

# Katie A. Siek

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## Research Interests

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Health & wellness informatics, human centered computing, and pervasive computing.

## Education

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<b>Indiana University</b> Ph.D. in Computer Science Ph.D. Minor: Scientific Computing Title: The Design and Evaluation of an Assistive Application for Dialysis Patients Advisor: Kay H. Connelly	2004-2006
<b>Indiana University</b> M.S. in Computer Science	2002-2004
<b>Eckerd College</b> B.S. in Computer Science Minors in German and Mathematics	1996-2000

## Professional Research Experience

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<i>8/2006 - present</i>	<b>University of Colorado</b> , Boulder, CO <i>Assistant Professor</i> <i>Affiliations:</i> Alliance for Technology, Learning & Society (ATLAS)
<i>8/2006</i>	<b>University of Colorado</b> , Boulder, CO <i>Professional Research Associate</i>
<i>2003-2006</i>	<b>Indiana University</b> , Bloomington, IN <i>Research Assistant</i> Worked with Dr. Kay Connelly, Dr. Yvonne Rogers, Janet Welch, DNS, RN, and a multi-disciplinary team to create a mobile health monitoring system for end-stage renal disease patients to monitor their nutritional intake.
<i>Fall 2005</i>	<b>Indiana University School of Nursing</b> , Indianapolis, IN <i>Developer</i> Worked with Marsha Ellett, DNS, RN and a multi-disciplinary team to create a Personal Digital Assistant (PDA) application to calculate feeding tube placement in pre-term infants and young children.
<i>Summer 2000, 2001, 2002</i>	<b>Sandia National Laboratories</b> , Livermore, CA <i>Intern</i>

## Honors

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2011	<b>Best Paper Nomination</b> Pervasive Healthcare 2011 (20% accepted papers nominated; 7.3% submitted papers nominated)
2010	<b>Best Regular Paper Award</b> ACM 1st International Health Informatics Symposium
2010	<b>Distinguished Visiting Fellowship</b> Scottish Informatics & Computer Science Alliance (SICSA) June 1 - July 31
2009-2014	<b>NSF Faculty Early Career Development (CAREER) Award</b> HEALTH BRIDGE: Motivating Personal Health Record Adoption by Low-Income Communities
2009	<b>Best Paper Nomination</b> Pervasive Healthcare 2009 (13.5% accepted papers nominated; 4.95% submitted papers nominated)
2006	<b>Engineering New Professor Award</b> College of Engineering & Applied Science at the University of Colorado at Boulder
2000-2006	<b>National Physical Science Consortium Fellow</b> Fellowship funds students during pursuit of a graduate degree
2006	<b>WIC@IU 2006 Woman of the Year</b>
2004	<b>Best Technical Poster for a New Investigator Award</b> Grace Hopper Celebration of Women in Computing 2004 Award highlights the broad range of technical work by women who are “new investigators” in computing, defined as within three years of their last degree.
2002	<b>Outstanding Teaching Assistant Award</b> at The University of Notre Dame
2001	<b>Top 5 Finalist</b> at the ACM International Graduate Research Competition
2000	<b>Distinguished Paper Award</b> at OPNETWORK 2000
1998-2000	Ford Foundation Scholar - Eckerd College received a grant from the Ford Foundation to select 20 Juniors each year to participate in a two year program. Students work with professors to foster skills and habits of professional scholars.
1999	Eckerd College Scholar Athlete of the Year Recipient must actively participate in varsity athletics and demonstrate academic success and leadership skills.
1999	Sunshine State Conference Scholar Athlete of the Year Recipient must be recommended by college and participate in varsity athletics.

## Writings and Publications<sup>1</sup>

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### Refereed Journal Articles

Danish U. Khan\*, Swaminathan Ananthanarayan\*, and Katie A. Siek. Exploring everyday health routines of a low socioeconomic population through multimedia elicitations. *Journal of Participatory Medicine*, 3(e39):10 pages, August 2011.

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<sup>1</sup>\* denotes graduate student collaborators

# denotes undergraduate student collaborators

Annie Y.S. Lau, Katie A. Siek, Luis Fernandez-Luque, Huibert Tange, Prajesh Chhanabhai, Simon Y.W. Li, Peter Elkin, Ahmed Arjabi, Les Walczowski, Chee Siang Ang, and Gunther Eysenbach. Role of social media for patients and consumer health. *IMIA Yearbook 2011*, 6(1):131–138, 2011.

Leah M. Haverhals, Courtney A. Lee, Katie A. Siek, Carol A. Darr, Sunny A. Linnebur, J. Mark Ruscin, and Stephen E. Ross. Older adults with multimorbidity: Medication management processes and design implications for personal health applications. *Journal of Medical Internet Research*, 13(2):e44 (11 pages), 2011. DOI: <http://dx.doi.org/10.2196/jmir.1813>; Impact Factor: 4.7.

Stephen E. Ross, Kevin B. Johnson, Katie A. Siek, Jeffrey S. Gordon, Danish U. Khan\*, and Leah M. Haverhals. Two complementary personal medication management applications on a common platform: Case report. *Journal of Medical Internet Research*, 13(3):e45 (13 pages), 2011. DOI: <http://dx.doi.org/10.2196/jmir.1815>; Impact Factor: 4.7.

Katie A. Siek, Danish U. Khan\*, Stephen E. Ross, Leah Haverhals, Jane Meyers\*, and Steven Cali. Designing a personal health application for older adults to manage medications: A comprehensive case study. *Journal of Medical Systems*, pages 1–23, 2011. DOI: <http://dx.doi.org/10.1007/s10916-011-9719-9>; Impact Factor: 0.654.

Katie A. Siek, Stephen E. Ross, Danish U. Khan\*, Leah M. Haverhals, Steven R. Cali, and Jane Meyers\*. Colorado care tablet: The design of an interoperable personal health application to help older adults with multimorbidity manage their medications. *Journal of Biomedical Informatics*, 43(5), Supplement 1:S22–S26, Accepted for Publication: 9 May 2010; October 2010. DOI: <http://dx.doi.org/10.1016/j.jbi.2010.05.007>; Impact Factor: 2.432.

Katie A. Siek and Julie Maitland. Studying the place of technology to lower financial barriers for dietary change. *Methods of Information in Medicine*, 49(1):74–80, (online) December 2009; (print) 2010. DOI: <http://dx.doi.org/10.3414/ME09-02-0004>; Impact Factor: 1.690.

Janet L. Welch, Katie A. Siek, Kay H. Connelly, Kim S. Astroth, M. Sue McManus, Linda Scott, Seongkum Heo, and Michael A. Kraus. Merging health literacy with computer technology: Self-managing diet and fluid intake among adult hemodialysis patients. *Patient Education and Counseling*, 79(2):192–198, (online) September 2009; (print) May 2010. DOI: <http://dx.doi.org/10.1016/j.pec.2009.08.016>; Impact Factor: 1.975.

Katie A. Siek, Kay Connelly, Suzanne Menzel, and Laura Hopkins. Propagating diversity through active dissemination. *Computer*, 40(2):89–92, 2007. DOI: <http://dx.doi.org/10.1109/MC.2007.71>.

Kay H. Connelly, Anne M. Faber, Yvonne Rogers, Katie A. Siek, and Tammy Toscos. Mobile applications that empower people to monitor their personal health. *e & i Elektrotechnik und Informationstechnik*, 123(4):124–128, April 2006. DOI: <http://dx.doi.org/10.1007/s00502-006-0326>.

## Book Chapters

Katie A. Siek and Kay Connelly. Achieving success in research collaborations in health informatics. In William Aspray and Barbara Hayes, editors, *Health Informatics: A Patient-Centered Approach to Diabetes*, pages 603–641. MIT Press, 29 October 2010. ISBN: 0262014327.

Katie A. Siek, Kay H. Connelly, Beenish Chaudry\*, Desiree Lambert, and Janet L. Welch. Evaluation of two mobile nutrition tracking applications for chronically ill populations with low literacy skills. In J. Tan and P. Olla, editors, *Mobile Health Solutions for Biomedical Applications*, pages 1–23. IGI Global, 2009. ISBN: 1605663328.

Katie A. Siek. Mobile design for older adults. In Joanna Lumsden, editor, *Handbook of Research on User Interface Design and Evaluation for Mobile Technology*, pages 624–634. IGI, February 2008. ISBN: 159904871X.

## Refereed Conference Publications

Beenish Chaudry\*, Kay Connelly, Katie A. Siek, and Janet L. Welch. Mobile interface design for low literacy populations. In *IHI 2012*, page 10 pages, Accepted - To Appear.

Christopher L. Schaeffbauer# and Katie A. Siek. Cautious, but optimistic: Primary care provider documentation workflows with electronic medical records. In *5th International Conference on Pervasive Computing Technologies for Healthcare*, page 10 pages, 2011. Acceptance Rate: 36%.

Beenish Chaudry\*, Kay Connelly, Katie A. Siek, and Janet L. Welch. The design of a mobile portion size estimation interface for a low literacy population. In *5th International Conference on Pervasive Computing Technologies for Healthcare*, page 10 pages, 2011. Acceptance Rate: 36%; **Nominated for Best Paper** - 7.3% of submitted papers nominated.

Danish U. Khan\*, Katie A. Siek, Stephen E. Ross, Leah Haverhals, Steven Cali, and Jane Meyers\*. Designing a personal health application for older adults to manage medications. In *Proceedings of the 1st ACM International Health Informatics Symposium, IHI '10*, pages 849–858, New York, NY, USA, 2010. ACM. Paper Acceptance Rate: 48%; Oral Presentation Acceptance: 17%; **Awarded Best Regular Paper**.

Katie A. Siek, Jeffrey S. LaMarche\*, and Julie Maitland\*. Bridging the information gap: Collaborative technology design with low-income at-risk families to engender healthy behaviors. In *OZCHI '09: Proceedings of the 21st Australian Conference on Computer-Human Interaction*, pages 89–96, New York, NY, USA, 2009. ACM. DOI: <http://doi.acm.org/10.1145/1738826.1738841>; Acceptance Rate: 53%.

Katie A. Siek. The knot or the noose? analysis of privacy on a wedding planning website. In *Proceedings of Grace Hopper Celebration of Women in Computing 2009*, page 6 pages, New York, NY, USA, 2009. ACM. Acceptance Rate for New Investigator: 45%; Conference Acceptance Rate: 34%.

Julie Maitland\*, Katie A. Siek, and Matthew Chalmers. Persuasion not required improving our understanding of the sociotechnical context of dietary behavioural change. In *Pervasive Healthcare 2009: Proceedings of the 3rd International ICST*

*Conference on Pervasive Computing Technologies for Healthcare 2009*, pages 1–8. IEEE, April 2009. Acceptance Rate: 36%; **Nominated for Best Paper** - 4.95% submitted papers nominated.

Katherine Peterson<sup>#</sup> and Katie A. Siek. Analysis of information disclosure on a social networking site. In *Online Communities and Social Computing*, pages 256–264. Springer Berlin/Heidelberg, 2009. DOI: [http://dx.doi.org/10.1007/978-3-642-02774-1\\_28](http://dx.doi.org/10.1007/978-3-642-02774-1_28); Acceptance Rate: 32%.

Gloria Childress Townsend, Suzanne Menzel, and Katie A. Siek. Leveling the CS1 playing field. In *SIGCSE '07: Proceedings of the 38th SIGCSE technical symposium on Computer science education*, pages 331–335, New York, NY, USA, 2007. ACM. DOI: <http://doi.acm.org/10.1145/1227310.1227428>; Acceptance Rate: 34%.

Katie A. Siek, Kay H. Connelly, Yvonne Rogers, Paul Rohwer\*, Desiree Lambert, and Janet L. Welch. When do we eat? an evaluation of food items input into an electronic food monitoring application. In *Pervasive Healthcare 2006: Proceedings of the 1st International ICST Conference on Pervasive Computing Technologies for Healthcare 2006*, pages 1–10, 2006. DOI: <http://dx.doi.org/10.1109/PCTHEALTH.2006.361684>; Acceptance Rate: 51%.

Katie A. Siek, Yvonne Rogers, and Kay H. Connelly. Fat finger worries: How older and younger users physically interact with PDAs. In *Human-Computer Interaction - INTERACT 2005*, pages 267–280, 2005. DOI: [http://dx.doi.org/DOI:10.1007/11555261\\_24](http://dx.doi.org/DOI:10.1007/11555261_24); Acceptance Rate: 26.5%.

Katie A. Siek, Amanda Stephano, Diane Cessna, Kay Connelly, and Beth Plale. Work in progress: *Just Be* an interactive experience for K-12 students. In *Frontiers in Education, 2005. FIE '05. Proceedings 35th Annual Conference*, pages F3H-15–F3H-16, 2005. DOI: <http://dx.doi.org/10.1109/FIE.2005.1612119>.

Raja Sooriamurthi, Arijit Sengupta, Suzanne Menzel, Katie A. Moor (Siek), Sidd Stamm, and Katy Borner. Java engagement for teacher training: an experience report. In *Frontiers in Education, 2004. FIE '04. 34th Annual*, pages t2D/17–t2D/22 Vol. 1, 2004. DOI: <http://dx.doi.org/10.1109/FIE.2004.1408496>.

Helen Chen, Pete Wyckoff, and Katie Moor (Siek). Cost/performance evaluation of gigabit ethernet and myrinet as cluster interconnect. In *OPNETWORK 2000*, page 6 pages, 2000.

#### Refereed Short Conference Publications

Rodney D Nielsen, Richard Voyles, Daniel Bolanos, Mohammad Mahoor, Wilson Pace, Katie Siek, and Wayne Ward. A platform for human-robot dialog systems research. In *Association for the Advancement of Artificial Intelligence (AAAI) Fall Symposium: Dialog with Robots*, page 2 pages, 2010.

Swaminathan Ananthanarayan\* and Katie A. Siek. Health sense: A gedanken experiment on persuasive wearable technology for health awareness. In *Proceedings of the 1st ACM International Health Informatics Symposium, IHI '10*, pages 400–404, New York, NY, USA, 2010. ACM. Acceptance Rate: 44%.

Julie Maitland\* and Katie A. Siek. Technological approaches to promoting physical activity. In *OZCHI '09: Proceedings of the 21st Annual Conference of the Australian Computer-Human Interaction Special Interest Group*, pages 277–280, New York, NY, USA, 2009. ACM. DOI: <http://doi.acm.org/10.1145/1738826.1738873>; Acceptance Rate: 53%.

Katie A. Siek, Kay H. Connelly, and Yvonne Rogers. Pride and prejudice: learning how chronically ill people think about food. In *CHI '06: Proceedings of the SIGCHI conference on Human Factors in computing systems*, pages 947–950, New York, NY, USA, 2006. ACM. DOI: <http://doi.acm.org/10.1145/1124772.1124912>; Acceptance Rate: 19.6%.

#### Non-Refereed Conference Publications

Katie A. Siek, Ashraf Khalil, Yong Liu, Nick Edmonds, and Kay H. Connelly. A comparative study of web language support for mobile web browsers. In *www@10*, page 8 pages, 2004.

Kay H. Connelly, Tom Jagatic, Ashraf Khalil, Yong Liu, Katie A. Siek, and Sid Stamm. The Internet hunt revisited: Personal information accessible via the web. In *www@10*, page 9 pages, 2004.

#### Invited Conference Publications

Katie A. Siek, Danish Ullah Khan\*, and Stephen E. Ross. A usability inspection of medication management in three personal health applications. In *Human Centered Design*, pages 129–138. Springer Berlin/Heidelberg, 2009. [http://dx.doi.org/10.1007/978-3-642-02806-9\\_16](http://dx.doi.org/10.1007/978-3-642-02806-9_16).

Kay H. Connelly, Katie A. Siek, Yvonne Rogers, Josette Jones, Michael A. Kraus, Susan Perkins, Laurie L. Trevino, and Janet L. Welch. Designing a PDA interface for dialysis patients to monitor diet in their everyday life. In *Proc. of Human Computer Interaction - International*, page 5 pages.

#### Abstracts

Kay Connelly, Katie Siek, Janet Welch, Beenish Chaudry\*, Josette Jones, and Linda Scott. Case study of design of a mobile health application for a chronically ill, low-literacy population. In *mHealth Summit: Mobile Technologies as a Platform for Health Research and Healthcare Delivery*, page 2 pages. Foundation for the National Institutes of Health, 2009.

Janet L. Welch, Kay Connelly, Katie A. Siek, Josette Jones, Susan M. Perkins, Beenish Chaudry\*, Janet Kain, Linda Scott, Kim Astroth, Seongkum Heo, Sue McManus, Jerry T. Mooney, and Cynthia S. Johnson. Merging literacy with computer technology for self-managing diet and fluid intake. In *20th International Nursing Research Congress Focusing on Evidence-Based Practice*, page 1 page, 2009.

Janet L. Welch, Kay Connelly, Katie A. Siek, Josette Jones, Susan M. Perkins, Beenish Chaudry\*, and Laurie Trevino. Designing a personal digital assistant (PDA) application to self-monitor dietary and fluid intake. In *National Kidney Foundation Abstracts of 2008 Clinical Meetings Poster Presentations*, page 1 page, New York, NY USA, 2008. National Kidney Foundation, Inc.

## Refereed Workshop Publications

Julie Maitland and Katie A. Siek. Small hammers and silver bullets: Low-income families dietary behavioral change and Ubicomp. In *Globicomp: Taking Ubicomp Beyond Developed Worlds - Workshop at 11th international conference on Ubiquitous computing - UbiComp 2009*, page 4 pages, 2009.

Katie A. Siek, Steven E. Ross, Kay H. Connelly, Jeffrey S. LaMarche\*, Danish Ullah Khan\*, and Beenish Chaudry\*. Challenges in evaluating three assistive health applications. In *Evaluating New Interactions in Healthcare: Challenges and Approaches Workshop at the 27th international conference on Human factors in computing systems - CHI 2009*, page 4 pages, 2009.

Katie A. Siek, Kay H. Connelly, Yvonne Rogers, Paul Rohwer\*, Desiree Lambert, and Janet L. Welch. The food we eat: An evaluation of food items input into an electronic food monitoring application. In *Ubiquitous Healthcare - UbiHealth 2006 - Workshop 8th international conference on Ubiquitous computing - UbiComp 2006*, page 12 pages, 2006.

Katie A. Siek and Kay H. Connelly. Lessons learned conducting user studies in a dialysis ward. In *Reality Testing Workshop - at the 24th international conference on Human factors in computing systems - CHI 2006*, page 4 pages, 2006.

## Non-Refereed Workshop Publications

Danish U. Khan, An T. Le, and Katie A. Siek. Designing a sociotechnological intervention to improve snacking in low socioeconomic families. In Madhu Reddy, Lena Mamykina, and Andrea Grimes Parker, editors, *Workshop on Interactive Systems in Healthcare*, page 5 pages, 2011 - To Appear.

Christopher L. Schaeffbauer and Katie A. Siek. The potential to integrate computational thinking into k-12 health curriculums. In Madhu Reddy, Lena Mamykina, and Andrea Grimes Parker, editors, *Workshop on Interactive Systems in Healthcare*, page 5 pages, 2011 - To Appear.

Swamy Ananthanarayan, Alice Y. Chien, Miranda Sheh, and Katie A. Siek. Visualizing physical therapy with electroluminescence wire. In Madhu Reddy, Lena Mamykina, and Andrea Grimes Parker, editors, *Workshop on Interactive Systems in Healthcare*, page 4 pages, 2011 - To Appear.

Katie A. Siek. Position statement: Improving the feedback loop. In *Workshop on Accessible Electronic Health Records co-located with ASSETS 2010*, page 2 pages, 2010.

## Popular Press

Katie A. Siek and Minaxi Gupta. Publish and prosper or procreate and perish? In Suzanne Menzel and Katie A. Siek, editors, *ACM-W Newsletter*, pages 3–9, Summer 2011.

Katie A. Siek. What are our responsibilities when designing sociotechnical health interventions? In Elizabeth D. Mynatt, editor, *interactions*, volume 18, pages 20–23, New York, NY, USA, September 2011. ACM.

Steve Neely, Graeme Stevenson, Christian Kray, Ingrid Mulder, Kay Connelly, and Katie A. Siek. Evaluating pervasive and ubiquitous systems. *IEEE Pervasive Computing*, 7(3):85–88, 2008. DOI: <http://dx.doi.org/10.1109/MPRV.2008.47>.

Katie A. Siek and Eugene Medynskiy. Pervasive healthcare 2010: Two perspectives. *IEEE Pervasive Computing*, 10:8–11, July 2011.

Rebecca E. Grinter, Katie A. Siek, and Andrea Grimes\*. Is wellness informatics a field of human-centered health informatics? In *interactions*, pages 76–79. ACM, January + February 2010. DOI: 10.1145/1649475.1649494.

Janet L. Welch, Katie A. Siek, Kay H. Connelly, Josette F. Jones, Susan M. Perkins, and Laurie L. Trevino. Technology in the dialysis clinic: Researchers study how patients can use PDAs to self-monitor diet. In *Renal Business Today*, page 2 pages, 2006. <http://www.renalbusiness.com/articles/2006/12/technology-in-the-dialysis-clinic.aspx>.

Katie A. Siek, Kay H. Connelly, Amanda L. Stephano, Suzanne Menzel, Jacki Bauer, and Beth Plale. Breaking the geek myth: Addressing young women’s misperceptions about technology careers. In *Learning and Leading with Technology*, volume 33, pages 19–22. International Society for Technology in Education (ISTE), April 2006.

## Organized Workshops

Rebecca E. Grinter, Katie A. Siek, and Andrea Grimes\*. Wellness informatics: towards a definition and grand challenges. In *CHI EA '10: Proceedings of the 28th of the international conference extended abstracts on Human factors in computing systems*, pages 4505–4508, New York, NY, USA, 2010. ACM. <http://doi.acm.org/10.1145/1753846.1754185>.

Chris Stephenson, Suzanne Menzel, Katie A. Siek, and Sriram Mohan. Improving k-12 outreach through roadshows. In *SIGCSE EA '09: Proceedings of the 40th SIGCSE technical symposium extended abstracts on Computer science education*, page 2 pages, New York, NY, USA, 2009. ACM.

Paul D. Rohwer\*, Julie Maitland\*, Kay H. Connelly, Katie A. Siek, Gisele Bennett, and Valerie Lafond-Favieres. Technology has escaped from the zoo: studying usability in the wild. In C. Baranauskas, P. Palanque, J. Abascal, and S.D. Junqueira Barbosa, editors, *Interact EA 2007: 11th IFIP TC 13 International Conference extended abstracts on Human-Computer Interaction*, volume 4662 of *Lecture Notes in Computer Science: Information Systems and Applications, incl. Internet/Web, and HCI*, page 2 pages, 2007.

Samantha Foley\*, Jennifer Franko, Laura Hopkins, Suzanne Menzel, and Katie A. Siek. Demystifying and degeekifying computing through k-12 outreach. In *SIGCSE EA '07: Proceedings of the 38th SIGCSE technical symposium extended abstracts on Computer science education*, page 2 pages, New York, NY, USA, 2007. ACM.

Bring it on!, 2006. Bloomington, Indiana. Co-Organizer and Presenter.

Computing outreach in Indiana (COIN), 2006. Bloomington, Indiana. Co-Organizer.

Gisele Bennett, Gitte Lindgaard, Bruce Tsuji, Kay H. Connelly, and Katie A. Siek. Reality testing: HCI challenges in non-traditional environments. In *CHI '06: CHI '06 extended abstracts on Human factors in computing systems*, pages 1679–1682, New York, NY, USA, 2006. ACM.

## Posters

Katie A. Siek, Jane Meyers\*, Stephen E. Ross, and Leah Haverhals. Colorado care tablet: Developing a personal health record for older adults. In *MobiSys EA '08: Extended Abstracts for Proceeding of the 6th international conference on Mobile systems, applications, and services*, page 1 page, New York, NY, USA, 2008. ACM.

Vivian Phinney#, Steven Carroll#, Leonid Meltrager#, and Katie A. Siek. Avalon: Facilitating the use of the internet for older adults. In *Proceedings from the Colorado Celebration of Women in Computing*, page 1 page, Boulder, Colorado, USA, 2008.

Katie A. Siek, Jane Meyers\*, Stephen E. Ross, , and Leah Haverhals. Colorado care tablet: Designing a personal health record for older adults. In *Proceedings from the Colorado Celebration of Women in Computing*, page 1 page, Boulder, Colorado, USA, 2008.

Katie A. Siek, Kay Connelly, and Yvonne Rogers. Fat finger worries: How older and younger users physically interact with PDAs, 2005. **Second Place Outstanding Research Award in Technology Category.**

Katie A. Siek and Kay H. Connelly. Assistive technologies for dialysis patients. In *Proceedings of Grace Hopper Celebration of Women in Computing 2004*, 2004. **Best Technical Poster for a New Investigator.**

Rob Armstrong, Nina Berry, Ron Kyker, Carmen Pancerella, Christine Yang, Katie Moor (Siek), Alicia (Pippin) Wolfe, Eric Burns, Brian Lambert, Stephen Elliott, Tony Fan, Chris Kershaw, and Hillary Davis. A general framework for wireless smart distributed sensors. In *Supercomputing '01: Proceedings of the 2001 ACM/IEEE conference on Supercomputing (CDROM)*, New York, NY, USA, 2001. ACM.

Katie A. Moor (Siek), Helen Chen, and James Brandt. Evaluation of gigabit ethernet for cluster computing. In *SIGCSE EA '01: Proceedings of the thirty-second SIGCSE technical symposium on Computer Science Education 2001*, New York, NY, USA, 2001. ACM. **Placed in Top 5.**

## Technical Reports

Vivian Phinney#, Leonid Meltreger#, Steven Carroll#, and Katie A. Siek. Avalon: Facilitating the use of the Internet for older adults CU-CS-1041-08. Technical Report CU-CS-1041-08, University of Colorado at Boulder Department of Computer Science, 2008. 80 pages.

Katie A. Moor (Siek), Kay H. Connelly, and Yvonne Rogers. A comparative study of elderly, younger, and chronically ill novice PDA users. Technical Report TR 595, Indiana University, June 2004.

## Under Review and In Preparation

Swamy Ananthanarayan\*, Danish U. Khan\*, Christopher L. Schaeffbauer\*, and Katie A. Siek. Perceptions of electronic personal health management in low socioeconomic populations. In *Conference*, page 10 pages, In Review.

Danish U. Khan\*, Katie A. Siek, and Swamy Ananthanarayan\*. Towards designing health management interfaces for low socioeconomic families. In *Conference*, page 4 pages, In Review.

Janet L. Welch, Kay Connelly, Katie A. Siek, Josette Jones, Susan M. Perkins, Beenish Chaudry\*, Janet Kain, Linda Scott, Kim Astroth, Seongkum Heo, Sue McManus, Jerry T. Mooney, and Cynthia S. Johnson. Feasibility of a mobile application to self monitor diet and fluid intake. *Journal*, page 37 pages, In Preparation.

D.S. Kim\*, J.C. Chun, and Katie A. Siek. A vision-based approach for medication image retrieval using medication shape and color histogram matching. In *Conference*, page 9 pages, In Preparation.

Katie A. Siek, Kay H. Connelly, Janet L. Welch, and Yvonne Rogers. Lessons learned: Evaluating a consumer health informatics application in a dialysis unit. *Journal*, page 45 pages, In Preparation.

Kay Connelly, Beenish Chaudry\*, Katie A. Siek, Janet L. Welch, Kim S. Astroth, and Yvonne Rogers. Getting over the wow factor: A field study of a mobile health application. In *Conference*, page 10 pages, In Preparation.

## Software

2006-2008

Dietary Intake Monitoring Application (DIMA) - a PDA application to assist low literacy dialysis patients monitor their fluid and nutrient intake. Software was developed in collaboration with researchers from Indiana University Department of Computer Science and Indiana University School of Nursing. Funded by the National Institute of Biomedical Imaging and Bioengineering (NIBIB).

2006-2009

Colorado Care Tablet (CO Care Tablet) - an open source web application that provides older adults the ability to create medication lists, learn about medications, check red flags, and coordinate care with their healthcare providers. Application developed in collaboration with the University of Colorado Denver Anschutz Medical Campus and Vanderbilt University Biomedical Informatics Department. Funded by the Robert Wood Johnson Foundation Project HealthDesign and the California HealthCare Foundation.

## Presentations

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Presentations since arriving at the University of Colorado at Boulder.

### Invited Presentations

31 August 2011

The Potential of Computing to Improve the Health Information Feedback Loop. DUB Talk, University of Washington, Seattle, Washington.

6 May 2011

The Potential of Computing to Improve the Health Information Feedback Loop. ISyE 961: Research and Design in Home Care, University of Wisconsin, Madison, Wisconsin.

- 26 April 2011 Health Informatics, ECSITE GK-12 Meeting, Boulder, Colorado.
- 8 February 2011 Live, Love, Research: Creating Technologies that Improve Health Women in Science Conference at the Science Museum Oklahoma. Oklahoma City, Oklahoma.
- 30 November 2010 Designing a Personal Health Application for Older Adults to Manage Medication. University of Colorado Health Care Informatics Webinar. <https://connect.cuonline.edu/p12164329/>.
- 5 November 2010 Live, Love, Research: Developing Health Informatics Technologies to Leave the World Better than I Found It. Academic Keynote at the Colorado Celebration of Women in Computing. Golden, Colorado.
- 1 November 2010 Experiences in Undergraduate Research. Invited Panelist. CU Engineering Honors Program. Boulder, Colorado.
- 1 October 2010 Imposter Plenary Panel: Addressing Unique Challenges. Invited Panelist. Grace Hopper Celebration of Women in Computing 2010, Atlanta, Georgia.
- 9 September 2010 The Potential of Computing to Improve the Health Information Feedback Loop. University of Colorado Department of Computer Science. Boulder, Colorado.
- 16 July 2010 Colorado Care Tablet: The Design of an Interoperable Personal Health Application to Help Older Adults with Multimorbidity Manage their Medications. Centre for Rural Health at the University of Aberdeen, Inverness, Scotland.
- 9 July 2010 Getting over the Wow Factor: The Iterative Development of a Mobile Health Application. dot.rural at the University of Aberdeen, Aberdeen, Scotland.
- 8 July 2010 Exploring How to Motivate Assistive Health Application Use. University of Dundee School of Computing, Dundee, Scotland.
- 25 June 2010 Don't They Do That? Design Challenges for Electronic Personal Health Records. University of Edinburgh School of Informatics, Edinburgh, Scotland.
- 3 June 2010 Exploring How to Motivate Assistive Health Application Use. Invited Talk. Glasgow Interactive Systems Group Seminar (U. of Glasgow), Glasgow, Scotland.
- 26 May 2010 Tetris Bikes and Mobile Scavenger Hunts: Designing a Games for Health Course in an Interdisciplinary Classroom. Invited Talk. Games for Health Conference, Boston, Massachusetts.
- 2 April 2010 Wielding Technology's Wonders to Empower Personal Health Monitoring. Colorado State University's 3rd Biennial Future Visions Symposium, Fort Collins, Colorado.
- 24 March 2010 Who is benefiting from Pervasive Healthcare and how can it be proven? Invited Panelist. Pervasive Healthcare 2010, Munich, Germany.
- 17 February 2010 Exploring How to Motivate Assistive Health Application Use. Colorado Council of Medical Librarians, Denver, Colorado.
- 29 January 2010 Exploring How to Motivate Assistive Health Application Use. Mathematical and Computer Sciences Seminar, Colorado School of Mines, Golden, Colorado.
- 24 November 2009 Exploring How to Motivate Assistive Health Application Use. Centre for Health Informatics, University of New South Wales, Sydney, Australia.
- 27 January 2009 Magic, Heart Attacks, and Jail Stories: Challenges Associated with Consumer Health Informatics Technologies. Nokia Research, Palo Alto, California.
- 5 February 2007 Magic, Heart Attacks, and Jail Stories: Challenges Associated with Consumer Health Informatics Technologies. Center of Computational Pharmacology, Denver, Colorado.

- 10 November 2007* Designing a Personal Health Record (PHR) for the Future User. AMIA 2007 Nursing Informatics Symposium, November 10, 2007, Chicago, Illinois.
- 1 March 2007* Sanitized Prototypes and Cargo Pants: Design and Evaluation of an Assistive Application for Dialysis Patients. Rensselaer Polytechnic Institute Computer Science Colloquium, Troy, New York.
- 8 November 2006* Improving Patient Quality of Life with Consumer Health Informatics. Center for LifeLong Learning and Design, November 8, 2006. Boulder, Colorado.
- 13 October 2006* Sanitized Prototypes and Cargo Pants: Design and Evaluation of an Assistive Application for Dialysis Patients. Institute of Cognitive Science, Boulder, Colorado.
- 23 September 2006* Pervasive Computing in Healthcare. Mi-Tech Group, Denver, Colorado.
- Conference Presentations**
- 15 June 2011* Designing <adjective>-sensitive Health and Wellness Applications. HCIC 2011 - Field Deployments Panel, Pacific Grove, California.
- 25 May 2011* The design of a mobile portion size estimation interface for a low literacy population. 5th International Conference on Pervasive Computing Technologies for Healthcare, Dublin, Ireland.
- 12 November 2010* Designing a Personal Health Application for Older Adults to Manage Medications. First ACM International Health Informatics Symposium, Washington, D.C. (co-presented with Danish Ullah Khan)
- 28 November 2009* Technological Approaches to Promoting Physical Activity. OZCHI '09: the 21st Australian Conference on Computer-Human Interaction, Melbourne, Australia.
- 26 November 2009* Bridging the Information Gap: Collaborative Technology Design with Low-Income At-Risk Families to Engender Healthy Behaviors. OzCHI '09: the 21st Australian Conference on Computer-Human Interaction, Melbourne, Australia.
- 30 September 2009* The Knot or the Noose? Analysis of Privacy on a Wedding Planning Website. Grace Hopper Celebration of Women in Computing, Tucson, Arizona.
- 24 July 2009* Analysis of Information Disclosure on a Social Networking Site. HCII '09: the 13th International Conference on Human-Computer Interaction, San Diego, California.
- 1 April 2009* Co-Presented with Julie Maitland. Persuasion not required: Improving our understanding of the sociotechnical context of dietary behavioural change. Pervasive Healthcare 2009: the 3rd International ICST Conference on Pervasive Computing Technologies for Healthcare, London, United Kingdom.
- 9 March 2007* Co-Presented with Gloria Childress Townsend. Leveling the CS1 Playing Field. SIGCSE '07: the 38th SIGCSE technical symposium on Computer science education, Covington, Kentucky.
- 29 November 2006* Co-Presented with Kay H. Connelly. When do we Eat? An Evaluation of Food Items Input into an Electronic Food Monitoring Application. Pervasive Healthcare 2006: the 1st International ICST Conference on Pervasive Computing Technologies for Healthcare, Innsbruck, Austria.
- 18 September 2006* The Food We Eat: An Evaluation of Food Items Input into an Electronic Food Monitoring Application. UbiHealth 2006: Workshop 8th international conference on Ubiquitous computing, Orange County, California.

## Presentations in CU Courses

- 30 March 2011 Live, Love, Research: Creating Technologies that Improve Health. Invited Speaker. CSCI 1240: The Computational World, Boulder, Colorado.
- 12 March 2010 Magic, Heart Attacks, and Jail Stories: Challenges Associated with Consumer Health Informatics Technologies. Invited Speaker. CSCI 1240: The Computational World, Boulder, Colorado.
- 8 March 2010 Exploring How to Motivate Assistive Health Application Use . Invited Speaker. CSCI 4810 Seminar in Computational Biology and Health Informatics, Boulder, Colorado.
- 6 March 2008 Magic, Heart Attacks, and Jail Stories: Challenges Associated with Consumer Health Informatics Technologies. Invited Talk. Clinical Sciences 6800 / HLTH 6071: Introduction to Health Information Technology, Denver, Colorado. (Presenter: 4.44/5; Presentation 4.5/5)
- 4 April 2007 Magic, Heart Attacks, and Jail Stories: Challenges Associated with Consumer Health Informatics Technologies. Invited Talk. Health Sciences Center Medical Informatics Elective, Denver, Colorado.
- 6 November 2006 Planning your Academic Career . Invited Talk. CSCI 2830: Computer Science as a Field of Work and Study, Boulder, Colorado.
- 16 October 2006 Ubiquitous Computing and Human Computer Interaction . Invited Talk. CSCI 2830: Computer Science as a Field of Work and Study, Boulder, Colorado.

## Funding Record

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### External Grants

Total External Grant Funding: \$1,310,870.75; Total CU Portion: \$881,181.75

\$17,000 “Visualizing Physical Therapy with Electroluminescence Wire” Principal Advisor: Katie A. Siek. Funding Agency: Computer Research Association’s Committee on the Status of Women in Computing Research (CRA-W) and Coalition to Diversify Computing. Grant Duration: September 2011-August 2012, **(PI)** CU Portion: \$15,500

£2,900 (\$4,313.75) “Distinguished Visiting Fellowship: Understanding the Needs for Personal Health Record Adoption” **Principal Investigator: Katie A. Siek.** Funding Agency: Scottish Informatics and Computer Science Alliance (SICSA). Duration: 6/2010-7/2010. CU Portion: \$4,313.75

\$608,962 “CAREER: HEALTH BRIDGE: Motivating Personal Health Record Adoption by Low-Income Communities” **Principal Investigator: Katie A. Siek.** Funding Agency: National Science Foundation. Duration: 6/2009-6/2014. CU Portion: \$608,962

\$84,520 “Fluid Engage” Principal Investigator: Clayton Lewis. Funding Agency: The Andrew W. Mellon Foundation (Funded through the University of Toronto). Duration: 03/31/2009 - 03/31/2010. **(Co-Investigator)** CU Portion: \$84,520

\$50,000 Transition Funds. Principal Investigator: Steve Ross. Funding Agency: Robert Wood Johnson Foundation. Duration 8/2008-1/2009. **(Co-investigator)** CU Portion: \$28,710

\$50,000 Integration Funds. Principal Investigators: Steve Ross (UCHSC) and Kevin Johnson (Vanderbilt). Funding Agency: California HealthCare Foundation. Duration 5/2008 - 8/2008. (**Co-investigator**) CU Portion: \$29, 858

\$200 “University of Colorado at Boulder K-12 Outreach Roadshow” **Advisor: Katie Siek**. Funding Agency: Avon Hello Tomorrow through Indiana University Micro-Grant. CU Portion: \$200

\$6,500 “Facilitating the Use of the Internet for Older Adults” **Advisor: Katie Siek**. Funding Agency: Committee on the Status of Women in Computing Research (CRA-W) Collaborative Research Experience for Undergraduates in Computer Science and Engineering (CREU). Duration: 6/2007-6/2008. CU Portion: \$6,500

\$300,000 “Assisting Older Adults with Transitions of Care” Principal Investigator: Steve Ross. Funding Agency: Robert Wood Johnson Foundation. Duration 11/2006 - 5/2008. (**Co-investigator**) **9 out of 165 funded; 5.5%** CU Portion: \$70, 052

\$189,375 “Self Monitoring of Dietary and Fluid Intake Using a PDA.” Principal Investigator: Janet L. Welch. Funding Agency: National Institute of Biomedical Imaging and Bioengineering. Duration: 09/2006 - 08/2008. (**Co-investigator**) CU Portion: \$31,066

#### Internal Grants

\$1,860 “Games for Health” Lead Team Member: Swaminathan Ananthanarayan. Funding Agency: University of Colorado at Boulder Engineering Excellence Fund Committee. Duration: 3/2011-12/2011. (**Faculty Sponsor**)

\$400 “Tetris Bike” Lead Team Member: Michael “Mo” Andrews. Funding Agency: University of Colorado at Boulder Engineering Excellence Fund Committee. Duration: 3/2010-7/2010. (**Faculty Sponsor**)

\$2,000 “Games for Health” Lead Team Member: Swaminathan Ananthanarayan. Funding Agency: University of Colorado at Boulder Engineering Excellence Fund Committee. Duration: 12/2009-7/2010. (**Faculty Sponsor**)

\$2,000 “Improving Recruitment and Retention of Women in Computing Related Fields at CU” Lead Team Member: Katie Siek. Funding Agency: University of Colorado at Boulder Engineering Excellence Fund Committee. Duration: 4/2007-9/2008. (**Lead Team Member**)

\$10,000 Engineering New Professor Award in the College of Engineering and Applied Science at the University of Colorado at Boulder. Duration: 09/2006 - \$5,000 and 09/2007 - \$5,000

#### Equipment Donations

\$9,000 donation in equipment (15 Google Phones) from Google Inc., NYC

\$9,780 donation in equipment (20 Nokia N95 smart phones) from Nokia Research.

#### Travel Grants

\$1,200 travel grant to attend SIGCSE 2007 and the CRA-W Managing the Academic Career for Faculty Women at Undergraduate Computer Science and Engineering Institutions Workshop

## Grants in Review

\$249,196 “#Health@You: Glanceable Text-Based Displays to promote Wellness and Diabetic Monitoring for Low Socioeconomic Status Hispanic Teens” Principal Investigator: Katie A. Siek. Funding Agency: McKesson. Grant Duration: 11/1/2011-10/31/2012, **(PI)** CU Portion: \$249,659

\$1,199,374 “HCC: Medium: Collaborative Research: SHEPHERD: Stage-based Health Empowerment through Pervasive Health E-interventions for Rural/urban Disadvantaged” Principal Investigators: Katie A. Siek, Kay Connelly (Indiana University), and Kelly Caine (Indiana University). Funding Agency: National Science Foundation. Grant Duration: 9/1/2012-8/31/2015, **(PI)** CU Portion: \$576,946

\$571,057 “Informing Design of Consumer Technologies for Latinos with Cardiovascular Disease” Principal Investigator: Stephen E. Ross. Funding Agency: Agency for Healthcare Research and Quality. Grant Duration: 8/1/2012-7/31/2017, **(Co-PI)** CU Portion: \$571,057

## Teaching

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### Courses

#### **GEEN 1400: First Year Engineering Projects - Games for Health,** Fall 2011

- Developed material for class with emphasis on first year undergraduates and non-computer science majors
- Total Students: 30 undergraduates (14 OPEN, 10 ASEN, 1 CVEN, 1 EPEN, 1 CSEN, 1 MCEN, 1 AMEN, 1 A&S OPEN)
- FCQ 1400: TBD

#### **CSCI 4312/5312: Health Informatics,** Spring 2011.

- Developed material for class with emphasis on undergraduates and non-computer science majors
- Service learning class
- Total Students: 19 - 10 undergraduates (8 CSCI, 1 ASEN, 1 ENGL), 5 graduate students (4 CSCI, 1 Non-Degree) and 2 distance students
- FCQ 4312/5312 (in class): Course 4.6/6; Instructor 5.1/6; FTEP Video Consultation and Survey of Good Teaching Characteristics
- FCQ 5312 (CAETE): Course 5.0/6; Instructor 6/6

#### **CSCI 4810/7000: Computational Biology and Health Informatics,** Spring 2011

- Developed material for class
- 4 undergraduates (2 CSCI, 1 PHYS, 1 ASEN) and 1 graduate student (1 CSCI)
- FCQ 4810/7000: Course 4.7/6; Instructor 5.7/6

**GEEN 1400: First Year Engineering Projects - Games for Health, Fall 2010**

- Developed material for class with emphasis on first year undergraduates and non-computer science majors
- The Mario Project group awarded Runner-up for People's Choice Award at Fall 2010 Design Expo (Awarded out of 80 projects.)
- Total Students: 31 undergraduates (10 OPEN, 7 ASEN, 4 CVEN, 3 EVEN, 1 CBEN, 1 CHEN, 1 ECEN, 1 EEEN, 1 EPEN, 1 NDUI, 1 A&S OPEN)
- FCQ 1400: Course 5.0/6; Instructor 5.0/6

**CSCI 4830/7000: Games for Health, Spring 2010**

- Developed material for class
- Total Students: 15 - 8 undergraduates (5 CSEN, 1 ECON, 1 OPNO, 1 FILM), 4 graduate students (3 CMSC, 1 ATLS), and 3 distance students
- FCQ 4830/7000 (in class): Course 4.6/6; Instructor 4.9/6
- FCQ 7000 (CAETE): Course 5.0/6; Instructor 5.0/6

**GEEN 1400: First Year Engineering Projects - Games for Health, Fall 2009**

- Developed material for class with emphasis on first year undergraduates and non-computer science majors
- Bike Block Bash group awarded People's Choice Award at Fall 2009 Design Expo (Awarded out of 78 projects from GEEN 1400, GEEN 3400, and ASEN 2500)
- Total Students: 28 undergraduates (10 OPEN, 8 ASEN, 4 CVEN, 1 PHYS, 1 EPEN, 2 EVEN, 1 MCEN, 1 EEEN, 1 OPNO) - 1 double major
- FCQ 1400: Course 4.4/6; Instructor 4.4/6

**GEEN 1400: First Year Engineering Projects - Computing in Social Networking Sites, Spring 2009**

- Developed material for class with emphasis on first year undergraduates and non-computer science majors
- Magic Mailbox group awarded Runner-up for People's Choice Award at Spring 2009 Design Expo (Awarded out of over 60 projects. 1st place awarded to a team of 4<sup>th</sup> and 5<sup>th</sup> year undergraduates who worked on a year-long project.)
- Total Students: 25 undergraduates (10 MCEN, 6 EVEN, 3 OPNO, 3 CSEN, 1 OPEN, 1 ASEN, 1 AMEN)
- FCQ 1400: Course 4.8/6; Instructor 4.9/6

**CSCI 4312/5312: Medical Informatics, Fall 2008.**

- Developed material for class with emphasis on undergraduates and non-computer science majors
- Service learning class
- Total Students: 14 - 5 undergraduates (3 CSCI, 1 AMEN, 1 IPHY), 8 graduate students (8 CSCI) and 1 distance student
- FCQ 4312: Course 4.8/6; Instructor 5.3/6 (All students in FCQ for 4312)

**CSCI 4838/6838: User Interface Design, Spring 2008.**

- Co-developed material for class
- Service learning class
- Total Students: 22 - 10 undergraduates, 7 graduate students, and 5 distance students
- FCQ 4838: Course 3.9/6; Instructor 4.3/6
- FCQ 6838: Course 4.8/6; Instructor 5.0/6

**CSCI 7000: Medical Informatics, Spring 2007.**

- Developed material for new class
- Service learning class
- Total Students: 5 - 1 graduate student and 4 distance students
- FCQ 7000: Course 5.3/6; Instructor 5.5/6

**CSCI 4838/6838: User Interface Design, Fall 2006.**

- Co-taught class with Tammy Sumner
- Service learning class
- Developed Standard and Professional set of reading exercises for students who wanted to learn more about user interface development
- Assisted in development of new course material for the Engineering Excellence Fund grant.
- Total Students: 48 - 29 undergraduates, 14 graduate students, and 5 distance students
- FCQ 4838: Course 4.2/6; Instructor 4.1/6
- FCQ 6838: Course 4.0/6; Instructor 4.6/6

- **Ph.D. Students**

- Halley Profita (Fall 2011-Present, Co-Advised with Mike Eisenberg)
- Allison Brown (Fall 2011-Present)
- Christopher Lee Schaeftbauer (Fall 2011-Present)
- Swaminathan Ananthanarayan (Fall 2010-Present)
- Danish Ullah Khan (Spring 2009-Present)

- **M.S. Students**

- Jasleen Lamba (Fall 2011-Present)
- Ninad Majmudar (Fall 2011-Present)
- Margaret McNulty (Fall 2011-Present)
- Puja Pallavi (Fall 2011-Present)
- Quintin Lee (Fall 2010-May 2011)
- Mark Major (Fall 2010-May 2011)
- Ashley Pimpinella (Fall 2010-May 2011)
- Faris Kateb (January 2010-Present)
- Swaminathan Ananthanarayan (Fall 2009-Summer 2010)
- Azhar Sikander (Summer 2009-Fall 2009)
- Danish Ullah Khan (May 2008-December 2008)
- Narjis Ibrahim H Alqattan (2007-Spring 2009)
- Adel AlQahtani (2007)

- **M.E. Students**

- Aaron Schlicht (Fall 2011-Present, Co-Advised with Sriram Sankaranarayanan)

- **B.S. Students**

- Miranda Sheh (Spring 2011, Summer 2011)
- Alice Chien (Spring 2011, Summer 2011)
- Tuong An (Amy) Le (Summer 2011)

- **B.S. Thesis Advising**

- Christopher Lee Schaeftbauer (January 2010-May 2011)
- Maryam Gooyabadi (August 2009-May 2011)

- **Committee on the Status of Women in Computing Research Collaborative Research Experience for Undergraduates (CRA-W CREU)<sup>2</sup>**

- Lauren Fosco and Vivian Phinney (Summer 2007-Summer 2008)
- Miranda Sheh and Alice Chien (Fall 2011-Present)

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<sup>2</sup>The goal of this initiative is to increase the numbers of women and minorities who continue on to graduate school in computer science, engineering, and allied disciplines. The program provides positive research experiences for teams of undergraduates who work during the academic year and following summer at their home institutions.

- **College of Engineering & Applied Science Discovery Learning Apprentices**
  - Mackenzie L. Miller (Fall 2009-Spring 2010)
  - Vivian Phinney (Fall 2008)
- **College of Engineering & Applied Science Gold Shirt Students**
  - Elizabeth Lor (Fall 2009-Present)
- **University of Colorado at Boulder Colorado Diversity Initiative Summer Multicultural Access to Research Training (SMART) Students**
  - Jasmine Jones, University of Maryland Baltimore County (Summer 2009)
- **University of Colorado at Boulder Your Own Undergraduate Research Experience (You're @ CU)**
  - Tuong An (Amy) Le (Spring 2011)
- **Boulder Valley School District High School Science Research Class**
  - Monica Mishra (Fall 2011-Present)

#### Advising Committees

- **Ph.D. Committees**
  - Bradley Morse (March 2011 - Present)
  - Amanda Hughes (November 2010 - Present)
  - Hadjar Homaei (October 2010 - April 2011)
  - Qianyi Gu (December 2007-Spring 2009)
  - Melissa Dawe (Fall 2006-Spring 2007)
- **Ph.D. Prelim Committees**
  - Nwanua Elumeze (Spring 2010)
- **M.E./M.S. Committees**
  - Chris Shearer Cooper (2010-2011)
  - David Randolph (2008-2009)
  - Ghassan Zaynoun (2007)
- **B.S. Thesis Committee**
  - Ariel Aguilar (Fall 2011 - Present)
  - Patrick Mitchell (Fall 2010-Summer 2010)
  - Rachel Schoenbauer (Spring 2007)

## Independent Studies

- Allison Brown: Utilizing Natural Language Processing to Parse SMS Messages from Diabetic Patients. (Fall 2011)
  - Isaac Yoshino: Developing a Nutrition Monitoring Application for Psoriasis. (Summer 2011)
  - Danish Ullah Khan: Studying the interoperability of Personal Health Applications and associated information resources. (Fall 2008)
  - Katherine M. Peterson: Comparing information disclosure in two social networking sites. (Fall 2008)
  - Jeffrey S. LaMarche: Researching how to increase healthy behaviors in underserved, single parent families with technology through design workshops (Spring 2008)
  - Jane Meyers: Designing and developing a tablet PC application to assist older adults during transitions of care monitor their medication information, schedule, and reconciliation among multiple doctors. (Summer 2007-Summer 2008)
  - Beenish Chaudry<sup>◇</sup>: Developing alternative handheld devices input for dialysis patients and continued development on the Dietary Intake Monitoring Application. Co-advised with Kay Connelly. (Spring 2007-Present)
  - Brita Munsinger: Researching how to increase healthy behaviors in underserved, single parent families with technology interventions. (Summer 2007)
  - Paul Rohwer<sup>◇</sup>: Developing alternative handheld devices input for dialysis patients. Co-advised with Kay Connelly. Spring 2006-Spring 2007.
- ◇ denotes Indiana University at Bloomington students

## Mentoring

- Gerald Pulver, Ph.D. Student, from the University of Colorado Denver Anschutz Medical Campus. Training Mr. Pulver in user centered design and shadowing techniques to evaluate a small-scale Electronic Medical Record system (Fall 2009-Fall 2010).
- Christopher Lee Schaeffbauer, B.S. Student. Training Mr. Schaeffbauer in user centered design, research, and shadowing techniques to evaluate a small-scale Electronic Medical Record system (Summer 2009-January 2010).
- Julie Maitland, visiting Ph.D. student from the University of Glasgow. Collaborated with Ms. Maitland to study the attitudes towards diet and exercise in young, underserved families (Winter 2008).

## Service

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### Department

- **Departmental Executive Committee** AY 2010-2012
- **Faculty Advisor** for the Women in Computer Science group. (Fall 2006 - Present)
- **Faculty Advisor** Outreach Roadshow coordinated with the Colorado Coalition for Gender and Information Technology (Fall 2007-2009)
- **Departmental Undergraduate Committee** AY 2008-2009
- **Departmental Diversity Task Force** AY 2007-2008.
- **Working group** for University of Colorado at Boulder Digital and Social Systems Curriculum Track.
- **Working group** for University of Colorado at Boulder Computational Biology and Health Informatics Curriculum Track.
- **Department Diversity Committee** AY 2006-2007.
- Co-Created, Coordinated, and Presented *Computer Science...Beyond Programming*.
  - Margaret Morrow's computer science class at Fredrick's High School (15 students ranging from sophomore to senior year)
  - Shawn Tank's AP computer science class (4 sophomores, 11 juniors, and 11 seniors) and Introduction to Computing Class (24 students, mostly freshman) at Longmont High School

### College of Engineering & Applied Science

- **Unite! Connecting CU's Community of Women Engineers** 2011
- **CAREER Proposal Symposium** 2010 and 2011
- **High School Honors Institute Lab Open House** Summer 2007, Summer 2008, Summer 2010
- **Diversity Action Committee of the College of Engineering and Applied Science at CU-Boulder** AY 2009-2010, 2010-2011
- **CU Engineering Lactation Room Consultant** 2008

### University of Colorado

- **Wardenburg Health Center Electronic Medical Record Collaboration** (Summer 2009 - present)
- **Prehealth Advisory Committee Member** Spring 2007, Spring 2009

- **Faculty Member for CHI 2012 Doctoral Consortium**
- **Workshop on Interactive Systems in Healthcare (WISH) Steering Committee** 2011
- **AMIA Doctoral Consortium Faculty Mentor** 2011
- **Conference Session Chair** for Pervasive Healthcare 2009, 2010, 2011
- **Doctoral Consortium Panelist** for Pervasive Healthcare 2011
- **Workshop Co-Chair** for UbiComp 2011
- **Special Interest Group (SIG) Liaison** with North and South America for ACM SIG Health Informatics (SIGHIT) (November 2011 - May 2011)
- **Advisory Board** for Pervasive Healthcare 2011.
- **Editorial Review Board** - International Journal of Mobile Human Computer Interaction (2008-Present)
- **Program Committees:**
  - Pervasive Healthcare 2012
  - CHI 2012 Program Committee (Specific Application Areas)
  - 2011 AMIA Fall Symposium Scientific Program Committee
  - ACM 1st International Health Informatics Symposium (2010)
  - Grace Hopper Celebration of Women in Computing 2009 Panels and Workshops Committee
  - Design with Care (DwC) 2008
  - Ubiquitous Systems Evaluation 2008
  - USAB 2008 - Usability & HCI for Education and Work
  - eTELEMED 2009
  - 2nd International Conference on Pervasive Computing Technologies for Healthcare 2007
  - 3rd Symposium on Medical Usability and HCI for Health Care 2007
  - Bring IT On! 2006
  - WWW@10: The Dream and the Reality (2004)
- **Program Chair** for Pervasive Healthcare 2010.
- **Co-Editor** - Special Edition: Advances in Evaluating Mobile and Ubiquitous Systems, International Journal of Mobile Human Computer Interaction (April-June 2009)
- **Workshop Chair** for MobiSys 2008.
- **Refereed for Conferences:** 5th International Conference on Pervasive Computing Technologies in Healthcare 2011, CHI 2011 Long Papers, UbiComp 2009, USAB 2008, USE 2008, 3rd International Conference on Pervasive Computing Technologies in Healthcare 2009, CHI 2009 Long Papers, CHI 2009 Work-in-Progress, SIGCSE 2009, CSCW 2008, UbiComp 2008, CHI 2008 Long Papers, CHI 2008 Short Papers, SIGCSE 2008 Workshops, SIGCSE 2008 Papers, SIGCSE 2007 Workshops, WWW@10, CHI 2006 Work-in-Progress

- **Reviewed journals for:** ACM MONET-Pervasive Healthcare, ACM Transactions of Computing Education, Personal and Ubiquitous Computing Special Issue
- **National Institutes of Health: National Institute of Biomedical Imaging and Bioengineering** review panels (Spring 2009, June 2009, July 2009)
- **National Science Foundation** review panel (Fall 2009).
- **National Library of Medicine** review panel (August 2010, August 2010).
- **Reviewed book chapters for:** *Handbook of Research on User Interface Design and Evaluation for Mobile Technology, Informatics of Diabetes*
- **ACM SIGCSE Research Competition Judge** 2007 and 2009.

#### Computing Diversity

- **ACM-W Council (AWC)** 2008-Present
- **ACM-W Newsletter Co-Editor** 2010-Present
- **Planning Committee** for SIGCSE/CSTA K-12 Roadshow at Google (Mountain View Campus) 2007-2008
- **Academic Advisory Committee** for Grace Hopper Celebration of Women in Computing 2008.
- **ACM-W Working Committee Member** 2007, 2008.
- **Birds of a Feather Co-Chair** for Grace Hopper Celebration of Women in Computing 2007.
- **Indiana University Women in Computing** founding member; *Just Be* co-creator, organizer, and presenter (presented to approximately 300 middle and high school students).

#### National

- **Invited Workshop Participant**
  - Computing at the Margins, Georgia Tech, February 2010
  - 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 the American Medical Informatics Association, 29-30 October 2009
  - Agency for Healthcare Research and Quality (AHRQ) Workshop - Building Bridges: Consumer Needs and the Design of Health Information Technology, 27-28 July 2009
- **College Board AP Computing Advisory Group** member 2009-2010.

## International Visiting Scholar Hosting

- Miguel Jimeno Paba, Universidad del Norte in Barranquilla, Colombia (December 2011-January 2012)
- JC Chun, Kyonggi University, South Korea (January 2009 - Summer 2011)
- Julie Maitland, University of Glasgow (Winter 2008)

## Consulting

- National Center for Women & Information Technology Extension Services (Lecia Barker and Joanne McGrath Cohoon)
- CoCap Group (Gordon Van Dusen and Marc Silverman)

## Other

- Participant in Dr. Cecilia Pang's *It has not Been Easy* documentary (2007-2008)
- Interviewed for the Computing Educators Oral History Project - October 2008

## Media Interviews and Write-Ups of Work

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Does not include blog articles at this time.

- *American Society for Engineering Education Prism*, September 2011
- *Denver Westword*, December 2010
- *Connected World*, November 2010
- University of Colorado *CUE - CU Engineering*, Spring 2010
- University of Colorado, Office of the President, Stimulus Funds Tracking Site, September 2009
- Colorado Higher Ed News, 14 August 2009
- Denver Post, People on the Move, 12 August 2009
- Boulder Daily Camera, CU News, 10 August 2009
- University of Colorado News Center, 4 August 2009