

Katie A. Siek

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Research Interests Health and wellness informatics, human computer interaction, pervasive computing, *in situ* evaluation, and patient-centered technology.

Education **Indiana University** 2004-2006
Ph.D. in Computer Science GPA:3.974/4.0
Ph.D. Minor: Scientific Computing
Dissertation: The Design and Evaluation of an Assistive Application for Dialysis Patients
Advisor: Kay H. Connelly

Indiana University 2002-2004
M.S. in Computer Science GPA: 3.9/4.0

Eckerd College 1996-2000
B.S. in Computer Science GPA: 3.96/4.0
Minors in German and Mathematics

Research Experience **University of Colorado**, Boulder, CO August 2006 - present
Assistant Professor

University of Colorado, Boulder, CO August 2006
Professional Research Associate

Indiana University, Bloomington, IN 2003-2006
Research Assistant
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 monitoring nutritional intake.

Indiana University School of Nursing, Indianapolis, IN Fall 2005
Developer
Worked with Marsha Ellett, DNS, RN and a multi-disciplinary team to create a performance support system Personal Digital Assistant (PDA) application to assist calculate feeding tube placement in pre-term infants and young children.

Sandia National Laboratories, Livermore, CA Summer 2002
Intern
Worked with the High Performance Computing group on a Python wrapper for the Common Component Architecture (CCA).

Sandia National Laboratories, Livermore, CA Summer 2001
Intern
Worked as lead student in Sandia's Embedded Reasoning Institute. Aided in the design and development of a proof of concept multi-agent health care sensor system with database connectivity and intelligent reasoning ability.

Honors

- **NSF Faculty Early Career Development (CAREER) Award**
HEALTH BRIDGE: Motivating Personal Health Record Adoption by Low-Income Communities, July 2009.
- **Runner-up for People's Choice Award at Spring 2009 Design Expo**
Instructor for First Year Engineering Project Magic Mailbox
- **Best Paper Nomination** Pervasive Healthcare 2009 (13.5% accepted papers nominated; 4.95% submitted papers nominated)
- **Engineering New Professor Award** in the College of Engineering and Applied Science at the University of Colorado at Boulder.
- **National Physical Science Consortium Fellow** (2000-2006) Fellowship funds students during pursuit of a graduate degree.
- **WIC@IU 2006 Woman of the Year**
- **Second Place Outstanding Research Award in Technology Category** at Indiana University's Women in Science Program Research Day, 2005
 - Title: "Fat Finger Worries: How Older and Younger Users Physically Interact with PDAs."
- **Best Technical Poster for a New Investigator Award** at Grace Hopper 2004
 - Title: "Assistive Technologies for Dialysis Patients"
- **Outstanding Teaching Assistant Award** at The University of Notre Dame, 2002
 - Outstanding graduate teaching award for the C.S.E. department.
- **Top 5 Finalist** at the ACM International Graduate Research Competition, 2001
 - Title: "Evaluation of Gigabit Ethernet for Cluster Computing"
- **Distinguished Paper Award** at OPNETWORK 2000
 - Title: "Cost/Performance Evaluation of Gigabit Ethernet and Myrinet as Cluster Interconnect"
- Ford Foundation Scholar (1998-2000) Eckerd College has 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.
- Eckerd College Scholar Athlete of the Year (1999) Recipient must actively participate in varsity athletics and demonstrate academic success and leadership skills.
- Sunshine State Conference Scholar Athlete of the Year (1999) Recipient must be recommended by college and participate in varsity athletics.

In Review

Lessons Learned: Evaluating a Consumer Health Informatics Application in a Dialysis Unit. **Katie A. Siek**, Kay H. Connelly, Janet L. Welch, and Yvonne Rogers. In Review (Journal).

Building a Strong Collaborative Transdisciplinary Research Team. Josette Jones, Janet Welch, **Katie Siek**, Katherine Connelly. In Review (Journal).

Colorado Care Tablet and My Medi-Health: Personal Health Applications for Medication Management. Stephen E. Ross, Kevin B. Johnson, **Katie A. Siek**, Jeffrey S. Gordon, Danish Khan, Leah M. Haverhals. In Review (Journal).

Older Adults with Multi-morbidity: Medication Information Needs and Design Implications for Personal Health Applications. Leah M. Haverhals, Courtney Lee, **Katie A. Siek**, Carol Darr, Sunny Linnebur, Mark Ruscin, and Stephen E. Ross. In Review (Journal).

**Refereed
Journal
Articles**

Studying the place of Technology to Lower Financial Barriers for Dietary Change. **Katie A. Siek** and Julie Maitland. *Methods of Information in Medicine* (To Appear - 2009).

Merging Health Literacy with Computer Technology: Self-Managing Diet and Fluid Intake among Adult Hemodialysis Patients. Janet L. Welch, **Katie A. Siek**, Kay H. Connelly, Kim S. Astroth, M. Sue McManus, Seongkum Heo, Linda Scott, and Michael A. Kraus. *Patient Education and Counseling*, September 2009, doi:10.1016/j.pec.2009.08.016

Evaluating Pervasive and Ubiquitous Systems. Steve Neely, Graeme Stevenson, Christian Kray, Ingrid Mulder, Kay Connelly, and **Katie A. Siek**. In *IEEE Pervasive Computing*, 7(3), 85-88, 2008.

Propagating Diversity through Active Dissemination. **Katie A. Siek**, Kay Connelly, Suzanne Menzel, and Laura Hopkins. In *IEEE Computer*, 2007.

Mobile Applications that Empower People to Monitor their Personal Health. Kay H. Connelly, Anne M. Faber, Yvonne Rogers, **Katie A. Siek**, and Tammy Toscos. In Springer e&i. 2006.

**Book
Chapters**

Achieving Success in Research Collaborations in Health Informatics. **Katie A. Siek** and Kay Connelly. In *Health Informatics: A Patient-Centered Approach to Diabetes*. William Aspray and Barbara Hayes eds. (To Appear - 2010)

Evaluation of Two Mobile Nutrition Tracking Applications for Chronically Ill Populations with Low Literacy Skills. **Katie A. Siek**, Kay H. Connelly, Beenish Chaudry, Desiree Lambert, Janet L. Welch. In *Mobile Health Solutions for Biomedical Applications*. Joseph Tan and Phillip Olla eds. March 2009 (ISBN: 1605663328)

Mobile Design for Older Adults. **Katie A. Siek**. In *Handbook of Research on User Interface Design and Evaluation for Mobile Technology*. Joanna Lumsden, ed. February 2008. (ISBN: 978-1-59904-871-0)

**Conference
Publications**

Bridging the Information Gap: Collaborative Technology Design with Low-Income At-Risk Families to Engender Healthy Behaviors. **Katie A. Siek**, Jeffrey LaMarche, and Julie Maitland. OzCHI 2009 (Accepted, To Appear).

The Knot or the Noose? Analysis of Privacy on a Wedding Planning Website. **Katie A. Siek**. Grace Hopper Celebration of Women in Computing.

Persuasion not required: Improving our understanding of the sociotechnical context of dietary behavioural change. Julie Maitland, **Katie A. Siek**, and Matthew Chalmers. 3rd International Conference on Pervasive Computing Technologies for Healthcare 2009 (36% Acceptance; Nominated for Best Paper - 13.5% accepted papers nominated; 4.95% submitted papers nominated).

Analysis of Information Disclosure on a Social Networking Site. Katherine Peterson and **Katie A. Siek**. *Online Communities and Social Computing* (2009), pp. 256-264.

A Usability Inspection of Medication Management in Three Personal Health Applications. **Katie A. Siek**, Danish Ullah Khan, and Stephen E. Ross. *Human Centered Design* (2009), pp. 129-138. (Invited).

Leveling the CS1 Playing Field. Gloria Childress Townsend, Suzanne Menzel, and **Katie A. Siek**. In Proceedings of the 38th SIGCSE Technical Symposium on Computer Science Education. SIGCSE '07.

When do We Eat? An Evaluation of Food Items Input into an Electronic Food Monitoring Application. **Katie A. Siek**, Kay H. Connelly, Yvonne Rogers, Paul Rohwer, Desiree Lambert, and Janet L. Welch. In the International Conference on Pervasive Computing Technologies for Healthcare 2006.

Fat Finger Worries: How Older and Younger Users Physically Interact with PDAs. **Katie A. Siek**, Yvonne Rogers, and Kay H. Connelly. In the Proceedings of Interact 2005, LNCS 3585, p. 267-280, 2005.

Just Be: An Interactive Experience for K-12 Students. **Katie A. Siek**, Amanda Stephano, Diane Cessna, Kay Connelly, and Beth Plale. In the Proceedings of ASEE/IEEE Frontiers in Education (FIE'05), 2005. F3H-15-F3H-16.

A Comparative Study of Language Support for Mobile Web Browsers. **Katie A. Siek**, Nick Edmonds, Ashraf Khalil, Yong Liu, and Kay H. Connelly. Proceedings of www@10, 2004.

The Internet Hunt Revisited: Personal Information Accessible via the Web. Kay H. Connelly, Tom Jagatic, Ashraf Khalil, Yong Liu, **Katie A. Siek**, and Sid Stamm. Proceedings of www@10, 2004.

Java Engagement for Teacher Training: An Experience Report. Raja Sooriamurthi, Arjit Sengupta, Suzanne Menzel, **Katie A. Moor (Siek)**, Sid Stamm, and Katy Boerner. Proceedings of Frontiers in Education(FIE'04), 2004.

Cost/Performance Evaluation of Gigabit Ethernet and Myrinet as Cluster Interconnect. Helen Chen, Pete Wyckoff, and **Katie Moor (Siek)**. In Proceedings OPNETWORK 2000. **Distinguished Paper Award**.

**Short
Conference
Publications**

Technological Approaches to Promoting Physical Activity. Julie Maitland and **Katie A. Siek**. OzCHI 2009 (Accepted, To Appear).

Pride and Prejudice: Learning How Chronically Ill People Think about Food. **Katie A. Siek**, Kay H. Connelly, and Yvonne Rogers. In the Proceedings of CHI 2006. (**23% acceptance rate**)

Abstracts

Case study of design of a mobile health application for a chronically ill, low-literacy population. Kay Connelly, **Katie A. Siek**, Janet Welch, Beenish Chowdry, Josette Jones, and Linda Scott. 2009 mHealth Summit.

Merging Literacy with Computer Technology for Self-Managing Diet and Fluid Intake. Janet L. Welch, Kay Connelly, **Katie A. Siek**, Josette Jones, Susan Perkins, Beenish Chaudry, Janet Kain, Linda Scott, Kim Astroth, Seongkum Heo, Sue McManus, Jerry Mooney, Cindy Calley. 20th International Nursing Research Congress Focusing on Evidence-Based Practice.

Designing a Personal Digital Assistant (PDA) Application to Self-Monitor Diet and Fluid Intake. Janet L. Welch, Kay Connelly, **Katie Siek**, Josette Jones, Susan M. Perkins, and Laurie Trevino. National Kidney Foundation (NKF) Spring 2008 Clinical Meetings

**Workshop
Publications**

Small Hammers and Silver Bullets: Low-Income Families Dietary Behavioral Change and Ubicomp. Julie Maitland and **Katie A. Siek**. In UbiComp 2010 Workshop: GlobiComp. (To Appear)

Challenges in Evaluating Three Assistive Health Applications. **Katie A. Siek**, Steven E. Ross, Kay H. Connelly, Jeffrey S. LaMarche, Danish Ullah Khan, and Beenish Chaudry. In CHI 2009 Workshop: Evaluating New Interactions in Healthcare: Challenges and Approaches.

The Food We Eat: An Evaluation of Food Items Input into an Electronic Food Monitoring Application. **Katie A. Siek**, Kay H. Connelly, Yvonne Rogers, Paul Rohwer, Desiree Lambert, and Janet L. Welch. In UbiHealth 2006.

Lessons Learned Conducting User Studies in a Dialysis Ward. **Katie A. Siek** and Kay H. Connelly. In Extended Abstracts of CHI 2006: Workshops - Reality Testing.

Designing a PDA Interface for Dialysis Patients to Monitor Diet in their Everyday Life. Kay H. Connelly, Yvonne Rogers, **Katie A. Siek**, Josette Jones, Michael A. Kraus, Susan Perkins, Laurie L. Trevino, and Janet L. Welch. In HCI International 2005.

Magazines

Wellness Informatics: A Field of Human-Centered Health Informatics? Rebecca E. Grinter, **Katie A. Siek**, and Andrea Grimes. interactions, Jan/Feb 2010 (To Appear).

Technology in the Dialysis Clinic: Researchers Study How Patients Can Use PDAs to Self-Monitor Diet. Janet L. Welch, **Katie A. Siek**, Kay H. Connelly, Josette F. Jones, Susan M. Perkins, and Laurie L. Trevino. Renal Business Today, January 2007.

Just Be: Bridging the Gender Divide in CS. **Katie A. Siek**, Kay H. Connelly, Amanda L. Stephano, Suzanne Menzel, Jacki Bauer, and Beth Plale. In Learning and Leading with Technology, April 2006.

Organized Workshops

Wellness Informatics: Towards a Definition and Grand Challenges. Rebecca E. Grinter, **Katie A. Siek**, and Andrea Grimes. CHI 2009 (To Appear). (63.2% acceptance)

Improving K-12 Outreach through Roadshows. Chris Stephenson, Suzanne Menzel, **Katie A. Siek**, and Sriram Mohan. SIGCSE 2009.

Technology has Escaped from the Zoo: Studying Usability in the Wild. Julie Maitland, Paul Rohwer, Kay Connelly, **Katie A. Siek**, Gisele Bennett, Valerie Lafond-Favieres. Interact 2007.

Demystifying and Degeekifying Computing through K-12 Outreach. Samantha Foley, Jennifer Franko, Laura Hopkins, Suzanne Menzel, and **Katie A. Siek**. In the Adjunct Proceedings of SIGCSE 2007.

Bring IT On! (Bloomington, Indiana), **Co-Organizer and Presenter**, 2006.

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

Reality Testing: HCI Challenges in Non-Traditional Environments. Gisele Bennett, Kay H. Connelly, Gitte Lindgaard, **Katie A. Siek**, and Bruce Tsuji. In the Adjunct Proceedings of CHI 2006.

Posters

Colorado Care Tablet: Developing a Personal Health Record for Older Adults. **Katie A. Siek**, Jane Meyers, Stephen E. Ross, and Leah Haverhals. Poster presented at MobiSys 2008, Breckenridge, Colorado, USA, 2008.

Avalon: Facilitating the Use of the Internet for Older Adults. Vivian Phinney, Steven Carroll, Leonid Meltrager, and **Katie A. Siek**. Colorado Celebration of Women in Computing Poster Session, 2008.

Colorado Care Tablet: Designing a Personal Health Record for Older Adults. Jane Meyers, **Katie A. Siek**, Stephen E. Ross, and Leah Haverhals. Poster presented at Colorado Celebration of Women in Computing, Boulder, Colorado, USA, 2008.

Fat Finger Worries: How Older and Younger Users Physically Interact with PDAs. **Katie A. Siek**, Kay Connelly, and Yvonne Rogers. Women in Science Program Research Day, 2005. **Second Place Outstanding Research Award in Technology Category**.

Assistive Technologies for Dialysis Patients. **Katie A. Siek** and Kay H. Connelly. Proceedings of Grace Hopper 2004. **Best Technical Poster for a New Investigator**.

A General Framework for Wireless Smart Distributed Sensors. 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. At Super Computing 2001.

Evaluation of Gigabit Ethernet for Cluster Computing. **Katie A. Moor (Siek)**, Helen Chen, and James Brandt. At the SIGCSE 2001/ACM International Graduate Student Research Competition. **Placed in top 5**.

Panels

The Gender Divide and Minority Abyss. Java Engagement for Teacher Training (Bloomington, Indiana), **Organizer**, 2004.

A Road Map to Research: the Ph.D. Student Transition from Course work to Research. Women in Computing Technical Outreach, Indiana University, **Co-Organizer**, 2003.

The Interdisciplinary Connections of Computer Science. Women in Computing Technical Outreach, Indiana University, **Co-Organizer**, 2003.

Technical Reports

Avalon: Facilitating the Use of the Internet for Older Adults. Vivian Phinney, Leonid Meltrager, Steven Carroll, and **Katie A. Siek**. Technical Report CU-CS-1041-08, May 2008.

A Comparative Study of Elderly, Younger, and Chronically Ill Novice PDA Users. **Katie A. Moor (Siek)**, Kay H. Connelly, and Yvonne Rogers. Technical Report 595, Computer Science Department, Indiana University, June 2004.

Software

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. Funding from NBIB.

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 UCHSC and Vanderbilt University Biomedical Informatics Department. Funding from RWJF Project HealthDesign and the California HealthCare Foundation.

Presentations The Knot or the Noose? Analysis of Privacy on a Wedding Planning Website. Grace Hopper Celebration of Women in Computing, September 30, 2009. Tucson, Arizona.

Analysis of Information Disclosure on a Social Networking Site. HCII 2009, July 24, 2009. San Diego, California.

Persuasion not required: Improving our understanding of the sociotechnical context of dietary behavioural change. Pervasive Healthcare 2009, April 1, 2009. London, United Kingdom.

Magic, Heart Attacks, and Jail Stories: Challenges Associated with Consumer Health Informatics Technologies.

- Invited speaker for Nokia Research, January 27, 2009. Palo Alto, California.
- Invited speaker for Clinical Sciences 6800 / HLTH 6071: Introduction to Health Information Technology, March 6, 2008. Denver, Colorado. (Presenter: 4.44/5; Presentation 4.5/5)
- Invited speaker for the Health Sciences Center Medical Informatics Elective, April 4, 2007. Denver, Colorado.
- Invited speaker for the Center of Computational Pharmacology, February 5, 2007. Denver, Colorado.

Designing a Personal Health Record (PHR) for the Future User. Invited speaker for the AMIA 2007 Nursing Informatics Symposium, November 10, 2007, Chicago, Illinois.

Leveling the CS1 Playing Field. SIGCSE 2007, March 9, 2007. Covington, Kentucky.

When do we Eat? An Evaluation of Food Items Input into an Electronic Food Monitoring Application. 1st International Conference on Pervasive Computing Technologies for Healthcare, November 29, 2006. Innsbruck, Austria.

Improving Patient Quality of Life with Consumer Health Informatics. Invited speaker for the Center for LifeLong Learning and Design, November 8, 2006. Boulder, Colorado.

Pervasive Computing in Healthcare. Invited speaker for Mi-Tech Group, September 23, 2006. Denver, Colorado.

The Food We Eat: An Evaluation of Food Items Input into an Electronic Food Monitoring Application. UbiHealth 2006, September 18, 2006. Orange County, California.

Demystifying and Degeekifying Computing Careers. Invited speaker for the Paul Munger Conference for Youth-Serving Professionals, June 21, 2006. Bloomington, Indiana.

Pride and Prejudice: Learning how Chronically Ill People Think about Food. CHI 2006, April 26, 2006. Montreal, Quebec, Canada.

Lessons Learned Conducting User Studies in a Dialysis Ward. Reality Testing Workshop at CHI 2006, April 22, 2006. Montreal, Quebec, Canada.

Sanitized Prototypes and Cargo Pants: Design and Evaluation of an Assistive Application for Dialysis Patients.

- Invited speaker for Rensselaer Polytechnic Institute Computer Science Colloquium, March 1, 2007. Troy, NY.
- Invited speaker for the Institute of Cognitive Science, October 13, 2006. Boulder, Colorado.
- Invited speaker for CU-Boulder Computer Science Colloquium, April 4, 2006. Boulder, Colorado.

- Invited speaker for the Indiana University Purdue University Computer Science Colloquium, March 10, 2006. Indianapolis, Indiana.
- Invited speaker for the Georgia Tech Research Institute, February 21, 2006. Atlanta, Georgia.

Just Be: Teach the Teachers. Indiana Women in Computing Regional Conference (InWIC 2006), February 4, 2006. Spencer, Indiana.

Fabulous and Functional Technology Finds for Teachers. Indiana Computer Educators, January 27, 2006. Indianapolis, Indiana.

Design and Evaluation of an Assistive Application for Dialysis Patients. Invited speaker for Texas A&M University's Center for the Study of Digital Libraries Seminar, October 26, 2005. College Station, Texas.

DIMA: Designing Assistive Technologies for Dialysis Patients. Richard Tapia: Celebration of Diversity in Computing Conference Doctoral Consortium, October 19, 2005. Albuquerque, New Mexico.

Fat Finger Worries: How Older and Younger Users Physically Interact with PDAs. Interact 2005, September 14, 2005. Rome, Italy.

Designing a PDA Interface for Dialysis Patients to Monitor Diet in their Everyday Life. HCI International 2005, July 26, 2005. Las Vegas, Nevada.

Just Be. Invited speaker for the Computer Science and Information Technology Symposium 2005, February 26, 2005. St. Louis, Missouri.

Assistive Technologies for Dialysis Patients. Grace Hopper 2004 Doctoral Consortium, October 8, 2004. Chicago, Illinois.

A Comparative Study of Web Language Support for Mobile Web Browsers. www@10, September 30, 2004. Terre Haute, Indiana.

Where have all the women gone? Invited speaker for Java Engagement for Teacher Training. November 1, 2003. Bloomington, Indiana

Evaluation of Gigabit Ethernet for Cluster Computing. 9th ACM International Graduate Student Research Competition - **Top 5 Finalist**. February 22 (Poster Session) and 23 (Research Defense), 2001. Charlotte, North Carolina.

Funding Record

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- \$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)**
 - \$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.
 - \$9,780 donation in equipment (20 Nokia N95 smart phones) from Nokia Research.
 - \$200 "University of Colorado at Boulder K-12 Outreach Roadshow" Advisor: Katie Siek. Funding Agency: Avon Hello Tomorrow through Indiana University Micro-Grant
 - \$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 (CRAW) Collaborative Research Experience for Undergraduates in Computer Science and Engineering (CREU). Duration: 6/2007-6/2008.

- \$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**)
- \$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
- \$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%**
 - \$50,000 Integration Funds. Principal Investigators: Steve Ross (UCHSC) and Kevin Johnson (Vanderbilt). Funding Agency: California HealthCare Foundation. Duration 5/2008 - 8/2008.
 - \$50,000 Transition Funds. Principal Investigator: Steve Ross. Funding Agency: Robert Wood Johnson Foundation. Duration 8/2008-1/2009.
- \$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**)
- \$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

Teaching Experience

GEEN 1400: First Year Engineering Projects - Games for Health at the University of Colorado at Boulder, Fall 2009

- Developed material for class with emphasis on first year undergraduates and non-computer science majors
- 31 undergraduates (13 OPEN, 8 ASEN, 5 CVEN, 1 PHYS, 1 EPEN, 2 EVEN, 1 MCEN)
- FCQ 1400: TBD

GEEN 1400: First Year Engineering Projects - Computing in Social Networking Sites at the University of Colorado at Boulder, Spring 2009

- Developed material for class with emphasis on first year undergraduates and non-computer science majors
- 25 undergraduates (10 MCEN, 6 EVEN, 3 OPNO, 3 CSEN, 1 OPEN, 1 ASEN, 1 AMEN)
- 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 Seniors)
- FCQ 1400: Course 4.8/6; Instructor 4.9/6

CSCI 5312/4312 Medical Informatics at the University of Colorado, Fall 2008.

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

CSCI 4838/6838 User Interface Design at the University of Colorado, Spring 2008.

- Co-developed material for class
- Service learning class
- 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 at the University of Colorado, Spring 2007.

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

CSCI 4838/6838 User Interface Design at University of Colorado, Fall 2006.

- Co-taught class with Tammy Sumner
- 29 undergraduates, 14 graduate students, and 5 distance students
- 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.
- FCQ 4838: Course 4.2/6; Instructor 4.1/6
- FCQ 6838: Course 4.0/6; Instructor 4.6/6

Guest Lecture for CSCI 2830: Computer Science as a Field of Work and Study, University of Colorado, October 16, 2006 and November 6, 2006.

- 12 undergraduate students
- 16 October 2006: Discussed how Ubiquitous Computing and Human Computer Interaction can be applied to healthcare settings (e.g., Health Informatics)
- 6 November 2006: Lead class in a discussion on planning their academic course schedules and selecting appropriate courses for the spring semester

Java Engagement for Teach Training Instructor at Indiana University, 2005.

- Designed and taught session on Programming on PDAs with Superwaba.

Outstanding Teaching Assistant Award at The University of Notre Dame, 2002.

- Outstanding graduate teaching award for the C.S.E. department.

Graduate Teaching Assistant for Computer Architecture II taught by Dr. Peter Kogge at the University of Notre Dame, Spring 2002.

Research Advising and Mentoring

- **Ph.D. Thesis Advisor**
 - Danish Ullah Khan
- **Ph.D. Committees**
 - Qianyi Gu (December 2007-Spring 2009)
 - Melissa Dawe (Fall 2006-Spring 2007)

- **M.S. Advising**

- Azhar Sikander (Summer 2009-Present)
- Danish Ullah Khan (May 2008-December 2008)
- Narjis Ibrahim H Alqattan (2007-Spring 2009)
- Adel AlQahtani (2007)

- **M.E./M.S. Committees**

- David Randolph (2008-2009)
- Ghassan Zaynoun (2007)

- **B.S. Advising**

- Maryam Gooyabadi (2009-Present)

- **Independent Studies**

- 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*: 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*: Developing alternative handheld devices input for dialysis patients. Co-advised with Kay Connelly. Spring 2006-Spring 2007.
- Subashini Periyasami*: Developing design guidelines for elderly cognitive interactions with PDAs. Co-advised with Kay Connelly. HCI Masters Capstone Project. (Fall 2005 - Spring 2006)
- Tammy Toscos*, Anne Faber*, Shunying An*, and Mona Ghandi*: Developed a preventative health cell phone application that helps motivate teenage girls to exercise by taking advantage of their social desire to stay connected with peers. Co-advised with Kay Connelly and Yvonne Rogers. **1st Place in CHI 2006 Student Design Competition.** (Fall 2005 - Spring 2006)
- Andrew Strain*: Developed the Handy Pocket Reader, a Pocket PC audio book reader similar to the Kurzweil 3000 to assist people with dyslexia read textbooks. Co-advised with Kay Connelly. Undergraduate. (Spring 2005)

- **Undergraduate Thesis Committee**

- Rachel Schoenbauer (Spring 2007)

- **CRA-W CREU**

- Lauren Fosco and Vivian Phinney: (B.S. Students) Designing and developing an Internet searching application to assist older adults effectively search the Internet for information. Summer 2007-Summer 2008.

- Diane Cessna* and Christina Lirot*: Developing an open source UPC nutritional database. Users can input data via a handheld device or web site. Co-advised with Kay Connelly. Collaborative Research Experience for Undergraduates (CREU) Program, Fall 2005 - Spring 2006.

- **Discovery Learning Apprentices**

- Vivian Phinney (Fall 2008)

- **Summer Multicultural Access to Research Training (SMART) Students**

- Jasmine Jones, University of Maryland Baltimore County (Summer 2009)

- **Mentoring**

- Gerald Pulver, Ph.D. Student CU-Denver Health Sciences (Fall 2009-Present)
- Christopher Lee Schaeffbauer, B.S. Student (Summer 2009-Present)
- Jules Maitland (visiting Ph.D. student from University of Glasgow) Studying the attitudes towards diet and exercise in young, underserved families (Winter 2008).

- **Visiting Scholar Hosting**

- JC Chun, Kyonggi University, South Korea (January 2009 - Present)

* denotes Indiana University at Bloomington students

Service Activities

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- **Invited Workshop Participant** 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.
 - **Invited Workshop Participant** Center for Applied Cybersecurity Research Workshop: A Research Agenda for Privacy and Security of Healthcare Technologies
 - **Diversity Action Committee of the College of Engineering and Applied Science at CU-Boulder** AY 2009-2010
 - **Invited Workshop Participant** Agency for Healthcare Research and Quality (AHRQ) Workshop - Building Bridges: Consumer Needs and the Design of Health Information Technology, July 27-28, 2009.
 - **National Institutes of Health: National Institute of Biomedical Imaging and BioEngineering** review panels.
 - **Program Chair** for Pervasive Healthcare 2010.
 - **College Board AP Computing Advisory Group** member 2009-2010.
 - **ACM SIGCSE Research Competition Judge** 2007 and 2009.
 - **Prehealth Advisory Committee Member** Spring 2007, Spring 2009
 - **CU Engineering Lactation Room Consultant** 2008
 - **ACM-W Council (AWC)** 2008-Present
 - **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-Present)
 - **Departmental Undergraduate Committee** AY 2008-2009
 - **Co-Editor** - Special Edition: Advances in Evaluating Mobile and Ubiquitous Systems, International Journal of Mobile Human Computer Interaction (April-June 2009)

- **Editorial Review Board** - International Journal of Mobile Human Computer Interaction (2008-Present)
- **Reviewed journals for:** ACM MONET-Pervasive Healthcare
- **Reviewed book chapters for:** *Handbook of Research on User Interface Design and Evaluation for Mobile Technology, Informatics of Diabetes*
- **High School Honors Institute Lab Open House** Summer 2007, Summer 2008
- **Program Committee** 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)
- **Planning Committee** for SIGCSE/CSTA K-12 Roadshow at Google (Mountain View Campus)
- **Academic Advisory Committee** for Grace Hopper Celebration of Women in Computing 2008.
- **Workshop Chair** for MobiSys 2008.
- **Departmental Diversity Committee** AY 2007-2008.
- **ACM-W Working Committee Member** 2007, 2008.
- **Birds of a Feather Co-Chair** for Grace Hopper Celebration of Women in Computing 2007.
- **Working group** for University of Colorado at Boulder Digital and Social Systems Curriculum Track.
- **Working group** for University of Colorado at Boulder Bio and Medical Informatics Curriculum Track.
- **Departmental 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
- **I.U. C.S. Coordinator** for collaborations with Purdue University to create an outreach program at Purdue and work together to increase computing enrollment from Indiana high schools.
- **Refereed for Conferences:** CHI 2006 WIP, WWW@10, SIGCSE 2007 Workshops, SIGCSE 2008 Papers, SIGCSE 2008 Workshops, CHI 2008 Short Papers, CHI 2008 Long Papers, UbiComp 2008, CSCW 2008, SIGCSE 2009, CHI 2009 Long Papers and WIP, 3rd International Conference on Pervasive Computing Technologies in Healthcare 2009, USE 2008, USAB 2008, UbiComp 2009
- **Indiana University Women In Computing**
 - Founding member
 - President (2002-2004)
 - Just Be Co-Creator, organizer, and presenter (2004-2006). We created an interactive presentation that we present at Midwest area schools to dispel the “geek stereotype” and teach students about interesting computing topics.

- * I presented at four schools (approximately 300 middle school to high school students), 3 teacher/administrator conferences, and 1 counselor conference
- * Since starting the program, Just Be presenters have presented at 17 middle/high schools
- CS211 Try It Representative (2005). We held a one-day workshop for first and second year undergraduate women to introduce them to computer science and the first course in computing, CS211.
- **Program Committee Co-Chair** for InWIC 2006 - Indiana Women in Computing Regional Conference.
- **Computer Science Graduate Student Association (CSGSA)**
 - President (2003-2004)
 - Faculty Meetings Graduate Student Representative (2003-2004)
 - Welcome Committee for Incoming Students (2003-2005)
 - Admissions Committee (2002-2003)

Consulting

- National Center for Women & Information Technology Extension Services (Lecia Barker and Joanne McGrath Cohoon)

Other

- Participant in Dr. Cecilia Pang's *Great Mothers of Science* documentary
- Interviewed for the Computing Educators Oral History Project - October 2008