Pedagogical Innovation 2009
- UCI Undergraduate Research Opportunities Program Mentor of the Month June 2009

- UCI Chancellor's Award for Excellence in Undergraduate Research 2008
- Kavli Fellow, National Academy of Sciences 2007-2009

HONORS AND AWARDS AS GRADUATE STUDENT

- IBM PhD Fellowship 2006-2007
- Google Anita Borg Memorial Scholarship 2006-2007
- Georgia Tech Don Bratcher Human Relations Award 2005
- Organization for Autism Research Graduate Research Fellowship 2004-2005
- Georgia Tech President's Fellowship 2002-2007
- John P. Imlay Dean's Chair Endowment Fellowship 2002-2006

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- [C.39] Ringland, K., Zalapa, R., Neal, M., Escobedo, L., Tentori, M., & Hayes, G.R. (2014) SensoryPaint: A Multimodal Sensory Intervention for Children with Neurodevelopmental Disorders. in *Proc UbiComp 2014*. 871-882. **[Best Paper, Honorable Mention]**
- [C.38] Matic, A., Hayes, G.R., Tentori, M., Abdullah, M., & Schuck, S. (2014) Collective use of a Situated Display to Encourage Positive Behaviors in Children with Behavioral Challenges. in *Proc UbiComp 2014*. 883-893. **[Best Paper, Honorable Mention]**
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CONFERENCE SHORT PAPERS, POSTERS, AND PANELS (PEER-REVIEWED)

- [c.41] Boyd, L.E., Hayes, G.R., Fernandez, H., Bistarkey, M., & Ringland, K. (2014) Impact of Collaborative Ipad Game on Joint Engagement for Children with Social Skills Deficits. Poster Presented at *International Meeting for Autism Research (IMFAR'14)*. Atlanta, GA. May 2014.
- [c.40] Ringland, K., Zalapa, R., Neal, M., Escobedo, L., Tentori, M., & Hayes, G.R. (2014) Sensorypaint: An Interactive Surface Supporting Sensory Integration in Children with Neurodevelopmental Disorders. Poster Presented at *International Meeting for Autism Research (IMFAR'14)*. Atlanta, GA. May 2014.
- [c.39] Nguyen, K., Custodio, V.E., Weiner, R., Ulgado, R., Waterhouse, A., O'Neal, L. & Hayes, G.R. (2014) Evaluation of the Use of Mobile Video Modeling for Job Interviews. Poster Presented at *International Meeting for Autism Research (IMFAR'14)*. Atlanta, GA. May 2014.
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- [c.37] Hertz, G., Guimarin, A. & Hayes, G. (2013) Toy Hacking- Preliminary Results in Creative Electronic Workshops for Informal Science Education. *FabLearn 2013: Digital Fabrication in Education Conference*. October 27-28, 2013.
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- [c.35] Hayes, G.R. & Hosaflook, S.W. (2013) HygieneHelper: promoting awareness and teaching life skills to youth with autism spectrum disorder. In *Proceedings of the 12th International Conference on Interaction Design and Children (IDC '13)*. 539-542.
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- [c.33] Hirano, S., Truong, K.N., & Hayes, G.R. (2012) uSmell: A Gas Sensor System to Classify Odors in Natural, Uncontrolled Environments. In *Extended Abstracts of Ubicomp 2012*. 657-658.
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- [c.30] Tentori, M., Boyd, L.E., Roxas, W., Nguyen, D.H., & Hayes, G.R. (2011) Perceived Acceptance of the Mobile Social Compass. Poster Presented at the *10th Annual International Meeting for Autism Research (IMFAR 2011)*. May 2011.
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- [c.28] Yeganyan, M.T., Cramer, M., Boyd, L.A., & Hayes, G.R. (2010) vSked: an interactive visual schedule system for use in classrooms for children with autism. In *Proc. IDC'10*, 319-322.
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- [c.21] Cramer, M., Moher, T., Pea, R., Scacchi, W., Wilson, K., & Hayes, G.R. (2010) Reaching Diverse Student Populations in Embedded Ubiquitous Educational Environments. Panel at *Digital Media and Learning Conference*. San Diego, CA. February 19-20, 2010.
- [c.20] Marcu, G. & Hayes, G.R. (2009) Use of SenseCam in Therapeutic Interventions for Children with Autism. Presented at *SenseCam 2009: Clinical and Technical Advances and the Future of SenseCam Research*. Chicago IL USA. October 2009.
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- [c.18] Marcu, G., Nguyen, D.H., & Hayes, G.R. (2009) *Use of a Wearable Recording Device in Therapeutic Interventions for Children with Autism*. Presented at the *8th Annual International Meeting for Autism Research (IMFAR 2009)* Chicago IL USA. May 2009.
- [c.17] Hayes, G.R. (2008) Understanding Educational Technology through Special Education and Autism. Presented at the *Annual Meeting of the American Anthropological Association*. November 21, 2008.
- [c.16] Marcu, G., Nguyen, D. H., & Hayes, G. R. (2008) Reactions to the Use of Wearable Recording Technology for Aiding People with Memory Impairments. Presented at *Grace Hopper Celebration for Women in Computing*. Keystone CO USA. Oct 2008.
- [c.15] Noack, N., Lindtner, S., & Hayes, G.R. (2008) LoRy: Locative Storytelling. In *Proceedings of Interaction Design for Children (IDC'08)*. Chicago IL USA. June 2008.
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- [c.9] Hayes, G.R., Heflin, J., Abowd, G.D., Gardere, L.M., DeFazio, C., Pittman, C., Pirouz, N, & Hooda, S. (2007) Evaluating a Selectively Archived Video Recording System for Functional Behavior Assessment in Schools. Poster presented at *Applied Behavior Analysis International – Autism*. February, 2007, Boston, MA.
- [c.8] Hayes, G.R. (2006) Documenting, Understanding, and Sharing Everyday Activities through the Selective Archiving of Live Experiences. In *Extended abstracts of CSCW 2006*.
- [c.7] Hayes, G.R., Heflin, J., Abowd, G.D., Gardere, L.M., Matthews, E., Kientz, J.A., Oberleitner, R, & Pering, T. (2006) Evaluating a Selectively Archived Video Recording System for Functional Behavior Assessment in Schools. Poster Presented at the *International Meeting for Autism Research (IMFAR 2006)*. Montreal Quebec Canada, February 2006.
- [c.6] Hayes, G.R. (2006) Documenting and Understanding Everyday Activities through the Selective Archiving of Live Experiences. In *Extended Abstracts of CHI '06*, 1759-1762.
- [c.5] Hayes, G.R., Truong, K.N., Abowd, G.D., & Pering. T. (2005) Experience Buffers: A Socially Appropriate, Selective Archiving Tool for Evidence-Based Care. In *Extended Abstracts of CHI'05*, 1435-1438
- [c.4] Truong, K.N., Richter, H., Hayes, G.R., & Abowd, G.D. (2004) Devices for Sharing Thoughts and Affection at a Distance. In *Extended Abstracts of CHI'04*, 1203-1206.
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- [c.2] Pering, T., Light, J., Sundar, M., Hayes, G., Raghunathan, V., Pattison, E., & Want, R. (2003) Personal Server: Personal Content for Situated Displays. In *Extended Abstracts of Ubicomp 2003*.
- [c.1] Hayes, G., Pierce, J.S., & Abowd, G.D. (2003) Practices for Capturing Short Important Thoughts. In *Extended Abstracts of CHI'03*, 904-905.

CONFERENCE AND WORKSHOP PAPERS WITHOUT PROCEEDINGS
(LIGHTLY PEER-REVIEWED)

- [W.17] Ringland, K.E. & Hayes, G.R. (2014) Virtual Worlds: An Alternative Method for Communication for Children with Autism Spectrum Disorder. *Workshop: Supporting Children with Complex Communication Needs. CHI'14*.
- [W.16] Haimson, O. L., & Hayes, G. R. (2014) Understanding Gender Transition on Social Media to Design Technology for Changing Identities. *Workshop on Designing Technology for Major Life Events. CHI'14*.
- [W.15] Tang, K.P., Hirano, S.H., Cheng, K.C., & Hayes, G.R. (2012) Designing a Mobile Health Tool for Preterm Infant Wellness. *Pervasive Health 2012 Workshop on Wellness Interventions and HCI*. May 2012.
- [W.14] Dombrowski, L., Volda, A., Hayes, G.R., & Mazmanian, M. (2012) Tensions in the Use and Adoption of Technologies for Outreach. *Workshop on Learning from Marginalized Users: Reciprocity in HCI4D at CSCW 2012*.
- [W.13] Brubaker, J.R., Hirano, S.H., & Hayes, G.R. (2011) *Lost in Translation: Three challenges for the collection and use of data in personal informatics*. Personal Informatics & HCI: Design, Theory, & Social Implications. CHI 2011 Workshop. Vancouver, Canada. May 2011.

- [W.12] Liu, L.S. & Hayes, G.R. (2010) Evaluation the Usefulness and Usability of Collaborative Personal Health Record Systems. *CSCW Research in Healthcare: Past, Present, and Future. CSCW2010 Workshop*. Savannah, GA. February 2010.
- [W.11] Brubaker, J., Lustig, C., & Hayes, G.R. (2010) PatientsLikeMe: Empowerment and Representation in a Patient-Centered Social Network. *CSCW Research in Healthcare: Past, Present, and Future. CSCW2010 Workshop*. Savannah, GA. February 2010.
- [W.10] Kientz, J.A., Hayes, G.R., Arriaga, R., & Abowd, G.D. (2008) Designing and Developing Technology for Caregivers of Individuals with Autism *CHI 2008 Workshop on Technology in Mental Health*. Florence, Italy. April 2008.
- [W.9] Hayes, G.R. (2008) Reconsidering Education and Learning in HCI: A Social Cultural View of Special Education and Technology, *Human-Computer Interaction Consortium (HCIC 2008)*. Fraser, CO., February 2008.
- [W.8] Hayes, G.R. & Patterson, D.J. (2007) Supporting Individuals with Special Needs through Intelligent Visual Schedules, *Workshop on Augmented Cognition*, Rochester, NY, October 2007.
- [W.7] Hayes, G.R. (2006) Documenting and Understanding Everyday Activities through the Selective Archiving of Live Experiences. *Grace Hopper Celebration of Women in Computing*, (October 4 - 7, San Diego, California, USA), 2006
- [W.6] Hayes, G.R. (2006) Documenting and Understanding Everyday Activities through the Selective Archiving of Live Experiences. *Human Computer Interaction Consortium 2006* (February 1 – 5, Fraser, CO), 2006.
- [W.5] Abowd, G.D., Hayes, G.R., Kientz, J.A., Mamykina, L., & Mynatt, E.D. (2006) Challenges and Opportunities for Collaboration Technologies for Chronic Care Management. *Human-Computer Interaction Consortium (HCIC 2006)*. Frasier, CO., 2006.
- [W.4] Hayes, G.R. & Abowd, G.D. (2005) Assessment of Children with Autism Spectrum Disorders through Data Collection in the Natural Environment. *Worskhop on Health Issues in HCI at CHI'05* (April 2-7, Portland, OR, USA), 2005.
- [W.3] Lundell, J. & Hayes, G.R. (2005) Prompting and Feedback Displays to Support the Morning Routines of Elders. *Proc HCI International 2005* (July 22-25, Las Vegas, NV, USA), 2005.
- [W.2] Hayes, G.R. (2003) Of Blogs and Journals: How We Express Our Most Intimate Thoughts. *Workshop on Intimate Computing at Ubicomp 2003* (October 12-15, Seattle, WA), 2003.
- [W.1] Hayes, G.R., Rea, A., Brunette, W., Abowd, G.D., Pierce, J.S., Truong, K.N., & Pering, T. (2003) Lightweight Note-Taking Tools Using a Confederation of Mobile Capture and Access Devices. *Workshop on Multi-Device Interfaces for Ubiquitous Peripheral Interaction at Ubicomp 2003* (October 12-15, Seattle, WA), 2003.

EDUCATIONAL MATERIALS

- [E.1] Hayes, G.R. & Hosaflook, S.W. (2015) Technology for Transition and Postsecondary Success: Supporting Executive Function. National Professional Resources. Port Chester, NY. USA.

OTHER JOURNAL AND MAGAZINE PARTICIPATION

- [OJ.5] Hayes, G.R. (2013) Interactive systems for health. *interactions* 20, 3 (May 2013), 20-23.
- [OJ.4] Hayes, G.R. (2012) Taking action in your research. *interactions* 19, 4 (July 2012), 50-53.
- [OJ.3] Hayes, G.R. & Karahalios, K.G. (2011) Theme issue on autism and technology. *Personal and Ubiquitous Computing*, 16(2): 115-116.

- [OJ.2] Hayes, G.R. & Dey, A.K. (2008) The Pervasive 2007 Workshops. *IEEE Pervasive Computing*, (7)1: 85-88. Jan-Mar 2008.
- [OJ.1] Hayes, G.R. and Truong, K.N. (2005) Autism, Environmental Buffers, and Wearable Servers. *IEEE Pervasive Computing*, (4)2: 14 – 17. Jan-Mar 2005.

TECHNICAL REPORTS

- [T.R.3] Hayes, G.R., Gardere, L.M., Abowd, G.D., DeFazio, C., Heflin, J., Truong, K.N., & Pering, T. (2006) CareLog: A Selective Archiving Tool for Behavior Management in Schools. *Georgia Institute of Technology Technical Report GIT-GVU-06-21*. November 2006.
- [TR.2] Hayes, G.R., Piper, A.M., Amar, B., Bevis, K.J., Newstetter, W., & Bruckman, A.S. (2004) Audience in Computer Learning: A Constructionist Interpretation. *Georgia Institute of Technology Technical Report GIT-GVU-04-13*. April 2004.
- [TR.1] Hayes, G. R., Pierce, J.S., & Abowd, G.D. (2003) User Trends in the Capture and Access of Short Important Thoughts. *Georgia Institute of Technology Technical Report GIT-GVU-03-09*. April 2003.

INVITED PRESENTATIONS

- [IP.33] *Pediatric Health Informatics: The unique challenges and opportunities for technologies to support children and their families and clinicians*. University of Wisconsin Madison Computation & Informatics in Biology & Medicine Training Program Annual Retreat. October 17, 2014.
- [IP.32] *Computing to Help Those Most in Need*. University of Wisconsin Computer Science Department Colloquium. October 16, 2014.
- [IP.31] *Starting and Growing Your Own Research Program*. Grace Hopper Celebration of Computing. October 8, 2014.
- [IP.30] *Interactive Technologies for Autism*. CalIT2, SURF-IT summer lecture series. August 12, 2014.
- [IP.29] *Estrellita: Mobile Health for Preterm Infants and Their Parents*. ONC Innovation Exchange: Patient Generated Health Data. March 11, 2014.
- [IP.28] *Partnerships in Autism and Technology*. California State Senate Hearing. November 13, 2013.
- [IP.27] *Technologies for Autism*. UCInsights: The Autism Spectrum: Help and Hope. November 4, 2013
- [IP.26] *Using Technologies in Transition*. Orange County Adult Transition Task Force. September 12, 2013.
- [IP.25] *Using Mobile Technologies To Support Students In Work Transition Programs*. A New Day 2012: Working Toward A Positive Future (with Linda O’Neal). September 18, 2012.
- [IP.24] *Technologies to Support Individuals with Autism*. CalSTAT Regional Institute – Transition Summit. January 26, 2012.
- [IP.24] *Ubiquitous Computing and Educational Environments*. CalIT2, SURF-IT summer lecture series. June 30, 2011.
- [IP.23] *Field Deployments*. Panel at Human-Computer Interaction Consortium with M. Newman, J.Tang, and K. Siek. June 15, 2011.
- [IP.22] *Practicing Public Scholarship: Rethinking Faculty Work*. Panel at Public Scholarship Conference with M. Jafari, P. Ong, and and M. Montoya, University of California, Irvine. April 25, 2011
- [IP.21] *Using Ubiquitous & Collaborative Computing to Meet the Needs of Children and Families Experiencing Chronic Conditions*. dub seminar, University of Washington. February 9, 2011.
- [IP.20] *Using Ubiquitous & Collaborative Computing to Meet the Needs of Children and Families Experiencing Chronic Conditions*. IST seminar, Pennsylvania State University. February 7, 2011.

- [IP.19] *Computing to Support Chronic Health Conditions in Childhood*. University of Toronto, Department of Computer Science. September 17, 2010.
- [IP.18] *Documenting Observations of Daily Living for Children With or At Risk for Chronic Health Conditions*, ForOCKids Neurodevelopmental Seminar Series. June 3, 2010.
- [IP.17] *Embedded, Ubiquitous, and Mobile Computing in Educational Environments*, College of Education, University of South Alabama. May 7, 2010.
- [IP.16] *Embedded, Ubiquitous, and Mobile Computing in Educational Environments*. University of California, Irvine Department of Education Brownbag. April 5, 2010.
- [IP.14] *Documenting Observations of Daily Living for Chronic Health Condition*. Microsoft Research. March 25, 2010.
- [IP.13] *Discovery and Innovation in Health IT*. Sponsored by Office of the National Coordinator for Health Information Technology, the National Institute of Standards and Technology, the National Library of Medicine, the Agency for Healthcare Research and Quality, the National Science Foundation, the Computing Community Consortium, and American Medical Informatics Association. October 29-30, 2009.
- [IP.12] *Encountering SenseCam: implications for personal recording technologies in everyday life*. Presented at SenseCam 2009: Clinical and Technical Advances and the Future of SenseCam Research. Chicago, IL. October 2009.
- [IP.11] Usability, Security, and Privacy of Information Systems. Sponsored by the National Academies Computer Science and Telecommunications Board. July 21-22, 2009.
- [IP.10] *Technologies for Chronic Care Management* Center for Embedded Networking, UCLA. April 24, 2009.
- [IP.9] *Information technologies to support the challenges of autism and related developmental disorders*. In *Computing Research that Changed the World: Reflections and Perspectives* (March 25 - 25, 2009). Computing Research Association, Washington, D.C., 1-1.
- [IP.8] *Challenges and Opportunities for Technologies for Chronic Care Management* GVU Brownbag, Georgia Institute of Technology. January 15, 2009.
- [IP.7] *Challenges and Opportunities for Technologies for Chronic Care Management* CMU HCI Institute. November 19, 2008.
- [IP.6] *Privacy Considerations of Ubicomp Memory Aids* Microsoft Research Cambridge. July 10, 2008.
- [IP.5] *Challenges and Opportunities for Technologies for Chronic Care Management* Center for Research on Information Technology and Organizations (CRITO), UCI. April 30, 2008.
- [IP.4] *Support, Security, and Surveillance: Life in the Recording Age*. Nokia Research Forum. Palo Alto, CA. November 1, 2007.
- [IP.3] *Lessons Learned from the Intel Opportunity Scholars Program*. National Center for Women in Technology (NCWIT) Annual Practices Workshop. Atlanta, GA. November 15, 2006.
- [IP.2] *Designing Capture Applications for the Education of Children with Autism*. Intel Research Seattle Seminar Series. Seattle, WA. May 26, 2004.
- [IP.1] *Capture & Access Infrastructure, Virtual Artifacts, and the Physical World*. Invited talk to the Ball State University's Computer Science Department Colloquium Series. Muncie, IN. April 4, 2003.

MEDIA COVERAGE AND INTERVIEWS

- [MC.19] "App Paired with Sensor Measures Stress and Delivers Advice to Cope in Real Time". HealthCanal. Reported by Ioana Patringsenaru. June 12, 2014.
- [MC.18] "Stress measured and advice delivered by app to help parents cope in real time". Medical News Today. June 6, 2014.

- [MC.17] "Autism apps: UCI contest put tech on task". The Orange County Register. Reported by Lauren Steussy. April 27, 2014
- [MC.16] "UCI, Chapman students craft apps to aid people with autism". The OC Register. Reported by Annie Z. Yu. April 16, 2014
- [MC.15] "Autism Technology Showcase coming to Irvine". The Orange County Register. Reported by Lauren Jow. December 6, 2012.
- [MC.14] "Study identifies patients most willing to use personal health records" Reported by Panela Lewis Dolan. November 12, 2012.
- [MC.13] "Tracking 'Observations of Daily Living' in Infants and the Elderly" Wall Street Journal. Reported by Laura Landro. August 17, 2010. (<http://blogs.wsj.com/health/2010/08/17/tracking-observations-of-daily-living-in-infants-and-the-elderly/>)
- [MC.12] "Improving Care For Low-Birth-Weight Infants" Medical News Today. March 8, 2010. (<http://www.medicalnewstoday.com/articles/181506.php>)
- [MC.11] "Southland researchers poised to monitor infants' health by smart phone" KPCC Southern California Public Radio. March 8, 2010. (<http://www.scpr.org/news/2010/03/06/researchers-poised-monitor-infants-health-cell-pho/>)
- [MC.10] "Improving Care For Low-Birth-Weight Infants" SperoNews. March 5, 2010. (<http://www.speroforum.com/site/article.asp?idCategory=32&idsub=120&id=28491&t=Improving+care+for+low-birth-weight+infants>)
- [MC.9] "Tweet this: Social network security is risky business" Reported by Neil Roiter. ComputerWorld. March 4, 210. (http://www.computerworld.com/s/article/9165778/Tweet_this_Social_network_security_is_risky_business?taxonomyId=82)
- [MC.8] "Hot topic at RSA: The pitfalls and promise of social networking" InfoSecurity Magazine. March 2, 2010. (<http://www.infosecurity-us.com/view/7761/hot-topic-at-rsa-the-pitfalls-and-promise-of-social-networking/>)
- [MC.7] "Silver Bullet Talks with Gillian Hayes" IEEE Security and Privacy. March-April 2010; 8(2):5-7.
- [MC.6] "An Interview with Gillian Hayes" The Silver Bullet Podcast. Interview by Gary McGraw. September 25, 2009. (<http://www.cigital.com/silverbullet/show-042/>)
- [MC.5] Privacy Piracy. Interview by Mari Frank. September 16, 2009. (http://www.kuci.org/privacypiracy/#09_16_09)
- [MC.4] "Technology Helps Autistic Children" 11Alive, NBC News. Reported by Donna Lowry. May 17, 2007 (http://www.11alive.com/news/news_article.aspx?storyid=97198)
- [MC.3] "Ga. Tech tests Aware Home" 11Alive, NBC News. Reported on air by Donna Lowery and on-line by Tracey Christensen. April 26, 2006. (http://11alive.com/news/news_article.aspx?storyid=79099)
- [MC.2] "Autism Teachers Get High-Tech Help" 11Alive, NBC News. Reported on air by Donna Lowery and on-line by Tracey Christensen. April 25, 2006. (http://11alive.com/news/news_article.aspx?storyid=79041)
- [MC.1] "OAR announces winners of the 2004 Graduate Grants Program" Press Release from the Organization for Autism Research. September 9, 2004. (<http://www.researchautism.org/news/pressreleases/PR090904.asp>)

STUDENTS SUPERVISED

- PhD Student Primary Advisor [graduation date] (notes)
 - David Nguyen [Spring 2011]
 - Jed Brubaker (expected graduation Spring 2015)
 - Lynn Dombrowski (co with Melissa Mazmanian, expected graduation Spring 2015)
 - Laura Pina (UCSD, co with Bill Griswold)
 - Sen Hirano
 - Oliver Haimson
 - Kathryn Ringland
 - LouAnne Boyd
 - Erick Custodio
 - Mark Baldwin

- PhD Student Committees
 - Sara Javanmardi (Advancement)
 - Judy Chen (Advancement, PhD Thesis)
 - Silvia Lindtner (Advancement)
 - Lilly Irani (Advancement)
 - Patrick Shih (Advancement)
 - Kim Sullivan (Anthropology, Advancement)
 - Heeyoung Jeong (Georgia Tech, PhD Thesis)
 - Leslie Liu (University of Washington, PhD Thesis)
 - Hwajung Hong (Georgia Tech, PhD Thesis)
 - Heather Thomas (Anthropology, Advancement)

- Masters Student Primary Advisor
 - Sen Hirano [Spring 2011]
 - Leslie Liu [Spring 2011]
 - Michael Yeganyan [Spring 2011]
 - Meg Cramer [Spring 2012]
 - Boaz Gurdin [Summer 2012]

- Masters Student Committees
 - Kah Liu [Spring 2010]
 - Jeff Lee [Summer 2014]

- Undergraduate Student Supervision
 - UCI*
 - Paolo Arrastia (Honors)
 - Osama Ahmad
 - Alendra Beall
 - Aurora Bedford (Honors, UROP)
 - Alex Bretana (UROP, SURP)
 - Baldwin Chang
 - Yuja Chang (Mt. SAC Community College Program)

Chris Combs (SURP)
Erick Custodio (SURP, Honors)
Niraj Desai
David Dinh
Marie Gilbert (SURF-IT)
Jared Haren
Noelia Hernandez (MDP)
Sen Hirano (UROP)
Jeffrey Hong
Nithin Jilla
Yann Jouitteau
Lucas Kam
Sam Kaufman (UROP, SURP)
Justin Krakes
Nafiri Kusumakaulika
Andrea Lau
Chen-Yu Lee
Victor Lelas
Tom Lillehoff (SURP)
Christina Liang
Leslie Liu (SURP, UROP)
Albert Luk
Alan Ly (Mt. SAC Community College Program)
Gabriela Marcu (Honors, SURP, UROP)
Patrice Mardo
Ian Marrion
Kevin Mori (Honors)
Anthony Nguyen
Katherine Nguyen (UROP)
Van Nguyen
Grace Pai
Nehal Patel
Aaron Pecson
Kathy Pham
Sandy Pham (SURF-IT)
Hugo Polanco (UROP)
Sohrob Raja
Luke Raus
Robert Rodriguez (UROP)
David Schramm
Zubin Singh
Brian Sone
Lee Taber
Katherine Tran
Joseph Trevino (Mt. SAC Community College Program)

Melody Truong
 Rachel Rose Ulgado (SURF-IT, UROP)
 Minhut Vo (UROP)
 Ryan Wallace (SURP)
 Aaron Waterhouse (UROP)
 Rachel Weiner (UROP)
 Mathew Wong
 Tiffany Wong
 Wendy Yang (SURP, UROP)
 Michael Yeganyan (UROP)

Georgia Tech
 Ellen Matthews
 Jesslyn Beattie
 Veronica Peshterianu
 Laura Rouse
 Priyanka Mihalabis
 Uzo Okafor
 Anne Marie Piper

FUNDING

[F.26]	Empirical evaluation of Zody, a social skills game for the iPad; donor gift	\$15,000 5/2014
[F.25]	Google Glass Accessibility Awards: Wearable Visual Supports for People with Autism Spectrum and other Neurodevelopmental Disorders (PI Hayes, Co-PIs Patterson and Tentori)	\$27,485 2/2014
[F.24]	NSF Early Career Award Career Life Balance: Mobile and Ubiquitous Computing Technologies for Young Children with Chronic Health Conditions (PI Hayes)	\$25,872 11/2013-2/2014
[F.23]	NSF Early Career Award Research Experience for Undergraduates: Mobile and Ubiquitous Computing Technologies for Young Children with Chronic Health Conditions (PI Hayes)	\$16,300 5/2013-2/2014
[F.22]	Microsoft SEIF: Empowering Interactive Surfaces with Body-Based Interactions to Provide Step-by-Step Guidance to Children with ASD (PI Hayes)	\$25,000 5/2013
[F.21]	Nokia University Cooperation Funding: Parent Coach: Context-Aware Applications for Neurodevelopmental Disorders (PI Hayes)	\$15,000 1/2013
[F.20]	Intel Science and Technology Center for Social Computing (PIs Dourish & Maurer, Co-PIs Boelstorf, Bowker, Hayes, Mazmanian, Patterson, Philip)	\$6,000,000 (\$2,745,000 UCI) 6/2012-5/2015
[F.19]	NSF ISE Pathways: Repurposing Obsolescence: Teaching DIY Science, Technology and Engineering Practices to Adolescents in Underserved Communities (PI Hertz, Co-PIs Hayes and Black)	\$250,000 8/2012-8/2014
[F.18]	UC Mexus: Enriching interactive visual supports with video modeling for children with autism (Co-PIs, Hayes)	\$25,000

	and Tentori)	6/2012 – 6/2013
[F.17]	Google Research Award: Providing Privacy-Sensitive Social Support for Families of High-Risk Infants Using Mobile Computing (PI Hayes)	\$60,000 2012
[F.16]	ICS CORCL Ubicomp Systems for Supporting Reflection on Learning in Schools (PI Hayes)	\$5,000 2/2012 – 6/2012
[F.15]	Google Research Award: Supporting Healthy Outcomes for High-Risk Infants Using Mobile Computing and Personal Health Records (PI Hayes)	\$64,000 + \$10,000 in kind (phones) 2011
[F.14]	NSF US-Mexico Workshop on Interactive and Ubiquitous Computing uniting the Californias; Ensenada, Mexico, March 2011 (PI Hayes)	\$16,883 9/2010-9/2011
[F.13]	Donor Gift for Ubicomp Autism Research	\$20,000 2010
[F.12]	NSF HCC Eager: EAGER HCC: The Persistence of Digital Identity (PI Dourish, Co-PI Hayes)	\$274,089 8/2010-7/2012
[F.11]	Robert Wood Johnson Project HealthDesign: Use of Observations of Daily Living among Low Birth Weight Infants and their Caregivers to Improve Care and Reduce Incidence of Chronic Conditions over the Lifespan (PI Hayes)	\$479,533 12/2009–12/2011
[F.10]	NSF Early Career Award Research Experience for Teachers: Mobile and Ubiquitous Computing Technologies for Young Children with Chronic Health Conditions (PI Hayes)	\$25,688 2/2009–2/2014
[F.9]	NSF Early Career Award: Mobile and Ubiquitous Computing Technologies for Young Children with Chronic Health Conditions (PI Hayes)	\$499,038 2/2009–2/2014
[F.8]	NSF WORKSHOP: Computer Supported Cooperative Work Doctoral Research Colloquium 2010 (PI Hayes)	\$25,018 7/2009–7/2010
[F.7]	Nokia Research Council: Mobile Phones to Encourage Sustainable Transportation Choices (PI Hayes)	\$9,860 + \$15,725 in kind (phones) 2009
[F.6]	Smith Family Seed Fund: Using SenseCam for Children with Autism (PI Hayes)	\$3,300 2009
[F.5]	NCWIT Seed Fund Award: Harnessing Hacking: Encouraging Inclusion through Creativity in IT Education for Latina Youth (Co-PIs, Hayes, Dourish, Richardson)	\$15,000 2009
[F.4]	AutismSpeaks Innovative Technology Award: Technology Support for Interactive and Collaborative Visual Schedules (PI Hayes)	\$83,563 3/2008-3/2010
[F.3]	Nokia Research Equipment Grant, in kind donation of mobile phones and internet tablets (PI Hayes)	\$30,000 2008
[F.2]	Collaborative Research Initiation Award in Support of Gaming for Healthy Kids (PI Hayes)	\$11,000 12/2007–6/2008
[F.1]	Council on Research, Computing and Library Resources (CORCLR) grant for project on Tools for Collaborative Brainstorming (PI Hayes)	\$4,500 11/2007-6/2008

TEACHING		# Students
Fall 2013	Informatics 201: Research in Informatics	10
	US10: Introduction to Civic and Community Engagement	30
Winter 2013	Informatics 242/Computer Science 248B: Ubiquitous Computing and Interaction	7
Winter 2013	Informatics 162W: Organizational Analysis of Information Systems	34
Spring 2012	Informatics 295/Computer Science 295: Biomedical Informatics	5
Spring 2011	Informatics 209s & 208s: Seminar in Informatics	21
Winter 2011	Informatics 209s & 208s: Seminar in Informatics	27
Fall 2010	University Studies 10: Introduction to Civic and Community Engagement	44
	Informatics 209s & 208s: Seminar in Informatics	28
Winter 2010	Informatics 231b: Research in Human Computer Interaction	9
Fall 2009	Informatics 148: Projects in Ubiquitous Computing	20
	Informatics 201: Research Methods in Informatics	13
Spring 2009	Informatics 44: Research Topics in Informatics	43
Fall 2008	Informatics 201: Research Methods in Informatics	13
	Informatics 153: Computer Supported Cooperative Work	44
Spring 2008	Informatics 163: Projects in Social Impacts of Computing	35
Winter 2008	Informatics 295: Surveillance and Recording Technologies	14
	Informatics 190: Research Projects in Ubiquitous Computing	13
Summer 2005	CS4750: Introduction to Human-Computer Interaction	41

SERVICE

Professional

Program Committees and Journal Editing:

- Editorial Board, ACM Transactions on Accessible Computing, 2014-present
- Health Forum Editor, interactions, 2012-present
- Associate Editor, Personal and Ubiquitous Computing, 2011-present
- Editorial Board, Autism News, 2010-present
- iConference, 2015
- AMIA 2011
- CHI 2010, 2011
- Guest Editor, Theme Issue of Personal and Ubiquitous Computing on Technology and Autism, 2011
- CSCW 2008
- Ubicomp 2008

- Pervasive 2008, 2009, 2010
- Ubicomp 2007, Late Breaking Results
- ACM GROUP 2007
- Interact 2007
- Mobiquitous 2007

Conference Committees:

- Steering Committee Member, Ubicomp, 2012-2017
- Panels Co-Chair, CHI 2013, CHI 2014
- Co-Chair, Broadening Participation in Ubiquitous and Wearable Computing, Ubicomp 2014
- Planning and Program Committee, Israeli-American Kavli Frontiers of Science, National Academies of Science, 2013
- Steering Committee Member, WISH 2012
- Program Co-Chair, Ubicomp 2012
- Health Community Co-Chair, CHI 2011
- Notes Co-Chair, GROUP 2010
- Academic Advisory Committee, Grace Hopper Celebration of Women in Computing, 2010
- Doctoral Colloquium Co-Chair, CSCW 2010
- Planning and Program Committee, Chinese-American Kavli Frontiers of Science, National Academies of Science, 2008, 2009
- Publications Chair, CSCW 2008
- Workshops Co-Chair, Pervasive 2007
- Student Volunteer Co-Chair, Ubicomp 2006

Ad Hoc Reviewing:

- International Meeting for Autism Research (2014)
- ACM Transactions on Human-Computer Interaction (2012, 2013, 2014)
- Action Research (2012)
- BMC Medical Informatics and Decision Making (2012, 2013)
- Autism (2009, 2010, 2012, 2013)
- Journal of Biomedical Informatics (2011)
- Pervasive and Mobile Computing (2010, 2011)
- Portuguese Foundation for Science and Technology (Fundação para a Ciência e a Tecnologia, 2010, 2012)
- National Institutes of Health (2010)
- International Journal of Medical Informatics (2010)
- National Science Foundation (2009)
- CHI: ACM Conference on Human Factors in Computing Systems: full papers, works in progress, and experience reports (2003-2010, 2012, 2014)
- CSCW: Computer Supported Cooperative Work (2010, 2014)
- ACM Transactions on Accessible Computing (2008)
- DSS: Journal of Decision Support Systems (2007)
- IEEE Pervasive Computing Magazine (2004, 2005, 2007, 2008)
- Interacting with Computers (2005)

- Pervasive (2007)
- UIST: The Symposium on User Interface Software & Technology (2005, 2008, 2010)
- Ubicomp: The International Conference on Ubiquitous Computing (2004, 2006, 2007)
- WMCSA: IEEE Workshop on Mobile Computing Systems & Applications (2003, 2004)

Other Organization and Volunteering:

- Doctoral Colloquium Faculty Panelist: Pervasive 2009, AMIA 2010
- Co-Chair: WISH 2010
- Autism and Technology Online Community Manager (2007-2013)
- Co-Chair: Designing for Children with Special Needs at IDC 2008
- Co-Chair: Ubicomp in the Office Workshop at Ubicomp 2007
- Session Chair: CHI 2008, CSCW 2008, Pervasive 2009, CHI 2010, CHI 2011, Ubicomp 2012, Pervasive Health 2012
- Student Volunteer: UIST 2003, Ubicomp 2003, CHI 2006

University

UC Irvine

- Chair, Graduate Policy Committee, School of ICS (2014-2015)
- Vice-Chair, Graduate Affairs, Department of Informatics (2014-2015)
- Co-Director, Intel Science and Technology Center for Social Computing, UCI (2014-2015)
- Faculty Director for Civic and Community Engagement (2014-2017)
- Minor in Civic and Community Engagement, core program faculty (2009-present)
- University of California Center for Collaborative Research for an Equitable California Governance Council (2012-2013)
- ICS Representative to the Division Assembly of the Academic Senate (2011-2013)
- ICS Undergraduate Policy Committee (2010-2011)
- Informatics Undergraduate Policy Committee (2010-2011)
- Committee for Civic Engagement (2007-2013)
- Informatics Graduate Student Association Faculty Advisor (2007-2013)
- Graduate Student Recruitment and Retention Committee, Chair (2008-2009)
- Women in Information and Computer Sciences, Faculty Co-Advisor (2008-2009)
- Graduate Student Admissions and Recruitment Committee (2007-2008)
- Arts, Computation, and Engineering, program faculty (2007-2011)
- Center for Biomedical Informatics Advisory Board (2007-2010)

Georgia Tech

- Women@CC (College of Computing Women's Group) Advisory Board Co-Chair (2003-2004)
- Graduate Student Committee (2002-2004, 2005-2006)
- PhD Student Recruiting Committee (2002-2003)
- College of Computing Ergonomics Chair (2003-2004)

- College of Computing Faculty Recruiting Committee (2005-2006)
- Intel Opportunity Scholars Mentor (2003-2006)
- Georgia Tech Institutional Review Board, student member (2005-2007)

MEMBERSHIPS

External

- Association for Computing Machinery (ACM)
- ACM Special Interest Group for Human Computer Interaction (SIGCHI)
- Institute of Electrical and Electronics Engineers, Inc. (IEEE)
- IEEE Computer Society
- American Anthropological Association (AAA)
- American Medical Informatics Association (AMIA)
- California Center for Collaborative Research for an Equitable California (CCREC)

UCI

- Intel Science and Technology Center for Social Computing (ISTC)
- Institute for Virtual Environments and Computer Games
- Center for Autism Research and Treatment (CART)
- Institute for Clinical and Translational Science (ICTS)
- Center for Biomedical Informatics (CBMI)
- Center for Research in Information Technology and Organizations (CRITO)
- Center for Ethnography
- California Institute for Telecommunications and Information Technology (Calit2)
- Center for Organizational Research (COR)

GENERAL DATA

Monica Elizabeth Tentori Espinosa

Km. 107 Carretera Tijuana-Ensenada
 Pedregal Playitas, Ensenada, BC
 +52 (646) 1750500 ext. 23417
 mtentori@cicese.mx, mtentori@gmail.com
 www.monicatentori.com

**EDUCATION**

- Nov '08 **Ph.D. in Computer Science**, Computer Science Department, Center of Scientific Research and Higher Education of Ensenada (CICESE)
 Aug '05 **M.Sc. in Computer Science**, Computer Science Department, CICESE
 Feb '02 **B.Sc. in Computer Science**, School of Computer Science, UABC

PROFESSIONAL EXPERIENCE

- Mar' 12 – **Assistant Professor**, Computer Science Department, CICESE
 Feb '08 – **Assistant Professor**, School of Computer Science, UABC, Ensenada, México
 Mar '12
 Sep '02- **Systems Analyst**, Graduate department, CICESE
 Aug '03
 Aug '01 – **Undergraduate Systems analyst**, Departamento de telemática, CICESE
 Aug '02 *In collaboration with the University of California, San Diego (UCSD)*

HONORS AND AWARDS

- 2014 **Best paper nominee:** Ubicomp 2014
 2013 **Fellowship:** Microsoft Research Fellowship
 2011-'14 **Award:** National System of Researchers (S. N. I.) Level 1
 2009-'11, **Award:** National System of Researchers (S. N. I.) Level 1
 2010 **Fellowship::** UCMexus Post-doctoral Fellowship
 2006 **Best paper award:** PervasiveHealth 2006
 2005- '08 **Scholarship:** CONACYT Graduate Fellowship
 2003-'05 **Scholarship:** CONACYT Graduate Fellowship

RESEARCH VISITS

- Sep '13 [E3] **Visiting scholar**, UCLIC, London, UK
 Jan '10 – [E2] **Post-doctoral scholar**, Department of Informatics, Donald Bren School of Information and Computer Science, UC Irvine, USA
 Dec '11
 January [E1]. **Visiting graduate student**, School of Business, University of
 2008 Manchester

PUBLICATIONS

Journal and Scientific Magazine Publications (Peer-reviewed)

- 2014 [J20] Munoz, D., Cornejo, R., Gutierrez, F. J., Favela, J., Ochoa, S. F., **Tentori, M.** (2014) "Connecting Families in the Era of Information: Aligning Social Interaction Among Members of a Family Community" Accepted to Future Generation of Computer Systems.
- [J19] Fuentes, C., Hernandez, C., Escobedo, L., Herskovic, V., **Tentori, M.**, (accepted) Promoting self-reflection of social isolation through persuasive mobile technologies: The case of mother caregivers of children with cancer. *International Journal of Human Computer Interaction*.
- [J18] Escobedo, L., **Tentori, M.**, Quintana, E., Favela, J., and García-Rosas, D. (2014) "Using Augmented Reality to Help Children with Autism Stay Focused" *IEEE Pervasive Computing*, 13(1):38-46pp
- 2013 [J17]. Cornejo, R., **Tentori, M.**, and Favela, J. (2013) "Enriching in-person encounters through social media: A study on family connectedness for the elderly". *International Journal of Human-Computer Studies*, 71(9): 889-899pp
- [J16]. Escobedo, L., Ibarra, C., , Hernandez, J., Alvelais, M., and **Tentori, M.** (2013) "Smart objects to support the discrimination training of children with autism" *Personal and Ubiquitous Computing (PUC)*, 1-13pp
- 2012 [J15]. **Tentori, M.**, Hayes, G. R. and Reddy, M. (2012) "Pervasive healthcare for preventive, hospital and chronic care", *J. of Foundations Trends in HCI*, 5(1):1-95pp
- [J14]. Cornejo, R., Favela, J. y **Tentori, M.** (2012) "Ambient awareness to connect older adults with their families", *Journal of CSCW (JCSCW)*, 22(1-2):309-344p
- 2011 [J13]. **Tentori, M.**, Rodriguez, M. D. y Favela, J. (2011) "An agent-based middleware for the design of activity-aware applications" *IEEE Intelligent Systems*, 26(3):15-23; Citations (C): 2¹
- 2010 [J12]. García-Vázquez, J.P., Rodríguez, M.D., **Tentori, M.**, Saldaña, D. E., Andrade, A. G., Espinoza, A.D. (2010) "An agent-based Architecture for Developing Activity-Aware Systems for Assisting Elderly" *Journal of Universal Computer Science (JUICS)*, 16(12):1500-1520; **C: 1**
- [J11]. Favela, J., **Tentori, M.** y Gonzalez, V. M. (2010) "Ecological validity and pervasiveness in the evaluation of ubiquitous computing technologies for healthcare". *International Journal of Human Computer Interaction (IJHCI)*, 26(5):414-44pp
- 2009 [J10]. Gasca, E., **Tentori, M.** y Favela, J. (2009) "Assisting support groups of patients with chronic diseases through persuasive computing". *Journal of Universal Computer Science On Collaborative Technology and Environments (JUICS)*, 15(16): 3081-3100pp; **C:1**
- [J9]. Favela, J., **Tentori, M.**, Segura, D. y Berzunza, G. (2009) "Adaptive awareness of hospital patient information through multiple sentient displays". *International Journal of Ambient Computing and Intelligence*, 1(1):27-38pp. ISSN 1941-8647); **C:1**

¹ # of citations according to Microsoft Academic Search or ACM Digital Library

- 2008 [J8]. **Tentori, M.** y Favela, J. (2008) "Collaboration and coordination in hospital work through Activity-aware Computing". *International Journal of Cooperative Information Systems (IJCIS)*, 17(4):1-30pp. ; **C:2**
- [J7]. **Tentori, M.** y Favela, J. (2008) "Activity-aware computing in healthcare' *IEEE Pervasive Computing*", 7(2):51-57pp., ISSN 1536-1268); **C:20**
- [J6]. Sanchez, D., Favela, J. y **Tentori, M.** (2008) "Activity recognition for the Smart Hospital" *IEEE Intelligent Systems*, 23(2):50-57pp.; **C: 32**
- 2007 [J5]. Mejia, M., Moran, L., Favela, J. y **Tentori, M.** (2007) "On the Move Collaborative Environments: Augmenting Face to Face Informal Collaboration in Hospitals". *e-Service Journal (eSJ)*, 6(1):98-124pp; **C:1**
- [J4]. Favela, J., **Tentori, M.**, Castro, L.A., Gonzalez, V.M., Moran, E.B. y Martínez-García, A.I. (2007) "Activity Recognition for Context-Aware Hospital Applications: Issues and Opportunities for the Deployment of Pervasive Networks". *Mobile Networks and Applications*, 12(2-3):155-171 pp.; **C: 16**
- [J3]. Moran, E. B., **Tentori, M.**, Gonzalez, V., Favela, J., y Martinez-Garcia, A.I. (2007) "Mobility in Hospital Work: Towards a Pervasive Computing Hospital Environment". *International Journal of Electronic Healthcare*, 3(1): 72-89 pp., ISSN 1741-8453); **C: 26**
- 2006 [J2]. **Tentori, M.**, Favela, J. y Rodriguez, M.D. (2006) "Privacy-aware Autonomous Agents for Pervasive Healthcare", *IEEE Intelligent Systems*, 21(6):55-62 pp., ISSN 1541-1672); **C:18**
- [J1]. **Tentori, M.**, Favela, J. y Gonzalez, V. (2006) "Quality of Privacy (QoP) for the Design of Ubiquitous Healthcare Applications". *Journal of Universal Computer Science (JUCS)*, 12 (3):252-269 pp.; **C: 9**

Book chapters (peer-reviewed)

- 2013 [Ch3]. Martínez-García, A. I., **Tentori, M.**, Rodriguez, M. (accepted) "Aplicaciones Interactivas para Saud" Editorial AlfaOmega
- 2010 [Ch2]. **Tentori, M.**, Gonzalez, V. y Favela, J. (2010) "Lessons from evaluating ubiquitous applications in support of hospital work" *Pervasive and Smarta Technologies for Healthcare: Ubiquitous Methodologies and Tools*, Antonio Coronato and Giuseppe De Pietro (Eds.), 228-250pp.
- 2008 [Ch1] **Tentori, M.**, Segura, D. y Favela, J. (2009) "Monitoring hospital patients using ambient displays" En *Mobile Health Solutions for Biomedical Applications*. Medical Information Science Reference, Tan, J. and Olla, P.(eds.), IGI Global, ISBN 978-1-60566-332-6

Conference full publications (peer-reviewed)

- 2014 [C30] Ringland, K., Zalapa, R., Neal, M., Escobedo, L., **Tentori, M.**, Hayes, G.R. (2014) *SensoryPaint: A Multimodal Sensory Intervention for Children with Neurodevelopmental Disorders*. *UbiComp 2014*, Seattle, WA, USA **(Best paper nominee)**
- [C29] Matic, A., Hayes, G.,R., **Tentori, M.**, Abdullah, M., Schuck, S. (2014) *Collective use of a Situated Display to Encourage Positive Behaviors in Children with Behavioral Challenges*. *UbiComp 2014* **(Best paper nominee)**
- 2013 [C28] Zalapa, R., and Tentori, M. (2013) *Movement-based and tangible interactions to offer body awareness to children with autism*. In *Proc.*

- ofUCAMI, Springer-Verlag, Guanacaste, Costa Rica, December 2-6, 2013
- [C27] Fuentes, C., Herskovic, V., Heysen, J., Tentori, M. Towards a technology for caregivers: Sharing emotions with far-away family. In Proc. of UCAMI, Springer-Verlag, Guanacaste, Costa Rica, December 2-6, 2013
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- 2011 [C21]. Rangel, C. y **Tentori, M.**, "Self-configurable Activities in Activity-Aware Computing: The Case of Autism", UCAMI, Riviera, Maya, Mexico, December 5-9, 2011
- [C20]. Cramer, M., Hayes, G.R. **Tentori, M.**, Hirano, S. y Yeganyan, M. Classroom-Based Assistive Technology: Collective Use of Interactive Visual Schedules by Students with Autism. CHI'11, May 7-11, 2011, Vancouver, Canada, 1-10pp, **C:3**
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- 2010 [C18]. **Tentori, M.** y Hayes, G. R. (2010) "Designing for Interaction Immediacy to Enhance Social Skills of Children with Autism", Ubicomp'10, Copenhagen, Denmark, September 26-29, 2010, 51-60pp; **C: 7**
- [C17]. Damian-Reyes, P., Favela, J., **Tentori, M.** y Contreras-Castillo, J. "Interactive Reliability: Managing Uncertainty in context-aware computing through user intervention" CEDI'10. Valencia Spain
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- 2009 [C14]. Meza-Kubo, V., Moran, A., **Tentori, M.** y Gonzalez-Fraga, A. (2009) "Augmenting Cognitive Stimulation Activities in a Nursing Home through

Pervasive Computing”, CLIHC (2009), Merida, Yuctan, November, 9-11

- 2008 [C13] Segura, D., Favela, J. y **Tentori, M.** (2008) “Sentient displays in support of hospital work” UCAMI’08 En Advances in Software Computing. J. M. Corchado, et. al. (Eds.) Springer. Zaragoza, España, Octubre, 22-26, 103-111pp. ISBN: 978-3-540-86866-9. ISSN: 1615-3871; **C:1**
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- 2007 [C10]**Tentori, M.** y Favela, J. (2007) “Activity-aware Computing in Mobile Collaborative Working Environments”. En Groupware: Design, Implementation, and Use. Lecture Notes in Computer Science 4715. J.M. Hacke, S.F. Ochoa and A. Cechich (Eds.) Springer. 337-353 pp. ISBN: 978-3-540-74811-3. ISSN 0302-9743, **C:2**
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- 2006 [C6]. Markarian, A., Favela, J., **Tentori, M.**, Castro, L. A. (2006) “Seamless Interaction among Heterogeneous Devices in Support for Co-located Collaboration”. In Groupware: Design, Implementation, and Use. Lecture Notes in Computer Science 4154. Dimitriadis, et al. (Eds.) Springer. 389-404 pp. ISBN 3-540-29110-5. ISSN 0302-9743, C: 8
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México, 2875-2884 pp. ISBN: 970-31-06-21-8

- 2005 [C3]. **Tentori, M.**, Favela, J., Gonzalez, V. y Rodriguez, M. (2005) "Supporting Quality of Privacy (QoP) in Pervasive Computing". In proceedings 6th Mexican International Conference on Computer Science (ENC 2005), V. Estivilli-Castro and A. Sanchez (Eds.), IEEE computer society, September, 26-30, Puebla, Mexico, 58- 65pp, **C: 7**
- [C2]. **Tentori, M.**, Favela, J. y Gonzalez, V. (2005) "Designing for Privacy in Pervasive Hospital Environments" In proceedings actas del Simposio de Computación Ubicua e Inteligencia Artificial (UCAMI 2005), Thompson, Granada, Spain, September, 13-16, 27-35 pp. ISBN: 84-9732-442-0
- [C1]. Gonzalez, V., **Tentori, M.**, Moran, E., Favela, J. y Martinez, A. (2005) "Understanding mobile worker's behaviors in a distributed information space: implications for the design of ubicomp technology". In proceedings del 2005 Latin American conference on Human-computer interaction (CLIHIC 2005), ACM International Conference Proceeding Series; Vol. 124, October, 23-26, Cuernavaca, Mexico, 52-63 pp. ISBN: 1-59593-224-0, **C:5**

Conference workshop papers, demos and posters (lightly peer-reviewed)

- 2014 [W21]. Linney, C., Martinez-Garcia, A., and Tentori, M. (2014) Hunting Relics: A collaborative exergame on an interactive floor for children, EA in Ubicomp 2014. Seattle, WA. September 13-17
- [W20]. Ringland, K., Zalapa, R., Hayes, G. R., Tentori, M. (2014) SensoryPaint: An Interactive Surface Supporting Sensory Integration in Children with Neurodevelopmental Disorders, IMFAR 2014, Atlanta, Georgia, May 14-17, 2014
- 2013 [W19]. Ylizaliturri-Salcedo, M. A., Delgadillo-Rodriguez, S., Garcia-Macias, J., Tentori, M. (2013) "Participatory Sensing for Improving Urban Mobility" EA of UCAMI, Springer-Verlag, Guanacaste, Costa Rica, December 2-6, 2013
- 2012 [W18]. Cornejo, R., Hernández, D., Favela, J. and **Tentori, M** (2012) "Persuading older adults to socialize and exercise through ambient games" In Workshop of Wellness and HCI, PervasiveHealth 2012, San Diego California, May 21-24, 2012
- [W17]. Ibarra, C. y Tentori, M. "Things that think" for the cognitive skills training of students with autism. A ser presentado el Taller de Evaluation, interfaces and education, de CHI, Autisn, Texas, In extended abstractsCHI 2012
- 2011 [W16]. Rodriguez, M. D., **Tentori, M.**, Favela, J., Saldania, D., Garcia, J. P. (2011) CARE: An Ontology for Representing Context of Activity-Aware Healthcare Environments, Taller de Activity Recognition and Representation, AAAI '01, San Francisco, CA
- [W15]. **Tentori, M.**, Boyd, L., Nguyen, D., Roxas, W. and Hayes, G. R. (2011) "Perceived Acceptance of the Mobile Social Copass", IMFAR, San Diego, May 12-14
- 2010 [W14]. Escobedo, L. y Tentori, M. Blue's Clues: An Augmented Reality Positioning System, Presentado en el Taller de Child Computer Interaction de CHI, Vancouver, CA., memorias extendidas de CHI 2010
- [W13]. **Tentori, M.**, Boyd, L. and Hayes, G. R. (2010) "A Mobile Social Compass", IMFAR, Philadelphia, April 20-21
- 2009 [W12]. Sandra Nava-Muñoz, Alberto L. Morán, Mónica Tentori, Claudia Espinel. 2009, Notificaciones Conscientes del Contexto: Estudio de Caso

- Cuidadores Formales de Adultos Mayores. Latin-American Conference on Human-Computer Interaction (CLIHC'09), Mérida, Yucatán. 9-11 Nov 09. PP 85-86. ISBN 978-607-7753-32-2.
- [W11]. Fernandez, R., Favela, J. y **Tentori, M.** (2009) "SeniorWatch: A video browsing system to monitor elders with dementia in a nursing home", CLIHC (2009), Merida, Yuctan, November, 9-11, 1-7pp.
- [W10]. Fernandez, R., **Tentori, M.** y Favela, J. (2009) "Design of a video browsing system to monitor elders with dementia in a nursing home", HCI, July, 19-24, San Diego, CA, USA
- [W9]. Nava-Muñoz, S., Morán, A. L. y **Tentori, M.** (2009), "A Taxonomy of Notification Technology for Assisting the Caregivers of Elders with Cognitive Decline", 13th International Conference on Human-Computer Interaction (HCI'09), San Diego, CA, USA 19-24 July 09. PP 956-960. ISBN 978-3-642-02884-7.
- [W8]. Cornejo, R., **Tentori, M.** y Favela, J. (2009) "Integrating elders into virtual social networks through ambient displays", 13th International Conference on Human-Computer Interaction (HCI'09), San Diego, CA, USA 19-24 July 09. PP 956-960. ISBN 978-3-642-02884-7.
- [W7]. **Tentori, M.**, Cornejo, R. and Favela, J. (2009) "Sentient displays to connect elders with cognitive disabilities to the digital era of social interaction", WISH at CHI, 2010, 10-15 April, Atlanta, GA, USA, pp.
- 2007 [W6]. Favela, J., Gonzalez, V.M. and **Tentori, M.** (2007) "The evaluation grid: challenges in the evaluation of Ubihealth Technologies", Presentado en el taller 'Evaluating New Interactions in Healthcare: Challenges and Approaches' de CHI '09, Boston, USA, April, 4-9
- [W5]. Favela, J., **Tentori, M.**, Garcia-Peña, C., Rodriguez, M.D. y Gonzalez, V.M. (2007) "Activity Recognition for the Assessment and Assistance of Age-Related Cognitive Decline" Workshop on Intelligent Systems for Assisted Cognition. October, 12-13, Rochester, NY.
- 2006 [W4]. Silva, J.M., Zamarripa, S., Moran, E.B., **Tentori, M.** y Galicia, L. (2006) "Promoting a healthy lifestyle through a Virtual Specialist Solution". In extended abstracts Conference on Human Factors in Computing Systems, CHI 2006, April, 22-27, Montreal, Quebec, Canada, 1867-1872 pp. C:5
- [W3]. **Tentori, M.**, Favela, J. y Gonzalez, V. (2006) "Towards the Design of Activity-aware Mobile Adaptive Applications for Hospitals" In proceedings de *UbiHealth 2006*: California, USA. 17-21 September.
- 2005 [W3]. **Tentori, M.**, Favela, J., Gonzalez, V. y Rodríguez, M. (2005) "Towards the Design of Privacy-Aware Computing: A Case Study in Hospital Work". In proceedings de Workshop on UbiComp Privacy: Privacy in context en UbiComp 2005, Tokyo, Japan, September, 11-14
- 2004 [W2]. Escobedo, L., **Tentori, M.**, Martínez, A., Galicia, L. y Macías, A. (2004) "SAPeR: un sistema para la administración de pacientes en rehabilitación". In extended abstracts, M. A. Estrada y A. Gelbuckh (Eds.), Taller de Informatica Medica del ENC 2004, Colima, Mex. September 20-24, 687-692pp. ISBN 970-692-170-2.
- [W1]. Escobedo, L., **Tentori, M.**, Martínez, A., Galicia, L. y Macías, A. (2004) "SAPeR: un sistema para la administración de pacientes en rehabilitación". Workshop of medical informatics ENC, Colima, Mex., September, 20-24

- 2012 [EW3]. Castro, L. and **Tentori, M.** (Eds.), Proc. of the IV Workshop of Mexican Human Computer Interaction (MexIHC 2012), Mexico, DF
- [EW2]. **Tentori, M.**, Bardram, J. E., Mihailidis, A. (2012) (Eds.), Proc. of 6th International Conference on Pervasive Computing Technologies for Healthcare San Diego California, May 21-24
- 2009 [EW1]. Alberto L. Morán, Edgar Chávez, Elizabeth S. Furtado, **Tentori, M.**, Marcela D. Rodríguez (Eds.), Memorias Extendidas de la 4ta. Conferencia Latino-Americana de Interacción Humano-Computadora (CLIHC 2009), Mérida, Yucatán, México, 9-11 November 2009, Editorial Universitaria UABC 2009. ISBN: 978-607-7753-32-2.

INVITED TALKS

- 2014 [T21]. **Tentori, M.** “Experiencias de investigación con impacto en la sociedad: Una plática con una mujer”, Mujeres en la Ciencia, Tijuana, Mexico, October 8
- [T20]. **Tentori, M.** “Viviendo en un ambiente ubicuo para autismo”, UCOL, Colima, Mexico, September 25, 2014
- [T19]. **Tentori, M.** “Tecnología ubicuas aplicadas a la educación especial”, Cetys Universidad, Mexicali, Mexico, August 21, 2014
- 2013 [T18]. **Tentori, M.** “Diseño de ambientes ubicuos en apoyo al comportamiento de niños con autismo”, World Usability Day 2013 Healthcare: Collaborating for Better Systems, Monterrey, Mexico, November 7, 2013
- [T17]. **Tentori, M.** “Cómputo pervasivo en apoyo al comportamiento de niños con autismo y adultos mayores”, Taller de Informática Médica, ENC 2013, Morelia, México, October 31, 2013
- [T16]. **Tentori, M.** “Cómputo consciente del comportamiento en salud”, UABC, Mexicali, Baja California, Mexico, Octubre 18
- [T15]. **Tentori, M.** “Behaviour-aware computing in healthcare”, UCLIC, London, UK, September 26, 2013
- [T14]. **Tentori, M.** “Interaction design for pervasive healthcare”, Doctoral School, Trento, Italy, September 9, 2013
- [T13]. **Tentori, M.** “Métodos de diseño de sistemas interactivos y ubicuos”, PIFI Xochicalco, Ensenada, B.C., January 15, 2013
- 2012 [T12]. **Tentori, M.** “Tecnología de cómputo ubicuo facilita las terapias de niños con autismo”, Conacyt’s Press Conference, April 10, 2012
- [T11]. **Tentori, M.** “La experiencia humana del cómputo ubicuo: El caso de autismo”, BUAP, Puebla, March 16, 2012
- [T10]. **Tentori, M.** “The human experience of ubiquitous computing”, Escuela doctoral, Santiago, Chile. January 9-13, 2012
- 2011 [T9]. Panel on “Experiences with Interdisciplinary research”, Workshop on Ambient Intelligence on Healthcare and Social Wellness (UACAmI 2011), December, 2011, Rivera Maya, Mexico
- [T8]. **Tentori, M.** “Computo ubicuo en apoyo a poblaciones vulnerables”. Semana de Ciencias, Ensenada, BC, September 2011
- 2010 [T7]. **Tentori, M.** “Ubiquitous computing for vulnerable populations: three ecosystem domains”. INTEL, Santa Clara, July 13, 2010
- [T6]. **Tentori, M.** “Supporting the needs of vulnerable populations to make activity-aware computing matter”. Irvine, CA. Department of informatics Seminar, University of California, Irvine. April 16, 2010

- 2009 [T5]. Mesa redonda de egresados de la Celebración de los XV años del Posgrado en Ciencias de la Computación, September 2009
[T4]. "Computo ubicuo en la vida diaria", Sciences fair, UABC, May, 2009
- 2008 [T3]. Panel on "Experiencias de estudios de posgrado en Mexico y en el extranjero", ENC 2008, Mexicali, Mexico
- 2007 [T2]. **Tentori, M.** "Activity-aware computing in Hospitals". Manchester, UK, February 6th,2007, HCI Seminar
[T1]. **Tentori, M.** "Computo consciente de la actividad para el diseño de aplicaciones médicas ubicuas". UABC, Ensenada, B.C., Marzo,2007, Ambient intelligent seminar

SUPERVISED GRADUATE STUDENTS (ALUMNI)

Ph.D.

- 2014 [Sg10]. **Lizbeth Olivia Escobedo Bravo** , MyDCI, Facultad de Ciencias, UABC, **Title:** *Tecnologías asistidas cognitivas ubicuas para apoyar los problemas de atención y manierismos de niños con autismo en terapias supervisadas y no supervisadas*
- [Sg9]. **Raymundo García Cornejo**, DCC, CICESE, Co- supervized with Dr. Jesús Favela, **Title:** *Red social ambiental para fortalecer las redes sociales de adultos mayores*

M.Sc.

- 2014 [Sg8]. **Franceli L. Cibrian**, DCC, CICESE **Title:** *Videojuego en pisos interactivos para promover ejercicio colaborativo*
[Sg7]. **Miguel Ylizarritu**, DCC, CICESE **Title:** *Sensado participativo para movilidad urbana*
[Sg6]. **Rodrigo Zalapa**, DCC, CICESE **Title:** *Cómputo tangible en apoyo a las terapias sensoriales para niños con autismo*
- 2013 [Sg5]. **Efraín Rincón**, DCC, CICESE **Title:** *Cómputo consciente del context para el análisis selectivo de llanto infantil*
- 2012 [Sg4]. **Claudia Margarita Rangel López**, MyDCI, Facultad de Ciencias,, UABC, **Title:** *Cómputo consciente de la actividad en apoyo a la ejecución paso a paso de actividades de la vida diaria de niños con autism: El caso del lavado de manos*
[Sg3]. **Catalina Ibarra Enríquez** , MyDCI, Facultad de Ciencias, UABC, **Title:** *Objetos aumentados en apyo a las terapias cognitivas de niños con autismo*
- 2009 [Sg2]. **Raymundo García Cornejo**, DCC, CICESE, Co-supervized with Dr. Jesús Favela, **Title:** *Pantallas ambientales afectivas para mantener los lazos afectivos entre adultos mayors y sus familiares*
[Sg1]. **Raúl Gerardo Fernández Escobosa**, DCC, CICESE, Co- supervized with Dr. Jesús Favela, **Title:** *Cómputo ubicuo para la captura y acceso de video en apoyo al monitoreo de adultos mayors con problemas cognoscitivos*

CURRENT STUDENTS

Ph.D.

- [2012-to date] **Karina Caro Corrales**, DCC, CICESE, Co- supervized with Dra. Ana I. Martínez García, **Title:** *Juegos ubicuos basados en movimiento en apoyo a niños con problemas de motricidad*

M.Sc.

- [2014-to date] **Deysi Ortega**, DCC, CICESE
Oscar Peña, DCC, CICESE
Alejandro Rangel, DCC, CICESE

[2013-to
date] **Carlos Refugio**, DCC, CICESE

Student committees

Ph. D.	[MC5]. Sandra Nava , MyDCI, School of Computer Science, UABC [MC4]. Juan Pablo Velázquez , MyDCI, School of Computer Science, UABC [MC3]. Jorge Álvarez , Computer Science Department, CICESE, CICESE
M. Sc.	[MC2]. Viridiana Silva , MyDCI, School of Computer Science, UABC [MC1]. Ivan Ubaldo , Computer Science Department, CICESE

Ungraduate supervision

2010-2011	[U6]. Daniel García Rosas [U5]. Alejandro Rangel
2009	[U4]. Javier Alejandro González Ibarra
2008	[U3]. Jaime Alberto Morillón Ritchie [U2]. Javier Alejandro González Ibarra [U1]. Saúl Maldonado Cruz

FUNDING

Principal investigator

2012	[P9]. Atención oportuna al adulto mayor con deterioro cognitivo mediante aplicaciones de cómputo ubicuo en residencias geriátricas, 15va. Convocatoria Interna de Apoyo a Proyectos de Investigación	45000 MN
2011	[P8]. Extensión proyecto PROMEP, (2010-2011)	312000 MN
	[P7]. Cómputo ubicuo en apoyo a los cuidadores de adultos mayores con problemas cognoscitivos, Interna (2011-2012)	45000 MN
2010	[P6]. "Cómputo consciente de la actividad, Autismo y Alzheimer: Mejorando las aplicaciones de acceso y captura en apoyo al cuidado de personas con discapacidades intelectuales", PROMEP, (2009-2010)	392002 MN

Co-principal investigator

2014	[P5]. Juegos interactive en dispositivos móviles para facilitar las terapias cognitivas de niños con autismo, FINNOVA <i>Co-investigador:</i> Lourdes Ibañez (ClubLIA), Eduardo Ibañez (BajaInnova)	4000 000 MN (~305 000 US)
	[P4]. Mobile and Tangible Computing for the remote monitoring of emotional states in palliative care caregivers, MSR-LACCIR <i>Co-investigador:</i> Valeria Herskovic (Pontificia Universidad Católica de Chile)	611 000 MN (~47 000 US)
2013	[P5]. Enriching interactive visual supports with video modeling for children with autism, UC Mexus	387 372 MN (~25 000 US)

2011	[P3]. Red Contextual, RedTIC CONACYT <i>Co-investigador:</i> Alfredo Sanchez (UDLA), Cuauhtémoc Rivera (U. Mich.), Mario Moreno (U. Mixteca)	70000 MN
	[P2]. NSF International Research and Education: Planning Visits and Workshops, WORKSHOP: US-Mexico Workshop on Interactive and Ubiquitous Computing uniting the Californias (WIUC ²) <i>Co-investigador:</i> Gillian R. Hayes (UCI)	219479 MN (~16883 US)
2010	[P1]. "Evaluación Remota de Sistemas Móviles y Ubicuos para el Cuidado de la Salud" CUDI-CONACYT (2010-2011) <i>Co-investigador:</i> Jesús Favela (CICESE), Víctor M. González (ITAM), Eduardo Calvillo (USLP)	173000 MN

TEACHING

Principal/Titular

Graduate level	2012-2, 2013-2	[CI11]. Object-oriented analysis and design , Computer Science Department, CICESE
	2010-2011	[CI10]. Research activities 2-4 , MyDCI, School of Engineering, UABC
	2009-2, 2010-1, 2012-1, 2013-1	[CI9]. Interaction design , School of Computer Science, UABC, and Computer Science Department, CICESE
	2009-1	[CI8]. Evaluation and development of TIs , MTIC, School of Social Sciences, UABC
Ungraduate level	2011	[CI7]. Assisted cognition , School of Computer Science, UABC
	2008-2011-1	[CI6]. Programming methodologies , School of Computer Science, UABC
	2009, 2011-2	[CI5]. Mobile and Ubiquitous Computing , School of Computer Science, UABC
	2008	[CI4]. Process re-engineering , School of Computer Science, UABC [CI3]. Research seminar , School of Computer Science, UABC

Teacher assistant

Graduate level	August 2006	[CI2]. Object-oriented analysis and design , Computer Science Department, CICESE
	August 2005	[CI1]. Análisis y diseño orientado a objetos , Computer Science Department, CICESE

SERVICE

Steering committee

2012	[SC1]. Ubihealth Network sponsored by the MarieCurie Program of the European Community
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Institutional Activities

2013	[CA5]. Member of the graduate committee of the Computer Science Department, CICESE
2012	[CA4]. Incentives program reviewer, UABC
2011	[CA3]. Head of Graduate Studies of the Computer Science Program, School of computer science, UABC
2010	[CA2]. Member of the faculty advisory board, School of computer science, UABC
2009	[CA1]. Member of the graduate committee board, School of Computer Science, UABC

Journals, projects and conference management

Editorial advisory board/Review Editor	[E1] Book on "Pervasive Health: State-of-the-Art and Beyond" [E2] Frontiers
Program chair	[G7]. General chair "Workshop on Supporting Children with Complex Communication Needs", CHI 2014, Toronto, Canada (2014) [G6]. General chair "Workshop on Ubiquitous games and gamification for promoting behaviour change and wellbeing", CHI Italy, Trento, Italy (2013) [G5]. Program chair PervasiveHealth, San Diego California (2012) [G4]. Program chair MexIHC: Mexican conference in Human-Computer Interaction (2012) [G3]. Program chair of the doctoral colloquim, MexIHC (2010)
General chair	[G2]. General chair "Workshop of Ubiquitous Computing uniting the Californias" (2010, 2011) [G1]. General chair CLIHC: Latin American Conference on Human Computer Interaction, 2009
Program committee	[PC12]. ENC (2013) [PC11]. CHI Chile (2013) [PC10]. CLIHC (2013) [PC9]. IWAAL (2013) [PC8]. PervasiveHealth (2012) [PC7]. UCAMI&IWAAL (2012) [PC6]. WishWell (2012) [PC5]. Ubicomp (2010, 2012, 2014) [PC4]. WiP CHI (2012-2013) [PC3]. UCAMI (2011, 2014) [PC2]. MexIHC (2010, 2014) [PC1]. Ubicomp (2010,2012, 2014)

Funding reviewer	[R25]. Microsoft LACCIR Collaborative Grants (2012) [R24]. Funding for innovative projects, CONACYT (2010, 2012) [R23]. Basic Research, CONACYT (2010) [R22]. MoPROSOFT (2009)
Journal reviewer	[R21]. Communications of ACM (2014) [R21]. IEEE Journal of Biomedical and Health Informatics (2013) [R20]. Methods of Information in BioMedicine (2013) [R19]. Interacting with computers (2013) [R19]. ACM Transactions on Accesible Computing (TACCESS) (2013) [R18]. IEEE Journal of Biomedical and Health Informatics (2012) [R17]. JAISE (2012) [R16]. Personal and Ubiquitous Computing (2010) [R15]. IEEE Pervasive Computing (2007, 2012, 2013) [R14]. IJHCS (2007-2008, 2012)
Conference reviewer	[R13]. Ubicomp (2010, 2011, 2012) [R12]. Pervasive Healthcare (2007,2009-2010) [R11]. CHI: ACM Conference on Human Factors in Computing Systems (2005, 2007-2012, 2013) [R10]. CSCW: Computer Support Cooperative Work (2006,2008-2012) [R9]. CCOMP (2006,2007) [R8].CCIM: Medical informatics workshop (2006,2007) [R7]. Interaction (2006) [R6]. AMCIS (2007) [R5]. HICSS (2006) [R4]. MexIHC (2006, 2010-2012) [R3].ENC: Mexican International Conference on Current Trends in Computer Science (2006-2007) [R2]. UCAMI: Ubiquitous Computing and Ambient Intelligence (2005,2007) [R1]. CLIHC (2005, 2007, 2010)

Other organization and volunteering

Student volunteer	[S2]. CHI: ACM Conference on Human Factors in Computing Systems (2005, 2007) [S1]. CLIHC: Latin American Conference on Human Computer Interaction (2005)
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MEDIA COVERAGE AND INTERVIEWS

2013	[M18] Desarrolla CICESE tecnología para niños autistas Software especializado, videojuegos, sistemas especiales <ul style="list-style-type: none"> Gaceta CICESE http://http://todos.cicese.mx/sitio/noticia.php?t=texto&stat=Cf&n=210#.UX6ly7_3BT5 Ensenada.net http://www.ensenada.net/noticias/nota.php?id=29204t
	[M17] Entrevista de Radio, Voces, 3 de Abril 2013, Ensenada, BC, México

- 2012 [M16] Entrevista TeleSur, Televisión en vivo 3 de Noviembre 2012, Buenos Aires, Argentina
- [M15] “Crean juguetes tecnológicos para tratar a los niños con autismo”, Tendencias de la salud/T21, 25 de Octubre, 2012
http://www.tendencias21.net/Crean-juguetes-tecnologicos-para-tratar-a-los-ninos-con-autismo_a13889.html
- [M14] “Tratan autismo con tecnología Mexicana”, Investigación y Desarrollo, <http://www.invides.com.mx/tecnologia/2251-tratan-autismo-con-tecnologia-mexicana>
- [M13] PervasiveHealth, 11 de Junio 2012, <http://www.calit2.net/newsroom/article.php?id=2012>
- [M12] Pie diabético, autismo y embarazo de alto riesgo se atienden con tecnologías mexicanas, Gaceta CICESE, 11 de April de 2012, http://todos.cicese.mx/index.php?option=com_content&view=article&id=353:pie-diabetico-autismo-y-embarazo-de-alto-riesgo-se-atienden-con-tecnologias-mexicanas&catid=9:breviario&Itemid=100
- [M11] Pondera investigadora tecnologías, El Mexicano, 14 de April del 2012, http://ed.editorialkino.com.mx/impreso/Ensenada/041412/14-04-2012_ENS_11AA.pdf
- [M10] Soluciones para el cuidado de la salud, El diario de coahuila, 11 de April de 2012, <http://www.eldiariodecoahuila.com.mx/notas/2012/4/11/presentan-investigadores-287440.asp>
- [M9]. LACCIR Summer Doctoral Academy, Enero 2012, Santiago Chile, <http://www.youtube.com/watch?v=GXtPIYAIXT8>
- 2011 [M8]. “Cibersalud: una solución latente – Cyber health: a latent solution”. Todos@CICESE, August 25, 2011.
http://todos.cicese.mx/index.php?option=com_content&view=article&id=162%3Acibersalud&catid=3%3Aciencia-y-tecnologia&Itemid=1
- [M7]. “Crean un Facebook para los abuelitos – A facebook for the elderly”. La-Ch.com, September 6, 2011.
- [M6]. A mobile Social Compass in Autism, Værttilrettelægger P1, Copenhagen Denmark, 8 de February de 2011, Entrevista por radio, *por Marie Hougaard*
- 2010 [M5]. Colaboración con clínica especializada en atención de niños con autismo, Gaceta Universitaria, 27 de November de 2010, No. 260, UABC, *por Inés García*
- [M4] UCSD, UCI, UABC y CICESE estrechan lazos de colaboración en el área de cómputo ubicuo, Gaceta electronica, 14 de Octubre de 2010, No. 147, CICESE, *por Diana Venegas*
- [M3]. Ambientes inteligentes en UABC, Entrevista por televisión, La Salud y Usted, *por Dr. Zeferino Zamudio*
- 2008 [M2]. “Desarrollan ciencia a favor de los ancianos – Developing science for the elderly”. El Mexicano 2008
- [M1]. La utilidad de la computación, 22 de Octubre 2008, El vigia, Ensenada, B.C. *por Ruth Dena*

DONALD J. PATTERSON

Department of Informatics
University of California, Irvine
5084 Donald Bren Hall
Irvine, CA 92697-3440

djp3@ics.uci.edu
<http://www.ics.uci.edu/~djp3>
Mobile: (206) 355-5863
Fax: (949) 824-4056

RESEARCH INTERESTS

Ubiquitous Computing, Collapse Informatics, Human Computer Interaction, Artificial Intelligence

EMPLOYMENT AND EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE

Associate Professor, Informatics / Computer Science Departments 2011/12 - present
Assistant Professor, Informatics Department 2005-2011

OPEN PRESENCE, INC.

Co-Founder, Chief Technical Officer (quub.com, swayr.com, waitscout.com, audia.com) 2007 - 2014

UNIVERSITY OF WASHINGTON, SEATTLE

Ph.D., Computer Science & Engineering 1999-2005
Dissertation: "Assisted Cognition: Compensatory Activity Assistance Technology"
Advisors: Professor Henry Kautz, Assistant Professor Dieter Fox
M.S., Computer Science

U.S. NAVY

Operations Officer, La Maddalena, Italy, USS SIMON LAKE (AS-33), 1997 - 1999
Strike Officer, Yokosuka, Japan, USS CURTIS WILBUR (DDG-54), 1995 - 1997

CORNELL UNIVERSITY Ithaca, NY

M.Eng., Electrical Engineering 1990-1995
Thesis: "Automatic ECG Monitoring using Neural Networks"
B.S., Computer Science, with Distinction

HONORS & AWARDS

Best Paper Nominee: ICT for Sustainability Summer 2014
Research Award: Chancellor's Award for Excellence in Fostering Undergraduate Research Spring 2014
Impact Award: Ten Year Impact Award (UBICOMP) Fall 2013
Teaching Award: UCI Celebration of Teaching Award Spring 2013
Best Paper Award: AI Journal Prominent Paper Award (5 year) Summer 2012
Best Paper Award: Computing Community Consortium Sustainability Award (CHI 2012) Spring 2012
Teaching Award: Dean's Award for Undergraduate Teaching Spring 2008
Best Paper Award: Ninth IEEE International Symposium on Wearable Computers Fall 2005
Fellowship: UW CSE Educators Fellowship. 2004-2005
1-year graduate school tuition and stipend, competitive departmental award.
Teaching Award: UW CSE Bob Bandes Teaching Assistant Award. 2001
Annual cash award to the best student instructor in the department.
Fellowship: National Defense Science and Engineering Graduate Fellowship. 1999-2002
3-year graduate school tuition and stipend, competitive national award.
Scholarship: Association of Naval Engineering Scholarship. 1994-1995
Partial graduate school tuition and benefits, competitive national award.
Scholarship: Naval Reserve Officer Training Corps Scholarship (NROTC). 1990-1994
4-year undergraduate tuition, benefits and stipend, competitive national award.
Award: Eagle Scout Award. 1989

PUBLICATIONS

BOOK CHAPTERS

BCN-2 Sensor Data Streams

S. Volda, S. Patel, Donald J. Patterson in J.S. Olson, W. Kellogg (Eds.), Ways of Knowing in HCI, pp. 291-322, May 2014. (Role: Equal Author/ Researcher)

BCN-1 Pervasive Computing in the Home and Community

Donald J. Patterson, H. Kautz, D. Fox, L. Liao in Pervasive Computing in Healthcare, pp. 79-103, November 2006. (Role: Primary Author/ Primary Researcher)

CONFERENCE PROCEEDINGS

CPR-2 Proceedings of the 13th International Conference on Ubiquitous Computing

J. Landay, Y. Shi, Donald J. Patterson, Y. Rogers, X. Xie (Beijing, China) The 2011 ACM Conference on Ubiquitous Computing, 640 pages, ACM. (Role: Technical Program Committee Co-Chair)

CPR-1 Proceedings of the 6th International Conference on Pervasive Computing

J. Indulska, Donald J. Patterson, T. Rodden, M. Ott (Sydney, Australia) Lecture Notes in Computer Science 5013, 315 pages, Springer. (Role: Technical Program Committee Chair)

JOURNAL ARTICLES, PEER REVIEWED

JR-11 Collapse Informatics and Practice: Theory, Method, and Design

B. Tomlinson, E. Blevis, B. Nardi, Donald J. Patterson, M.S. Silberman, Y. Pan in Transactions on Computer Human Interaction, 20(4): 24:1 - 24:26, Sept. 2013. (Role: Equal Co-Author)

JR-10 Efficiently Scaling Up Crowdsourced Video Annotation: A Set of Best Practices for High Quality, Economical Video Labeling

C. Vondrick, Donald J. Patterson, D. Ramanan in International Journal of Computer Vision, 101(1): 184-204 (September 2013). (Role: 50% Advisor)

JR-9 Informing and Performing: Investigating How Mediated Sociality Becomes Visible

X. Ding, T. Erickson, W. Kellogg, Donald J. Patterson in Personal and Ubiquitous Computing, 16(8): 1095-1117, Dec 2012 (Role: Co-Author/Co-Advisor)

JR-8 Supporting the Transition from Hospital to Home for Premature Infants Using Integrated Mobile Computing and Sensor Support

G. Hayes, Donald J. Patterson, M. Singh, D. Gravem, J. Rich, D. Cooper in Personal and Ubiquitous Computing, 15(8): 871-885 Dec 2011. (Role: 50% Author/ 50% Advisor)

JR-7 Assessment of Infant Movement with a Compact Wireless Accelerometer System

D. Gravem, M. Singh, C. Chen, J. Rich, J. Vaughan, K. Goldberg, F. Waffarn, P. Chou, D. Cooper, D. Reinkensmeyer, Donald J. Patterson in the Journal of Medical Devices, 6(2), June 2012. (Role: 50% Author/ 50% Advisor)

JR-6 Overcoming Blind Spots in Interaction Design: A Case Study in Designing for African AIDS Orphan Care Communities

Donald J. Patterson, S. Sim, T. Aiyelokun in Information Technologies and International Development, 5(4): 75-88, Dec 2009. (Role: Primary Author/ Primary Researcher)

JR-5 An Ecosystem For Learning and Using Sensor-Driven IM Messages

Donald J. Patterson, X. Ding, S. J. Kaufman, K. Liu, A. Zaldivar. IEEE Pervasive Computing Magazine, Jan-Mar 2009. (Role: Primary Author/Primary Researcher)

JR-4 Building Personal Maps from GPS Data

L. Liao, Donald J. Patterson, D. Fox, and H. Kautz in Annals of New York Academy of Sciences, 1093: 249-265, February 2007. (Special Journal Issue from Invited Conference Papers) (Role: 50% Author/ 50% Researcher)

JR-3 Learning and Inferring Transportation Routines

L. Liao, Donald J. Patterson, D. Fox, and H. Kautz in Artificial Intelligence Journal, 171: 311-331, January 2007. (Role: 50% Author/ 50% Researcher)

PUBLICATIONS (CONTINUED)

- JR-2 Serum Phosphate Levels and Mortality Risk Among People with Chronic Kidney Disease**
B. Kestenbaum, J. N. Sampson, K. D. Rudser, Donald J. Patterson, S. L. Seliger, B. Young, D. J. Sherrard, D. L. Andress in the Journal of the American Society of Nephrology, 16: 520-528, 2005. (Role: Contributing Author/ 100% Data Mining/Analysis)
- JR-1 Inferring Activities from Interactions with Objects**
M. Philipose, K. P. Fishkin, M. Perkowitz, Donald J. Patterson, D. Hahnel, D. Fox, H. Kautz. 3(4): 50-57, Oct-Dec 2004 IEEE Pervasive Computing Magazine. (Role: Contributing Author/ 50% Researcher)

CONFERENCE PAPERS, PEER REVIEWED

- CR-24 ICT4S 2029: What will be the systems supporting sustainability in 15 years?**
* **BEST PAPER NOMINEE**
B. Penzenstadler, B. Tomlinson, E. Baumer, M. Pufal, A. Raturi, D. Richardson, B. Cakici, R. Chitchyan, G. Da Costa, L. Dombrowski, M. Edwardsson, E. Eriksson, X. Franch, G. R. Hayes, C. Herzog, W. Lohmann, M. Mahaux, A. Mavin, M. Mazmanian, S. Nayebaziz, J. Norton, D. Pargman, Donald J. Patterson, J. Pierson, K. Roher, M. Silberman, K. Simonson, A. Torrance and A. van der Hoek Proceedings of 2nd Intl' Conference on ICT for Sustainability (ICT4S 2014). (Role: Equal Author) (Acceptance Rate: 50%) (Best Paper Rate: 8%) .
- CR-23 CHI 2039: Speculative Research Visions**
E. Baumer, J. Ahn, M. Bie, E. Bonsignore, A.Börütecene, O. Buruk, T. Clegg, A. Druin, F. Echtler, D. Gruen, M. Guha, C. Hordatt, A. Krüger, S. Maidenbaum, M. Malu, B. McNally, M. Muller, L. Norooz, J. Norton, O. Ozcan, Donald J. Patterson, A. Riener, S. Ross, K. Rust, J. Schöning, M. Silberman, B. Tomlinson, and J. C. Yip. In CHI Extended Abstracts, pages 761-770. ACM, 2014. (Role: Equal Author).
- CR-22 Detecting Cooking State with Gas Sensors During Dry Cooking**
S. Hirano, J. Brubaker, Donald J. Patterson, G. Hayes. Proceedings of 2013 ACM Int'l Conference on Ubiquitous Computing (UBICOMP 2013) (Role: Advisor) (Acceptance Rate: 18%).
- CR-21 Interchange: Bidding for Green Lights**
N. Shantharam, T. Strang, Donald J. Patterson. Published in the Proceedings of 2013 IEEE Int'l Conference on Pervasive Computing and Communications Workshops (Percom 2013) (Role: Research Supervisor/ 50% Researcher) (Acceptance Rate: 54%).
- CR-20 Augmenting Gesture Recognition with Erlang-Cox Models To Identify Neurological Disorders in Premature Babies**
M. Fan, D. Gravem, D. Cooper, Donald J. Patterson. Published in the proceedings of 2012 ACM Conference on Ubiquitous Computing (UBICOMP 2012) September 2012 (Role: Primary Author/ 50% Researcher) (Acceptance Rate: 19.3%).
- CR-19 Massively Distributed Authorship of Academic Papers**
B. Tomlinson, J. Ross, P. André, E. Baumer, Donald J. Patterson, et.al.. Published in the extended abstracts of 2012 Conference of Human Factors in Computer Systems (alt.chi 2012) May 2012 (Role: Equal Co-author) (Acceptance Rate: 47%).
- CR-18 Collapse informatics: Augmenting the Sustainability & ICT4D Discourse in HCI**
* **CCC SUSTAINABILITY AWARD & BEST PAPER NOMINEE**
B. Tomlinson, M. Six Silberman, Donald J. Patterson, Yue Pan, Eli Bleviss. Published in the proceedings of 2012 Conference of Human Factors in Computer Systems (CHI 2012) May 2012 (Role: Equal Co-author) (Acceptance Rate: 23%).
- CR-17 Involuntary Gesture Recognition for Predicting Cerebral Palsy in High-Risk Infants**
M. Singh, Donald J. Patterson. Published in the proceedings of International Symposium on Wearable Computing (ISWC 2010), October 2010. (Role: Primary Author/ 50% Researcher) (Acceptance Rate: 21%).

PUBLICATIONS (CONTINUED)

- CR-16 Efficiently Scaling Up Video Annotation with Crowdsourced Marketplaces**
C. Vondrick, D. Ramanan, Donald J. Patterson. Published in the proceedings of European Conference on Computer Vision (ECCV 2010), September 2010. (Role: 50% Author/ 50% Advisor) (Acceptance Rate: 27%).
- CR-15 Twitter, Sensors and UI: Robust Context Modeling for Interruption Management**
J. Tang, Donald J. Patterson. Published in the proceedings of User Modeling and Personalization 2010 (UMAP 2010), pp. 123–134, June 2010. (Role: Author/ Advisor) (Acceptance Rate: 23%).
- CR-14 Getting Places: Collaborative Predictions from Status**
M. Monibi, Donald J. Patterson. Published in the proceedings of the 2009 Ambient Intelligence Conference (AmI 2009), November, 2009. (Role: Author/ Advisor/ 25% Researcher) (Acceptance Rate: 30%).
- CR-13 Constructing Topological Maps of Displays with 3-D Positioning Information**
Donald J. Patterson. Published in the proceedings of the 2009 Ambient Intelligence Conference (AmI 2009), pp. 49–54, November, 2009. (Acceptance Rate: 30%).
- CR-12 Status on Display: a Field Trial of Nomatic*Viz**
X. Ding, Donald J. Patterson. Published in the proceedings of the 2009 European Conference on Computer Supported Cooperative Work (ECSCW 2009), pp. 303–322, September 7, 2009. (Role: Contributing Author/ Advisor/ 25% Researcher) (Acceptance Rate: 19%).
- CR-11 Global Priors of Place and Activity Tags**
Donald J. Patterson Published in the proceedings of the 2009 AAAI Spring Symposium: Human Behavior Modeling, pp. 75–79, March 2009.
- CR-10 Online Everywhere: Evolving Mobile Instant Messaging Practices**
Donald J. Patterson, C. Baker, X. Ding, S. Kaufman, K. Liu, A. Zaldivar. Published in the proceedings of the 10th International Conference on Ubiquitous Computing (UbiComp 2008), pp. 64–73, September 2008. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: 18%).
- CR-9 Interactive and Intelligent Visual Communication Systems**
G. Hayes, Donald J. Patterson, M. Monibi, S. Kaufman. Published in the proceedings of the 7th International Conference on Interaction Design and Children (IDC 2008), June 11, 2008. (Role: 50% Advisor) (Acceptance Rate: Not Available).
- CR-8 Involving Intelligent Assistants in Active Human Communication**
Donald J. Patterson Published in the proceedings of the 2007 AAAI Spring Symposium: Interaction Challenges for Intelligent Assistants, pp. 98–99, March 2007. (Acceptance Rate: Not Available).
- CR-7 Nomatic: Location by, for, and of crowds**
Donald J. Patterson, X. Ding, N. Noack. Published in the proceedings of the Second International Workshop on Location and Context-Awareness (LoCA 2006), pp. 186–203, May 2006. (Role: Primary Author/ 50% Researcher) (Acceptance Rate: 23%).
- CR-6 Fine-Grained Activity Recognition by Aggregating Abstract Object Usage.**
* **BEST PAPER AWARD**
Donald J. Patterson, D. Fox, H. Kautz, M. Philipose. Published in the proceedings of the Ninth IEEE International Symposium on Wearable Computers (ISWC 2005), pp. 44–51, October 2005. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: 25%).
- CR-5 Opportunity Knocks: a System to Provide Cognitive Assistance with Transportation Services.**
Donald J. Patterson, L. Liao, K. Gajos, M. Collier, N. Livic, K. Olson, S. Wang, D. Fox, H. Kautz. Published in the proceedings of the Sixth International Conference on Ubiquitous Computing (UbiComp 2004), pp. 433–450, September 2004. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: 18%).
- CR-4 Mining Models of Human Activities from the Web**
M. Perkowski, M. Philipose, Donald J. Patterson, K. Fishkin. Published in the proceedings of The Thirteenth International World Wide Web Conference (WWW 2004), pp. 573–582, May 2004. (Role: Contributing Author/ 50% Researcher) (Acceptance Rate: 14.6%).

PUBLICATIONS (CONTINUED)

CR-3 Contextual Computer Support for Human Activity

Donald J. Patterson, D. Fox, H. Kautz, K. P. Fishkin, M. Perkowitz, M. Philipose. Published in the proceedings of the 2004 AAAI Spring Symposium: Interaction between Humans and Autonomous Systems over Extended Operations, 2 pages, March 2004. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: Not Available).

CR-2 Inferring High-Level Behavior from Low-Level Sensors

Donald J. Patterson, L. Liao, D. Fox, H. Kautz. Published in the proceedings of the Fifth International Conference on Ubiquitous Computing (UbiComp 2003), pp. 73-89, October 2003. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: 14%).

CR-1 pre-mRNA Secondary Structure Prediction Aids Splice Site Prediction

Donald J. Patterson, K. Yasuhara, W. L. Ruzzo. Published in the proceedings of Pacific Symposium on Biocomputing (PSB 2002), pp. 223-234, January 2002. (Role: Primary Author/ 50% Researcher) (Acceptance Rate: Not Available).

PROFESSIONAL MAGAZINES/ONLINE ARTICLES

M-2 What if Sustainability Doesn't Work Out?

B. Tomlinson, Donald J. Patterson, Y. Pan, E. Bleviss, B. Nardi, M.S. Silberman, J. Norton, J. LaViola. ACM Interactions 19(6):50-55 Nov/Dec 2012.

M-1 Micro-presence: changing the 'status' quo

Donald J. Patterson, May 16, 2009. (<http://blogs.zdnet.com/feeds/?p=1221>)

CONFERENCE WORKSHOP PAPERS, PEER REVIEWED

WR-9 Informatics at UC Irvine

P. Dourish, G. Hayes, L. Irani, C. Lee, S. Lindtner, B. Nardi, Donald J. Patterson, B. Tomlinson. Published in the proceedings of CHI 2008 Research Landscapes, pp. 3651-3656, April 2008. (Role: Contributing Author/ Research Team Member) (Acceptance Rate: Not Available).

WR-8 NomaticBubbles: Visualizing Communal Whereabouts

X. Ding, Donald J. Patterson, Published in the proceedings of CHI 2008 Student Research Competition, pp. 3765-3770, April 2008. (Role: Contributing Author/ Advisor/ 50% Researcher) (Acceptance Rate: Not Available).

WR-7 Building Personal Maps from GPS Data

L. Liao, Donald J. Patterson, D. Fox, and H. Kautz. Published in the proceedings of Modeling Others from Observations (MOO 2005), 7 pages, July 2005. (Role: Contributing Author/ Research Team Member) (Acceptance Rate: Not Available).

WR-6 Guide: Towards Understanding Daily Life via Auto-Identification and Statistical Analysis

M. Philipose, K. P. Fishkin, D. Fox, H. Kautz, Donald J. Patterson, M. Perkowitz. Published in the proceedings of the UbiHealth 2003: The 2nd International Workshop on Ubiquitous Computing for Pervasive Healthcare Applications, 5 pages, October 2003. (Role: Contributing Author/ Research Team Member) (Acceptance Rate: Not Available).

WR-5 Expressive, Tractable and Scalable Techniques for Modeling Activities of Daily Living

Donald J. Patterson, D. Fox, H. Kautz, M. Philipose. Published in the proceedings of the UbiHealth 2003: The 2nd International Workshop on Ubiquitous Computing for Pervasive Healthcare Applications, 4 pages, October 2003. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: Not Available).

WR-4 Research on Statistical Relational Learning at the University of Washington

P. Domingos, Y. Abe, C. Anderson, A. Doan, D. Fox, A. Halevy, G. Hulton, H. Kautz, T. Lau, L. Liao, J. Madhavan, Mausam, Donald J. Patterson, M. Richardson, S. Sanghai, D. Weld, S. Wolfman. 4 pages. Published in the proceedings of the 18th International Joint Conference on Artificial Intelligence (IJCAI) Workshop on Learning Statistical Models. (Role: Contributing Author/ Research Team Member) (Acceptance Rate: Not Available).

PUBLICATIONS (CONTINUED)

- WR-3 Intelligent Ubiquitous Computing to Support Alzheimer's Patients: Enabling the Cognitively Disabled**
Donald J. Patterson, O. Etzioni, D. Fox, H. Kautz. Published in the proceedings of UbiCog '02: First International Workshop on Ubiquitous Computing for Cognitive Aids, 2 pages, September 2002. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: Not Available).
- WR-2 The Activity Compass**
Donald J. Patterson, O. Etzioni, D. Fox, H. Kautz. Published in the proceedings of UbiCog '02: First International Workshop on Ubiquitous Computing for Cognitive Aids September 2002. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: Not Available).
- WR-1 Auto-Walksat: A Self-Tuning Implementation of Walksat**
Donald J. Patterson, H. Kautz. Published in the proceedings of SAT2001: Workshop on Theory and Application of Satisfiability Testing, 8 pages, June 2001. (Role: Primary Author/ Primary Researcher) (Acceptance Rate: Not Available).

CONFERENCE WORKSHOP PAPERS, INVITED

- WI-3 Supporting Individuals with Special Needs through Intelligent Visual Schedules**
G. Hayes, Donald J. Patterson presented at the 2007 Workshop on Intelligent Systems for Assisted Cognition Oct. 12, University of Rochester. (Role: 50% Author) (Invited)
- WI-2 Behavior Recognition in Assisted Cognition**
L. Liao, Donald J. Patterson, D. Fox, H. Kautz. Published in the proceedings of the 2004 AAAI Workshop on Supervisory Control of Learning and Adaptive Systems, July 2004. (Role: Member of Research Team) (Invited)
- WI-1 Bayesian Techniques for Location Estimation**
D. Fox, J. Hightower, H. Kautz, L. Liao, Donald J. Patterson. Published in the proceedings of the 2003 Workshop on Location-Aware Computing (LoCA 2003). (Role: Member of Research Team) (Invited)

TECHNICAL REPORTS

- TN-7 LUCI Lab Annual Report 2008-2009**
LUCI Lab 2009-003. Donald J. Patterson.
- TN-6 Measuring Display Interaction in the Presence of Context Information**
LUCI Lab 2009-002. K. Liu, Donald J. Patterson (Role: Advisor).
- TN-5 Status on Display: A Field Trial of Nomadic*Viz**
LUCI Lab 2009-001. X. Ding, Donald J. Patterson (Role: Advisor).
- TN-4 Understanding the Digital Divide in Southern Africa**
LUCI Lab 2008-002. T. Aiyelokun, Donald J. Patterson (Role: Advisor).
- TN-3 Sporadic State Estimation for General Activity Inference**
Intel Research Seattle 04-003. Donald J. Patterson, D. Fox, H. Kautz, M. Philipose. (Role: Primary Author/ Primary Researcher).
- TN-2 Modeling Details of the Activity Tracker**
Intel Research Seattle 04-003A. Donald J. Patterson.
- TN-1 The Probabilistic Activity Toolkit: Towards Enabling Activity-Aware Computer Interfaces**
Intel Research Seattle 03-013. M. Philipose, K. Fishkin, M. Perkowitz, Donald J. Patterson, D. Hahnel (Role: Contributing Author/ Research Team Member) (Acceptance Rate: Not Available)..

PUBLICATIONS (CONTINUED)

SOFTWARE

- CODE-4 cacophony** 9/1/2014
v0.0.1 a machine learning layer for the Internet of Things
- CODE-3 p2p4android** 9/1/2014
v0.0.1 a peer-to-peer collapse-resistant communication system for Android
- CODE-2 p2p4java** 9/1/2014
v0.1.7 a peer-to-peer collapse-resistant communication system
- CODE-1 luci-utilities** 9/1/2014
v0.0.9 tools for LUCI lab software
- WEB-3 RISCIT: The Center for Research in Sustainability, Collapse-Preparedness and Information Technology.**
<http://riscit.ics.uci.edu> [Donald J. Patterson](#), B. Tomlinson.
- WEB-2 Collapse-o-matic: The study, design, and development of sociotechnical systems in the abundant present for use in a future of scarcity.**
<http://www.collapseomatic.com> [Donald J. Patterson](#), B. Tomlinson.
- WEB-1 The Laboratory for Ubiquitous Computing and Interaction**
<http://luci.ics.uci.edu/blog> [Donald J. Patterson](#).

ARTISTIC/MUSEUM EXHIBITS

- A-2 “Bitcoins”, Gold To Gigabytes, The British Museum/UCI Dept. of Anthropology**
Academic, Local, Refereed Exhibit of money through the years.
3-D printed physical research bitcoins were displayed
- A-1 Optical Society of Southern California**
First Place, 2009 Competitive Exhibition of Art in Science.

GRANTS & GIFTS

G-27	NSF (PI): CyberSEES: Fostering Non-Expert Creation of Sustainable Polycultures through Crowdsourced Data Synthesis	\$399,000	1/1/2015
G-26	UC ILTI (Co-PI): Global Disruption and IT	\$110,000	3/27/2014
G-25	Google (Co-PI): Wearable Computing for Autism	\$24,990	3/3/2014
G-24	UCI COR (Co-PI): U/I Research in Context Queries	\$1,000	5/1/2014
G-23	Intel ISTC (PI): Physical Bitcoin Prototypes	\$11,311	7/5/2013
G-22	UCI UROP (PI): Shared Point Clouds and 3D Models for AR	\$500	7/1/2013
G-21	UCI CORCL (CoPI): Permaculture for Climate Disruption	\$15,000	6/1/2013
G-20	UCI MDP (PI): Ugrad Workshop in Design,Art & Technology	\$1,182	7/1/2013
G-19	UCI UROP (PI): Depth Sensor Based Augmented Reality	\$350	1/15/2013
G-18	CalIT2 MDP (PI): Bootstrapping a Hackerspace	\$1,450	4/11/2012
G-17	UCI OTA Tech Dev Fund (Co-PI): Accelerometer Funding	\$5,000/\$50,000	8/31/2011
G-16	CalIT2 MDP (PI): Bootstrapping a Hackerspace	\$1,450	4/11/2011
G-15	NIH R01 (Sub-PI): Accelerometer Funding	\$5,000/\$3,800,000	10/25/2010
G-14	UCI CORCLR (PI): Graduate Student Travel: UMAP 2010	\$1,850	6/19/2010
G-13	Amazon.com (PI): Information Retrieval Class Grant	\$3,500	12/17/2009
G-12	ICS CRIA (PI): Newborn Intensive Care Activity Recognition	\$13,181	12/1/2008
G-11	ICS Smith Seed Fund (PI): Context-Aware To-Do Lists	\$5,000	5/6/2008
G-10	Qualcomm (PI): Gift to support research workshop	\$500	12/7/2007
G-9	NSF (PI): HCC: Computing Place Context (IIS-0713562)	\$449,765	9/1/2007
G-8	SURF-IT (PI): Nomatic*AID	\$3,000	4/29/2007
G-7	SURF-IT (PI): Nomatic*Gaim	\$3,000	4/29/2007
G-6	MTS Sensors (PI): Gift to support mapping research	\$250	2/12/2007
G-5	FDCI (PI): School grant for lab equipment	\$2,700	2/7/2007
G-4	Nokia (PI): Equipment Gift (10 phones and 10 GPS's)	\$4,500	9/7/2006
G-3	UCI CORCLR (PI): User Study Funding Grant	\$1,600	12/30/2006
G-2	UCI CORCLR (PI): Africa Field Work Funding Grant	\$3,500	6/30/2006
G-1	ICS Smith Seed Fund (PI): Wi-Fi Research Grant	\$5,000	11/7/2005

PRESENTATIONS

PEER-REVIEWED

PR-12	Collaborative Geometry-Aware Augmented Reality 2012 MobileHCI	9/13/2014
PR-11	When Camera meets Accelerometer: A Way for 3D Int. of Mobile Phone 2012 MobileHCI	5/21/2012
PR-10	Assessment of Infant Movement Using Infant Accelerometer System 2010 Pediatric Academic Societies' Annual Meeting	5/4/2010
PR-9	Design of Interactive Visual Scheduling Systems IMFAR 2008: International Meeting for Autism Research	5/17/2008
PR-8	Nomatic: Context Aware Instant Messaging UbiComp 2007: 9th Intl. Conf. on Ubiqu. Computing	9/16/2007
PR-7	Automatic Window Resizing And Its Impact On User Productivity 21st National Conference on Undergraduate Research	4/12/2007
PR-6	Involving Intelligent Assistants in Active Human Communication AAAI Spring Symposium 2007: Interaction Challenges for Intelligent Assistants	3/27/2007
PR-5	Nomatic*Gaim: Context-Aware Instant Messaging UbiComp 2006: 8th Intl. Conf. on Ubiqu. Computing	9/19/2006
PR-4	Nomatic*Aid: Parasitic Data Transport for Crisis Response UbiComp 2006: 8th Intl. Conf. on Ubiqu. Computing	9/19/2006
PR-3	Nomatic*Gaim: Context-Aware Instant Messaging Pervasive 2006: 4th Intl. Conf. on Pervasive Computing	5/8/2006
PR-2	Fast, Detailed Inference of Diverse Daily Human Activities UIST 2004: Demonstration	10/24/2004
PR-1	Fast, Detailed Inference of Diverse Daily Human Activities UbiComp 2004: Demonstration	9/7/2004

PRESENTATIONS (CONTINUED)

INVITED - EXTERNAL

PI-25	In The Cloud Computing Trenches: Obs., Reflections and Experiences TechnoNet, Northrop Grumman	11/16/2011
PI-23	Collapse Computing 2011 Workshop Uniting the Californias, UCMEXUS	11/12/2011
PI-22	Distinguishing Trans. and Rotation for Real-time Phone Gesture Interaction 2011 Workshop Uniting the Californias, UCMEXUS	11/12/2011
PI-21	Efficiently Scaling Up Video Annotation with Crowdsourced Marketplaces California Institute of Technology, CalVision Workshop	5/6/2010
PI-20	Social Media for the Church: Opportunities and Challenges Vanguard University, National Leadership of Assemblies of God	2/26/2010
PI-19	Status Quo: Micro-presence in an Always Online World UCLA CENS Technical Seminar Series	12/4/2009
PI-18	Ambient Intelligence is Not Sustainable University of Salzburg, Panel for Ambient Intelligence 2009	11/19/2009
PI-17	Intelligent Context for Situated Computing Ubiquity Research Strategy Forum, CALIT2 - UCSD	9/9/2009
PI-16	Status Quo: Micro-presence in an always online world University of Washington, CSE, DesignUseBuild Seminar	9/2/2009
PI-15	Software Engineering for Ubiquitous Computing Korean Research Institute for Human Settlements	8/2/2009
PI-14	Status Quo: Micro-Presence in an Always Online World US Army Scientific Advisory Board	7/17/2009
PI-12	Human Behavior Modelling Association for the Advancement of Artificial Intelligence Symposium Panel	3/23/2009

PRESENTATIONS (CONTINUED)

PI-8	Nomatic: Intelligent Context for Situated Computing Microsoft Research Redmond	10/1/2007
PI-6	Nomatic: Location {by, for, of} Crowds SIGCHI: O.C. Local Chapter	2/1/2006
PI-4	Fine-Grained Activity Recognition by Aggregating Abstract Object Usage AAAI Fall Symposium on Caring Machines: AI in Eldercare	11/3/2005
PI-3	Fine-grained Model-based Activity Recognition from RFIDs NIPS 2004: Workshop on Activity Recognition and Discovery	12/17/2004
PI-2	A Modeling Language for Activity Recognition Intel Research Cambridge	9/6/2004
PI-1	Future Technology for the Aging Two presentations made to congressional staff and policy makers at Senate offices in Washington D.C. in conjunction with the CAST Conference	3/16/2004

INVITED - INTERNAL

PI-30	Sensors for Context-Aware Computing Department of Epidemiology, UCI	10/4/2013
PI-29	A Novel Depth Sensor Based Approach to Augmented Reality Undergraduate Research Opportunities Program, UCI	5/18/2013
PI-28	In The Cloud Computing Trenches: Obs., Reflections and Experiences UCI Extension	7/24/2012
PI-27	Status Quo: Micro-Presence in an Always Online World UCI Extension	7/24/2012
PI-26	In The Cloud Computing Trenches: Obs., Reflections and Experiences UCI Extension	2/7/2012
PI-24	Involuntary Gesture Rec. for Predicting Cerebral Palsy in High-Risk Infants NIH Grant Workshop	11/14/2011
PI-13	Status Quo: Micro-Presence in an Always Online World U.C. Humanities Research Institute	4/13/2009
PI-11	Nomatic*IM Undergraduate Research Symposium	5/31/2008
PI-10	From Sensors to Semantics: Intelligent Context for Situated Computing Center for Research on Information Technology and Organizations	3/19/2008
PI-9	Storms in Africa: Exploring the potential for presence in Africa UCI ICS Informatics Department Presentation	10/5/2007
PI-7	Context-Aware Messaging: Nomatic*Gaim and Nomatic*Aid CALIT2 SURF-IT Lecture	8/21/2007
PI-5	Nomatic: Location {by, for, of} Crowds UCI ICS Informatics Department Presentation	1/20/2006

TEACHING EXPERIENCE

UNIVERSITY OF CALIFORNIA, IRVINE

Class	Enrollment	Date
INF 12/SOCSCI 11A: From Barter to Bitcoin	49	Summer 2014
ICS 163: Mobile and Ubiquitous Games	73	Spring 2014
UNISTU 3: How to Lie with Infographics	13	Fall 2012
INF 133: User Interaction Software	131	Fall 2014
	84	Fall 2013
	54	Fall 2012
	33	Fall 2011
	46	Fall 2010
	43	Fall 2009
INF 134: Project in User Interaction Software	13	Winter 2013
	21	Winter 2012
	21	Winter 2011
INF 241/CS 248a: Intro to Ubiquitous Computing and Interaction	21	Fall 2012
	26	Winter 2012
	18	Winter 2009
INF 141/CS 121: Information Retrieval	81	Winter 2014
	26	Winter 2008
	34	Winter 2009
CS 221: Information Retrieval	16	Winter 2010
	11	Fall 2008
	11	Spring 2007
INF 242/CS 248B: Ubiquitous Computing and Interaction	17	Spring 2008
INF 131: Human Computer Interaction	43	Winter 2007
INF 132: Project in HCI and UI	35	Spring 2007
	42	Spring 2006
ICS 280: Special Topics in Ubiquitous Computing	8	Winter 2006
INF 290: Recent Research in Ubiquitous Computing	1	Spring 2014
	1	Winter 2010
	1	Fall 2009
	1	Spring 2008
	3	Winter 2008
	5	Fall 2007
	5	Spring 2007
	5	Winter 2007
	1	Fall 2006
	6	Spring 2006
	5	Winter 2006
	4	Fall 2005

UNIVERSITY OF WASHINGTON

Guest Lecturer: CSE 573: Artificial Intelligence. Fall 2004
Research Lead: Led a research team of six graduate students Fall 2004
Teaching Assistant: CSE 590HK: Technology for Alzheimer's Disease. Spring 2002
 (10 graduate)
Teaching Assistant: CSE 573: Artificial Intelligence. Fall 2001
 (25 graduate)
Head Teaching Assistant: CSE 143: Computer Programming II. Fall 2000
 * **BOB BANDES AWARD** Led 6 TA's and a 35 undergraduate students

TEACHING EXPERIENCE (CONTINUED)

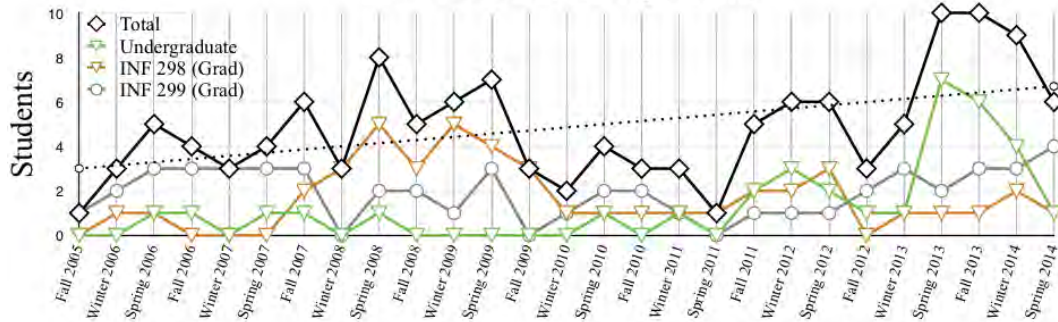
UNIVERSITY OF MARYLAND EXTENSION CAMPUS

Instructor: Math 100: Transitional Mathematics.
(15 undergraduate)

Winter 1998

ADVISING EXPERIENCE

Student Research Supervision



GRADUATE STUDENTS, Ph.D. Chair

Xianghua Ding

Ph.D. 4/30/2010

GRADUATE STUDENTS, Ph.D. Committee

John Brock

in progress

Bart Knijnenburg

in progress

Elizabeth Bales

Ph.D. 11/21/2013

Xinru Page

Ph.D. 12/9/2013

Sara Javanmardi

Ph.D. 8/26/2011

Yasser Ganjisaffar

Ph.D. 8/26/2011

Eric Kabicsh

Ph.D. 3/22/2011

David Nguyen

Ph.D. 5/20/2011

Eric Kabisch

Ph.D. 3/22/2011

Daniel Massaguer

Ph.D. 11/25/2009

Amanda Williams

Ph.D. 11/16/2009

Johanna Brewer

Ph.D. 2/13/2009

GRADUATE STUDENTS, Ph.D. Advancement Committee

Nithya Sambasivan

Ph.D. 2012

Judy Chen

Ph.D. 7/28/2011

Alex Behm

Ph.D. 4/2010

Eric Baumer

Ph.D. 6/15/2009

Erik Linstead

Ph.D. 5/15/2009

Jennifer Rode

Ph.D. 4/24/2007

Yongjie Zheng

advanced 10/15/2009

Pinaki Sinha

advanced 6/01/2007

Joshua O'Madadhain

advanced 9/12/2006

Nodari Sitchinava

advanced 12/9/2005

Srikanth K. Agaram

Bo Gong

GRADUATE STUDENTS, M.S. Chair

Jeff Lee	M.S. 9/10/2014
Vrishti Gulati	M.S. 9/2012
Nitin Shantharam	M.S. 6/2012
Justin Tang	M.S. 12/4/2009
Phoebe Lin	M.S. 6/4/2009
Jahnavi Kondragunta	M.S. 6/3/2009
Kah Liu	M.S. 3/20/2009
Nicholas Noack	M.S. 9/2008
Tosin Aiyelokun	M.S. 9/2008

UNDERGRADUATE STUDENTS

Mona Man, Ray Park	2012-2014
Jason Parsons	2013-present
Phil Ma, Kevin Jonaitis, Kyle Boos, Joshua Ferguson	2013-present
Ryan Indrogo-Lam, Vahan Hartooni, Nick LaJeunesse	2012
Ryan Indrogo-Lam, Vatsal Shah, Muhammad Zaman, Vahan Hartooni, Nick LaJeunesse, Hiroe Ono, Garret Kim, Azia Foster	2011
Jared Haren, Sabel Braganza, Adrian Guzman	Google Juicy Idea Team, 2010
Samuel J. Kaufman	Grad. School University of Washington, Seattle, 2010
Andrew Zaldivar	
Chris Baker	Grad. School University of Colorado, Boulder, 2007
Daniel Hwang	IBM, 2006
Kah Liu	FileNet, 2006
Nathaniel Marrocco	
Alan Morton	graduated, 2006

SERVICE

Conference Program Committee Chair

UbiComp	13th Intl. Conf. on Ubiquitous Computing	2011
Pervasive	6th Intl. Conf. on Pervasive Computing	2008

Conference Local Arrangements Chair

UbiComp	8th Intl. Conf. on Ubiquitous Computing	2006
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Program Committee

UbiComp	ACM Int'l Joint Cnf. on Pervasive and Ubiquitous Computing	2014
CHI	(AC) Human Factors in Computing Systems	2012
AAAI Spring Symposium	Human Behavior Modeling	2009
Pervasive	5th Intl. Conf. on Pervasive Computing	2007
AAAI Spring Symposium	Interaction Challenges for Intelligent Agents	2007
Pervasive	4th Intl. Conf. on Pervasive Computing	2006
LoCA	2nd Intl. Wkshp. on Location/Context-Awareness	2006

Government Agency Participation

NSF	Extramural Funding Reviewer	2013
NSF	Extramural Funding Reviewer	2012
DARPA	Advancing Assisted Cognition for TBI (BAA Dev.)	2005

SERVICE (CONTINUED)

External Reviewer

UIST	27th ACM U/I Software and Technology Symposium	2014
CHI	Human Factors in Computing Systems	2014
CHI	Human Factors in Computing Systems	2013
UbiComp	14th Intl. Conf. on Ubiquitous Computing	2012
ISWC	16th IEEE Intl. Symposium on Wearable Computers	2012
Pervasive	10th Intl. Conf. on Pervasive Computing	2012
Nokia	Mobile Data Challenge Reviewer	2012
CHI	Human Factors in Computing Systems	2012
IJCAI	International Joint Conf. on Artificial Intelligence	2011
UbiComp	13th Intl. Conf. on Ubiquitous Computing	2011
Pervasive Health	Pervasive Computing Technologies for Healthcare	2011
Pervasive	8th Intl. Conf. on Pervasive Computing	2010
UbiComp	12th Intl. Conf. on Ubiquitous Computing	2010
ISWC	14th IEEE Intl. Symposium on Wearable Computers	2010
CHI	Human Factors in Computing Systems	2010
ISWC	13th IEEE Intl. Symposium on Wearable Computers	2009
Pervasive	7th Intl. Conf. on Pervasive Computing	2009
IEEE	IEEE Pervasive	2009
PUC	Journal of Personal and Ubiquitous Computing	2009
UbiComp	11th Intl. Conf. on Ubiquitous Computing	2009
PMC	Journal of Pervasive and Mobile Computing	2009
IUI	International Conference on Intelligent User Interfaces	2009
IEEE	IEEE Transactions on Software Engineering	2008
CSCW	ACM Conference on Computer Supported Cooperative Work	2008
UIST	21st ACM User Interface Software and Technology Symposium	2008
UbiComp	10th Intl. Conf. on Ubiquitous Computing	2008
CHI	Human Factors in Computing Systems	2007
Pervasive	5th Intl. Conf. on Pervasive Computing	2007
UbiComp	9th Intl. Conf. on Ubiquitous Computing	2007
CHI	Human Factors in Computing Systems	2006
ISWC	10th IEEE Intl. Symposium on Wearable Computers	2006
NSF	National Science Foundation	2006
CAL MICRO	University of California Micro Program	2006
ISWC	9th IEEE Intl. Symposium on Wearable Computers	2005
UbiComp	7th Intl. Conf. on Ubiquitous Computing	2005
AAAI	20th National Conf. on Artificial Intelligence	2005
IEEE	IEEE Transactions on Information Technology in BioMedicine	2005
Pervasive	3rd Intl. Conf. on Pervasive Computing	2005
UbiComp	6th Intl. Conf. on Ubiquitous Computing	2004

SERVICE (CONTINUED)

Lab Director			
	LUCI	Lab Ubiquitous Computing and Interaction	2008-present
University Committees			
	Vice-Chair	UCI Faculty Executive Committee	2014-2015
	Chair	UCI Faculty Executive Committee	2013-2014
	Member	UCI Faculty Executive Committee	2012-2013
	Member	UCI Dir. of Communications Search Committee	2010
	Member	UCI ICS Student, Access, Outreach & Retention	2008-2010
	Member	UCI Informatics Chair Recommendation	2010
	Member	UCI ICS Informatics Undergrad Recruiting	2006-2007
	Member	UCI ICS Computing and Networking	2005-2006
	Chair	UW CSE Graduate Student Recruiting Chair	2002-2003
Community Service			
	H.S. Outreach	Brea-Olinda Global Academy Microcamp	8/2012
	H.S. Outreach	Brea-Olinda Global Academy Microcamp	8/2011
	H.S. Outreach	Brea-Olinda Global Academy Microcamp	6/14 -6/16/2010
	H.S. Outreach	Brea-Olinda Global Academy Microcamp	6/22 -6/25/2009
	Demo	NSF China Delgation at UCI	7/2/2008
	H.S. Outreach	Brea-Olinda Global Academy Microcamp	6/24 -6/26/2008
	Demo	Northrup Grumman at UCI	6/10/2008
	Demo	Irvine Company at UCI	5/4/2008
	Demo	McPherson Magnet School at UCI	7/11/2007
	Lecture	American Indian Summer Program at UCI	7/2/2007
	Faculty Forum	ICS H.S. Scholars Day at UCI	3/24/2007
	Career Day	McPherson Magnet School in Orange	1/17/2007
	Faculty Forum	Arroyo Vista - Kappa Sigma House Program	Fall 2005

PROFESSIONAL AFFILIATIONS

AAAI Member	Association for the Advancement of Artificial Intelligence
ACM Member	Association for Computing Machinery
IEEE Member	IEEE Computer Society
ISTC Social Member	Intel Science & Technology Center for Social Computing

INTELLECTUAL PROPERTY

Provisional Patent	Infant Movement Diagnostics	approved 8/8/2014
Provisional Patent	System for Evaluating Infant Movement	App. Serial No. 61/377,207 filed 10/1/2013
Provisional Patent	Using Gesture Recognition	App. Serial No. 14/012,466 filed 10/29/2009
Provisional Patent	System and Methods for Communicating Real-Time Status Updates for Retailers	App. Serial No. 61/256,188 filed 3/27/2009
Patent	System and Methods for Reducing Disruptions to a Call Recipient	App. Serial No. 61/163,827

PRESS¹

Innovation News Daily	“After 30 Years, Computer Mouse Still Prevails	April 28, 2011
Pervasive Computing	“The Latest in Wearable Computing Research	January 1, 2011
TechNewsDaily	“In the Future, Computing is (Cunningly) Constant”	December 13, 2010
Government Technology	“Social Networks Complicate Relations Between Bosses and Employees”	July 7, 2009
Mashable	“Quub: The Status Update Reinvented”	April 28, 2009
TechNewsWorld	“Twitter and the Future of Discourse”	April 13, 2009
MIT Technology Review	“Wireless Detectors for Dementia”	February 2, 2009
O.C. Register	“1 videoconference. 37 people. 122.7 tons of CO2 saved”	December 18, 2007
O.C. Register	“UCI researchers circled globe in name of science”	December 10, 2007
TJ Today	“Alumni Spotlight”	December 2005
MIT Technology Review	“Portable Pathfinder”	October 2004
The Futurist	“AI Helps Keep Seniors Mobile”	September/October 2004
IEEE Computer	“Inventing Wellness Systems for Aging in Place”	April 2004
Wired Online	“RFID Keeps Track of Seniors”	March 19, 2004
New Scientist Online	“RFID Chips Watch Grandma Brush Teeth”	March 17, 2004
USA Today	“Parents, Athletes Put GPS to Work”	December 4, 2002
Newsweek	“Gray Market for Gadgets”	September 23, 2002
Focus	“Digitaler Betreuer für Alzheimer-Patienten”	September 2002
University Week	“Prompted to Live”	July 25, 2002
Minnesota Public Radio	“Artificial Intelligence and Alzheimer’s”	July 24, 2002
USA Today	“Surveillance casts an eye to the future”	July 23, 2002
Wired Online	“AI to Assist Alzheimer’s Patients”	June 24, 2002

MISCELLANEOUS

CITIZENSHIP	United States of America
INTERESTS	Micro-roast coffee, cross-country running, gourmet cooking, children’s literature, organic gardening.
CERTIFICATIONS	IRB, HIPAA, CPR, Water Safety.

¹After 4/28/2011, I stopped tracking all but the most important press mentions because social media enabled both trivial and important things to all be in “the press” and many major media outlets had affiliated blogs that were syndicating content that originated from our lab press releases.